

Implementation of a dual-mode course of study at a Thai university

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Abridged version

The dual-mode of vocational study, a form of study that links academic studies at a university with practical training or qualification measures in an enterprise, has become more important in recent years, not only in Germany but also internationally. Within the last 10 years, the number of students in Germany has risen from just under 40,000 to more than 84,000. More and more enterprises appreciate this study model and view it as a good opportunity to recruit suitable high achievers or future managers for the enterprise and retain them in the long term. Enterprises see the in-depth practical orientation amongst the future top achievers and managers as a crucial factor for their long-term business success.

During the course of the project entitled “Implementation of a Dual-Mode System of Courses, Jan./Feb. 2015/2016” we were able to observe that managers, and hence the decision-makers in enterprises, were fundamentally interested in participating in and promoting dual-mode models of higher education, which in this particular case concern courses integrating work experience and cooperative courses. The introduction of dual-mode courses of study, which guarantee a higher level of practical relevance for students, represents an attractive option for many countries as a means of achieving a better balance between university education and the needs of the labour market, and hence the enterprises.

The decision to develop a dual-mode course of study is of strategic importance for the Thai university and was taken by the university management.

To be precise, this article will present the approach and the experiences in the project development and implementation of a dual-mode course of study at a university in Thailand.

Preparatory work was carried out in 2014 in collaboration with several companies in the Hamburg area, in particular a systematic documentation of the infrastructure and organisation of dual-mode courses of study. During this process, the training and qualification concept was arranged and documented in a number of practical phases from 0 to 7. The Hamburg-based enterprises provided the documentation required for this. A further step involved conducting interviews with coordinators (approx. 10 interviews) at vocational colleges and universities with the aim of establishing and documenting the infrastructure and organisation of dual-mode courses of study in Germany. The overall results were defined at the end of 2014 on the basis of a discussion with various coordinators for dual-mode courses of study in a project plan with approx. 30 subprojects. During this process, all the subprojects were described in detail in terms of their content and according to personnel capacity and duration.

In Thailand, **consultancy was provided at the Thai university in two sections**: from 5 January to 12 February 2015 and for the continuation of the project in January 2016. The

special feature of this project was the field of conflict in which it was carried out. Important parts of the process involved determining the needs for expertise within the team, identifying difficulties or obstacles at the university and verifying any potential within the enterprises for a course integrating work experience or a cooperative dual-mode course of study.

The introduction to the dual-mode study programme at the Thai university comprised approximately 10 presentations of various topics. Examples included: History of dual-mode studies in Germany; Benefits of a dual-mode course of study; Benefits for the university, the students, the enterprise; Legal framework; Organisation form; Recommendations of the German Council of Sciences. With hindsight, this introduction acquired a special status, particularly with respect to qualification of the project participants.

A further step was presentation on the management, planning, organisation and control of the project, including aspects such as terminology. This knowledge base led to a lively and informative discussion of the subprojects and the associated individual tasks, such as capacities, duration of the activities and responsibilities. During a workshop, the question of priority for individual subprojects arose. As a response, metaplan techniques were used to draw up a priority list with 13 subprojects (weighted), which were then documented for all to see on metaplan boards. This provided a good foundation for preparing a milestone plan. At the close of the discussion, there was agreement on the fact that introducing a dual-mode course of study in autumn 2016 would represent a challenge for the team and particularly for the project management in Thailand as well.

One essential part of the project work at the Thai university involved **presenting, discussing and developing the practical phases from 0 to 7**. The preliminary work for this was carried out with the coordinators within the enterprises in Hamburg, by compiling a collection of documents to cover the entire study period of three and a half years (Bachelor course has at least 7 semesters).

At the Thai university, this collection of documents was used as the basis for presenting the dual-mode course of study with extended practical component. Starting from general information, this involved explaining the necessary documents for phases 0 to 7 individually and in detail over a period of several days. As the documents available in German have not been translated into either English or Thai, a special challenge was involved in conveying the core of their subject matter and the application of each individual document. Very interesting discussions arose in connection with the respective phases and on the structuring of the practical phases within the dual-mode programme of study in Thailand. One result from the discussions was the recommendation for a curricular development of “practical modules” for a qualification concept aimed at the practical phases in the dual-mode programme of study. In the basic and main stages of the dual-mode course of study, practical modules (PMs) take on the function of a didactically coordinated and integrated scenario for the course venues of

enterprise and university. Possible examples are: production technology, materials management, logistics, production planning and control, company management, controlling, marketing, etc. The practical modules (PMs) are oriented towards the process structure of an enterprise and in terms of course duration are based on the university course and its strategic direction in relation to the combination of subjects in the basic and main stages of the course. The curricular development of practical modules into a qualification concept requires close cooperation between the enterprises and the university.

A further focus of the consultancy was concerned with development of the curriculum for the course in Manufacturing Engineering. In this case, the project partners had already carried out preliminary work in relation to the curriculum itself and the module manual. Curricula from various courses with extended practical components at universities in Germany were presented and then became the subject of intense discussion. Unfortunately, only very limited information is available in English on the dual-mode form of study at universities in Germany. It was therefore necessary to use the module manuals of TU Darmstadt, RWTH Aachen and the Karlsruhe Institute of Technology (KIT).

The organisational structure, administration and funding of a dual-mode programme of study were the next focal points of the consultancy. Details included discussions of the various organisational structures of dual-mode universities and vocational colleges. This mainly required explaining the fundamentally different models, e.g. universities with integrated dual-mode courses of study contrasting with cooperative universities and vocational academies, which have organisational and course structures as well as a study programme that concentrate on the dual-mode form of study. Here too a lively discussion took place, in particular on the legal status and the committee structure of the respective universities and vocational academies.

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