

Learning the C2C principles by playing

On May 15th 2013, the activities from the first day of the international partnership of a pilot course meant to introduce the concept of “Cradle-to-Cradle” were conducted at “Mihai Viteazul” Technical College.

The training course for the students also included a case study on the topic *Learning the C2c principles by playing* using the interactive teaching method of the *six thinking hats* coordinated by Marinela Filip.

The purpose of this case study was to motivate students to develop their creativity and apply the principles Cradle-to-Cradle: "Nothing is thrown, everything is reintroduced and used in the **biological circuit** (consumer products) or the **technological circuit** (service products)" - to create and to produce in such a way that there is no loss (waste) and also to discover and understand the benefits of the practical application of this concept:

- it help producers to add value to their work environment;
- it raises awareness regarding the fact that the raw materials are finite;
- it helps involving people in a sustainable economy;
- it helps reduce costs through intelligent design ideas (the products are easily decomposable into renewable materials or they may enter another technological or biological cycle);
- it helps recycle materials by offering new business opportunities;
- it encourages the use of renewable energy (which reduces costs).

In order to achieve this, students are explained the **6 Thinking Hats method** and then they are encouraged to use the method so as to discover how they can achieve a C2C product having as a starting point a cotton T-shirt and a plastic toy.

The 6 Thinking Hats method is a teaching method, but it is also a game in itself. Students are divided into six groups - the six hats. There may also be groups up to six students.

The materials used are six “thinking” hats, each having a different colour: white, red, yellow, green, blue and black. Each colour represents a role. Of course, the roles can be reversed, the participants are free to say what they think, but to be consistent with the role they play.

The white hat is objective regarding the information and also neutral. The red hat gives way to imagination and feelings, it is impulsive and it represents a wide range of moods. The black hat expresses caution, care, warning, judgment, it provides a dark, sad, bleak perspective on the situation in question, it represents the perspective of negative and pessimistic thinking. The yellow hat gives a positive and constructive perspective on the situation, it represents optimistic and constructive thinking, based on logic. The green hat express new ideas, stimulating creative thinking, it is the symbol of fertility and production of new, innovative ideas. The blue hat expresses the control of the thinking process, it represents “cold” thinking, it is the colour of the sky that is above all, all-seeing and all-knowing, it supervises and manages the good evolution of the activity, it represents the concern to control and organize.

The participants have to be familiar with the meaning of each colour and to represent each hat by thinking from its perspective. It is not the hat itself that matters, but what it signifies and what each colour brings to the activity. The 6 thinking hats can be seen as pairs: white hat - red hat, black hat - yellow hat, green hat - blue hat.

Group 1: a t-shirt

White hat: how can we make it C2C?

Yellow hat: we can surely make it C2C, if it does not endanger the health of consumers, if we prevent it from becoming waste and reintroduce it in the biological circuit.

Black Hat: pessimistic: it will not be that easy because: higher production costs = more expensive product, consumer reluctance because it is not a well-known brand, it requires company upgrading and personnel retraining.

Red Hat: sentimental: reluctance to final product characteristics: colour, trend, price, own approach, singularised and individualised attitude.

Green Hat: creativity, innovative ideas: let's use a biodegradable material that can become compost

Blue hat: draws conclusions and makes a summary based on an overview of the activity.

Group 2: A toy

White hat: how can we make it C2C?

Yellow hat: we can surely make it C2C if it is easy to disassemble and if the components are materials that can be easily reintroduced in the circuit or if it can be kept in the circuit, and it does not pollute the environment, water can be reused.

Black Hat: pessimistic: it will not be that easy: what do we do when it is not sunny? it will not be fast enough, how do we store energy?

Red Hat: sentimental: reluctance to final product characteristics: trend, price, safety, noise pollution reduction.

Green Hat: creativity, innovative ideas: we can use the electricity produced by solar panels, we can reuse the rubber and the plastic and metal parts.

Blue hat: draws conclusions and makes a summary based on an overview of the activity.