THE RELATIONSHIP BETWEEN LEARNING AND CREATIVITY

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Abstract: This article is about the relationship between learning and creativity.

Key words: creativity, learning, research, soft skills, effective learner.

In this lighting-paced information age, everyone has grown their interest in the concepts of learning and creativity, each of which representing rich lines of research. This can be observed in several e-books, paper books, and journal articles published in this domain, which are helpful for people to grow both academically and professionally. In this article, the links between learning and creativity are discussed in a broad sense. Taking into account the fact that learning and creativity are notions with a plethora of definitions and surfaces are too broad to be embraced in a single article, it will be limited to the relationship between learning and creativity, starting by looking at definitions of each of them.

Learning and creativity represent two rich lines of research: the first one is about how people learn, the other one is about newness and usefulness. If we look at the definitions of **learning** by different scholars, they define it in various ways. According to Schunk (2012), "Learning is an enduring change in behavior, or in the capacity to behave in a given fashion, which results from practice or other forms of experience." As for Tony and Marcia (2010), they note learning as transformative process that can change us". Susan (2010) also agrees that it is a positive performance leading to change. Regarding Ruth and Richard (2011), "learning is adding new information, mentally reorganizing it, and connecting it with what we already know".

The way people learn something has been the subject of many research studies, and continues to be researched. There is a clear distinction between the way the children learn as opposed to the adults. In pedagogy, which is methods of teaching children, learners are dependent, have less experience to share, teacher directed and curriculum oriented, whereas in andragogy, methods of teaching adults, learners are independent, experienced, thus, fell free to discuss, share their ideas and the content has to be modified according to their needs, adult learners similar to children need teachers, not to teach them what the teacher wants, but to guide them and the learning process here is goal-oriented.

A famous Michelangelo uttered "Ancora Imparo" at the age of 87, which meant "I am still learning." Uzbek people also have a similar saying "Beshikdan qabrgacha ilm izla" which can be translated as "Seek for the knowledge from the cradle to the grave" meaning humanity should never stop learning. Hence, there is always something new for us to learn each successive day.

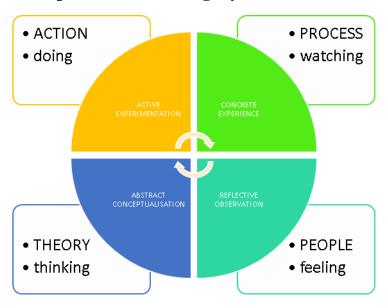
At this 21st century where we need both **hard** (knowledge) and **soft** (creativity, problem-solving and etc.) skills we should take time to focus on our learning to ensure that we continually update and refine our skills and knowledge base in order to bring the benefits of research and best practice to the communities we serve. So what is the connection between **learning and creativity**? An effective learner should have some sense of creativity, know some problem-solving methods, is eager to learn new things. In the Financial Times article (2016) it is quoted that "A growth mindset-in which everyone must be open to learn from everything and from each other". Achieving this requires soft skills that are needed to thrive in the 21st century enabling us to coach, facilitate. In short, "Teaching people how to fish." As for the hard skills, which is our knowledge, target specialty enables us to advise, tell, direct. This, basically means "Catching fish for people."

As Susan (2016) claimed, "The illiterate in the twenty first century will not be those who cannot read or write. It will be those who cannot learn, unlearn and relearn." Thus, by instructing people how to learn, unlearn and relearn, a powerful new dimension can be added to education. All we need to do in order to succeed is to change the way we look at things by shifting our minds. There are seven characteristics that good learners possess.

- 1. They are curious they like to explore new things where creativity comes from;
- 2. They persist they read more, study more, and carry around what they don't understand; thinking about it all the time
- 3. They recognize that a lot of learning isn't fun;
- 4. Failure frightens them, but they know it's beneficial;
- 5. They make knowledge their own this is about making the new knowledge fit with what the learner already knows;
- 6. They never run out of questions;
- 7. They share what they've learned (Wilkins, 2019)

Most consider learning from either a trait-based approach or as various information-processing strategies. Kolb's Experiential Learning Theory has four stages which follow each other in a cycle, as in the following diagram. the learner might start the cycle at any point and follow the stages in sequence.

Figure 1. Kolb's Experiential Learning Cycle



A trainee teacher might start learning how to teach English Grammar to students by taking part in supervised practice with a group of students, which would give experience of (a simulation of) what it is like (concrete experience). The supervisor might then ask: "How did that feel? What might you have done differently?" to encourage the trainee teacher to be reflective about the experience (reflective observation). That night the trainee teacher could look up, in a textbook, how to teach grammar and read about the reasons for doing it in particular ways (abstract conceptualization). Next day, confronted with real students to teach, the teacher trainee would think: "As a result of what happened yesterday, and because of what I read last night I ought to do it like this" (experimentation). This would provide a new experience and start the teacher trainee a learning cycle.

As a teacher of English one might start from reading about different teaching approaches and methods (abstract conceptualization), followed by an active experimentation stage, applying learned techniques in the lessons. The next stage would be concrete experience, where they watch or observe other Senior teachers' classes and analyze what to take from that particular session, which is a reflective observation stage.

So what is the best way of learning? For most teachers, it is by teaching someone, as research shows that if someone teach something to people, they will read more, study more to deliver the lesson. Hence, they will learn it effectively. Organizing teach-back sessions by giving topics on a specific subject to the students in order for them to teach the topic would greatly help them learn it deeply. Of course, other ways of learning can work for others better, however, learning through teaching, has probably been the best way of learning for everyone.

It actually takes **Creativity** to learn and lead. Everyone can be creative, however, children are far more creative than adults in terms of exploring new things everyday by asking different questions. As for adults, they use more knowledge and exploit the known things. There are some definitions of creativity given by different people:

According to Barbara Palmer (2018), creativity is one of the soft skills that are needed for future jobs by 2025, along with complex problem-solving and critical thinking. In the formula of Creativity, **C=f a (K, I, E)** "Creativity (C) is a function of Attitude (a) applied to Knowledge (K), Imagination (I), and Evaluation (E)." Dr. Ruth Noller noted that knowledge is obtained by our five senses, imagination comes from what we do with that knowledge, and evaluation is choosing the most effective solution. According to Ackoff and Vergara (1988) creativity is the ability to modify self-improved constraints, where they suggest an openness to novelty by exploring new ways of thinking and feeling, actively feeling new experiences. In order to influence the changing world around us and acquire what we need, we have to solve problems or create opportunities and to do these we have to think.

Thinking is the way by which we solve problems and create opportunities and it is the same brain function that produces creativity, change and innovation. All are closely linked to the way we think. All involve the elements of newness and usefulness at least to the creator. All involve moving (or trying to move) from a current state to a desired state.

In her book, Boden (2004) looks through definitions of creativity from psychological and philosophical views and concludes that Creativity is the ability to come up with ideas or artefacts that are new, surprising, and valuable.

There are some factors that describe Creativity:

- **Newness/originality** –making something new and practicable.
- "Aha" moment- also known as 'Eureka' moment. Some ideas are worked out until it is finally put into work.
- **Astonishment** evokes pleasant feelings and admiration.
- **Curiosity and play-** helping to think outside the box.
- **Inspiration** being inspired by watching others and making discoveries.
- **Making relevant connections** using the ideas and making them relevant to the proposed topic.
- **Flow** being busy or losing ourselves in any activity we do that results in the creative outcomes.
- **Benign structures or constraints** when we work with limited resources and rules the creative solutions evolve.

How about teaching Creativity? Independent learners can learn it by reading selfhelp books and apply it into their life situations changing their lifestyle. When it comes to teachers, they can demonstrate their commitment to creativity, and offer their students various creative practices in order for them to learn it.

In conclusion, Learning and Creativity involve envisioning and constructing novel ideas, goods, or actions whose value is undetermined at the time of foundation and whose acceptance depends on a collective judgment and gradual training. They involve the changing of hearts and minds as communities gradually accept new ideas, goods, or actions they had not previously considered applicable or valuable. They need one another to foster and grow.

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