

Foreword

This constructivist Master Thesis discusses the development of a reference-architecture for the Learning Management System's (LMS) selection process in a polytechnic-knowledge-transfer organization.

The focus lies on the Requirement Engineering (RE) process's quintessence based on research about standard RE procedures and RE approaches combined with basic knowledge about LMS and best-practice experiences for LMS projects.

The resulting reference-architecture, particularly its frameworks and questionnaires, were tested prototypically in the real-life instance of a polytechnic school, the TA, and delivered outstanding results (rated by stakeholder-representatives and experienced providers of a commercialized LMS). The developed reference architecture was found to represent a solid, easy to use and well-structured guideline for the RE-process, the additional conceptualization and the creation of information necessary to consult the stakeholders.

This advisory information not only recommends which LMS fits the respective school's requirements, business-structure and objectives best, but also provides concepts for the consecutive steps of the LMS-implementation and -operation and it delivers objective data on cost structure and cost-effectiveness considerations in regard to the individual LMS. The reference architecture therefore features clear process models, checklists and a questionnaire which summarizes basic questions and the corresponding elicitation-circumstances for the requirement-elicitation process.

This thesis comprises information from the fields of RE, Knowledge Management Systems (KMS), E-Learning, and cost-utility analysis.

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