

# To train a multidisciplinary operation team – Impact of team training on procedure outcome

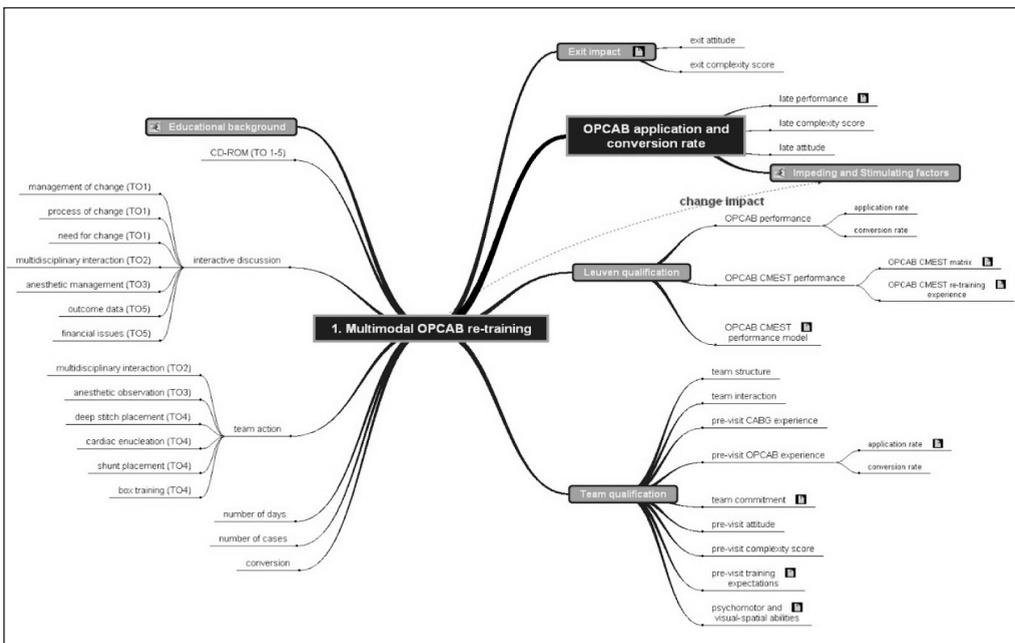
Paul Sergeant, Jan Van Hemelrijck

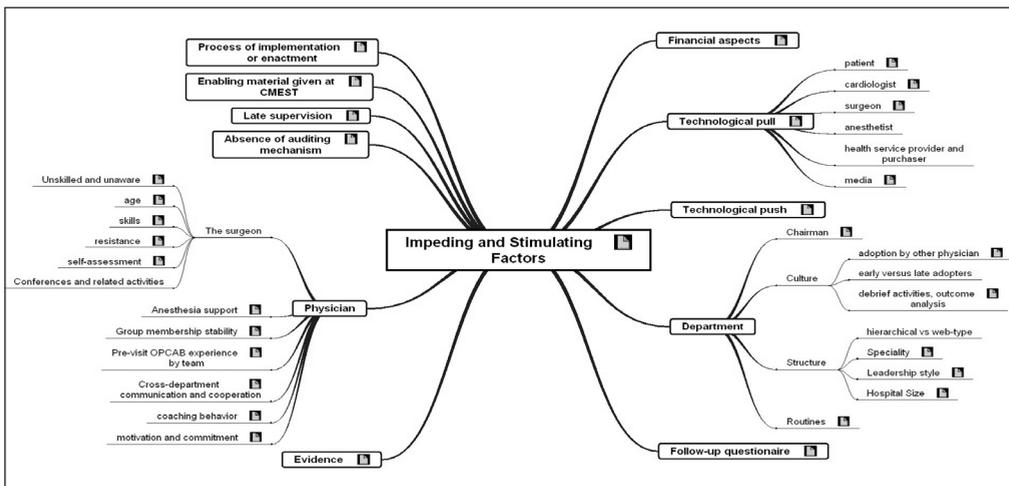
K.U.Leuven OPCAB re-training Centre, Leuven, Belgium

Since 2000 the K.U.Leuven organizes multidisciplinary seminars to help surgeons, anaesthetists and nurses in their re-engineering process towards an off-pump approach in coronary surgery. These seminars, based on the essentials of the science of learning, usually last three days and the scholars are encouraged to attend as a team. Up to date, 435 different three day seminars, in five different languages, have been organized, guiding 972 scholars from 55 countries through a structured process. The educational processes have been deposited in a series of mind-maps, published on a website <http://www.opcab-training.eu> and its performance studied in a manuscript (Performance analysis of interactive multimodal CME retraining on at-

titude and application of OPCAB J Thorac Cardiovasc Surg 2006; 131: 154-62).

The educational process uses the science of learning in the following aspects: team approach, extensive enabling material, sequential and repetitive approach, multimodal approach, pre-modelling interactive discussion, expert cognitive approach, non-expert modelling corrected by expert, personal practice corrected by expert. In accordance with the cognitive approach of adult learning, focusing on internal mental processes within the learner's control, the procedure is divided into teachable components. For each of these components knowledge, skills and attitude are addressed. The individualized approach mandates that these seminars are attended





by only one or two teams of surgeon/anaesthetists/nurse who will have the opportunity to observe but also practice. Knowledge conversion and creation are triggered by individualized triggers based on the continuous interactions.

The educational process of each teachable component is streamlined in conceptual learning, followed by virtual learning in simulators and finally in operational learning. The tacit knowledge is transferred into a codified one using plots, graphics, videos and slides.

The residual tacit knowledge is strongly embedded in group behaviour and needs to be learned in group. Furthermore, this is challenging since surgeons and anaesthetists use different learning styles. Surgeons use a converging learning style and anaesthetists an accommodating learning style.

The performance of such a science-of-learning based CME is also influenced by a complex series of impeding and stimulating factors.