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Implementation matters

Investigations on the factors affecting implementation and using of effective communication strategies on the implementation of curriculum reforms for the degree programs in Central Asia

Implementierungsaspekte: Untersuchungen zum Einfluss der Faktoren und die Nutzung der effektiven Kommunikationsstrategien in der Implementierung von Curriculumreformen für die Studiengänge

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Project: Professional education in Central Asia

Field of activity N° 2: Higher Education for food technology and professional education

Partner countries: Kyrgyzstan, Tajikistan, Uzbekistan and Kazakhstan

Overall goals:

- Development of educational programs according to the international standards (Bologna standards).
- Mutual recognition and regional exchange

Working packages	I	II	III	IV
Description	Development of a structured doctoral program according to Bologna Standard	Implementation of Bachelor and Master programs in Food Technology at partner universities	Implementation of the degree program "M. Ed. Vocational Education"	Further development of modules in the bachelor's and master's programs

Theoretical framework of the curriculum implementation

- Change process model by Fullan (1982, 2001)



- Criteria influencing teachers' implementation of new reform items and practices by Doyle and Ponder (1977)
 - Instrumentality
 - Congruence
 - Cost
- Factors necessary for successful implementation of change by Fullan and Pomfret (1977) and Waugh and Punch (1987)
 - the characteristics of the innovation, especially its explicitness and complexity;
 - the strategies, in-service training, resource support, feedback mechanisms and participation;
 - characteristics of the adopting unit – the adoption process, organizational climate, evaluation and political complexities.

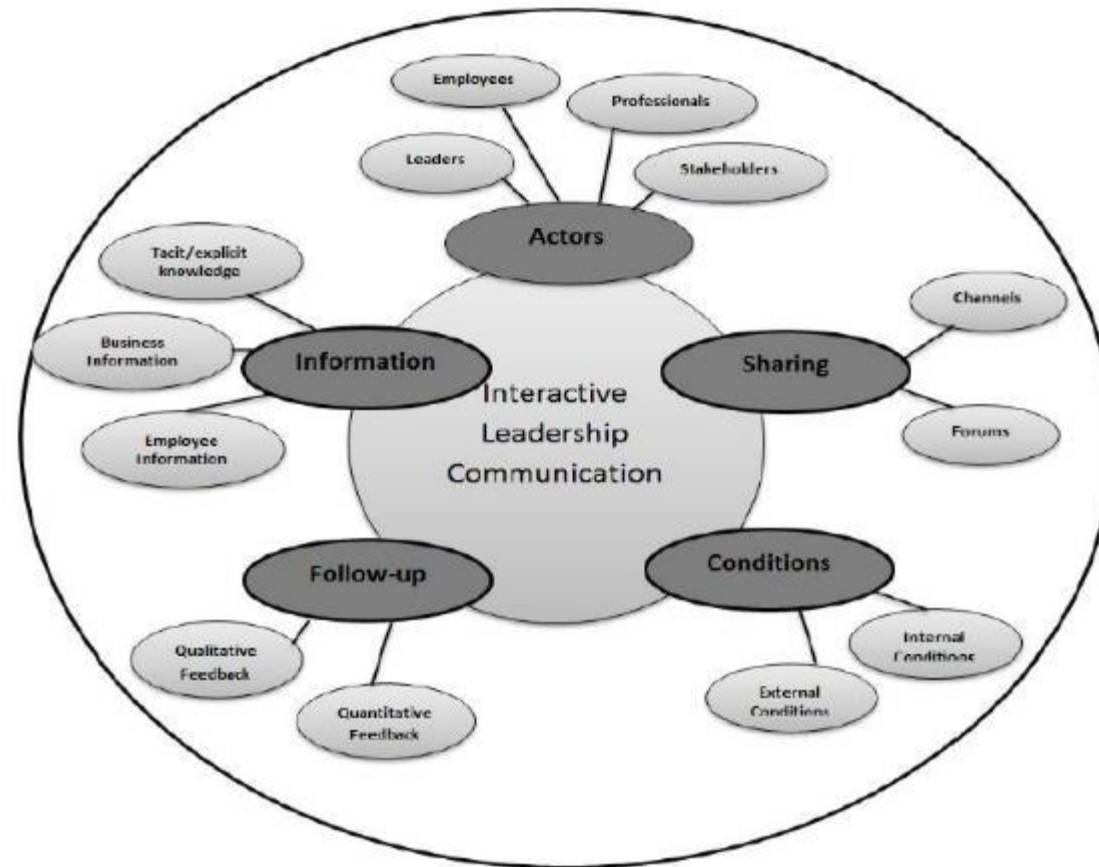
Stages of implementation

Pre-implementation phase: combination of the elements of the different implementation models. Subsequently, a needs and context analysis was carried out on the basis of the information provided by the research participants and an intervention for the implementation of the curriculum was drawn up, which corresponded to their local needs.

Implementation phase: studied the implementation of the curriculum by examining how the participants took it over and implementing it and, if necessary, making design changes.

Post implementation phase: in this final phase different views and considerations gathered by participants on the implementation of the curriculum.

Theoretical framework of communication in the curriculum implementation



Interactive Leadership Communication Space model (Rissanen, 2011)

Research questions

- What *factors enable and constrain* the introduction and implementation processes of curriculum in Food Technology in Central Asia?
- What *communication channels* are used by the curriculum advisors and project partners to communicate curriculum changes?
- What are the *challenges* experienced in communicating curriculum changes during the project?
- How can communication be *enhanced* between curriculum advisors and the project partners?

Methodology

- **design-based research** approach as empirical methodology
- collecting data from **focus groups discussions**, interviews and field notes, across the three stages of the design-based research framework: **pre-implementation, implementation, and post-implementation.**
- **Literature review:** Case studies and reports of international organizations and NGOs
- **Documentation:** M&E and Workshop summary reports, minutes of meetings, focus groups protocols, on-site activity protocols
- **Analysis of the data** revealed that the participants' prior experience with curriculum implementation, including their use of curricular products and their perceptions of its usefulness were amongst **key enabling factors** for the curriculum implementation.
- **Key constraints** to the implementation included socioeconomic challenges, the impact of a strong social hierarchy on information sharing, and a range of practical and contextual considerations inherent in the change processes.

Methodology

Focus group discussions were conducted in the *pre-implementation phase* as part of the **context and needs analysis** of the project

The researchers (including, Cousin, 2009; Liamputtong, 2011; Morgan, 2002; Travers, 2010) are emphasizing the use of the focus group method to collect the **enriched and detailed data** from participants. The quotes from Liamputtong (2011) prove that

“[f]ocus group methodology is useful in exploring and examining what people think, how they think, and why they think the way they do about the issues of importance to them without pressuring them into making decisions or reaching a consensus.(p. 5)”

Design-based research is a participatory type of research approach aiming **to link theories with real practices** (Bell, 2004; McKenney & Reeves, 2012; O'Toole & Beckett, 2013; Randolph, 2008; Reeves, 2006; van den Akker et al., 2006).

Research design and framework

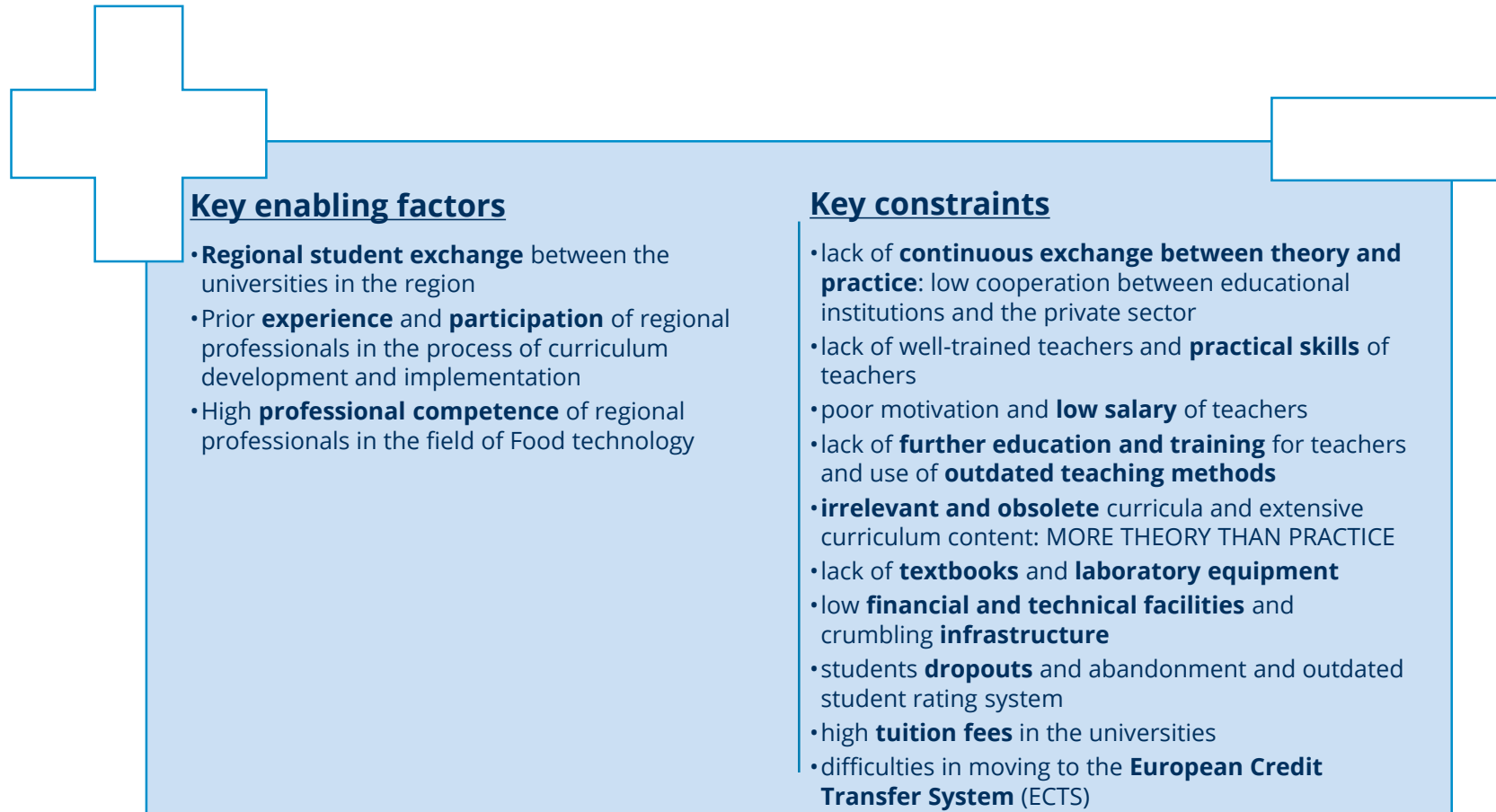
Stages	Aims/Foci
<i>Pre-implementation stage</i>	<ul style="list-style-type: none">• Needs and context analysis• Design and configuration
<i>Implementation stage</i>	<ul style="list-style-type: none">• Adoption and enactment• Adjustments to the design
<i>Post-implementation stage</i>	<ul style="list-style-type: none">• Reflections on the implementation

Pre-implementation stage

Needs and context analysis

Design and configuration

Context analysis: Enabling Factors and Constraints in the curriculum implementation in HEI in Central Asia



Needs analysis

Bachelor degree programmms:

- Difficulties in formulation of learning outcomes for new or updated curricula
- Different credit hour (or point) system in the curricula
- Lack of soft skills for students

Master degree programmms:

- Improve the already existing running MSc. study programs towards international accreditation
- Mobility for specialization
- No specific requirements when students from a similar master apply
- Decreasing of high workload of teachers, dealing with implementation
- Language of education (Terminology mostly in Russian language for low level Russian speaking students)

Design and configuration

- ❖ Updating of BSc. And MSc study programmes in Food Technology
- ❖ Preparation of study programs for the **accreditation according the international standards**
- ❖ Adaptation of study programs to the **needs of the labour market through cooperation** between educational institution and private sector
- ❖ Improving of **in-service and futher teacher training**
- ❖ Formulation of **entrance skills** and **aquired competences** of students
- ❖ Promotion of **regional mobility** and **information exchange** between project partners: Local, regional and international
- ❖ Participation of **various stakeholders** in the process
- ❖ Providing adequate **infrastructure** and **material-technical facilities**

Implementation stage

Adoption and enactment
Adjustments to the design

Adjustments to the curriculum design

- As far as it is possible, to **change the curriculum in percentage**, it should be known how flexible the program is in itself in the procedural and substantive plan
- **change the theoretical and practical teaching methods** according to the Bologna criteria
- **increasing of awareness** for pedagogical staff: how to handle with implementation
- Comparing of developed study programs with other project partners: **academic mobility and information exchange** between faculty members, students, scientists
- create the list of all **alternative and elective disciplines** and then on the basis of this list to scatter them
- **Involving of experts** (didactic and specialty) for implementation, one local, and the second international, taking into account the prospects **for the accreditation** of the study programmes.

Adoption and enactment

- **Inviting local and foreign experts** who can help with aspects relating **to the international accreditation** of study programmes
- **Modernization** of study programmes and **updating** of existing modules
- Involvement of **external parties by the ministry** for the implementation and approval of the study programmes
- Embedding information about the results regarding implementation in the project website: **Eduinca**

Post-Implementation stage

Reflections on the implementation

Reflections on the implementation

- This stage can not be completed, because the semester with new academic program has not ended yet
- Questions for further research are:
 - ✓ What is your general impression of the integration of the reference curriculum in your academic program?
 - ✓ What are the benefits you can get from the reference curriculum in your academic program?
 - ✓ What do you think are the challenges in integrating of the reference curriculum in your academic program?
 - ✓ What would you recommend to other institutions that might be interested in integrating reference curriculum in their academic programs?

Communication in the curriculum implementation

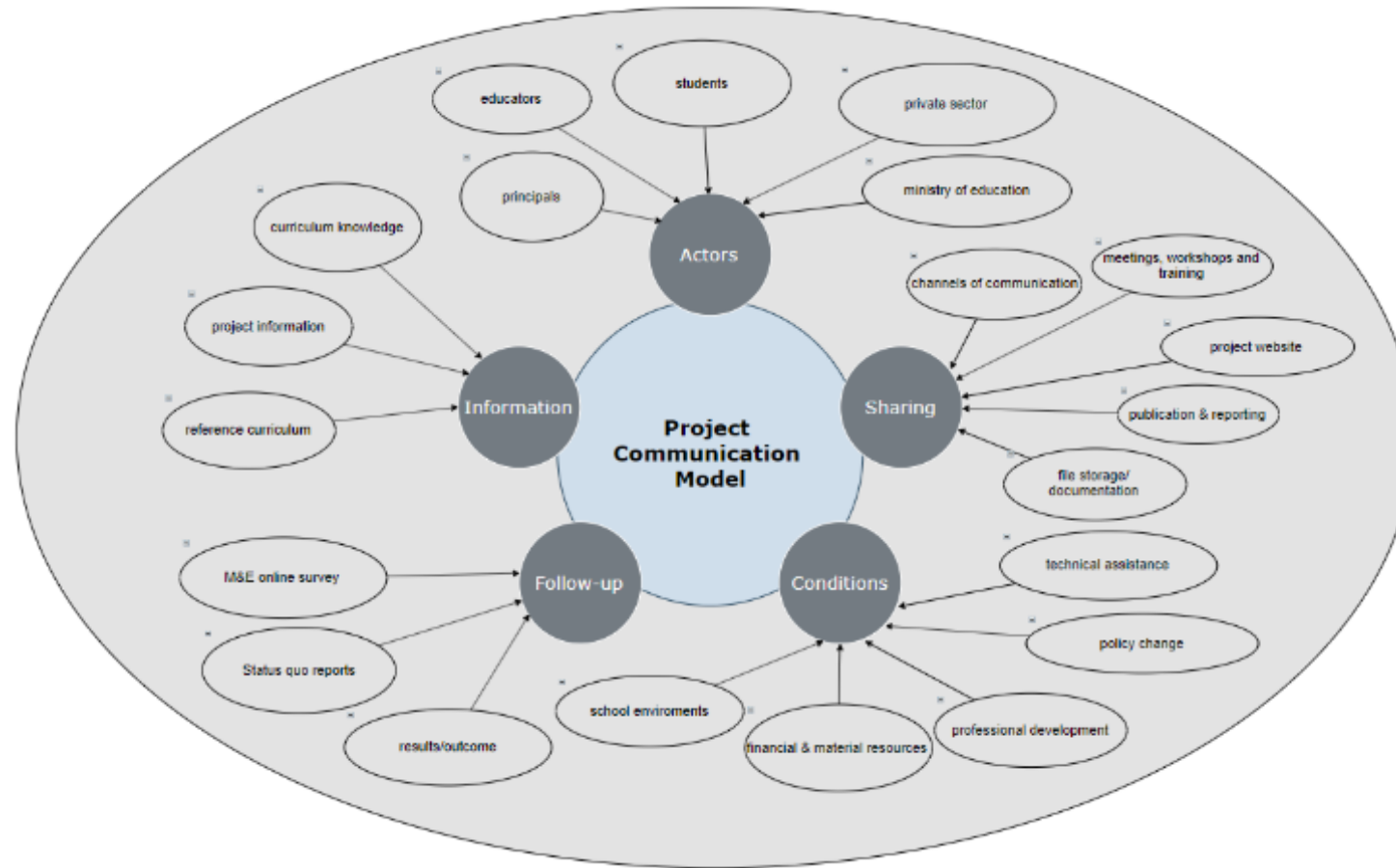
Communication model

Communication challenges

Communication channels

Suggestion for improvement of communication

Communication model of the project Professional education in Central Asia



Communication challenges on curriculum implementation

- Lack of effective **information exchange system** on curriculum implementation between the regional project partners
- **High workload** of project implementation teams is the reason for discontinuous communication
- Lack of **digital media skills** of implementation team
- Inadequate **technical equipment**

Communication strategies for curriculum implementation

- Email and newsletter
- Skype
- Dropbox
- WhatsApp
- Yammer
- Workshop summary reports
- Eduinca – project website
- M&E online survey and reports
- Presentations

The screenshot shows the website for 'PROFESSIONAL EDUCATION AND TRAINING IN CENTRAL ASIA'. The header includes the logo, navigation links (About program, News, E-Library, Partners, Team, Contact), and a search bar. The main content area features a grid of four news items, each with a photo and a brief description:

- Regional Dialogue:** "Regional Dialogue" is a platform for an expanded exchange of experience and innovative solutions between policy makers and [...]
- Higher education in the field of food products:** "Higher education in the field of food technology" focuses on the development and implementation of curricula in the field [...]
- Training of TVET Teachers:** "Training of TVET Teachers" is focused on enabling educational institutions to qualify TVET teachers through further training in [...]
- Cooperation with the Private Sector:** The fourth field of action "Cooperation with the Private Sector" focuses on the established cooperation on national and [...]

Below the grid, there are sections for 'Past news:' and 'Calendar of events:'. The 'Past news:' section shows four news items with photos and titles:

- Training on determining and improving the quality of wheat flour using AlveoLab, Mixolab2 equipment
- Regional Working Group (RWG) Kick-Off Meeting and the Workshop for the RWG's experts on TVET issues
- Business English for Students
- To T for in-company trainers

The 'Calendar of events:' section shows a calendar for October 2019 with a 'View all events' button.

Suggestions for improvement of communication in the curriculum implementation

- Developing effective **centralized regional information system** not only for regional implementation partners, but for all stakeholders
- Using **mixed methods of digital media** to improving the process of implementation: SIFA communities, Blogs, Forums, Podcasts, Video tutorials, corporative social networking channels (f. ex. Yammer or LinkedIn)

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