Chapter 9
Educational Transformation Project's Remote Group Work (ETPRGW)

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ABSTRACT

This chapter proposes an educational transformation project (ETP), remote group work (RGW), to support students' group work in the context of online teaching and learning. An ETP assisted by RGW (ETPRGW) uses critical success factors and areas, natural programming language environment, and a dynamic decision-making system, which can be used to improve the organization's online learning capabilities. ETPRGW supports all phases of an ETP, and its concept is based on existing standards, methodologies, local specificities, and traditional educational practices. Complex educational topics, like information and communication systems (ICS) need particular RGW requirements that force educational organizations (simply entity) to integrate agile collaboration products, educational patterns, educational best practices, and educational services' management. An RGW approach forces the used transformation framework and the related set of existing modules to synchronize all types of transformation activities, like the integration of an automated coordination of RGW activities.

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INTRODUCTION

The ETP staff (or simply the *Staff*) set of skills, is a crucial issue in ETPRGW, such a *Staff* must capable of managing and execution various types of online education operations. The ETPRGW concept is based on: 1) An adapted version of Enterprise Architecture (EA); 2) An Applied Mathematical Model for RGW (AHMMRGW) (Trad, & Kalpić, 2014, 2020a); 3) Atomic services and architecture for ETP platforms (Trad, 2015a, 2015b); 4) Educational patterns and other types of patterns (Trad, & Kalpić, 2022a, 2022b); 5) The cloud and online platforms; and 6) Agile Project Management (APM) (Spencer, 2016). In this chapter the author tries to prove that the ETPRGW can transform the *Entity* and that it can be support its RGW activities; and added to that, that it can be modelled by using the AHMM4RGW. The AHMMRGW is based on Critical Success Areas (CSA), Critical Success Factors (CSF) and on a unique mixed research method (Trad & Kalpić, 2017a). The ETPRGW is supported by a Decision-Making System for RGW (DMSRGW), Knowledge Management System for RGW (KMSRGW) and an adapted version of an agile EA methodology (Blackburn, & Rosen, 1993). The author uses a Proof of Concept (PoC) that incorporates the following Applied Case Studies: 1) The insurance domain (Jonkers, Band, & Quartel, 2012a), that is used for pure ICS topics. The ETP is supported by a transformation framework that: Manages all ETP's phases and Estimates ETP's risks of failure; and 2) A set of online education ACSs. The ETP initial phase identifies its main interfaces, phases, main activities, and the optimal *Staff's* profiles and skills. ETP's main challenge is the transformation of its Monolithic Educational System (MES) into an agile and fully automated online educational system. A ETPRGW capable *Staff* must support the ETP's Implementation and Maintenance Phases (EIMP) that needs integrated agile EA methodologies, DMSRGW, KMSRGW, and implementation skills. The author's works have localized a major gap in transformation projects, which is related to failures that are mainly due to Architect of Adaptive Business Information System (AofABIS). Unfortunately, transformation projects are managed by accountants which is the main reason for failures. The ETPRGW requires a *Staff* with agile cross-functional (polymathic) set of skills, which can support topics like Humanities.

ETPRGW CROSS-FUNCTIONAL SET OF SKILLS

ETPRGW supports the transformation of MES's ICS and to exploit avant-garde online technologies to finalize the ETP. The ETPRGW needs to interface standard methodologies, like The Open Group's Architecture Framework's (TOGAF) and Schools Interoperability Framework (SIF). SIF is an eXtensible Mark-up Language