
ENTREPRENEUR XXI. EDUCATION FOR ENTREPRENEURSHIP - - NEW PARADIGM?

SUMMARY There have been large social and economic changes in the world during the last 30 years. These changes allow 21st century entrepreneurs to act beyond the mere creation of businesses, using new values, not only economic ones, and being able to undertake a social function of change and economic and social development, more human, more sustainable and more intelligent.

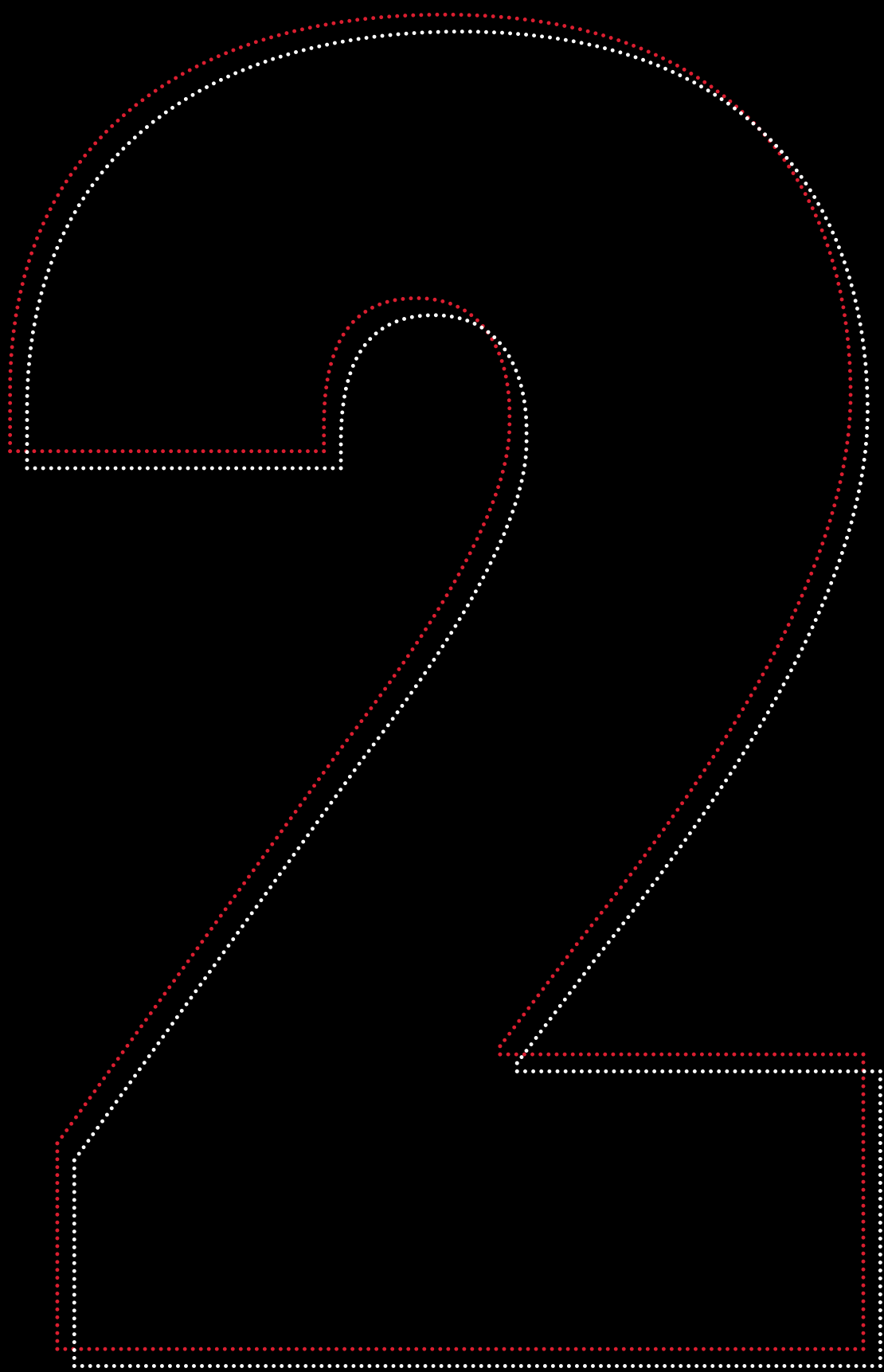
Nowadays, **the quality of entrepreneur is basically considered an attitude towards life**, not a skill, and that is useful and necessary in every field of social life.

This trend questions the old promotion methods of entrepreneurship, based on management training and business plans.

The “Tree model for the development of entrepreneurial competences” Ò suggests a systemic approach of education for entrepreneurship, based on the qualification of people and their potential, which comprises, in the **root**, a profile of key behavioural and performance competences, in the **trunk**, experimental pedagogical procedures and, in the **fruits**, real results (not simulated or didactic) within group projects, transversal to people context, regardless of age, activity or economic situation.

KEYWORDS

Entrepreneurship
Education
Tree model



1. CONTEXT

Entrepreneurship teaching has been traditionally associated to the creation of innovative companies, management training and economic success values.

How did this association between entrepreneurs, business plans and creation of companies occur?

This association grew up during the 20th century, when companies considered that the only way to succeed in organising resources was to be highly structured (pyramidal structures) and organised in hierarchy (the strategy is top-down and the innovation is departmentalised), together with low HR academic and scientific qualifications, reduced information to consumers and an extraordinary social and environmental lack of concern.

In this context, some theoreticians, such as Schumpeter (1943), saw the possibility of creating value outside large companies, by means of small initiatives, led by entrepreneurs, using innovation to undermine market and move it forwards, in what was known as creative destruction.

In his opinion, large companies just used predictable innovations and resisted to changes, thus avoiding radical innovations and their associated risks (and costs).

Curiously, Schumpeter (1943) also predicts obsolescence of the entrepreneurial function, as an individual action, due to pressure and power of installed large companies.

This situation led to the obvious conclusion that entrepreneurs are creator of companies and that economic growth is promoted by their individual and isolated action, based on profits, a conjecture that has been repeated in the last 70 years.

The question is: are this context and assumption still suitable?

Nowadays, many successful and expanding companies are organisations with flat pyramids, shared strategies, in which the production of innovation is transversal to the organisation, employing HR with high academic and scientific qualifications, showing strong environmental and social concerns, using electronic distribution procedures of information, services and many products, and suffering strong pressures from informed clients, who behave as real owners of business.

You may find an excellent repertoire of very interesting cases in the book of Gary Hamel (2007), covering cases from Google, Toyota and Bill Gore (creator of gore-tex) to Linux.

At the end of his book, Gary Hamel (2007) states that his "intention is not to predict the future, but to invent it" and further writes that the goal of the 21st century management is to amplify and aggregate the human effort, giving human beings the tools and needed incentives to reach collectively the goals that they could not reach individually.

During these last decades, there is a movement of value transfer (strategy, procedures, equipments, etc.) from companies to people, in which people carry value (knowledge, creativity, ability to manage projects) inside companies and turn them competitive.

We may easily conclude that the world changed during last decade, when human beings start to emerge from the cold economy as social beings, with all their creative, affective potential and intelligence.

Another question arises: what is the impact of this change in the concept and values associated to entrepreneurs?

The great change is that typically corporate features, linked to entrepreneurs, are nowadays useful and desirable in every sector of society, within State, companies, social sector, research and, obviously, creation of companies.

The expert group Report - Education for the development of corporate spirit (CE 2005, 2005) – clearly concludes that "... the corporate spirit must be considered a global attitude that may be usefully applied to all working activities and to life in general."

There are reasons to believe that the world economic development exposes deep serious gaps, such as large ratios of unemployment, extreme poverty (1 billion people in 2010), and unbalanced distribution of wealth, starving millions of people to death and causing a huge environmental impact with the unbridled exploration of resources, which jeopardizes the survival of human race. The present situation is the result of moral and human values embedded in the figure of entrepreneurs, as an individualist who seize opportunities, at any price, and that is entirely orientated towards profits.

On the other hand, it is economically proven that it is less expensive and carries fewer risks to modernize the stock of present companies and organisations than to promote only the creation of entirely new companies, often by the hand of young people with no corporate or labour experience.

About young creators of businesses, Benavente (1996), cited by CIES (Centre of Sociology Research and Studies), pp 18, says "... another incongruity has been pointed out as a cause for the difficulties of the majority of young people to adapt to the market exigencies: the gap between the academic system and the labour market".

Another question arises: if young people at graduation are poorly qualified to perform labour functions, is it correct to expect them to have skills to create and manage a business with a minimum of competitiveness (innovating, technological, with potential, etc.)?

We can conclude three levels of profound changes in the concept of Entrepreneur XXI with some impact on its promotion programs and policies:

- new values focused on positive social responsibility and planet sustainability;

- widening of the usefulness of entrepreneurial attitude, including companies, organizations and the State
- value transfer from companies to people.

2. ENTREPRENEUR XXI

Is it knowledge or behaviour to be an entrepreneur?

We believe that the entrepreneur XXI is more of a personal and social behaviour than a creator of companies with management skills. *Drucker (1986) states that "the emergence of an entrepreneurial economy is an event as cultural and psychological as economical and technological".*

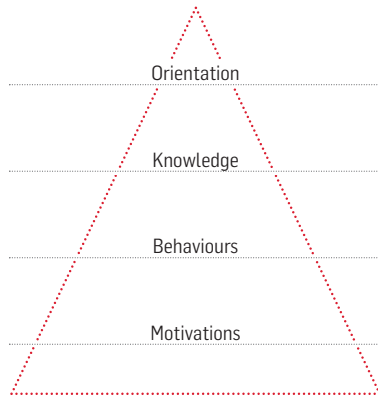
To focus on people, on their motivations and behaviours, is not a revolutionary idea, but their transposition to the promotion and development programs of entrepreneurship may become one.

ENTREPRENEUR XXI PYRAMID

In our vision, the base of the entrepreneur pyramid incorporates their motivation, namely, *motivation for success*, understood as the desire to intervene and improve their action, as described by MacClelland. (1965).

We have to stress that success for the Entrepreneur XXI is not exclusively economical; it is also a matter of personal satisfaction, of potential realization, social participation and helping other people.

FIGURE 1: ENTREPRENEUR PYRAMID



adapted from Dubois, Rothwell 204

The second level incorporates behaviours, i.e. the way how we realize our motivations and (or intentions) or, if you prefer, the way how we perform things and deal with them in a practical way.

Our behaviours allow us to deal with anxiety, pressures, failure, other people, keeping in mind our goals, dynamics and structure.

The third level is knowledge, the entrepreneur XXI must hold some kind of specialization, must master some subject, must be good in something, mixing paints or cells. Herein are included some skills of project management, if you hold a collective activity, or of company management if you run a company.

The last level is the type of your energy and work orientation. Where do we want entrepreneurs XXI to go? Do not forget that we are talking of education, so what we will stimulate (motivate) them to do will influence them deeply.

3. TEACHING OR TRAINING FOR ENTREPRE- NEURSHIP?

This is an obvious dilemma; the goal is to convey management knowledge, such as business plans, in a traditional didactic way (give lessons, information, group works, etc.) or to stimulate motivations and behaviours? Management knowledge is not, *per se*, predictor of attitudes, nor of performance. We may agree that entrepreneurs elaborate business plans, but do not hold any evidences that Business Plan training creates entrepreneurial people.

McClelland (1973) clearly links what he calls motivations for success (not knowledge) with performance of people; psychologist Kahneman (2000), Economy Nobel of 2002, says that people use heuristic thinking to take decisions and that we are rationally limited. António Damásio (1994) says like wise, emotions have a decisive role in our decisions.

In relation to economy, Keynes, cited by Skidelsky (2010), had already discovered that the market works according to expectations (and not according to the pure axiom of the usefulness theory) and economists have not yet managed to incorporate in their models the problem of imperfect information of markets and externalities of models, which causes serious problems to the production of predictions and, therefore, in the predictions of Business Plans.

Thus, we consider that traditional information is suitable for entrepreneurs who want to create a business,

but insufficient as programs of promotion of Entrepreneur XXI.

The problem of behavioural competences development is that it requires new pedagogic approaches.

Kearney (2009) pp 31 refers that "as learning occurs through interaction with environment, learning and consequently behaviours may be modified more effectively through planned changes of environment and of learning procedure."

Thus, to be an entrepreneur XXI, as a consistent attitude towards life, cannot be taught, but people can learn.

This is the subject of "Tree model for the development of entrepreneurial competences" and of the Personal Project methodology.

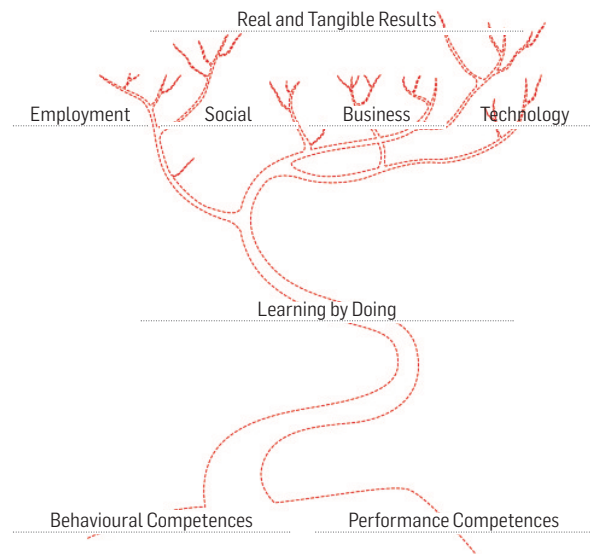
TABLE 1 – WHAT IS NOT EDUCATION FOR ENTREPRENEURSHIP.

WHAT IS NOT EDUCATION FOR ENTREPRENEURSHIP	WHAT IS EDUCATION FOR ENTREPRENEURSHIP
Didactic teaching of knowledge	Practical experience
Focused on teacher	Focused on person
Close problems (one correct answer)	Open problems (several possible answers)
Very directed	Little directed
Mistakes are negative	Mistakes are an opportunity to improve
Individual work	Group cooperation
Compulsory	Voluntarily
Confined to interests of school/organisation	Confined to motivations and interests of person

4. THE "TREE MODEL FOR THE DEVELOPMENT OF ENTREPRENEURIAL COMPETENCES"

The tree model for the development of entrepreneurial competences has been developed during the last decade throughout a multidiscipline research-action procedure, with contributes of Ana Paula Francisco (1962-2006), psychologist and my wife, within business, education and social projects environments. At the moment, it is being implemented in the Portuguese Ministry of Education, IEFP (Institute of Employment and Professional Training), ACIDI (High Commissioner for Immigration and Inter-cultural Dialogue), among other field projects and trainers' training in Portugal and Ireland (Nurture Tree, a method for entrepreneurship development),

The Tree Model is an "open systemic model", which connects people, their motivations, their competences to be entrepreneurs with their environment, such as school, company, colleagues and underlying community, but also fundamental social and human values for the formation and integration of people in society, as an active, responsible and showing solidarity citizen.



The gathering of the model's several elements is put into practice by means of the Personal Project methodology, being transversal to the person's real life.

The model is organised as a tree as follows:

ROOT the base where a set of specific, behavioural and performance competence lies and develops

TRUNK the procedure used for developing these competences is through "action", by experience procedures within personal projects, associated to motivations, needs or interests of people

BRANCHES orientation of these projects and active mobilization of competences must follow a specific and solid orientation, such as social, technological, employability or business creation ventures

FRUITS result or product of Personal Project must be real (not simulated) and tangible (exterior to people and quantifiable), always suggesting some kind of change with value creation for the entrepreneur or others.

Let us see each aspect in detail.

4.1. ROOT – COMPETENCES

There are two types of competence to develop in the methodology's root. These competences must be exercised and developed because they are fundamental to enterprise.

- **Behavioural competences** correspond to aspects personality or features (MacClelland) and are manifested through attitudes, motivations and mainly self-built or, if you prefer, self-learned.
- **Performance competences** demonstrate a certain qualification or ability for a specific task (Spencer & Spencer) and may be learned by external influence.

4.1.1. KEY BEHAVIOURAL COMPETENCES

The concept itself of competences points towards a specific function and context, thus competences can change according to each context.

You need different competences whether you are organizing a project with 20 people and half million Euros or a personal project, although both are ventures.

Thus, we chose to define the **least common denominator**, i.e. those competences at the base of entrepreneurial behaviour, which are always present and without which the odds of a sustainable enterprise are very low. The following selection was made through decision tree methodology and assessed by success and failure cases from the universe of individuals' and small and medium size companies' projects coached by the company Central Business, Lda, between 2001 and 2007, being available respective operational definitions and their indicators.

Key behavioural competences

- Self-confidence
- Initiative
- Resilience

Self-confidence (SC) and Resilience (RES) are the basic competences to go from a state of inertia to a state of movement, by means of sustainable self-confidence. SC and RES offer structural and persistent feature to initiatives and are intimately linked.

A self-confident person with the ability to support pressures, by integrating them without de-structuring oneself, i.e. without putting at risk one's goals, reinforces such self-confidence to act, becoming persistent and continuous. But reinforcement of these competences can only happen through action, i.e. initiative.

Initiative is the entrepreneur's goal and his/her most distinctive feature and simultaneously his/her learning vehicle.

These 3 competences are present in all observed voluntary entrepreneurs, whether in school environments, self-employed or leading medium size projects.

These 3 competences generate personal and sustainable action, but do not indicate yet the orientation or quality of such action, only movement and consistency. However, we need to bear in mind that the act of enterprising and creation of value is always relative to the person's starting point and context.

Development key behavioural competences

- Organization
- Cooperative relations
- Innovation

A potential level of usefulness of the initiative is introduced by innovation; the more innovative is the initiative, the higher is its potential of value creation, in terms of existing or new organizations.

The development of the ability to create new approaches to problems requires a mental freedom to cut with established conventions and procedures, associated to a strong focus and persistence to do so and strongly linked to self-confidence and resilience.

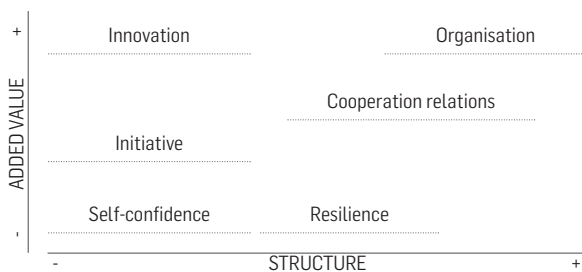
On the other hand, organisation competences (org) (in order to capture and manage different kind of resources) and cooperative relations (coo) grant the initiative, innovating or not, structure and dimension.

The more the ability to organize external resources, the higher is the possibility of the entrepreneur to put into perspective larger and more sustainable projects, and the prospect of fulfilling them.

Cooperation relations allow people to rally around common goals and to improve ideas through this collective adaptation procedure.

Without these two competences (org, coo), projects are generally small and have less prospects of success, even if the base ideas are innovative.

TABLE 2 – IMPACT OF BEHAVIOURAL COMPETENCES ON PROJECTS.



The question of structure is related with the level of resources raising, own and third parties, needed to fulfil the initiative.

The question of value creation indicates the capacity of generating surplus value in a specific initiative and shows how we intend to solve a problem or produce a solution.

KEY PERFORMANCE COMPETENCES

We consider that performance competences are those associated to professional or academic performance of people.

There are two reasons to include them in the model:

- The first reason is that the performance competences domain is associated to the people's performance in projects.
 - For instance, a person with electricity competences better understands the problems of this activity, makes plans more effectively and also anticipates specific problems of this specialty, lowering learning costs.
- The second reason is that the methodology considers the existence of real works with clear opportunities of developing performance competences, which can be used in a transversal manner.
 - For instance, a young student must use math or native language in his/her project, obtaining benefits for his/her academic curriculum.

Performance competences vary according to people's age and context, so they are divided in two groups:

SCHOOL – PERFORMANCE COMPETENCES FOR SCHOOL AGE YOUNGSTERS ARE:

- Native language; foreign language; maths; IT

This selection is based on the adaptation of the Focus Group Key Competences (CE, 2005) orientations, namely concerning learning procedures in the course of life, which are considered base competences.

The selection of subjects, within the context of entrepreneurship learning, assumes that developed projects and actions use obligatorily the resources of such subjects in a practical and useful way, and not simply in an academic way.

PROFESSIONAL – POSSIBLE PROFESSIONAL COMPETENCES ARE VAST, SO THEY HAVE TO BE DEFINED INDIVIDUALLY, SUCH AS: CUSTOMER SERVICE, NEGOTIATION, MACHINE CONSTRUCTION, ETC.

This task must be executed by entrepreneurs themselves or by animators, choosing professional competences that they consider to be crucial in every profession, thus contributing for further specialization.

5. TRUNK – PERSONAL PROJECT

The question is: how do we develop these competences? A estratégia pedagógica de desenvolvimento que consideramos adequada é o “Projecto Pessoal”.

“The Personal Project is pedagogic strategy of action that induces the creation of entrepreneurial initiatives in trainees, as well as inherent experience and learning opportunities” (José Ferreira & Ana Tapia 2010)

The designation “Personal Project” is inspired on:

- the pedagogic bases of learning-doing, initiated by John Dewey (1897), and that serve our goals, say as follows:

“Education is a life procedure and not a preparation for future life. School must represent present life — as real and vital for children as their life at home, on their neighbourhood or in the courtyard”.

Kilpatrick’s project methodology (1994) advocates that the “project” is a central action in education, stating “the typical unity of life that is worth living in a democratic society” and “identifying the education procedure with one’s life”;

We use the term “personal”, even if Personal Projects are to be executed in group, because it is a way of associating our personal interests to others and to settle

clearly this cooperative interdependency.

As previously referred, learning procedures of competences, namely behavioural, are fulfilled through practical activities that originate from base knowledge or existing behaviours, and not by formal knowledge transmission procedures, external to people.

Within the scope of trainers, the Personal Project is to create the environment, the means and opportunities to exercise a specific competence.

Within the scope of trainees, it is to exercise new competences in a practical way, around new problems with an open solution i.e. that have no predefined solution or procedure.

LEARNING-DOING MEANS TO BE ABLE TO CREATE A CONTEXT AND TO LEAD GROUPS IN A NON-DIRECTIVE WAY, ALTHOUGH NON-DIRECTION IS A FORM OF A DIRECTION.

On the other hand, it requires that people

- experiment a certain *idea of oneself*,
- think over such experience and their consequences and
- consolidate their behaviour or relearn.

Doing → analysing → developing/improving → doing again → (adaptation from Kolb’s 1984)

The development of Personal Projects has several steps:

- definition of goals
- planning
- execution
- assessment

Each of these steps is obviously different according to people’s context and age. For example, the Personal Project for 10/12 years old children must be adapted to their level of cognitive development (Piaget 1973).

ERROR AND FAILURE

The question of error is a sensitive subject and must be given special importance.

On one hand, there are no doubts that we must avoid error through planning, studying, training, preparation, etc. but, on the other hand, when people perform complex and/or new tasks, it is almost impossible to avoid it, because it is difficult to analyse every variable of a specific context and to anticipate every problem.

Thus, the question is not whether there will be errors or not, but how to deal with them?

This fact makes people's perception of risk of a specific initiative to be high, which makes them not to enterprise, i.e. to accommodate to external orientations and not being an actor of change.

The coacher, usually a more experienced person, intervenes and helps during the project execution step to avoid errors by anticipation, but also inhibiting the participant to learn from errors.

During a doing-learning procedure, we should have an ecological approach, integrating both positive and negative experiences because they are both personal resources.

The "precision teaching", Lindsey (1990), argues that in teaching (of precision) there are no "errors", but only right answers or learning opportunities, and claims that learning is more effective and motivator when there are strong possibilities of success.

6. BRANCHES

Until now, we have spoken of competences and of the work pedagogic methodology – Personal Project – that is recommended for entrepreneurs.

Now we have to study the nature of such activities.

We believe that activities must be real, i.e. not simulations, that they must be closely linked to people's interests and motivations, but using their activity's knowledge. The real activities must be associated to people's goals in order to guarantee levels of high motivation or of "wanting-doing" (Ceitil, 2006).

The real work, which is intended to act upon people's reality, has a set of advantages over simulations.

- 1st they allow higher levels of motivation/challenge, as people are trying to improve one's life, others' life or to meet one's interest, thus revealing a stronger personal commitment
- 2nd they require a superior exercise of competences because they face real problems and need constant adaptations of reality
- 3rd there is a stronger external pressure to raise performance
- 4th they can produce real results that will be useful to them or to others

Thus, any activity must be part of people's Personal Project and must be understood as a first step in a specific direction, in which the person is committed, whether by necessity (for instance, employment) or by motivation (as intervention in a social aspect of community).

However, the animator has simultaneously the responsibility to structure this action, promoting activities that would make sense for the person's future, academic career, work market and economy.

As said above, entrepreneurs look for a positive change of their reality or of others, so any activity that pursues such goals, in a sustainable and persistent way, can be entrepreneurial activities and considered Dynamic.

In fact, any activity is eligible as long as it meets basic requirements (personal interest, usage of academic or professional and real knowledge).

It is not enough to stimulate entrepreneurial initiative, within the scope of education, we have to orientate it, and namely when we want people to follow non-traditional paths.

7. FRUITS

The results we intend to obtain must be real and that is one of their distinctive features.

Thus, it is logical that such basic principle has reflexes on the methodology itself and in particular on its results, otherwise, the procedure loses a significant part of its potential.

There are two levels of results:

7.1. PERFORMANCE RESULTS

They are associated to the effective fulfilment level of the Personal Project goals and they must be real and tangible.

What are real and tangible results?

We use the term “real” to clearly differ from simulated results, or virtual, often used in education and training contexts (role playing, theatre, games, etc.)

We try to obtain changes in people's reality, whether on their own or other's. Thus, we consider real when people/group manage a change of reality that adds effective value or when it tries to do it.

On the other hand, **results must be tangible**,

A tangible result is external to people and, thus, can be measured and observed, objectively and by some kind of procedure.

The search for real and tangible results is a critical success factor of Personal Projects.

We must develop actions with a specific objective, to solve a problem or improve something; we do not develop a specific type of actions just to develop actions.

The results must be the most important aspect of any activity, thus, every activity should have the goal of achieving them, keeping us with some strain, to free us from any action that would not contribute for them.

On the other hand, if results are the most important, they offer the fulfilment and learning stimulus, because the opposite means that I can fail infinitely without any implications.

When we consider important this kind of results, we establish a direct relation between a given effort and a result, settling a causal nexus between them.

When someone, who is worried or has a problem, feels that he/she has the power to change it and discovers how to do it, his/her levels of motivation are quite high because he/she feels implicated on future benefits.

This relation means that *I participate in the world*, puts the person in contact with reality, in a conscious way, as an actor.

On the other hand, when there is no direct relation between a person's relevant effort and what happens persistently to that same person, the person creates expectations that one's future actions will not produce useful results for oneself (Seligman, 1975) and one's levels of motivation lower down and consequently also their levels of self-confidence and initiative.

The positive and real experiences learnt by people can influence their destiny and environment, building their self-image of social actor and not merely spectator.

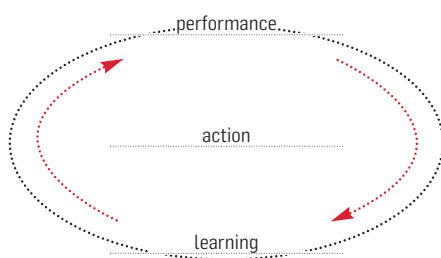
7.2. RESULTS OF LEARNING

The results of learning are about gains in the evolution of competences, whether behavioural or performance. There may be many situations where, for some reason, performance goals cannot be reached, but taking risks is part of the entrepreneur's nature, thus failing is an integrant part of the entrepreneurial procedure.

So, it is not problematic not to reach performance goals, as long as you have tried to and there have been learning. Learning can be measurable if its level of initial development has been recorded.

If we consider that the person is critical, not the project, in terms of education for entrepreneurship, that people develop projects and that there are implicit risks of failure, whether because the personal/group strategy was not the most suitable or due to external contingencies, then we will be able to lead constructively with failure, in terms of learning, allowing us to undertake new initiatives in the future and with more prospects of success. These two types of results, performance and learning, can be represented as follows:

FIGURE 2 – THE DYNAMIC RELATION OF RESULTS PRODUCTION.



These types of results are closely associated and are fulfilled through action and cannot be dissociated.

8. CONCLUSION

We believe that there are no doubts that, in the last 30 years, significant social and economic changes took place around the world and that the 21st century entrepreneurs live new and wider challenges, being in a position to assume a social function of change and social development, more human and more intelligent.

Every idea is based on a set of concepts and values that, even if unspoken, are present so that the value of "successful individual" usually conveyed may be reducing, or even misleading, because it only refers to economical success.

It is curious that Muhammad Yunus (Peace Nobel Prize) or Peter Benenson (founder of International Amnesty) are never mentioned as entrepreneurs, but it is intentional and a question of values, because there is no "no man's land" nor innocents in terms of values.

Jacques Sapir (2000) cites at page 41 O. Neurath (in Personal Life and Class Stuttgart), of 1928, who states that "every considered choice includes an inevitable social, normative and ethical dimension".

If we add to the usual economical success other dimensions of the human being and human society, such as respect towards others and cooperation, we will have the opportunity to influence youth generations.

Thus, educators and promoters of an entrepreneurial culture must start to think about what they really want to promote, because the "age of innocence" is over, one could say.

Our vision does not tend to abandon "maximization of profit" and creation of companies, but to widen these concepts to the society where we live, to which we work and from which we depend, using investment on sustainable technologies (biology, renewable energies, environment management, etc), on social companies, a

concept launched by Muhammad Yunus, who suggests a limitation of return on capital, or social projects, where profits are measured in terms of social benefits.

On the other hand, if we accept to distinguish creation of companies and management training from the XXI entrepreneurial attitude, the programs and policies of entrepreneurship promotion should be radically different. The "Tree Model of entrepreneurial competences development" is a contribution for changing the paradigm, a

technological product that seeks to rise people's entrepreneurial capacity, whatever their context, financial situation and age, as well as their initiative in order to develop one's potential and benefiting oneself and the others.

We have invested a lot of time in teaching; we think it is an opportunity and a privilege to influence positively a generation of youths, the generation of entrepreneur XXI. "The best way to predict future is to build it", Drucker (1986), and I predict a better World.

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