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(54) **METHOD TO MAP AND TO ASSESS THE MINDSET FOR COMPETENT ACTION**

(57) One's own mindset can be mapped and then developed through targeted research and training initiatives, thus determining an awareness of one's own way of acting in the outside world.

In this sense, in the context of the invention that is the subject of this finding, this mapping and development of the mindset of subjects (students, teachers, entrepreneurs, staff of organizations) will aim to improve one's competent acting and, in the specific case of the chosen key competence, the one related to the "sense of initiative and entrepreneurship".

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Description

[0001] The cultural substratum of a subject is a key element in determining the action of the same, representing a sort of necessary premise from which springs the action in the external world in relation to the context in which the subject is inserted.

[0002] Therefore, we understand the value of tools that allow subjects to evaluate their own "premises", or latent structures of meaning, and thus determine an improvement in the way they interpret contexts (structures of interpretation) and consequently their action in the outside world (structures of action), through a reinterpretation and reinterpretation of the context's own capacities. In addition, this process has a double value, since the same external actions can be evaluated by the subject according to the results and consequences of the same, and therefore lead to a critical reflection on cultural and social constructs in which the subject is immersed.

[0003] Relating the above to educational and training planning and the evaluation of learning, although the central role of training and educational practices as a driving force for developing a mentality and behavior is reiterated by many, it is not clear on which psycho-socio-pedagogical aspects the analysis should focus in order to make the outcome of educational and training activities effective and successful.

[0004] Very often, when screening selection and training activities, in fact, an adequate initial profiling of participants is not carried out in terms of expectations, motivations, social capital, beliefs, cultural patterns, structures of interpretation of experiences that guide patterns of action - which from now on we will call Mindset. Profiling these dimensions would allow not only the selection of individuals with the best mindset in relation to the environments of insertion but would also allow the development of tailored training interventions.

[0005] At present, the lack of an evaluation of mindsets implies an offer of training experiences that do not find real feedback/interest from potential participants in terms of ability to activate deep learning (lifedeep learning), leading to a mismatch between demand and supply of educational and training services and the world of work.

[0006] The name of this invention, recalls the connection between the internal state of a subject, consisting of the way of thinking in relation to certain values and situations, and the action carried out by the same subject in the external world: the first represents, in fact, a prelude to the second, determining the awareness of the subject on of how to act on the basis of their mental constructs.

[0007] One's own mindset can be mapped and then developed through targeted research and training initiatives, thus determining an awareness of one's own way of acting in the outside world: in this sense, in the context of the invention that is the subject of this finding, this mapping and development of the mindset of subjects (students, teachers, entrepreneurs, staff of organizations) will aim to improve their competent acting and, in the specific case of the chosen key competence, the one related to the "sense of initiative and entrepreneurship". Everyone's cultural references therefore play an important role in understanding the possible modes of functioning of the subjects involved in the analysis, as well as their own areas of proximal development and personal and professional growth, and consequently determine which are the most effective training actions to put in place to ensure a profitable development of competencies, including in the assessment the cognitive, metacognitive, socio-emotional-relational and motivational perspective and therefore the learning itself (lifelong, lifewide, lifedeep) within a particular context. In this sense, the cultural dimension represents the crucial core to be explored in order to guide the training action in an effective way in relation to the competent action of the subjects shown in the resolution of a task deemed significant by the subjects in a particular context. The declination of this process focused on the cultural dimension of the subjects within the competence "sense of initiative and entrepreneurship" means identifying which elements of their mindset determine the attitude capable of promoting greater awareness and therefore mastery of this specific competence in order to intervene to develop it in the most profitable way within the educational and training practices.

[0008] High-level goals of this finding is therefore the identification of cultural models and practices that identify the key competence "sense of initiative and entrepreneurship" in the target actors involved (professionals, staff of organizations, teachers, students, entrepreneurs, etc..), in order to identify and design training interventions aimed at achieving a model of support and development of this key competence in specific territories within which there are certain cultural models not always explored and towards which the subjects relate, from them are formed and, at the same time, they themselves transform. This general goal is punctually declined in the following activities:

- Analysis of cultural models conveyed in relation to the competence "sense of initiative and entrepreneurship" on the basis of cultural components, in terms of structures of interpretation , action and self-regulation that determine the realization of personal or entrepreneurial initiatives;
- Starting from the output of the previous point, it is possible to have useful knowledge to identify strategies and training and educational interventions necessary to enhance individual development in relation to the context for the subjects taking part in this mapping.

[0009] The above analysis of cultural patterns fits within a theoretical framework that assumes behaviors as driven by cultural dimensions.

[0010] Therefore, individual differences in ways of feeling, thinking and behaving can be understood as different

positions within a shared symbolic field, thus as expressions of different interpretations of common participation in the field. Detecting, therefore, the symbolic field of an organization's population allows us to make sense of the variety of these modes, tracing them to a common cultural matrix.

[0011] Starting from these similarities and corresponding differences in the reference group, it is possible to identify the interpretative models that guide action. These interpretations and evaluations can be described in terms of group and individual attitudes towards an experience, based on concepts such as good/bad, reliable/unreliable, etc.

[0012] In the context of the present invention, the attitude of a certain segment towards "sense of initiative and entrepreneurship" is obtained by defining and clustering the ways in which people interpret their living environments and the mindsets represent specific and differentiated interpretative patterns.

[0013] Further features and advantages of the subject matter of the present invention will be further illustrated through an examination of the description of a preferred, but not exclusive, embodiment of the invention illustrated by way of illustration and not limitation below.

[0014] The invention object of the present finding sees its first component in a questionnaire prepared ad hoc and composed of 45 multiple-choice questions, having to do with perceptions, opinions and judgments concerning four general areas of experience:

- 6 items related to the micro and macro social environment (e.g., judgments about where one lives, etc.);
- 6 items relating to social identity (e.g. image of young people, etc.);
- 6 items related to the hypothetical relationship with a client/service user (images of the client, etc.);
- 6 items related to the concept of situation, unexpected, flexibility;
- 10 items related to the organizational system - company (functions of the company, etc.);
- 11 items relating to one's own role experience (e.g. motivation to study, etc.). The definition of the items of the questionnaire was carried out with the specific aim of making clear the perceptions, evaluations and opinions of the respondents to the questionnaire with respect specifically to the "spirit of initiative and entrepreneurship".

[0015] In order to achieve this objective, the formulation of the response alternatives was based on the symbolic connotation attributed by the subjects to the stimulus objects relevant to bring out the mindset; in other words, the formulation of the response alternatives was designed to outline the dimensions of symbolic meaningfulness nurtured by the stimulus object.

[0016] The objects used as incentives are aspects focused on the universe of "sense of initiative and entrepreneurship" or on dimensions considered important in order to develop entrepreneurial initiatives; at the same time, in the questions, terminology is provided for classes or categories (e.g., "the customer", "the companies", "the service") to facilitate a projection by respondents in the situation described and thus increase the accuracy of responses.

[0017] Depending on the item considered, the response variables are articulated in different ways, through:

(a) 4-point Likert scales, where the respondent expresses the degree of agreement with respect to the statements brought to his attention;

b) multiple choice among sets of answers that present an oppositional structure, so that the respondent takes a position with respect to alternative conflicting options.

[0018] In general, a criterion of maximum disjunction of information was used, where every single alternative choice was considered according to a dichotomous modality (present/absent). This explains the high number of modalities in which the variables were articulated.

[0019] The choice of items responds to the objective of collecting semantic options indicative of specific modalities of symbolic connotation of stimulus-objects, relevant on a cultural level.

[0020] Finally, the questionnaire includes two questions on socio-demographic indicators in order to verify possible links of interdependence of these structural elements with the detected cultural models.

[0021] The second aspect that goes to constitute the invention object of this finding is the analysis, carried out on the data collected in the manner described above, in order to achieve the purposes for which it was developed: the data collected are in fact subjected to a procedure of multidimensional analysis integrating Multiple Correspondence Analysis (ACM, Benzecri, 1973) and Cluster Analysis (AC; Gore, Leuwerke, Turley, 2006).

[0022] The response matrix was first subjected to ACM. As a consequence, the factorial dimensions have been extracted with the aim to describe how responses to different items combine with each other. Since each factorial dimension can be conceived as a dichotomous structure, constituted by the opposition of two mutually exclusive and mutually maximally distant patterns of responses, the space defined by the main factorial dimensions was interpreted as the symbolic field within which the Patterns of signification are positioned and acquire meaning.

[0023] Subsequently, the main factorial dimensions extracted were used as similarity criteria in the subsequent Cluster Analysis, aimed at grouping the participants' response behaviors into homogeneous sets (clusters). In this way it was possible to identify a set of these clusters, each of which consists of a specific pattern of co-occurrences of response to the items of the first part

of the questionnaire. Because of this, each cluster was interpreted as indicative of a Pattern of Meaning, therefore of a Pattern of conception and action with respect to the sense of initiative and entrepreneurship.

[0024] Lastly, the different sector clusters identified through the multidimensional analysis now described were used as illustrative variables, so as to analyze their cultural characterization, in terms of their position with respect to the attitude towards individual or entrepreneurial initiatives.

[0025] The output of the procedure now described is constituted by a synthetic result about this attitude, corresponding to as many Signification Models: "Resister", "Skeptic", "Ally", "Believer", "Embracer".

[0026] There are several patents known to the state of the art that fall within the same scope aimed at defining cognitive developments on the basis of the analysis of certain starting conditions at an emotional, psychological and behavioral level. An example is the patent WO2017037443, which provides for a predictive system of behavior on the basis of a probabilistic model. In this sense, the object of the present invention differs in that the model adopted is not predictive, but rather descriptive of the cultural model of the subject concerned (a sort of "photograph" of the mindset at the basis of the sense of initiative and entrepreneurship). Moreover, the reference data used to carry out the analysis are different, since patent WO2017037443 is based on purely behavioral data, without taking into account the representations (mindset) that guide these behaviors. Finally, the patent WO2017037443 starts from the assumption that there are transversal traits on which to base behavioral predictions, while the invention in question adopts an idiographic approach by mapping individual characteristics of the subject responding to the questionnaire.

[0027] Another example is patent GB2539142, which unlike the invention in question focuses on the comparison between data sets of questions in order to give indications on the most effective formulation of questions to be asked in a job interview for the purpose of evaluating the candidate, without considering individual mindsets.

[0028] To be considered also the differences with the patent US20120310629, which analyzes behavioral trends to predict if a user will have a cooperative approach or not to customer service through bots instead of a human operator. First of all, here the target group is narrower, being composed only of users of automated customer care services; the theoretical approach to define behavioral trends in MINDSET is based on the cultural analysis of the individual profile of the respondent, instead of the linguistic analysis of patent US20120310629.

[0029] Finally, the patent 102014902291114 allows to obtain a synthetic description of a behavioral state on the basis of elements related to neuro-linguistic programming (NLP) - such as environmental factors and body language as a whole -, without however going to map the cultural model, i.e. the vision of a subject in relation to alternative ways of attributing meaning to events in the world, as happens instead in MINDSET.

[0030] In total, just such deep analysis on the cultural model of the person and the way in which it attributes meanings and therefore interprets the environment, consequently defining its own external action, represents the main quid pluris compared to the above mentioned privations.

[0031] In this way, the purpose of this finding has been achieved, that is, the individual mapping of the personal approach of the target actor towards the key competence of "sense of initiative and entrepreneurship", on the basis of the cultural, environmental and personal attitude components that determine the realization of personal or entrepreneurial initiatives.

Claims

1. Evaluation method **characterized by** the identification and mapping of the cultural components of people which determine the realization of personal or entrepreneurial initiatives ("sense of initiative and entrepreneurship"), which includes the following steps:

   - The filling up of a questionnaire by replying to questions related to specific items;
   - The combination analysis of the answers.

2. Evaluation method according to the previous claim **characterized by** the fact that the items of the questionnaire are related to:

   - micro and macro social context,
   - social identity,
   - hypothetical relationship with a customer / user of a said service,
   - the concept of a situation, an unforeseen event, flexibility,
   - to the organizational - company system,
   - to one's own role experience.

3. Method according to the previous claims **characterized by** the fact that the replies to the questionnaire include:

   - four-point Likert scales, which express the respondent's degree of agreement with the statements brought to his/her attention;
   - multiple choice between sets of replies that present an oppositional structure which states the position of the respondent in comparison with the alternative conflicting options.

4. Method according to the previous claims **characterized by** the fact that the responses to the questionnaire are submitted to an integral multidimensional

analysis:

- Multiple Correspondence Analysis, which describes the way in which the responses to the different items combine with each other;
- Cluster analysis, which brings together the response behaviors of the participants in homogeneous groups (clusters).

5. Method according to the preceding claims **characterized by** the fact that the result of the analysis determines the definition of the attitude towards the "sense of initiative and entrepreneurship" by placing it in one of the following Meaning Models: "Resister", "Skeptic", "Ally", "Believer", "Embracer".

6. Method according to the preceding claims **characterized by** the fact that the identification and mapping of the cultural, environmental and personal attitude components that determine the realization of personal or business initiatives includes the definition, in one of the preferred embodiments, of an individual plan of training aimed to improve one's "sense of initiative and entrepreneurship" and, more generally, to learn awareness about one's way of reading and acting/retro-acting one's relationship with the context (deutero-learning).

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EUROPEAN SEARCH REPORT

Application Number
EP 21 02 0383

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	Rosique-Blasco Mario: "Entrepreneurial skills and socio-cultural factors: an empirical analysis in secondary education students ¦ Emerald Insight", , 30 June 2016 (2016-06-30), pages 1-3, XP055843358, Retrieved from the Internet: URL:https://www.emerald.com/insight/content/doi/10.1108/ET-06-2015-0054/full/html [retrieved on 2021-09-21] * the whole document * -----	1-6	INV. G06Q99/00 G06Q50/20

TECHNICAL FIELDS SEARCHED (IPC)
G06Q

1 The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	7 March 2022	Chauvet, Christophe

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
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T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
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REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- WO 2017037443 A **[0026]**
- GB 2539142 A **[0027]**
- US 20120310629 A **[0028]**
- US 102014902291114 A **[0029]**

Non-patent literature cited in the description

- **BENZECRI.** *Multiple Correspondence Analysis,* 1973 **[0021]**
- **GORE ; LEUWERKE ; TURLEY.** *Cluster Analysis,* 2006 **[0021]**