

Acquisition of “Vocational Competence” through Projects and Work Tasks – A Didactical Approach for full-time students

1 INTRODUCTION

When preparing and reflecting on work based learning, one should keep in mind that the traditionally taught subjects in full-time training courses may lead to a very subject based, input oriented and rather segregated type of knowledge, skills. Complex social or personal competences are often merely added as surplus products. Teaching and training reproduce the science based curricular. On the side of the students, this very often leads to a more passive, grade oriented and specialized “storage” system of knowledge and skills. Even if one compensates these deficits of traditional teaching and learning through periods of “work-based-learning” through smaller or larger periods of hands-on-approaches, the gap between learning at college and learning in the “real-world” has mainly to be bridged by the students themselves – regardless of any well-meant efforts to support this by organizational support systems.

2 BACKGROUND

In Germany the curriculum for all full-time, school-based vocational training courses are subject to the various state legislations, which have to correspond to the overall agreements reaches be the Länder and agreed within the Kultusminister Konferenz (Standing Conference of Cultural Ministries). This context allows for some flexibility on the side of the individual Länder as how to arrange the prescribed contents and how to use the agreed distribution of fixed hours of teaching (curriculum) within each subject area – and even merge some subject into new “learning fields”.

At the Oberstufenzentrum Informations- und Medizintechnik (Berlin) some colleagues used this flexibility to address our very much felt need to introduce the students as early as possible to work-based learning within the regular teaching hours at the class-room. We are lucky to have both the educational competence as well as the technical equipment to realize such an endeavour.

The question which this case study addresses is therefore: How could we bridge the aforementioned gaps between traditional school and professional activity by creating a school based learning environment which in a didactical perspective enables the teacher, to create a meaningful learning environment based on projects and work tasks? How do the roles of teachers and students change in any such setting? Would these changes offer greater chances to handle internal differentiation of the groups of learners? And finally, how do we assess the induced changes?

From an organizational point of view we had to keep in mind that most teachers do not continuously teach in the same courses, but may change after one year into others areas. We also needed to arrange for teams of teacher rather than look at subjects. Very often this is extremely difficult for smaller teaching institutions, as

there are not that many options available to either compose team of teachers over longer periods of time or allocated rooms which could be used for a whole day and provide the necessary technical equipment for realistic task, performed in groups of students. Also: We found that we needed many extra further training sessions/ seminars with our own staff to practically exercise the “Procedures for the construction of projects and works tasks” (cf. Chap. 4 in the attached document).

3 SOLUTION

Based on previous experiences at industrial companies (where some of our staff had been working before entering the college as teachers) as well as an overall consensus to start project oriented teaching as early as possible during the three years a school training, a team was formed at OSZ IMT to develop a full concept of how a whole cycle of learning could be implemented. The paper was then enlarged by outside expertise, which resulted from feedback at teacher training seminars conducted both by Matthias Hauer (OSZ IMT) as well as Christina Kleinschmitt (Regionale Fortbildung Berlin – Further Teacher Training -Berlin).

In addition, we needed to continually arrange: Two whole days of one class in one room being taught by a team of various IT-specialists, including at times also application development and economics.

The structure of the attached handbook is as follows:

1. Objectives of the project and work tasks (PWT)
2. Compare “traditional learning, work and business process”
3. Project and work tasks in a learning environment
4. Procedure for the construction of projects and work tasks
5. Teacher and student roles
6. Internal differentiation and “vocational learning organization”
7. Assessment of individual achievements in a team

4 IMPACT AND OUTCOMES

One of the major results is available through this case study in form of a brochure, which summarizes the starting point, procedures and practical steps towards a more realistic and professionally based learning environment. (see attachment). We also found that the students completely changed their hitherto extrinsically motivated behavior towards a much deeper and more responsible involvement in the learning process. This change in attitudes as well as the ability to improve in self-learning skills provides a very sound basis for the actual learning situation during their placements in companies in the third year. We found that they were much better equipped to join into the complexity of company structures and tasks, could not only apply their knowledge and skills but respond to situations and challenges which had been unknown to them so far.

5 FUTURE STEPS / RECOMMENDATIONS

How will the learning from the case study/story/case example be used and applied going forward? What could you recommend to others from this process?

A major theoretical task for the OSZ IMT will be the integration of the competence oriented shift towards learning situations (as already under way in many dual training courses in Germany) with the didactical experiences in our full-time classes. We will also have to continuously provide in-house trainings and seminars for teachers who will join not only the IT-assistants but want to apply this scheme in other full-time courses at the OSZ IMT. And finally, we need a long term evaluation in a standardized form to concentrate on those effects which we intend and see whether these are reached, which obstacles we might have not envisaged and which side-effects may prove even more influential than we thought. Just a final remark: We already know from our own empirical research that the quality of the teaching material is not as influential as the personality of the teaching person. Therefore, some of our overall efforts in in-house teacher training concentrate much more than before on strengthening the personality, the flexibility and overall competences of our teachers through team-teaching, work shadowing, counselling and participation in European seminars.

6 RESOURCES AND REFERENCES

The main document to which the case study refers is:

Matthias Hauer/ Christian Kleinschmitt: Acquisition of “Vocational Competence” through Projects and Work Tasks” (see:). Matthias Hauer was member of the internal team of colleagues working within “Skills 4 Work”, while Christina Kleinschmitt is located at the Berlin teacher training institute of the Senate of Berlin.

You will find additional references and links to other material in the PDF-File itself.

7 FURTHER READING

Anyone interested in how to teach in a competence oriented way and how to derive meaningful and challenging learning situations could benefit from: Ralf Emmermann/ Silke Fastenrath: Kompetenzorientierter Unterricht. Europa Verlag (Nr. 21472), Haan-Gruiten 2016.