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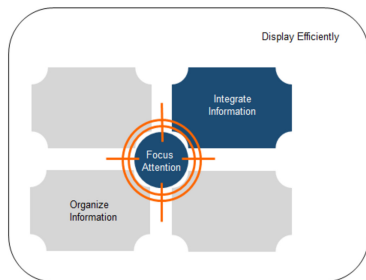
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Educate Abstract IT Content Effectively and Efficiently

(applied on an example of IT Architecture of Credit Suisse)



Course Preparation and Delivery (bottom up)



Four Basic Principles To Minimize Extraneous Cognitive Load

Problem: In today's software engineering industry, it occurs more and more that people with a technical background have to teach other employees abstract content, such as for example IT architectural concepts. Technical accomplished employees do not have to be highly skilled teachers. This paper provides approaches how technical courses can be structured, designed and delivered that they are more effective and efficient without having a degree in didactical skills. On the one hand, there is much literature on the market about didactical concepts: Instructions how lectures can be structured to improve their effectiveness and efficiency. On the other hand, presentations are one of the most preferred forms of education. There is a lot of material on the market how presentations can be improved. But are they always the right medium to provide a certain message, how can they be prepared attractively and fulfill minimal didactical requirements, what alternatives are possible?

Approach/Technologies: It is the objective of this paper to give a person with a technical background some guidelines, how he or she can improve his or her teaching skills with a small effort. This paper is structured as following. The first paragraph outlines a short summary about challenges a company might face while educating its workforce. Challenges such as time, cost and education as a foreign task for technical people. It is also mentioned what education means in the sense of processing new information, what helps to understand new (complex) information faster. This educational background information is followed by an analysis how educational courses can be prepared and delivered in an attractive way with respect to minimal didactical requirements to improve the courses' effectiveness and efficiency. Finally, in the last part of this paper, elaborated approaches will be applied in a concrete example taken from the IT architecture of Credit Suisse. As a conclusion, a checklist will be provided that helps to prepare and deliver educational courses.

Result: IT content is changing fast and complexity increases steadily. Education has to adapt to these fast changes and increasing complexity. People with technical but few didactical skills have to teach their colleagues in many situations. New solutions have to be found to teach employees the essentials of IT topics in a fast and thorough way that people participating in courses are able to apply the new gained information afterwards.