The Interaction between Creativity and Innovation in Behavioural Economics

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ABSTRACT

Purpose: To develop and test a framework which can be used to facilitate the understanding of how creativity and innovation interact with behavior in education organizations, in ways that have practical relevance in organizational development and improvement.

Design/methodology/approach: The framework proposed in this study is the product of an (adductive) research process. This process involved testing and reflecting in academics action, and on action when writing about research. It's also challenged by theoretical input from continual literature studies and has (at different stages of its development) been part of the theoretical work for a PhD dissertation, research articles and master's theses.

Findings: The framework graphically highlights the relationship between creativity and innovation and that the latter is what largely controls education action and new policies. It also implies that for new explicit objectives or theories to become effective in 21st century education system, they have to become part of the tacit guiding ideas for teaching aids. This is objectively true for the most advanced students to achieve. The study gives a perspective on why that the cases counteracted, including by: addressing the coherence between creativity and innovation with behavioural economics values; supporting sense-making; and seeing development as iterative and contextual.

Practical implications: The framework has been tested with academicians and researchers and has rapidly assisted professionals for developing, tacit knowledge. It has also been successfully used in analyses in several papers, including studies of education systems sustainability and process management.

Originality/value: The implications of the research are in line with existing research, yet we believe that the diagrammatic or graphical model adds both scientific as well as practical

dimensions. This is partly due to the framework making it easier to differentiate between complex concepts that are often confused.

Category: Conceptual paper

Keywords: creativity, innovation, education; perceptions, knowledge, imagination, decision making, social, economic, skills.

1. INTRODUCTION

Education institutions continuously renew their support system by absorbing and (re)creating new ideas (Alänge and Steiber, 2011). This is happening independently of board members and management, but is also often the result of a strategic decision to 'innovate' 'implement' or 'adopt' a certain concept and the creation related to it. The application of such concepts and characteristics in changes projects often does not give the intended results (Keating et al., 1999; Beer, 2001), as associated creations and innovations are not naturalized as part of a process leading to genuine change and improvement instantly in their systems Instead, the changes achieved from such projects and changes in systems are often both efficient and transient.

There are various reasons indicated in the literature. One reason is the inertia of knowledge and competence though it also depends on the way of improvement in systems and projects are carried through (Nadler and Tushman, 1997). Another reason, raised by Books and articals (2006), is the focusing on academicians work 'in theory' that is not sufficiently connected to improvement 'in action'of 21st century education system. An example of this is focusing too much on process maps and procedures as opposed to cultivating change in behavior. Lack of clarity in language (e.g., calling both process maps and actual ways of working 'processes') and associated lack of clarity in focus risk reinforcing this tendency. This paper presents a conceptual framework which can be used to facilitate academic to understanding how creativity and innovation interact with behavior in higher education institutions in ways that have practical relevance in development and improvement. The framework can act as a 'sensitizing device to provide a better understanding and new perspectives on educational change, as well as to clarify related technologies and terminology. It can also function as a communication and planning tool for ongoing change and learning processes.

The framework is the product of an iterative and adductive process and builds on a combination of experience from the field and theories to innovations. In this article, the framework will be described, and its usefulness analyzed and illustrated through practical cases.

2. METHOD

The research follows an abdicative logic where empirical data from various educational organizations cases meet theories and an emerging theoretical framework in an iterative learning process in creative and innovative labs. It can be described as a kind of 'first action research in

education sector on academicians' process in line with Lifvergren (2013), based on the authors' experiences. It started in a learning alliance in which Marmgren and Book, based on their respective pre-understandings (Gummesson, 2000), were searching for a shared understanding of

Processes for improvement takes place within and among all organizations. One starting point was the realization that there was a need to understand why there frequently seemed to be a large discrepancy in educational organizations between what was written, what was said and what was actually done at the time of outcome. An effect of this search was the invitation of multidisciplinary research into the learning alliance, and the subsequent initiation of more systematic research as part of a doctoral process for academic research. Then, a more theory-driven development started involving decision making, multidisciplinary, skills development, training and analytical logic theory when writing articles as well as sense- making in action, when driving educational organizational changes . The observations from consultancy practice and earlier research ;made us select a research approach where we initially re-analyzed earlier empirical data and simultaneously developed our theoretical understanding by testing and refining our knowledge and analysis old models and then comparing them with other research subjects and using them in our analysis of new research studies.

The early version of the model was developed based on our pre-understanding from practice, earlier research and literature studies in the area of learning and behavioural change in educational institutions and academicians. Specifically, observations concerning ambiguous uses of concepts both by practitioners and researchers stimulated the development of a first version of a framework aimed at making a distinction between the reality and what could be distilled into a document. In order to test this framework, we initially used empirical data from Book's PhD process and made a reanalysis of the TQM-based change process. The authors assumed complementary roles on a scale from insider to outsider, which can be beneficial for research as it provides additional opportunities for reflection and triangulation. In parallel, according to the chosen abdicative approach, the empirical findings were discussed relating to literature. The result of the first article was the development and initial verification of the framework.

According to the abdicative logic chosen, in our next phase of systematic combining a literature review was conducted. The first outline of the model had been built based on our pre-understanding; this time, the intention was to make a thorough review of earlier research on the subject area, and specifically the understanding of subconscious or tacit knowledge dimensions. This included going back to classical writers on management and on understanding the role of intuition, values, routines and more hidden assumptions and tacit knowledge components in decision-making and change processes in academia.

This abdicative way of iterating between empirical and theoretical phases has been described as a heuristic spiral where the conceptual framework itself is being refined in parallel to the development of empirical understanding.

Next, followed a period when the framework was tested in a number of practical settings in order to verify its validity in consultancy practice by co-authors Book and Marmgren (from year 2000 to 2007) as well as in further research (in 2016). It was found that the framework made sense for practitioners who commented that the framework provided new insights regarding an area that they had earlier perceived familiarity with. Hence, these practical tests contributed to improving our understanding of the usefulness of the framework and its ecological validity.

The authors have approached the task from a constructionist perspective aiming at developing a framework that can provide value both for practitioners and academics. The intention has not been to develop the ultimate and general framework; rather, the approach has been to develop a framework that can be used for various analyses and that can also be modified to meet specific analytical needs. Early on, the strength of visual communication was acknowledged, as well as that the framework in its graphical simplicity supports 'visual ambiguity' stimulating different interpretations and thereby also the development of the framework. Different versions of the framework model have been used for direct communication and verification both of analysis content and of the model itself.

Based on a constructivist stance and analytical generalization of our extensive experience of using it, we believe that the framework can be useful in analyzing any type of organization.

3 THEORIES ON THE INTERACTION OF CREATIVITY AND INNOVATION IN BEHAVIOUR ECONOMICS

The starting point in our research for a useful frame was our practical experience working in and with the educational organizations, and our observations in earlier research studies. We sensed that leaders were often having problems in trying to use management creations and ideas 1 to infinity the behavior of individuals and groups in academic. What professionals say and what is documented do by them to some extent, but the processes of naturalization are often problematic (2006). Hence, creations and innovation which could be productive often do not become a natural part of thinking and acting in a productive way in academics.

Creations and innovative ideas can be understood as related sets or structures in constant dynamic and interaction ways, which are also affected by external education institutions. The line by Barley (1986) concludes that 'Structure can be viewed simultaneously as a flow of ongoing action and as a set of institutionalized traditions or forms that reflect and constrain that action'.

3.1 Understand Mechanism:

After exploring the creativity, innovation, and related concepts, it is necessary to discuss the different studies. Sternberg and Lubart in 1999 categorized as the different theories to creativity into six major diagrams, including mystical, pragmatic, psychodynamic, psychometric, cognitive, and social-personality. Each of these conceptualizes them in different ways, has

different research focused , has made certain contributions to the field of education and roles in academia but each presents certain defects or flaws. Acknowledging the complex nature of creativity and innovation, Kozbelt, Beghetto, and Runco in 2010 classified the theories of creativity and innovation into , developmental, psychometric, economic, stage & componential process, cognitive, problem-solving & expertise-based, problem-finding, evolutionary (Darwinian), typological, and systems of education.

For each of these, the authors identified the primary assessment key concepts, the 6 P's (Person, Process, Product, Place, Potential, and Persuasion) focus, the levels of creativity and listed example studies. The study also recommended an in-depth overview of the different academic areas of creative and innovative studies. The three major waves of creativity studies of Sawyer (2012) mentioned in the earlier — the personality, cognitive, and sociocultural — to summarize the typical theoretical and practical challenges that are faced in education behavior in economics that scholars adopt to understand.

3.2 Learning processes shaping behavior:

The focus of the conceptual study is on the role of creativity, innovation, theories, management, systems, models and organizational innovations which can guide learning towards new behavior in educational organizations. What is included in an organizational innovation or in a management model is differs, but ideas, theories and practical knowledge can be seen as the basic building blocks by Weick, in 1995. Thus, a starting point could be to discuss the issue from the perspective of creativity or ideas/theories and sets of them. Sets of ideas/theories can exist on many levels in an organization with different values. They exist at an express level, which corresponds to theory by Argyris and Schön (1996) said 'espoused theories'. Sets of creativity and innovation also exist at a different valuation that usually guides action, which called as 'theories-in-use.' The line with thinking of Schumpeter, Barnard and Kahneman.

According to Argyris and Schön (1996), an academic individual is normally not aware of which are his theories-in-use, and can typically only become aware to a limited extent by curriculum , and even then with substantial effort by board and other professionals. This can happen through 'double- loop learning,' when efforts are made deeply and reflect to a situation, including questioning its basic assumptions. If double-loop learning is used , there are more possibility to go beyond what academicians express (and start believe in themselves) to go deeper and get in contact with the actual theories-in-use, which then can be questioned and transformed or just be made aware of. The deep learning with the more common single-loop learning, which can be seen as a regular adjustment, as with that of a thermostat.

There are similarities in between these theories, but there are also differences reflecting their origin and use. Kahneman observed that in academia both cognitive efforts and self-control are forms of mental and physiological work that compete for the limited resources available for the

Systematic way of thinking. However, sometimes academicians can spend considerable effort for longer periods of time without having to exercise or practical learning conscious self-control, a state that happens in 1990 by Csikszentmihalyi named ‘flow’. So, while Kahneman in 2011 primarily refers to the depleting effort of self-control and the substantial resource use that limits the System of thinking, Argyris and Schön in 1996 emphasize that the individual academician is often not even able to identify his/her own theories-in-use, primarily due to different kinds of values and deface mechanisms. On an educational organizational level, the theory-in-use might remain little tough because it is either ‘indescribable’ or ‘un-discussable’ but Schumpeter and Barnard said the similarity between ‘theories in use’ and ‘System. They are subconscious, fast and follow a rule of least resistance.

3.3 Towards the theories:

The middle of the 20th century, various theories of creativity and innovation models have tried to explain this human philosophy. Till today , a sufficiently integrating theory has not been found in behavioural economics research, so several coexist that are understood to be equally valid. Intelligence threshold theory given by Torrance in 1962 argues that intelligence is a necessary but not sufficient condition for creativity from the study of individual traits at the certain level of intelligence is required for creativity to emerge level which is usually set at an intelligence quotient (IQ) of 120, no positive correlation has been found between the two constructs.

So, genius understood as a high IQ, does not guarantee greater creativity than average intelligence. In Intellect Model, Guilford included 24 items aimed at measuring divergent thinking authors such as Torrance in 1972 incorporated divergent thinking in their explanatory models of creativity. A cognitive approach by Howard Gardner in 1983 understands intelligence as a multidimensional construct made up of various types of intelligence. He proposed seven different intelligences in his first model and added one more. Gardner continues to investigate the existence of other additional types of intelligence. he argues that intelligence and creativity are not separate entities.

4 CONCEPTUAL CONCEPTS:

From our theory review, it is evident that both creativity and innovation need to be treated if we want to understand the process of influencing behavior in academia. In our study, the focus is on the influence of thoughts/ideas/theories in education on behavior, and differentiating between creativity and innovation thoughts/ideas/theories (we do not visualize the influence e.g., technology). This line of thought produces the couplings visualized in Figure 1:

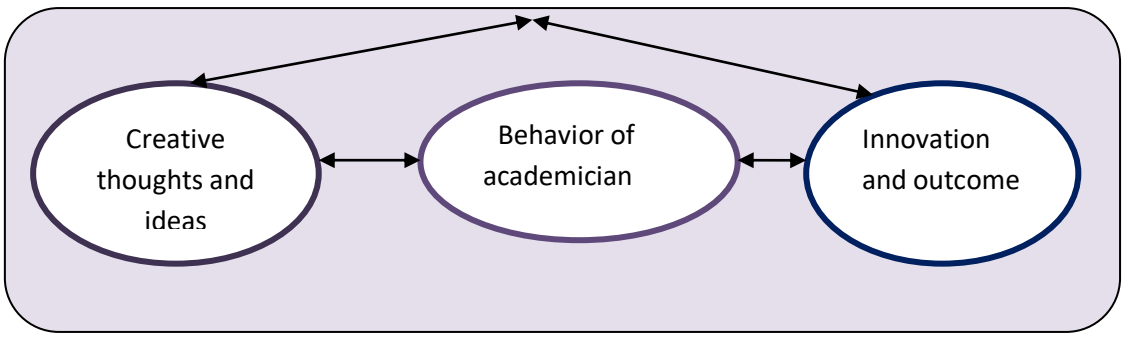

Figure 1 – Interaction between creativity and innovation and behavior

The dotted line illustrates the normally relatively weak relationship between creativity (normally spoken or documented) and behavior. The thick solid line indicates the strong connection between the innovation and behavior, and that this is normally the key to behavioural change. The broken line surrounding 'figure' indicates that it is not directly observable in the way that behavior or creativity or innovation.

The interaction shown in the figure relates closely to with the difference that behavior is not part of model. For example, Nonaka's concept of socialization (tacit to tacit knowledge) in our model would also include the interaction with behavior. We believe that this adds some clarity and explanatory aspects.

Our experience from educational organizational change projects has shown that looking at the difference between what is spoken and documented can provide interesting insights into the dynamic of an organizational change project, such as a change in the management system (Marmgren, Alänge and Book, 2012).

Figure 2 presents the studies with creative ideas shown through their manifestations as spoken or documented. The dotted lines illustrate the normally relatively weak relationship between what is spoken or documented and behavior. The thin solid lines indicate the strength of the relationship between what is spoken and what is documented and also their links to the relationship, which all can vary in strength. The thick solid line still indicates the strong connection between the creative ideas and behavior; that strongly influences behavior, and vice versa: that behavior has a strong impact on creativity and innovation as when, for example, board member behave in accordance to what they 'preach' (spoken and documented).

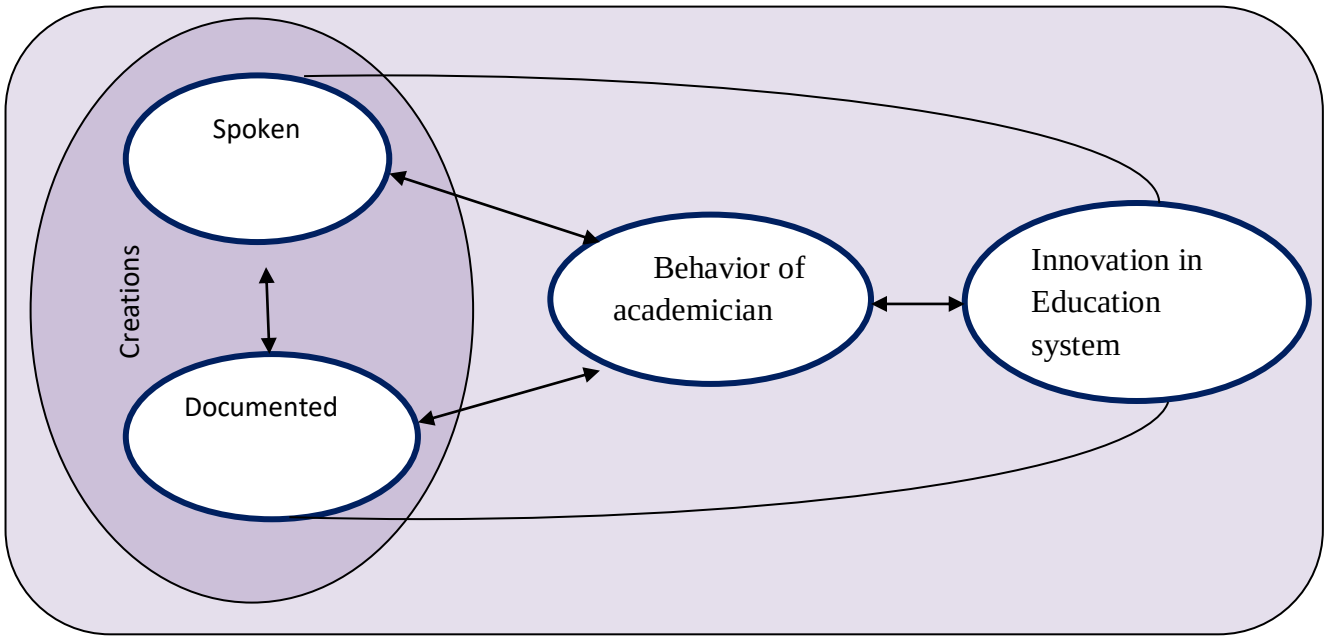

Figure 2 – Relationship between different of innovation and behavior

The different parts of the study are clarified below:

Spoken (or directly communicated): is normally direct verbal communication, but includes all direct communication and can also be through body language, writing or drawing on a whiteboard with the purpose of immediate communication. Documented (or indirectly communicated): is indirect communication and normally means texts and figures (e.g., organizational charts, process maps), but can also be recorded speeches, photos of whiteboards, and more.

Spoken and documented are different manifestations of explicit ideas. There are many different (and often contradictory) explicit (sets of) ideas. Some are largely accepted by the organization/group in focus, while others are not.

Tacit guiding: is the generally subconscious 'patterns' or 'tracks' in our brains that actually guide action in a specific situation whether it is about riding a bike, operating a production line or running a complex project. 'Tacit guiding' cannot be directly observed, but rather inferred by looking at action, or approached by in-depth interviewing.

Behavior: Are patterns of action that in principle can be observed.

In line with what was described in the Method section, several versions of this framework have been tested and used, partially depending on the context and the relative usefulness of different versions.

5. AS SENSITIZING DEVICE AND ANALYTICAL TOOL

The study has been used in many consulting projects, in action research projects and in the internal dialogue and development of Effort Consulting AB during half a decade. The purpose has varied and developing as we scrutinize the processes taking place in relation to the use of it.

One purpose of the conceptual framework is to serve as a 'sensitizing device' that will 'sensitizes the observer to notice and question things that had previously been taken for granted'. The sensitizing ability in this case is closely related to what Worren, Moore and Elliott in 2002 he calls visual pragmatic validity. In our case, this refers to identifying corresponding aspects of the dynamics of an educational organization. When the study has been applied in dialogues figure 2 or testing something closely corresponding with academic professionals, the involved persons often experience that they develop a deepened understanding of prior experiences. We believe that this is due to it aiding in connecting subconscious and conscious thoughts in an interactive process, that is, the different parts of the model.

Another related purpose of the framework is to serve as a tool for sense making, Weick in 1976. By giving new perspectives in organizations, it facilitated the one version, presented in Book by

Marmgren and Gustafsson in 2014, includes 'Unspoken' as another part of explicit thoughts and ideas in behavioural economics. The purpose of this is to highlight the fact that some ideas might be explicit for some people/groups, though for different reasons not spoken of 'Unspoken' is then shown with a dotted line to illustrate that it is not directly observable. Or System 1 and System 2 by Kahneman, 2011, or explicit and behavioural knowledge in Nonaka, 1994.

The process of making sense of what was going on and how it influenced the education development. Three examples will serve us to exemplify how we have used the 21st century technology in education systems. There are other ways as follow to use it in educational system.

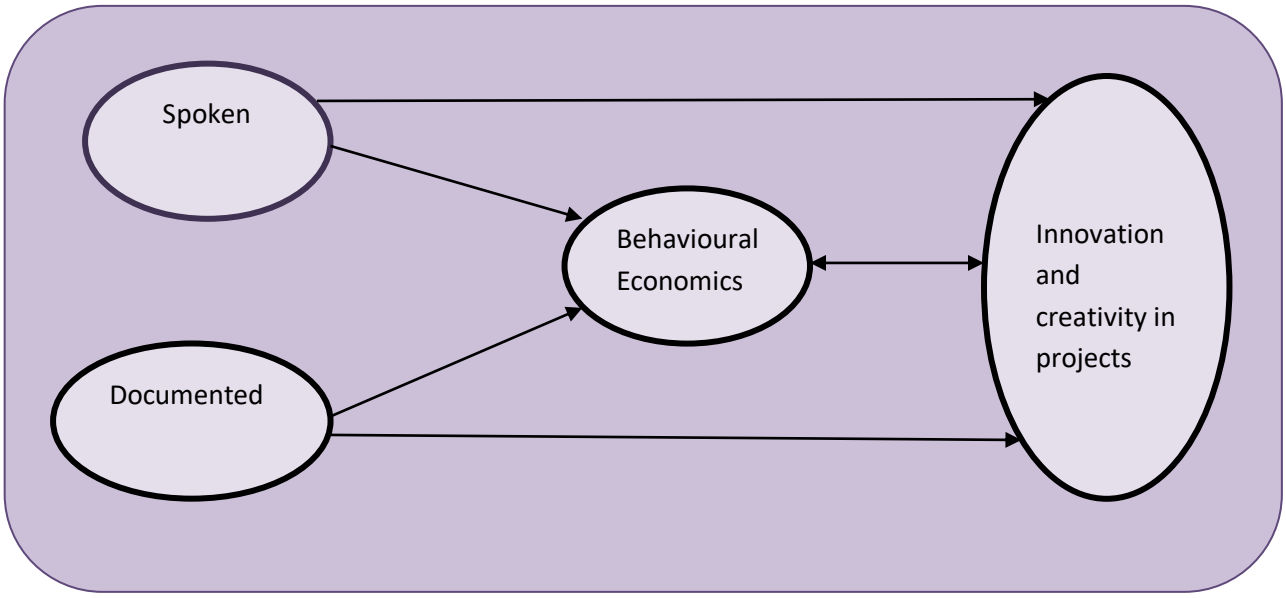

Figure 3: Use in a process of education management project

Example 2: Use in discussing competence development in educational institute with creation and innovation by academicians

As part of a dialogue concerning the competence development at Effort Consulting, we used the (Figure 4) to clarify the competence development in strategies for higher education. We agreed that classroom training is good, but even more important is teaming up in the projects and taking extra time for reflection and learning during the actual work in action. In that way we can adjust economics behavior according to our reflections in research and reach better innovative and creative technology action supported both by what is spoken, what is documented and through behavior. In doing so, we get a tighter coupling between research, reflection and action, which stimulates action learning and more efficient and effective educational development towards improved competence. We were able to graphically clarify what actually drives changed in academicians behavior by creativity and innovation, that the links from Spoken and Documented

(e.g. classroom training) normally are comparatively weak, and that reflection in action is a powerful way of learning.

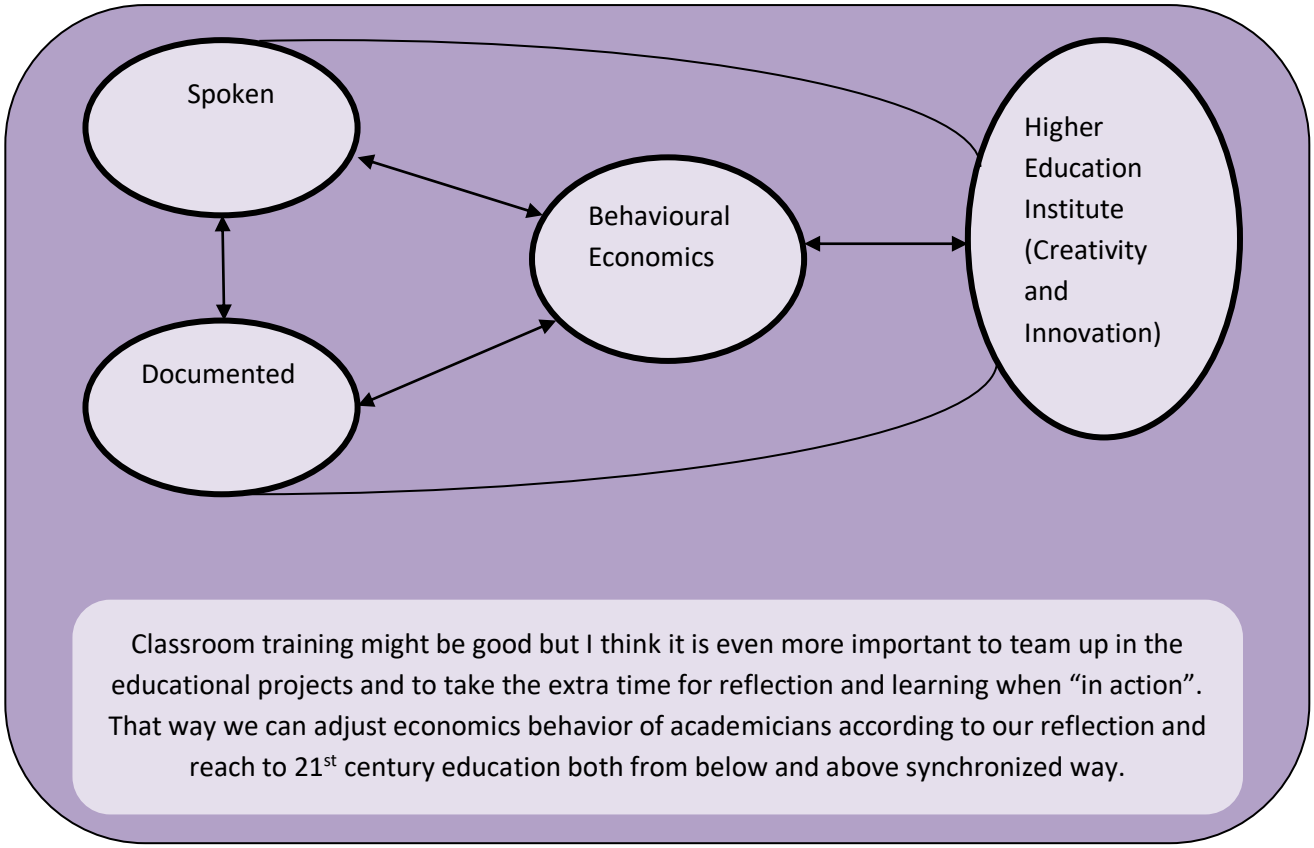

Figure 4 – Use in discussing competence development

Example 3: Use in discussing quality in theory and in action

In consultancy work, together with the top management team in a company within the marine industry, we needed to explain certain problematic patterns of organizing that often take place in educational organizations. We were using the framework (Figure 5) when the CEO got inspired and explained that during daily operations they were in a combination of creation, innovation practical's and Behavior, while when they were consciously discussing quality of curriculum or operational development, they tended to work in the upper part of the model. A problem was that these two very different patterns of organizing seldom met and complemented each other. Instead, the conscious work became ineffective, as it had minor influence on what actually guides work and on work itself (Behaviors of academicians). In this example, the study stimulated the CEO to express a core mechanism that was influencing the development of the higher education institute and education system. The study offered a graphical background to the dialogue about the dynamic in the educational organizational system:

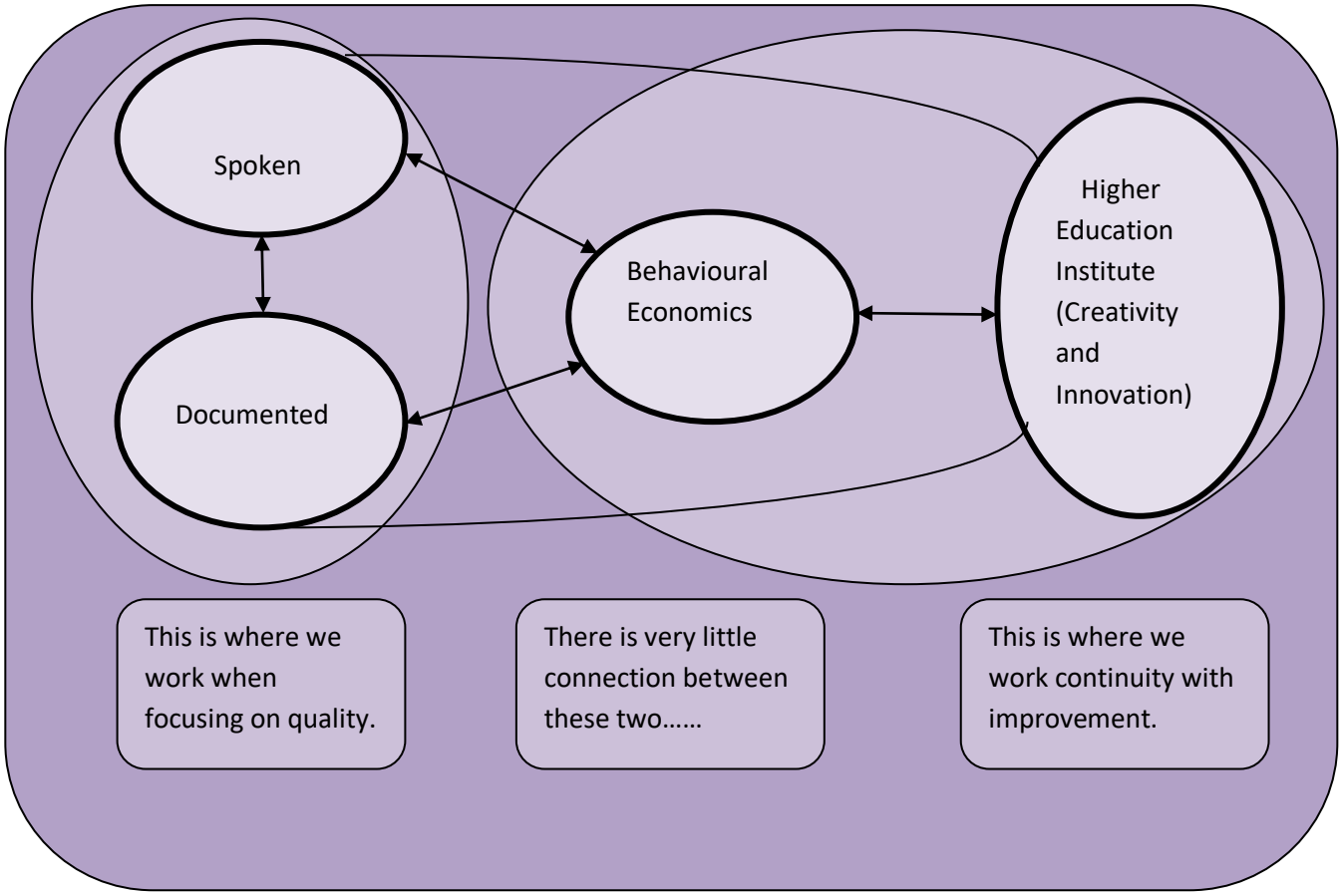

Figure 5 – Use in discussing quality in theory and in action

We often observe how Students, researchers, and other academicians get ‘aha experiences’ as we use the visual tools for representation of the studies. This seems to be the case in particular for professionals with relevant experience in the management fields. Sometimes this happens at first glance with little or no explanation required or to be said as fresher. That it is so easy to relate to, at least for some professionals in the related fields, is also a sign of validity. The graphical functions as a sensitizing device by making them aware of disconnects between different components, and it aids in making behavioural economics and academicians for creation and innovation new explicit and possible to scrutinize and develop. Thus, it connects the knowledge to other more conscious aspects of an educational organization, making it actionable.

It has also been used in empirical analyses of higher institute or educational organizational change and its explanatory power has been validated by participating in the change processes: process of project management and quality systems by Marmgren, Alänge in his Book 2012; sustainability in product development Alänge, Clancy and Marmgren in 2016; and sustainability strategies a Book by Marmgren and Gustafsson in 2014.

As indicated by the three examples above and the three references to empirical research, the study can be applied in many different ways, including for analyzing:

• Coherence and clarity of terminology used (e.g., concepts such as educational management innovation, process and projects, 21st century management system; Example 1)

• Coherence of creativity and innovation: both between communication (spoken and documented) and economics behavior (Example 3) and coherence for the entire education system.

• Dynamics of the system: what couplings are weak/strong, which norms govern the dynamics, which spoken or documented words or actions are of special importance in carrying certain creations and innovations in educational development.

• Dynamics of specific initiatives in education in Example 3 by Marmgren and Alänge in their book 2012)

• Interactions between creativity labs educational ideas and innovation of different skills schools for higher education and development

• Conditions for change in projects and implications for how to adapt these to improve the likelihood of success in education system.

• Alternative courses of action and comparing. (Example 2)

6.THE POTENTIAL VALUE OF KNOWING AND USING THE THEORIES:

The study can be of value both for academics and leaders in educational organizations. The value of knowing the framework 6 is primarily that it functions as a sensitizing device by Weick in 1976 that 'opens new eyes' to more clearly differentiate between the parts of the model. This means that problematic patterns become apparent that otherwise might have been missed. This includes the common confusion in language between integral parts of an organization processes, culture, and management systems and their descriptions. It also includes the related problem of disconnection between improvement of explicit thoughts and ideas (often with a lot of focus on documentation), and of improvement of action and results. It can also foster an understanding of what drives change in behavior, and that documentation, or even classroom training, has their limitations. In general, it gives a frame of reference for understanding, and talking about, how management ideas and documents interact with behavior. The process of implementing new creations and innovations by education management initiatives is an important by knowing in this case, implies using it in your own thought processes without drawing it, mostly initiated subconsciously, i.e., System 1 by Kahneman in 2011. Example of when this is relevant, but it is also of continuous relevance as in, for example, the use of documentation for

supporting/controlling operations, which is something most organizations have in common, to some extent.

The value of using the framework is both as a tool for analysis and as a tool for communication, or the combination of both. Maybe the most important value in using the tool is its communicative power. It is our experience that in a specific context, it can give immediate insights in line with the value of knowing the framework presented above. This seems to be the case in particular for people with relevant work experience that they can relate to the framework.

Using the framework for analysis makes it possible to further develop the intuitive understanding from knowing the framework. The graphical nature of the framework makes it easier for a team to make an analysis together or to adjust it in discussions with other stakeholders at later stages, both of which will support joint ownership and thereby the action resulting from the analysis. As a tool for analysis, it can be used in many different ways including variations in:

• Scope: e.g., the entire organization, a unit/group or a project

• Time: analyzing an existing state (or a retrospective timeline) or a possible change/project

• Comparative or not: focusing on one scope or comparing different ones (e.g., units or projects)

A list in given in section 5 for specific possible uses. The study as sensitizing device and analytical tool above, which also refers to articles and examples exemplifying these uses.

Knowing and using the framework also makes it easier to understand and use the general implications below, even though (in line with the framework) it is in no way a guarantee that they will be used.

7. MANAGERIAL IMPLICATIONS

One implication for leaders in all kinds of organizations, as indicated by the previous section, is that knowing and using the framework can be of considerable value. The framework, and the theory it builds on, also have general implications; in other words, these are independent of whether the framework is used or not. Some of the important and clear implications are presented as follow:

Clarity in communication in education system: Leaders should try to avoid using language that risks confusion between the different parts of the studies as with, for example, process as an action with documentation, as this risks directing focus to the wrong thing normally documentation. A common example of this is how the term of educational management system is used in relationship to certifications (e.g., ISO 9001) or legal demands where it, in our experience, often is equated with a document manual, giving the work with the standard/certification a focus skewed towards documentation.

Understanding the dynamic of your educational organization/system: Leaders should try to be aware of the relevant dynamics of their organizations. What is it that guides to economic behavior? Is it a strong company culture? Professional culture? Documentation? Shared values/idealism? Personal gains? Other things? It is probably a combination of factors, but understanding the most important ones will make it easier to see what strengths to build on (and not undermine) as well as what measures will probably be futile. One example of this is the importance of nurturing a valuable culture, which otherwise might be rapidly compromised by actions that in another organization might be considered acceptable. Another example of this is the role of (different kinds of) documentation, where the same type of document might be effective in one organization but ineffective in another.

A related issue is the importance of coherence; in other words, it is important that what you say, write and do, will fit ('walking the talk'). Doing, in this case, also includes decisions on remuneration systems, or what is prioritized in meetings (e.g., management meeting agendas). If you as a leader say something is important in a speech and/or write a document about it (e.g., customer focus or gender equality), but do not priorities discussing it in regular meetings and do not reward those who do priorities it, this would be a clear lack of coherence. It would probably not only result in employees ignoring that spoken and/or written message, but also in weakening your ability to use those means for other messages. In a more general sense, lack of coherence risks confusing employees, damaging morale and weakening the ability to control/develop the organization (rendering management efforts more inefficient).

Implications for choosing a new concept or tools: The usage of new ideas like concepts and tools, sometimes packaged as a management initiative, is a common way to drive improvement. When choosing, the fit between the inherent logic of the new ideas and the dynamic of the organization should be considered. Ideas generally need to be adapted to the local context in an iterative learning process, but if the fit is bad (but the ideas still considered useful), it is by Alänge, Clancy and Marmgren in 2016 use to give an example of how different cultures can both be effective but require different management recommended to start adapting them to the organization's dynamic from the planning stage.

Understanding change as contextual and iterative: Since the planning and adaptation of the cultivation of a new management concept or tool is an iterative process, in itself adapting to an unfolding process of change, it is important to set and communicate a clear purpose as well as not plan actions in too much detail in a long-term perspective. This is the case, since you will probably wish to adapt the plan to what happens. It is, however, recommended that you have a clear structure to drive the change (e.g., responsibilities, meetings) in order to keep driving and updating the plan.

The role of documentation: New policy statements, written procedures, and the like, often do not seem to have the impact intended. This seems to be the case in particular when documents are written to assure compliance with external demands (e.g., legal demands, ISO standards),

where the management's intentions with the documentation often are not clear (i.e., lacking coherence). Leaders should therefore be aware of the limited possibility of using documents to change behavior, and that it depends on the clarity of the message they send (coherence) and the general role/importance of documentation in their organization (i.e., knowing your system). This importance can be changed, but that is an issue of cultural change, normally quite a slow process. The above reasoning, however, applies more strongly to descriptive or 'passive' documentation; in other words, to documentation that describes how to do something (or what values to hold), such as procedures, process maps policy statements, and so forth. Cultivating change through using operative or 'active' documentation, which are both (sometimes necessary/required) tools to achieve your task (e.g., templates, IT systems etc.), has a much greater chance of success. The importance of learning in action 15 and reflecting on action : Organizational development often focuses on learning through classroom training and documentation (books, procedures, etc.). This can be valuable, but including learning when doing will most likely increase the probability of changed behavior. Learning when doing is something that happens subconsciously and continuously; however, what we refer to here is a learning that connects to the concepts and tools of organizational development (which could be something basic like a new written procedure or template). If you do not make this connection, you risk creating a theoretical organizational development in a conference room that has little impact on the actual development of how things.

To reach a significant change in 'Tacit guiding' with a management initiative, generally involves a context-specific iteration and learning between all parts of the model. What comes out in the end will be something specific to that context. Examples of this are given by Alänge, Clancy and Marmgren in 2016, e.g., the adaptation of a tool for LCA to a different context. 15 Reflection-in-action is an important part of individual skilled professional behavior as argued by Schön in 1983. Here, we emphasize that this individual and often subconscious process need to become an explicit and interactive reflective group process are done. In order to make this connection, it is important to call attention to the concepts and tools when conducting normal 'operations' (e.g., in regular meetings, in projects, on a production line, etc.). It is also important to be able to reflect on the usefulness of the tools, concepts and/or behaviors, as well as how to change these in order to improve results. To do this scheduled meetings (or parts of meetings) for reflection, preferably with an organizational development specialist present, could be used. Encouraging a culture of spontaneous reflection, and sufficient 'slack' in normal operations in order to facilitate this should also be considered. One option to strongly support these kinds of reflection, is to have organizational development specialists 'embedded' in normal operations (e.g., on a project).

8.CONCLUSION

In today's society education system are facing complex challenges in the struggle for sustainable development in their 21st century world. New ideas innovations and creativity are either forced by, for example, new requirements or changes in the law, or brought in by leaders in their efforts to stimulate innovative education development. Communication skills and knowledge takes

place on values of levels and through different channels. Not until behaviors are changed in economic development however, can the results and effects sought after become reality. We need tools to reflect on the process towards productive behavior change with the aid of external or internal creative ideas and innovation that can facilitate success. This paper suggests a study that has proven to function well in dialogues concerning such processes. We see great potential in developing the further research and continue to apply it in various change projects.

For effective conscious quality oriented work to take place, all aspects of the model need to influence each other in a dynamic way that stimulates creative tension and development. The framework graphically highlights the relationship between creativity and innovation that the behavioural economics is what largely controls action. It also implies that for new creative ideas and innovations to become effective, which is normally the purpose of improvement and initiative, they have to become naturalized; in other words, they need to become part of the ideas. This is often quite difficult to achieve, as shown by the fact that most improvement initiatives tend to not give the intended results.

REFERENCES

Aguilera-Luque, A.M. (2016). Creatividad Organizacional: Un estudio cuantitativo de la eficacia de los programas de entrenamiento en creatividad. Tesis Doctoral, Universidad de Valencia. DOI10.13140/RG.2.2.16524.21122

Allport, G. W. (1937). Personality: A psychological interpretation. New York: Rinehart & Winston.

Allport, G. W. (1954). The nature of prejudice. Reading, M.A.: Addison-Wesley Publishing Co.

Amabile, M. T. (1983). The social psychology of creativity. Journal Od Personality and Social Psychology, 45(2), 357–376.

Amabile, M. T. (1988). A model of creativity and innovation in organizations. In B. M. Staw & L. L. Cummings (Eds)., Research in organizational behavior. Vol. 10 (pp. 123–167).

Amabile, M. T. (1996). Creativity in context. Boulder, CO: : Westview.

Campbell, D. T. (1960). Blind variation and selective retention in creative thought as in orther knowledge processes. Psychological Review, 67, 380–400.

Csikszentmihalyi, M. (1990). The psychology of Optimal Experience. New York: Harper & Row Publishers.

Csikszentmihalyi, M. (1999). Implications of a Systems Perspective for the Study of Creativity. In R. J. Sternberg (Ed)., Handbook of Creativity (pp. 313–335). New York: Cambridge University Press.

Dacey, J. S., & Lennon, K. H. (1998). Understanding creativity. The interplay of biological, psychological and social factors. (1st ed).. San Francisco: Jossey-Bass.

Gardner, H. (1983). Frames of mind: The theory of multiple intelligences. New York: Basisc Books, NY.

Gardner, H. (1993). Creating minds. New York: Basic Books, Inc.

Guilford, J. P. (1967). The nature of human intelligence. New York: McGraw-Hill.

Kasof, J. (1995). Attribution and creativity. In Encyclopedia of Creativity (vol. I) (pp. 147–156). San Diego: Academic Press.

Lewin, K. (1951). Field theories in social science. New York: Harper & Row Publishers.

Mednick, S. (1962). The associative basis of the creative process. Psychological Review, 69(3), 220–232.

Mumford, M. D. (2012). Handbook of organizational creativity. San Diego: Elsevier.

Runco, M. A., & Albert, R. S. (1986). The threshold theory regarding creativity and intelligence: an empirical test with gifted and nongifted children. Creative Child and Adult Quarterly, 11(4), 212–218.

Russ, S. W., & Dillon, J. A. (2011). Associative Theory. In Encyclopedia of Creativity (pp. 66–71). London: Elsevier.

Sawyer, R. K. (2006). Explain Creativity: The Science of Human Innovation. (I. Oxford University Press, Ed).. New York.

Simonton, D. K. (1989). Chance-configuration theory of scientific creativity. In B. Gholson, W. R. Shadish, R. A. Neimeyer, & A. C. Houts (Eds)., The psychology of science: Contributions to metascience (pp. 170–213). Cambridge: Cambridge University Press.

Sternberg, R. J., & Lubart, T. (1991). An Investment Theory of Creativity and Its Development. Human Development, 34(1), 1–31.

Sternberg, R. J., & Lubart, T. (1995). Defying the crowd: Cultivating creativity in a culture of conformigy. New York: The Free Press.

Torrance, E. P. (1962). Non-test ways of identifying the creatively gifted. Gifted Child Quarterly, 6(3), 71–75.

Torrance, E. P. (1972). Predictive validity of the Torrance Test od Creative Thinking. Journal of Creative Behavior, 6(4), 236–252.