

Annales Universitatis Paedagogicae Cracoviensis

Studia ad Didacticam Biologiae Pertinentia IV (2014)

Magdalena Semla, Marta Batoryna, Katarzyna Potyrała

Forms of Knowledge Popularization at Universities

Along with industrial and post-industrial changes in Europe, the discussion about different forms of learning began. It became clear that educated citizens contribute more to the development of the country (CEDEFOP, 2003). This is how completely new forms of learning were initiated: self-regulated learning, which allows us to manage the learning system on our own, context learning – learning from the context and experience, lifelong learning – learning our entire life, incidental learning and non-formal learning (Bois-Reymond 2008). Creating a society based on knowledge is mostly done through the popularization of learning, learning management and its diffusion. The most crucial element is collecting data, presenting them in the right order and working out the way to present data in a more approachable way (Malczyk 2011).

The popularization of knowledge aims at bringing back the communications and building a creative, mutual dialogue. It also tries to build a bridge between the process of learning and society, and raise social awareness and as a consequence, also responsibility for their lives (Potyrała and Walosik 2011). Propagating knowledge is based on creating the right attitude towards nature and environment. It also relies on constantly adjusting the science data materials to the recipients. By joining the process learning with a social and economic life, we create a great room for action and development. The interest in the particular field of knowledge raises the hunger for information, which can be satisfied through reading, learning, experimenting or a simple conversation (Malczyk 2011).

During their studies, students gain knowledge, various skills, formulate certain attitudes required on the future job market. A human being is only able to control his life if certain useful problem-solving skills are developed early (Domagała-Kręciach and Majerek 2014). Student's organizations, such as different study groups, or taking part in events like "science festivals", "open doors" or "science night" gives students a chance to become "a building Man" – according to Borkowska's theory, which means acquiring moral, cognitive and emotional resources. The core of its existence consists of personal values such as health, freedom, responsibility, courage

and dignity and relations like: friendship, love, a need to bring help, an ability to forgive, kindness and tolerance. Due to these values a man constantly 'becomes' – in the sense that he experiences reality, evaluates it, which makes his existence multidimensional (Domagała-Kręcioch, Majerek 2014).

Student learning groups are the form of informal education, performing merely a propagating function. They associate students interested in the particular field of knowledge. The group becomes an alternative provider of educational elements. The participants have a chance to extend their knowledge and their practical skills, creating social behaviour and learning creative thinking. For many students, participation in such a group is the only chance to develop talents and gain self-discovery. It also gives them a chance for “peer-learning” – which means learning from their colleagues. This gives them an opportunity to reconcile two forms of learning. However, the most important factor in the learning group is self-motivation, essential for self-development in the society based on knowledge. The main purpose of the group is to raise interest in science, research and self-development, popularized in student's environment. The members of the learning group organize conferences, trainings, symposia, seminars or workshops. These meetings are very often the only chance for young people to get a job or internship. Moreover, members have an opportunity to participate in science projects or to publish articles about their research. They take part in science events, festivals or other activities organized during science camps. In those cases, youths learn also through incidental learning, which enables them to assimilate culturally and socially.

Another interesting form of popularizing knowledge are Science Festivals (Figure 1). They become more and more popular and are usually conducted in different, interesting ways. They can consist of experiments, lectures, shows, workshops or trips. They also extend to different fields of science. They have a strong regional background, as they are often organized by local authorities. Festivals are organized in order to gain new knowledge and to share it with others. People responsible for organizing them often focus on encouraging the audience to participate in different contests and performances. This way the participants have an opportunity to experience the mysterious world of science by themselves. The variety of themes and forms makes such festivals popular among younger and older generations. Festivals, apart from propagating knowledge, perform a social function. They are the place of integration of students and their teachers. Various tasks and activities during festivals are very often a challenge also for scientists. During their lecture they learn to use a different language, more comprehensive and more approachable for their listeners. So not only do they have to convey the meaning to the audience that is not particularly familiar with the terms and definitions but also do it in an interesting way in order to raise the students' curiosity and inspire them to develop their own thoughts and research (Rosner 2003). Festivals are also a good way of getting to know the scientific institutions, which are often perceived as hard to approach and comprehend. The participants of those festivals often

get familiar with the specificity of a particular area of science, they can perform experiments in the laboratory, use a specialized equipment and meet their teachers and scientist in person.

The “Day Open” events are a form of promoting universities. Participants have a chance to find out something about the departments, faculties and specialties offered by the school. These actions are mostly focused on popularization of knowledge among school students (Figure 2). Young people who take part in such events usually look for inspiration and try to find some new idea for life. Very often their previous dreams or expectations are verified because they realize that a particular job was not meant for them. The propagating role of the “Day Open” should be based on the authentic presentation of a particular university, its potential and possibilities, as well as its department and faculties. It should also give a chance to meet the scientist and absorb the unique atmosphere among students and teachers. The young participants can feel like students, take part in lectures, workshops and experiments. “Day Open” events are very often the only chance for a young person to get familiar with a future student life.

Another form of popularizing knowledge at universities are science camps. The participants are usually people interested in different areas of science. The camps give them an opportunity for getting new experience and knowledge as well as expanding the already existing one. The chance of meeting people from a different area of interests often leads to some further cooperation afterwards. Meetings at such camps frequently result in various projects, publications and research. A great example seems to be the camps organized for the students of nature and environment. Students are given a chance to widen their knowledge when it comes to biology of animals and plants, getting familiar with their morphology and anatomy as well as some practical training during the experiments. Very often those practical training and work outside the lab proves to be more beneficial than standard lectures and studies. They also lead to various projects such as the student science group “Blackbird” at the University of Gdańsk, which organized an ornithological camp in Kwieciew (April – May 2008). Another example can be the members of Krakow University of Technology, building department that, along with the administration of the Kenozierskiy National Park, organize various science camps located in the park, which focus on stalk taking of village farms, chapels and churches. All those examples prove the importance of science camps and indicate their role in propagating knowledge and learning.

Students engaged in the popularization of knowledge ought to be supervised by academic teachers, who are supposed to serve as role models for young learners. A good teacher is constantly trying to improve his qualification in different scientific fields, because only in this way is he able to raise student’s interest and show them his competence. Moreover, while performing his duties he should pay attention to universal timeless values. A teacher should pay attention to stimulate the listeners’ intellect and not only deliver simple facts (Kiełb-Starczewska 2012). His role is to

convey new messages as well as extend the already existing ones, create new skills and develop hidden talents of his listeners. Such teacher also needs to engage his students in propagating knowledge and learning. In this way they become more involved and learn how to make their own decisions and not just imitate the already given formulas. With time they will also develop a sense of team work and the ability to conduct their own lectures one day.



Figure 1. The XIII edition of the Science Festival in Krakow



Figure 2. Day Open at Pedagogical University of Cracow, 2013

Duraj-Nowakowa (1999) claims that through contact and interaction with at least one great teacher in their life, a student usually gets strongly influenced by his knowledge and experience and treats him as a model to follow and in some way imitate. A mastery of a great teacher can be especially observed during his interactions with students, where he can show his didactic skills, cultivate important values, both moral and ethical, and what's most important, convey their genuine meaning to students who will comprehend, accept and respect them (Denek, 2011).

References

- Bois-Reymond M., 2008, *Studium związków pomiędzy edukacją formalną i nieformalną. Doświadczając uczenia – materiały pokonferencyjne*, Warszawa, 25–28.
- CEDEFOP, 2003, *Lifelong learning: citizens' view (Uczenie się przez całe życie: z punktu widzenia obywateli)*, Biuro Urzędowych Publikacji Wspólnot Europejskich, Luksemburg, 13–14.
- Denek K., 2011, *Uniwersytet w perspektywie społeczeństwa wiedzy. Nauka i edukacja w uniwersytecie XXI wieku*, Poznań.
- Domagała-Kręciach A., Majerek B., 2014, *What does (not) the school teach – adult students' reflections*. E-mentor, 1 (53).
- Duraj-Nowakowa K., 1999, *Nauczyciele akademicy w procesie kształcenia pedagogów*, Kraków–Łowicz.
- Kiełb-Starczewska E., 2012, *Nauczyciel akademicki wobec zadań naukowych i dydaktycznych a udział mass mediów w jego pracy wychowawczej z młodzieżą studencką*, [in:] W. Skrzydlewski i S. Dylak (eds.), *Media – edukacja – kultura. W stronę edukacji medialnej*, PTTIME, Poznań–Rzeszów.
- Malczyk T., 2011, *Festiwal nauki jako instrument dyfuzji wiedzy i popularyzacji nauki*, E-mentor, 1 (38).
- Potyrała K., Walosik A., 2011, *Edukacja przyrodnicza wobec wyzwań współczesności*, Wydawnictwo Kubajak, Krzeszowice.
- Rosner A., 2003, *Festiwal nauki na Wydziale Prawa i Administracji UW. Pięć lat doświadczeń w popularyzacji nauki*, *Studia Iuridica*, 42, 253–257.

Forms of Knowledge Popularization at Universities

Abstract

The popularization of knowledge is a process aiming at propagating and disseminating learning in an approachable, interesting and intriguing way. The main role of popularization is first of all to make a person interested of a particular brand of science and formulate an appropriate attitude towards nature and environment. The key part in this process is played by universities. Both scientists and students engaged in the promotion of learning are the important factor in propagating knowledge. There are many ways of disseminating science, such as science festivals, the Day Open at Universities or student camps. The main purpose of those events is the popularization of both learning and the profession of scientist as such. The participants have a chance to become familiar with some new, interesting facts as well

as to cultivate the already existing ones. In this way they have a chance to feel like scientists themselves.

Keywords: popularization, university, knowledge, science

Magdalena Semla, PhD student

Pedagogical University of Cracow
magdalena.semla@o2.pl

Marta Batoryna, PhD student

Pedagogical University of Cracow

dr hab. Katarzyna Potyrała, prof. UP

Pedagogical University of Cracow
e-mail: potyrala2@wp.pl