AN EDUCATION: THE VIEW FROM THEORY OF COMMUNICATION

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ABSTRACT

For conclusive actions to achieve progress in the field of education one needs to rely on a scientific approach. An attempt at a theoretical consideration of human communication in the area of science is presented in this paper. It is based on author’s experience in teaching of regional hydrology, a literature review and quotes from experts. The logic of the theory of communication might be a good point at which to start analyzing the components of education: creation of content, formulation and design of the message with the presence and interaction of components from different media (story, text, graphics, pictures, animations, video), communication of the message, control of message acceptance and “digestion” (feedback communication) and the use of language as the main medium. Each of these processes is part of scientific communication and can be applied to education in natural sciences. This system contains a professor as a transmitter (sender) and the student as a receiver with language as the medium for communication and the academic environment and science in a cultural context as special components. Three models from the literature – Claude Shannon’s on the system communication, Roman Jakobson’s on poetic language and Vasily Nalimov’s on consciousness (“the map of consciousness”) – were used. The probabilistic model of language by Vasily Nalimov was used also in conjunction with the theory of “Frames” for representing “human perception” by Marvin Minsky. Expert opinions on education were taken from works of Bertrand Russell (1872–1970), Ludwig Wittgenstein (1889–1951), Roman Jakobson (1896–1982), Michael Polanyi (1891–1976), Claude Shannon (1916–2001), David Bohm (1917–1992), Marvin Minsky, Noam Chomsky, John Searle, Vasily Nalimov (1910–1997), and Roger Penrose.