USING MEDITATION AND REFLECTION IN THE UNIVERSE LEADS TO ENHANCE OF CREATION AND CREATIVITY FOR HIGHER EDUCATION STUDENTS

Yassir M Mahgoub, Associate Prof. PhD, MA.
University of Khartoum, Faculty of Education,
Department of Art Education, Sudan
Faisal M Abdul- Wahab, Associate Prof. PhD, MA.
University of Khartoum, Faculty of Education,
Department of Foundation of education, Sudan

Abstract

This paper studies using meditation and reflection in the universe leads to enhance of creation and creativity for higher education students. Descriptive, analytical and experimental methods are used in this research. The results of the study are expected to be beneficial for the development of students' performance in higher Education. The study sample consists of 30 students of the third level, batch 2012 – 2013, from the faculty of Education at the University of Khartoum: Republic of the Sudan.

The results of the study are expected to be beneficial for using meditation and reflection on higher education programs.

The study sample consists of Students totaling (30) students of the third level, batch (2012 – 2013) from faculty of Education of the University of Khartoum - Republic of the Sudan.

There are topics for using of meditation and reflection were prepared depending on universe involves the extended abstract outcomes of learning like – hypothesizing, synthesizing, reflecting, generating ideas, applying the known to 'far' domains,' working with problems that do not have unique solutions.

The results showed there is a significant difference between experimental and control group, which confirms that the using meditation and reflection in the universe leads to enhance of creation and creativity for higher education students.

The researchers recommended the students should be encouraged to arts education as an integral part of national development policies and devote

substantial financial resources thereto. And set up arts education departments in higher education institutions.

Keywords: Meditation and reflection, creation and creativity

Introduction

Creativity exists and operates on a continuum from inventions and interventions that change the world, through those that change a domain (like physics), to those that have local and personal significance: 'a sort of "personal effectiveness" in coping well with unknown territory and in recognizing and making choices' (Craft 2002 and in press). In education (schools) there has been a shift in the last few decades from seeing creativity as an ability associated with the very gifted and most able, to something that we all possess to varying degrees and which can be encouraged, nurtured and developed. The latter view is embodied in the concept of life-wide creativity developed by Craft (2002). In higher education, we are primarily concerned with democratic notions of creativity. For example, a study of National Teaching Fellows found that 71% of NTFs disagreed with the statement that creativity was a rare gift and 92% believed that creativity can be developed (Fryer, 2006). As educators we must recognize the continuum of creative ability and potential and support both everyday notions of creativity but also aspire to prepare people to take on challenges at the level of making a real difference to their chosen field of endeavour.

Every pure understanding depends upon meditation. And successful meditation depends on receiving correct instructions, reflection, contemplation or meditation are powerful methods for deepening our understanding, and advancing our learning. Reflection and contemplation in this context have similar meanings: calm, lengthy, intense consideration of any object of attention, often in relationship to other objects.

Similarly, meditation is generally defined as sustained focus on an object of attention. A more powerful definition asserts that meditation is a sustained focus on a virtuous object of attention, e.g. the thought "I am determined to become a doctor so that I can help others lead long, healthy lives." Dr. Howard Gardner has studied the lives of extraordinary individuals such as: Einstein and Mozart and found that these extraordinary individuals spent a tremendous amount of time reflecting on how to meet their goals. At the classroom level, researchers such as Dr. Phil Wine from Simon Fraser University have studied students who engage in self-regulation or meta-cognitive behaviors which are very similar in quality to reflection or meditation. The ability to think about how you think, learn, and perform is very useful to helping individuals understand how to improve their learning

and performance and incorporate what their mentors tell them into techniques to get better at what they do.

By engaging in reflection or meditation we deepen our understanding and may even experience a whole new idea, or realization, that transcends our prior understanding. Many 'aha' moments have arisen in history in many different fields, directly through this practice.

Meditation is a learnable skill. It depends on many of the preparatory practices mentioned in an earlier blog. I recommend seeking out a qualified teacher so that your reflection, contemplation or meditation – whatever you choose to call it – can be sustained and successful.

Importance of the study

1. The researcher is expecting that the results of this study will be of great help to Ministry of higher education in the preparation of student's researchers.

2. Researcher predicted that this study opens an area for further studies designed to develop different strategies in the field of teaching.

Objectives of the Study

1. To identify the impact of using meditation and reflection in the universe on the educational process.

2. To enable students of combine, connect; synthesize complex and incomplete data/situations/ideas/ contexts in order to see the world freshly/differently to understand it better.

3. To enable students of think critically and analytically in order to distinguish useful ideas from those that are not so useful and make decisions that will take you in the right direction.

Hypotheses of the Study

1. There is a significant difference between student's performance before and after using the meditation and reflection.

2. There are significant differences between the experimental group and control group before and after the test which confirms that the using meditation and reflection in the universe leads to enhance of creation and creativity for higher education students.

Methodology of the Study

The descriptive analytical and experimental methods were used in this research.

Sample of the Study

The study sample consists of Students of the Faculty of Education of the University of Khartoum - Republic of the Sudan - Students of years (2012 – 2013) – Totaling (30 students).

Statistical analysis

T test for independent data will be run to verify the equivalence of experimental and control groups after applying the test of ability and before the implementation of the program.

After the application of the program, the collected data will be analyzed by the statistical program (STATISTICAL PACKAG SOCIAL SEIENCE) (SPSS) using the appropriate statistical treatments.

What is Creativity?

The word 'creativity' has become a modern mantra and is seen by many as a panacea for a wide range of problems. In education it has become embedded in the school curriculum and subject benchmarks in HE. As a concept, 'creativity' may have become so broad as to be completely devalued (Negus and Pickering, 2004). Interpretations of creativity include the power of god to create, the inspired artist or scientist such as Michelangelo or Einstein and an individual's craft skill or ability to re-organize an office layout. Kaufmann and Runco (in Rickards et al, 2009) cite Nonaka as saying that 'ideas are formed in individual minds', yet they observe that the Marxist social science view of creativity still appears to hold sway as, "solely born out of collectives, and that the creative ideas in the individual mind are mere epiphenomena that are the real products of underlying collective forces at work". (Kaufmann and Runco in Rickards et al, 2009, 155) In many ways creativity is like the Tao, indefinable yet with describable attributes. Yet creativity involving the manifestation of new ideas, concepts, processes, artefacts or understanding is important to individuals, communities and our society as a whole and therefore to learners in education.

The physicist David Bohm (1998) saw creativity as dependent on perception and ability to recognize something new, requiring a state of mind which is 'attentive, alert, aware and sensitive' and does not impose existing preconceptions. This is very similar to the state which the educationalist Mezirow (1991) says is necessary for transformational learning to take place in which a person may have to abandon or modify their values and beliefs in order to accommodate their new experience and to create a new meaning. Bohm sees creativity as potentially opening the way to transform the individual (Bohm in Pylkkanen, 1989, 23).

General features of creativity and reflection

According to Biggs (2002), creativity involves the extended abstract outcomes of learning like – hypothesizing, synthesizing, reflecting, generating ideas, applying the known to 'far' domains,' working with problems that do not have unique solutions. Creativity also involves the capacity to generate and connect ideas and create frameworks to judge the worth of ideas and potential solutions. Many academics would see these as higher order academic skills and capabilities that they seek to develop in their disciplines.

Previous studies (e.g. Jackson 2005a and b) reveal that academics associate a number of features with creativity regardless of disciplinary, pedagogic or problem working context. For example :

• Being imaginative – generating new ideas, thinking out of the boxes we normally inhabit, looking beyond the obvious, seeing the world in different ways so that it can be explored and understood better.

• Being original. This embodies:

• The quality of newness for example: inventing and producing new things or doing things no one has done before;

•being inventive with someone else's ideas – recreation, reconstruction, re-contextualization, redefinition, adapting things that have been done before, doing things that have been done before but differently;

• And, the idea of significance – there are different levels and notions of significance but utility and value are integral to the idea.

• Being curious with an enquiring disposition – willing to explore, experiment and take risks i.e. the attitude and motivation to engage in exploration and the ability to search purposefully in appropriate ways in order to find and discover. It is necessary to work in an uncertain world and often requires people to move from the known to the unknown.

• Being able to combine, connect, synthesize complex and incomplete data/situations/ideas/ contexts in order to see the world freshly/differently to understand it better.

• Being able to think critically and analytically in order to distinguish useful ideas from those that are not so useful and make good decisions.

Creation and creativity in higher education

That creativity is important to our well-being. The world needs people who can combine their knowledge, skills and capabilities in creative and adventurous ways to find and solve complex problems. Creativity is important to our inventiveness, adaptability and productivity as an individual, and to the prosperity and functioning of our organizations and more generally to the health and prosperity of our society and economy.

We don't need creativity for routine, predictable, situations. It becomes necessary and important when we want to move beyond the known or when we are confronted with complex, indeterminate problems or situations. We need to see creativity in the context of other abilities and capacities that are developed for working with new, complex and challenging problems and situations. Sternberg and Lubart (1995) argue that we need three different sorts of abilities to be successful: analytical abilities – to analyze, evaluate, judge, compare and contrast; practical abilities – to apply, utilize, implement and activate; and creative abilities – to imagine, explore, synthesize, connect, discover, invent and adapt. To this I would add the abilities that seek to encourage and develop – to plan, analyze problems and tasks, set goals and devise strategies to achieve them, and reflective abilities to help make sense of the world and learn through the experience of engaging with it. Successful people (people who generally achieve what they set out to do) do not necessarily have strengths in all areas, but they find ways to exploit whatever pattern of abilities they may have in any given situation or context. Perhaps an individual's creativity is at the heart of their ability to combine their thinking, abilities and behaviors in ways that enable them to be successful in particularly challenging situations.

Learning does not sit in isolation from context – like a subject, a problem, an opportunity, a challenge or a test! Neither is it isolated from motivation – need, desire, interest or compulsion, gathers meaning when it is enacted within a particular context which includes the motivational forces. Context also stimulates the need for creativity and shapes the form that creativity takes. Personal choice is also important; we can choose to be or chose not to be creative.

In higher education the subject is often the most important context. The creative acts of a biologist are different to those of a historian or an engineer and the sorts of problems encountered in these different fields require different sorts of creative response. In higher education conceptions of creativity are shaped by the forms of thinking, doing and being in the discipline. Only an engineer, who has developed the specialist knowledge and ability to 'imagine' as an engineer, can utilize their imaginations in the creative solution of difficult engineering problems i.e. for the engineer creativity is socially constructed within the engineering domain.

The problem with higher education, it is argued, is that it pays far too little attention to students' creative development. Creativity as an outcome of higher education is more by accident then design. But the problem is not chronic, in the sense that most faculties would recognize that something is wrong and needs fixing. Indeed the problem is not that creativity is absent but that it is omnipresent and subsumed within the analytical and critical ways of thinking that dominate the academic intellectual territory.

There are many potential sites for creativity embedded in the professional act of teaching. Creativity emerges spontaneously through the relationships and interactions of teachers with their students in highly specific and challenging situations. Lesley Saunders' provides a helpful synthesis of how creativity features in the role of the scholarly educator (Saunders 2004 p163).

Teaching is a highly complex activity – it needs both 'the appliance of science' and the exercise of humanistic imagination; it demands scholarship, rigorous critical enquiry, the collective creation of secure educational knowledge, on the one hand, and it requires insight, inspiration, improvisation, moral sensibility and a feel for beauty, on the other, Similarly, we are often encouraged to think about research mainly in terms of systematic and reliable ways of gathering and analyzing empirical data. However, research is also much more than empirical data gathering: it includes theory-building, hypothesis-testing, critical analysis and appraisal, evaluation, and the synthesis of concepts and evidence from a range of different disciplines – all of which are crucial for informing practice at deeper levels – research in this sense also happens to be rooted in imagination, intuition and aesthetic awareness, as well as cognition and disquisition Covey (2004: 4).

Every educator can change the way he/she thinks and acts, every group of teachers responsible for creating students' educational experiences can choose or not choose to provide experiences that will help students' develop their creative potential, and every institutional decision maker can shape policy, strategy or management practices so that creativity will flourish or be inhibited. So I am making an assumption that by drawing attention to this matter and facilitating conversation and debate about the role of creativity in higher education and the fields of endeavor it embraces, we have the potential to change the way people think and behave and encourage a culture that is more valuing of creativity and more knowledgeable of its effects in and beyond higher education learning.

The problem of creativity in higher education

McWilliam and Haukka (2008) argue that creativity has become economically valuable, team or community or organization based, observable and learnable'. They see the challenge which creativity poses to 'orthodox teaching and learning' as difficult for educators to ignore. Business and government understand the benefits of creativity to the economy and society as a whole but creativity may release questioning and potential destabilizing energies. HE management also widely supports the idea of creativity in teaching and learning but when educationalists try to introduce it into the curriculum inherent conflicts emerge.

Clouder, Oliver and Tait (2008) note that the performance oriented culture in HE can be at odds with a creativity infused environment. Dweck's (1999, p15) found that learners' performance goals focused on 'winning positive judgment of your competence' while their learning goals showed a will to develop 'new skills, master new tasks or understand new things'. As McWilliam and Haukka point out, the best processes to help people learn often have elements of risk and confusion. This potentially more transformative approach to learning is what Jarvis (1992) sees as actively engaging in the creation of knowledge which may as Martin (2002) says may be uncomfortable for the learner and the teacher alike.

The drive to introduce creativity in teaching and learning into HE can therefore is seen to be conflicted with its growing performance culture. In a workshop at learning and teaching conference last year I asked the 40 HE and FE tutors present what were their barriers to creativity? Answers included 'innate conservatism', 'cultural restraint', 'efficiency', and 'the education system'. I replied to the latter, 'what all of it?' and the room rang with 'YES'.

Given these barriers, to what extent is it possible to encourage and support staff and students in HE to develop their creativity? A Creativity Centre was established in the University of Brighton to address this question and explore the issues.

Higher education occupies a privileged position in providing educational opportunities that engage people in complex learning and problem working – ideal conditions for the development of creative human potential. Yet all too often we squander the opportunity to help student's develop their creative talents, preferring conformance and compliance to more radical and less predictive responses and penalizing mistakes rather than seeing 'mistakes' as important lessons for learning. Our message to higher education leaders and managers is to seize the opportunity for leading higher education into the sort of world we are imagining.

There is a saying that if you can define the problem you are well on the way to solving it. Problems are things or states that someone thinks are worthy of attention or investigation. They might be visualized from two very different perspectives. The first sees a problem as an issue that needs to be resolved or rectified, the second that there is an opportunity for something different/better. The problem called 'creativity in higher education' contains both of these perspectives but the most useful way of visualizing the 'problem' is to see it as a challenge and an opportunity to change the world of higher education in a way that will make a positive difference to students' lives.

Finding a problem requires someone to be looking for it – people who will own and care enough about the problem to do something about it. One

of the aims of building a community or network of interest is to draw together people who are willing to own and care about the problem. In our network building activities through the Imaginative Curriculum project we have encountered many individuals – teachers, staff and educational developers, managers, educational consultants/ advisers, and researchers) who care enough about a problem called 'creativity in higher education', to commit their time, energy and minds to trying to understand and work with it.

Our problem is not that creativity is absent but that it is omnipresent. That it is taken for granted and subsumed within analytic ways of thinking that dominate the academic intellectual territory. Paradoxically, the core enterprise of research – the production of new knowledge – is generally seen as an objective systematic activity rather than a creative activity that combines, in imaginative ways, objective and more intuitive forms of thinking. The most important argument for higher education to take creativity in students' learning more seriously is that creativity lies at the heart of learning and performing in any subject-based context and the highest levels of both are often the most creative acts of all. Our problem then becomes one of co-creating this understanding within different disciplinary academic communities.

The teachers whose motivation derives primarily from their passion for the subject, creativity only has meaning when it is directly associated with the practices and forms of intellectual engagement in their discipline. Many teachers find it hard to translate the generic language and processes of creativity into their subject-specific contexts. Conversely, many higher education teachers have limited knowledge of creative approaches to teaching even within their discipline. Most higher education teachers are unfamiliar with the body of research into creativity and how creative thinking techniques can be used to facilitate problem working. So the problem becomes one of growing awareness and understanding of the meanings of creativity in the discipline and of persuading teachers that teaching for creativity is no more or less than good teaching to achieve particular outcomes in disciplinary learning.

Many higher education teachers recognize the intrinsic moral value of promoting students' creativity, they baulk at what they perceive as the additional work necessary to successfully implement more creative approaches. Furthermore, any conversation about creativity raises many organizational barriers and factors that inhibit or stifle attempts to nurture creativity. Paradoxically, for some teachers these barriers are themselves catalysts for creativity.

But, while the problem is widely recognized, each system will need to invent its own solutions in ways that are consistent with the society and

cultures within which it is embedded. The key challenge facing all HE systems is to change the prevailing culture so that greater value is placed on students' creative development alongside more traditional forms of academic development.

Discussion of the results

Analysis data of the first hypothesis

There is a significant difference between student's performance before and after using the meditation and reflection.

Table 1 Statistics Test:

Variable	Sample Size	ArithmeticMean	Standard
ExperimentalBefore	30	4.67	1.29
ExperimentalAfter	30	8.73	1.13

Table 2 T. Test for two samples:

Variable	T. Test Value	Degree of Freedom	Potential Value
Before – After	32.212-	29	0.00

Since the potential value = (0.000) is less than (0.05), it means there is significant differences between the students grades before and after the exam. This suggests a significant difference between student's performance before and after according training program.

Through the above tables (1-2) are there is a significant differences between the performance of the experimental group before and after the implementation of the program through the potential value, which amounted to (0.000) which is less than the level of error allowed (0.05%) for the benefit after applying the program through the arithmetic mean value, which is amounted to (8.73) that is greater than the arithmetic mean value before implementing the program, amounting to (1.82).

Since P. Value = 0.000)) is less than (0.05%), this means that there is a significant difference between student's performance before and after the using (meditation and reflection).

Through the results, the researchers noted that the performance of students as a whole before the implementation of the program were not able to apply (generating ideas), besides other problems emerged during the pre-test.

Analysis data of the second hypothesis

There are significant differences between the experimental group and control group before and after the test which confirms that the using meditation and reflection in the universe leads to enhance of creation and creativity for higher education students.

Table 3 Statistics Test:

Variable	Sample Size	ArithmeticMean	Standard
ExperimentalBefore	30	4.67	1.40
ExperimentalAfter	30	9.73	0.80

Table 4 T. Test for two samples:

Variable	T. Test Value	Degree of Freedom	Potential Value
Before – After	26.580	29	0.00

Since the potential value = (0.000) is less than (0.05), it means there is significant differences between the students grades before and after the exam according of the training program.

Through the above tables (3-4) are there is a significant differences between the performance of the experimental group before and after the implementation of the program through the potential value, which amounted to (0.000) which is less than the level of error allowed (0.05%) for the benefit after applying the program through the arithmetic mean value, which is amounted to (9.73) that is greater than the arithmetic mean value before implementing the program, amounting to (4.67).

Since P. Value = 0.000)) is less than (0.05%), this means that there are significant differences between the experimental group and control group before and after the test which confirms that the using of meditation and reflection in the universe leads to enhance of creation and creativity for higher education students.

Results

1. There is a significant difference between student's performance before and after using the meditation and reflection.
2. There are significant differences between the experimental group and control group before and after the test which confirms that the using meditation and reflection in the universe leads to enhance of creation and creativity for higher education students.

Recommendations

In the light of results obtained the researchers recommends the following:

1. The students should be encouraged to arts education as an integral part of national development policies and devote substantial financial resources thereto.
2. Set up arts education departments in higher education institutions.

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