Teachers for the Knowledge Society

Origami art as a means of facilitating learning

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Abstract

This paper briefs on the role of origami art as an optional course. Herein, the paper is based on my experience of teaching origami as an extracurricular activity to students in the lower and upper secondary. It enlarges on the ramifications of origami in the teaching-learning process, based on workshops organized in some of the schools where I have taught.

The research aims at revealing the impact that this art can have within the educational process at two levels: behaviour (significant improvement in the teacher-student relation) and learning (origami really helps children to develop *sense and sensibility*).

Keywords: Origami; Education; Art; Learning partnership; Communication process; Teaching, Logic; Esthetic.

1. Introduction

The idea of making this research first emerged when I discovered origami and saw the changes that this form of art effected on myself, both in my behavior, and in my style of learning. My teaching experience has taught me that some of the most important issues in the educational system are the relation between students and teachers; motivation and the methodology of teaching/learning. As such, an innovative way of dealing with these issues was required and after realizing my students' interest towards origami I decided that it might be favorable towards making some changes.

Origami is an art the ramifications of which are practically unexplored in the Romanian educational system, as compared to other countries. In fact, so new and innovative is this technique that, in the beginning when I first started experimenting it at school, students as well as teachers were absolutely astonished by seeing what could be achieved from something as simple as a piece of paper. This is significant firstly because origami can function as a stimulus for students – it represents something new that is attractive and challenging. Secondly, it can improve the student-teacher communication if seen as an extracurricular activity where the atmosphere is far less formal than during a regular class. Its game-like quality conceals uses that are more important – origami facilitates the learning process by helping students to develop logic, artistic and esthetic sensibility, as well as patience, perseverance and mental discipline.

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Bearing in mind these aspects, I have decided to research the impact of origami on some of the students in the schools where I have taught. My aim was to change my students' attitude towards the English classes by improving our relationship as well as educating the student-teacher communication in a more informal environment.

2. Teaching origami: an innovative approach to improving communication and learning

As curious as it may seem, origami is more than a form of art. On his internet site, Robert Lang, a well-known origami master, states that origami is actually an interesting blend of art and science. Because so much logic is involved in deciphering a diagram and so much mathematical principles are comprised in the creation and folding of a model, origami clearly has the characteristics of science. Taking into consideration that Lang has created a computer program called *Treemaker*, which is able to transform any model into a CP (crease pattern – the multitude of creases required to fold a certain model printed on a sheet of paper) it only stands to prove that origami is governed by mathematical principles. Moreover, the assembly of certain models requires sticking to a certain geometrical pattern. This ensures that every folder must make use of logical principles if s/he is to succeed in finishing his work of art.

However, on the same internet site, Lang acknowledges that *origami, like music, permits both composition and performance as expressions of the art*. He also notes that origami is a unique sculptural art and that each model must be folded individually, thus acquiring uniqueness. Taking into consideration the issue of shaping and adding final touches to a model, as well as choosing the paper or combination of colors, we can safely admit that origami helps develop artistic and esthetic sense. Last but not least, there are the cultural elements and historical background surrounding this art. Any learner that assimilates this art comes to admit that it stands for discipline, order, patience, perseverance, calm and reflection, and that these values are part of the art and the technique of paper folding.

The idea of teaching origami first came to me at a point when I had no information whatsoever about what teaching origami really implied. However, I was certain that an origami course could effect great changes in my school if it proved to be successful. This latter experience could shape the bases of a 'learning partnership' between teacher and students, in which both parties could benefit from its outcome. Therefore, the learning acquisitions could reflect a reciprocal transfer: student learning from teacher and teacher learning from student and thus reshaping the teaching methodology.

My studying the impact of origami on secondary and high school students started some two years ago and has comprised three target groups so far, the third of which reaches the present time. It began at a time when at school I encountered problems like the lack of interest and motivation, poor communication in class, both between myself and my pupils, but also among pupils, as well as verbal and even physical violence. It is hard to succeed in teaching children anything if they regard the teacher as a potential unwanted entity to which they go so far as to manifest hostility. As such, the formal atmosphere to which they were used during the classes had to give way to a more pleasant atmosphere.

One of the first problems that I came across was the lack of faith in one's capability of replicating such "complex and difficult" works of art. As I was teaching in the rural area, many people regarded this activity as rather incompatible with the social background that the children came from. Teaching a Japanese art in a rural area school was mostly viewed as pointless, not to mention that no one really believed that these children could do it. Being conscious of the fact that motivating the students was essential in a process that required discipline and patience, my first objective was to stir their interest, and with origami, this is generally achieved simply by showing them a few creations. The unusual shapes, as well as attractive, even spectacular looks, draw anyone's attention. Once they are convinced at least to try, the rest comes by itself. My secondary objective was to have the students help each other during the workshop and to practice folding the models at home by themselves (consolidation). Thirdly, I was interested in convincing them to evolve by self-discovery (finding and learning other models by themselves), and presenting their new acquisitions to the others during the workshops. This last objective was to ensure their independence by helping them evolve without my assistance.

My first target group consisted of my own students, aged 12 to 15, mostly girls, which I knew quite well as I was their English teacher. The second group consisted of children aged 11-13 from another school, where I had not taught but where one of my former colleagues, had introduced me. The third target group is still under formation, as it comprises the students in the school where I presently teach. In this case, I have succeeded in mixing secondary