

IS ENGAGEMENT WITH A PURPOSE THE ESSENCE OF ACTIVE LEARNING?

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Abstract

In the 2009 edition of the conference on “Active Learning in Engineering Education”, there were several and fruitful discussions within a small workgroup about the essence of active learning. At the end we came with an attempt to sum up our whole discussion with one question. Our question is the same as the title of this essay. Taking this question as a starting point this article propose a specific purpose from which active learning can be based.

Workshop Topics

Autonomous learning; Beyond active learning.

I KNOWLEDGE IS A PERSONAL WORK

The basic premise of active learning is that all true learning is self learning. The revelation and appropriation of new knowledge is something that only happens inside an individual for his own interest and determination. In the words of S. Smith Ground-Water knowledge requires “a positive act of construction in which the 'knower' tests the information against the standards of his own experience”[3]. It is

the interest and the learner's own decisions the basic principle of active learning. Coinciding with Nietzsche, when referring to who should receive knowledge: “only be given food to the hungry of it”[7].

The original interest must be raised and set up in some way for the person that wants to go down the path of knowledge. The work of the educator is primarily to establish a proper environment for the internal activity required in the learning process. A good example is the library: the order, silence, the provision of books, and generally the whole atmosphere breathes therein promote the concentration for reading. The educator have a similar role to the librarian: to create and maintain conditions for intellectual work by restricting the interference of distorting factors, by promoting a place for encounter with the primary sources, by promoting a careful, systematic and rigorous reflection, and by developing a rational question about the nature of truth.

However, any effort to promote active learning would be shaky if from the beginning it has not been raised a fundamental question about the nature, meaning and purpose of knowledge itself. This question should be asked at a level where the learner has sufficient information to form his own vision. Following the pattern outlined by Habermas [4] I recognize three learning domains. The first one is the 'technical' level in which knowledge is based upon empirical investigation and governed by technical rules. At this level previously available knowledge is received without question. The second level, the 'practical' level: in which understanding is developed through the search for meaning. The learning process seeks to develop critical capacities of individuals and the ability to guide their learning process by taking what they consider constructive and ignoring what does not contribute to their own path. The validity of knowledge is grounded “only in the intersubjectivity of the mutual understanding of intentions”[4]. Finally, there is the 'emancipatory level', which seeks to empower the learner to perceive the genesis and evolution of ideas in a sociocultural context and understand their consequences on individuals and groups. The objective is the development of internal reflection; it can be compared with the definition of Enlightenment given by Kant: “man's emergence from his self-imposed immaturity. Immaturity is the inability to use one's understanding without guidance from another. This immaturity is self-imposed when its cause lies not in lack of understanding, but in lack of resolve and courage to use it without guidance from another”[5].

By completing the first two stages the learner ceases to receive information from others without questioning and stops looking for himself; he emancipates from the others and from his own egocentrism. It is at this level where the question of the object of knowledge can go beyond the learner's own benefit and others' interest. In Habermas words “insights gained through critical self-awareness are emancipatory in the sense that at least one can recognize the correct reasons for his or her problems”[4].

II KNOW THYSELF

Based on the previous reflection we, as teachers, cannot develop an active learning process without taking into account the fundamental question of the nature and purpose of knowledge. The purpose of knowledge is currently seen as something instrumental and technical as defined in the first level of Habermas. In this case education is taken just as a technical training process. Just for transmitting the required information in order to create good practitioners in a technical discipline. There are social sectors and powers interested in reducing the learning process to this low level. I'm not saying that it is not important, because developing technical skills in a discipline is the basics of the path of knowledge, but, what should be clear, is that this is just the beginning not the end or the final purpose.

If the purpose of learning and knowledge is not an instrumental one what are they for? In this article I'm going to follow the principles described by the Erwin Schrödinger. Referring to physics but applicable to the whole process of education he says: "... the objective, scope and value are the same as those of any other branch of human knowledge. But none of them has any scope or value if not go together. And this value has a very simple definition: to obey the command of the Delphic deity: Know thyself. Or to put it briefly as the profound rhetoric of Plotinus: 'And what are we at the bottom?' And the very Plotinus continues: 'Perhaps we already existed before the creation, [we were] human beings of other type, or some kind gods, a pure combination of soul and spirit united to the whole universe, part of the intelligible world, not separate and apart but unity in the whole'[8].

As Schrödinger says, the fundamental purpose of knowledge is to know yourself. Nietzsche puts it in similar words: "Know yourself, is all wisdom. Only at the end of knowledge of all things man must have known himself. Because things are only the limits of man"[7]. Colombian philosopher Fernando González shares a similar vision: "The person who undertakes the study of herself, only for that purpose must take any other"[2].

II ENGAGEMENT WITH A PURPOSE

As it has been have said, at the beginning of the learning process there is an internal motivation of the learner, he (or she) is searching for something. Basic education and low level learning say that this search is just for technical abilities and that's what they give. Active learning can go further. By developing his own interests the learner is trying to find himself. We, as teachers, do not have the answers for that, but we can set up the conditions in which the learner can engage with the purpose of knowing himself. If that process is started, then learning is transformed from something imposed from the outside, something to be approved, or to be 'passed', to a live process in which the learner identifies the required knowledge and abilities to develop his own path. When the learner searches what he needs, what is part of

himself, learning becomes active learning. Something that comes from the person and transform her. Something that goes beyond the person and the others. In this way active learning reaches the third level of Habermas' model and becomes a liberation process.

E. F. Schumacher commenting on this higher level of learning says: “[this] third task cannot be undertaken until one has met the first two and needs the best help one can find: it is about 'die' for oneself, for our likes and dislikes, for all our egocentric concerns. To the extent one succeeds, one is not going to be directed toward himself. One has won liberty”[9].

The 'best help' that a learner requires to undertake his own path is an open environment for a sincere encounter with the other. That is the main value of 'working in group'. This encounter has a double way. On one hand, the other gives life and strength to the learning environment, the learner receives from the others. On the other hand, the learner that has found his own path serves as a referring point for the others, the learner gives to the them. Active learning is also, in this way, a dialogue, a deep encounter with the other.

III CONCLUSION

I have described active learning as a process that starts from the original intentions and capacities of the learner and becomes a self-discovering process in which the learner goes beyond himself and beyond the prescriptions of the external world. The result is a continuous liberation process in which the learner develop his own creativity and share it with others in a constructive dialogue.

The environment of active learning is a space and time in which learners can concentrate on their true necessities and in the developing of their capabilities. The main role of teachers is to maintain the 'health' of this space by breaking with the dogmas of their own time and culture. That includes, among others, avoiding the distortions generated by power relations [1] and, preventing the lack of concentration that comes with the excess of information [6].

ACKNOWLEDGMENTS

I would like to acknowledge Paul Bofill for inviting me to participate in the organization and development of ALE-2009; and to Christophe Rabut for his reading, comments and questions that really helped me to improve this paper.

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