

# Investigation of factors affecting successful implementation of the team approach into module redevelopment in Science disciplines

TAU 2018/2019 Enquiry Group 11

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## 1. Introduction and motivation

### **Institutional context**

UNISA (University of South Africa) is a comprehensive distance education institution, currently in a transition from a correspondence mode towards e-learning. Quality management and assurance reasons led UNISA to establish in 2011 guidelines for internal review processes for its programme and module offerings (UNISA 2011). For programme and module development as well as module redevelopment process, a policy approved in 2013 specifies the Framework of Team Approach (FTA), which guides all curriculum and learning development at UNISA, again based on the quality regime of the Council of Higher Education (UNISA 2013).

The redevelopment of existing modules, implemented from 2012 onwards, centres around a 7-year cycle of internal quality reviews of each module, followed by a redevelopment process. The redevelopment consist of learning design and learning development to reconsider and improve the way the module is taught, and often involves revision of the study material. The redevelopment has to follow the FTA policy, which sets out the teams, roles and activities in the process. A prominent place in each team is for Educational Consultants (ECs) from the Directorate of University Teaching and Learning Development, who act as instructional design advisors as well as project managers.

UNISA has been implementing this review and redevelopment process since 2012, and in the College of Science, Engineering and Technology (CSET), in 2017, for instance, 111 modules were undergoing either development (for new modules) or redevelopment (for existing modules) (CSET, 2017). In 2018, the total number under development or redevelopment is 219. (CSET, 2018).

The FTA is a top-down process ultimately motivated by quality management. The actual reality of how the redevelopment is conducted varies from project to project and how the lecturer is guided to improve their module depends very much on the interactions between individual in the development project. This leads to a need to investigate the congruence between best practice in module development in distance education, UNISA's official policy and processes, and the actual redevelopment processes implemented in UNISA's FTA.

### **Problem statement**

This research project investigates the realities of the implementation of the FTA process from the perspective of the academic staff.

This focus in this research project is completed redevelopment projects using the FTA framework at the College of Science, Engineering and Technology, seen from the perspective of the college staff members. The purpose is to find out what kind of collaboration approaches and attitudes during the implementation of a FTA project, and what kind of contextual circumstances, contributed to a successful project. The measure for a success here is the level of satisfaction of the staff members with both the process and the result (the developed module). The research results can then be used to influence existing policies and procedures to improve both quality and staff satisfaction of future projects in the college.

Research question: ***What factors contribute to a successful development project?***

## 2. Conceptual framework

As a basis for our investigation, we created a collaboration model of possible attributes relating to the context of each project and the way that the FTA is implemented.

The dimensions in our collaboration model consist of factors identified in literature (e.g. Bronstein (2003), D'amour and Oandasan (2005), McMurtry (2013), Amabile, Patterson, Mueller, Wojcik, Odomirok, Marsh and Kramer (2001), Mattessich and Monsey (1992)) as being essential in successful teamwork:

1. Team factors
  - Diverse and complementary skills, perspectives and knowledge
  - Intrinsic motivation and interest
  - Sense of equal stakes and recognition of contributions
2. Collaboration processes
  - Clarity of roles and responsibilities
  - Leadership, power and modes of decision making
  - Communication
  - Coordination of activities
  - Conflict resolution processes
3. Epistemological factors
  - Common understanding of the problem domain
  - Understanding of each other's conceptual models
  - Compatibility of problem-solving approaches
  - Recognition and negotiation of paradigmatic conflict

These general requirements are influenced by factors relating to a particular given context of a project.

- A. Personal characteristics: Trust, respect, understanding, communication
- B. Professional roles: Level at which professional identities affect skills, attitudes and abilities to collaboration within a particular context
- C. History of collaboration: Previous experiences in collaboration
- D. Structural characteristics: Workload, administrative and institutional support, space and time made available for the process.

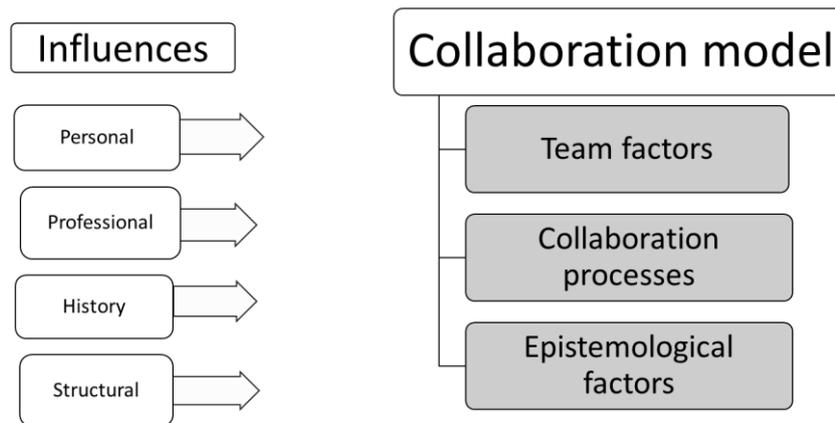


Figure 1: Framework for factors for determining success of a collaboration process

This framework will serve as a basis for our investigation of the experiences of the academics within the FTA redevelopment processes. The dimensions in the collaboration model are general conditions, identified in the literature as necessary for successful teamwork. The influences depend on the context of a particular collaboration process.

In the UNISA FTA redevelopment process, each project (i.e. one module redevelopment) has its unique features, based on the way it is implemented. The variables introduced in the implementation deal with the model and approach used in collaboration, the design model used, choice of team members and roles, management and decision-making processes and communication methods. This research seeks to find out how these choices, as well as the influences and contexts of each redevelopment project, influence the success of the project. Success is measured according to the level of attainment of each of the prerequisite factors in our collaboration model, as well as the satisfaction of the process as a whole and the result (final redeveloped module).

### 3. Methodology

The research will employ a range of research methods, including a literature review, policy review, focus groups and individual interviews and questionnaires with both quantitative and qualitative components. Information will be collected on module redevelopment projects completed at UNISA's College of Science, Engineering and Technology during the last 2 years, that is, in 2018 and 2019 from the academic staff members involved in the projects.

The questionnaire will investigate factors according to the framework adopted (Figure 1). Information will be collected on the features of each project, choices made in implementation of the projects, and influences including details on the main lecturer. The level of satisfaction with the project is done using the dimensions in the collaboration model, and more general measures of satisfaction with the project and the product.

The items in the questionnaire include the following:

**Details of project:** Discipline and NQF level of module, scope and time line, model and approach used in collaboration, design model used, management of projects, team composition and roles, decision making process, departmental support given.

**Details of staff member:** Experience as university lecturer, experience in distance education, prior experience with the development process, level of content knowledge, level of pedagogical and technological knowledge, level of motivation with the project, gender, age, seniority.

**Satisfaction** (using a 5-point Likert scale from very satisfied to very dissatisfied)

- Level of satisfaction with team factors
- Level of satisfaction with collaboration processes
- Level of satisfaction with epistemological factors
- Level of satisfaction with the final product
- Value and benefits gained

Exploratory data analysis will be conducted to find predominant issues and to identify tentative factors contributing to satisfaction. Statistical methods used will include factor analysis, cluster analysis and multidimensional scaling methods. The focus group and individual interviews will be used to follow up on various aspects identified as being of interest by the questionnaire results.

## 4. Progress

The data collection for the 2019 date will happen only during July – August 2019 as that is the time that this year's development will be concluded. A revised ethical clearance application (including the focus group interviews added to the initial project proposal) has been submitted to the relevant authorities and will of course need to be approved before data collection can begin. IN the meanwhile the literature and document/policy review is ongoing, including obtaining results from the Educational Consultants' quality assurance measures, for comparison with the view of the academics. The data collection for both 2018 and 2019 data will be concluded in August 2019.

## 5. References

Amabile, T.M., Patterson, C., Mueller, J., Wojcik, T., Odomirok, P. W., Marsh, M. & Kramer, S. J. (2001). Academic-Practitioner Collaboration in Management Research: A Case of Cross-Profession Collaboration. *The Academy of Management Journal*, 44(2), 418-431.

Bronstein, L.R. (2003). A Model for Interdisciplinary Collaboration. *Social Work*, 48(3), 297-306.

CSET (2017) College of Science, Engineering and Technology, Agenda of the College Tuition, Learner Support and Quality Assurance Committee meeting, 2 October 2017.

CSET (2018) College of Science, Engineering and Technology, Agenda of the College Tuition, Learner Support and Quality Assurance Committee meeting, 4 June 2018. Dempster, J.A., Benfield, G. & Francis, R. (2012). An academic development model for fostering innovation and sharing in curriculum design. *Innovations in education and teaching international*, 49(2), 135 – 147.

D'amour, D. & Oandasan, I. (2005). Interprofessionality as the field of interprofessional practice and interprofessional education: An emerging concept. *Journal of Interprofessional Care*, Supplement 1, 8 – 20.

Mattessich, P. W. & Monsey, B. R. (1992). *Collaboration: What Makes It Work. A Review of Research Literature on Factors Influencing Successful Collaboration*. Amherst H. Wilder Foundation, St. Paul, Minnesota.

McMurtry, A. (2013). Reframing interdisciplinary and interprofessional collaboration through the lens of collective and sociomaterial theories of learning. *Issues in interdisciplinary studies*, 31, 75-98.

UNISA. (2013). Framework for the implementation of a team approach to curriculum and learning development at Unisa.

UNISA. (2011). Guidelines for Internal and External Reviews 2012 to 2017.