

TRAINING FIRM:
THE CASE OF SCHOOL CENTRE FOR POST, BUSINESS AND
TELECOMMUNICATIONS

INCOMPLETE FIRST DRAFT
ANJA KOPAČ, MARTINA TRBANC

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1 BACKGROUND

1.1 The general information about School Centre for Post, Business and Telecommunications

The School Centre for Post, Business and Telecommunications (SC PBT) was established in 1948 for carrying out the programmes of both youth and adult education. The number of founders has increased over the years. Up until 1993, the PTT¹ company Slovenia was the only founder. In 1993, the Ministry of Education and Sport (MES) became a co-founder. The last change happened in 1995, when the PTT company split into two business entities, i.e. Post of Slovenia and Telekom Slovenia. Thus, the main co-founders of the School Centre today are the MES, Post of Slovenia and Telekom Slovenia. All three of them play the primary role in financing the activities of SC PBT and influence the SC PBT's organisational structure and its

¹ PTT stands for post, telegram and telephone company.

programmes. The School Centre's programmes are prepared and updated taking into account the human resource and developmental needs of the Post of Slovenia company and Telekom company, as well as the changing technology in the field of telecommunications.

From September 1998, the organisational structure of SC PBT is composed of three organisational parts:

- The secondary professional education, i.e. Secondary School for Post, Business and Telecommunications,
- The adult education, i.e. Centre for Adult Education and
- The post-secondary vocational education (two-year post-secondary vocational programmes for post and telecommunications).

Each organisational part of the School Centre is led by the head, which is appointed by the collegiate body. The School Centre is led by a Director. There is also a body called the Institutional Council, which consists of representatives of parents, pupils and students. SC PBT employs 14 administrative workers, 58 teachers and more than 200 external collaborators (the lecturers, the professional consultants and people from companies) who are mainly involved in the implementation of adult education.

Secondary School for Post, Business and Telecommunications offers two secondary four-year professional programmes, for the business-commercial technician and for the electro-technician in telecommunications. Both programmes are composed of the general (compulsory and optional) subjects and of the professional subjects. The four-year programme of electro-technician in telecommunications also includes practical training that is introduced in the third and fourth year of schooling. Practical instructions last approximately four hours per week, and lab exercises take two teaching hours per week. In the 1997/98 school year there were 505 pupils who attended the four-year programme for business-commercial technician and 362 pupils who were registered in the four-year programme for electro-technician in telecommunications.

Centre for Adult Education offers accredited programmes of secondary education for adults. The adult education is organised as part-time education, but the curricula is the same as for regular/initial programmes. In the Centre, adults can attain different professional qualifications: a qualification of a business-commercial technician, a qualification of an electro-technician in telecommunications, a qualification of a PTT technician and the qualification of a vocation of an electrician. For the first three professions the programmes take four-years, while for the last vocation (electrician), the programme is a three-year one.

Besides, the Centre also offers several shorter educational and training programmes not leading to a secondary school diploma or qualification (so-called programmes of functional education). These are the different programmes that are in demand from companies like banks, postal and similar institutions and are designed to meet their requirements (i.e. the computer literacy programme, the professional seminars, etc.).

SC PBT also offers two-year post-secondary vocational programmes for post and telecommunications. The students can enrol into two different two-year post secondary

vocational programmes: a programme to specialise in the profession of postal traffic and a programme to specialise in the profession of telecommunications engineering.

Altogether, there are 1117 persons enrolled in all the programmes offered by the School Centre. 250 of them are registered in adult education programmes.

1.2 Teaching environment – the teaching methods, available equipment and projects activities

The teaching staff and the management of the School Centre are well aware of the importance of the modern and flexible teaching environment. The development of positive and motivating school atmosphere is one of the important conditions for meeting the primary goal of the School Centre, that is to transfer to the pupils the knowledge and skills usable in the rapidly changing work environment. The school tries to initiate the new modern and even innovative methods of teaching and training, such as: multi-media supported classes, the project of the training firm, autonomous learning of adults. Autonomous learning of adults became feasible when a modern equipped adult education centre was built for both adults and youth. The Centre for Adult Education of SC PBT plans to develop the programmes where the participants would be able to choose individually the type and the form of learning. This offer will be supplemented by workshops with different focuses (for example, successful learning, searching and mediating information, professional consultations etc.).

Besides that, the pupils, students and teachers participate in different projects, such as:

- the innovative project “Application of informational technology in classes of geography, history, physics”;
- the Training firm;
- development of high standard services;
- co-operation in the LEONARDO programme which facilitates the integration of European high schools in the field of telecommunications and business (i.e. in Prague, Vienna and Ljubljana);
- participation in various science and research projects like “Science to Youth” and “Confidence in Self-creativity”;
- under the guidance of the Ministry of Education and Sport (MES) and in collaboration with 23 other Slovenian high schools they take part in a computer literacy project with the main goal of achieving quick and quality communication between MES institutions.

The used modern teaching methods, participation in different projects, along with the modern equipment, which is at the disposal of teachers and pupils (for example the TV sets, projectors, video recorders, personal computers which enable multi-media-supported learning etc.), enable the school to create an atmosphere where teachers, pupils and their parents can work together to achieve their goals. School management is aware that a positive school environment is important for the motivation and commitment of pupils and consequently for their school success and development of all their abilities, skills and knowledge.

1.3 Market orientation of SC PBT

From the strong links with the two founding firms (Post of Slovenia and Telekom Slovenia), it is clear that the SC PBT is oriented towards the market, despite being an educational institution. Especially the Centre for Adult Education, as an organisational part of SC PBT, is market oriented in terms of both the needs and demand from individual (potential and actual) participants in adult education and training and of the expressed demand from the companies. As already mentioned, the SC PBT's Centre for Adult Education offers:

- education and training according to the accredited programmes for adults (to achieve a qualification on a secondary vocational or professional level) and
- the so-called functional education and training programmes. Those programmes are very flexible and for that reason enable the adaptation of courses to the needs and demands of participants.

The review of activities and the quality assessment achieved by diverse mechanisms (for example, interviews, meetings, research) gives the SC PBT the starting-points to design their educational programmes according to the needs and interests of companies as well.

1.4 SC PBT as an environment for integration of work and learning

For the project "Integration of work and learning" (IWL), SC PBT was attractive mainly because of its innovative, practical approaches to teaching methods applied in the training firm, and their research activities. Teaching methods used are based on two principles: the "learning by doing" and the "problem solving". The team of teachers and trainers is young and highly motivated for new innovative approaches that attract pupils' attention and motivate them.

Application of informational technology and the creation of autonomous Centre for Adult Education were additional reasons for including SC PBT in the IWL project.

Besides that, the reason was also its market orientation. SC PBT has intensive links with two companies, that is with Post of Slovenia and Telekom Slovenia. Close links with the employers have made SC PBT less dependent on the state, more responsive to the employers' needs and to the technological changes, and also more open to the innovation.

2 THE CHOSEN DEVELOPMENT ISSUES

After the initial discussions between the research/development teams of the Faculty of Social Sciences and SC PBT the following two development issues were chosen for work within our project:

- The training firm - the assessment of current practice and experiences, development of suggestions for its improvement and suggestions for broader use of the practice.
- Identification of training needs from the school point of view (identification of the needs and the demand for shorter and longer education and training programmes for adults) and assessment of current practices.

2.1 The training firm

A training firm is a simulated organisation where pupils (acting as employees) with the support of the teachers (tutors) perform different roles in specific working places. In such an organisation, they familiarise themselves with all activities undertaken in the actual firms. The only exception is the production, which is replaced by enterprise sales through a catalogue. Job rotation enables pupils to obtain a comprehensive overview of the company's activities, but they can also decide to specialise on one job.

Each year, two training firms are established in SC PBT. Each consists of 15 pupils in the third year of their schooling in the programme of business-commercial technician. These pupils have one working day per week available to fulfil their business "obligations", since they are at the same time normally involved in the educational process (four days in school, one day in the training firm).

The training firm is based on two main integrated principles that need to be stressed - that is on the "learning by doing" and on the "problem solving" principles. When attending their "functions" in the training firm, pupils have to connect together and apply all the theoretical and practical knowledge they have gained through the "normal" classes (for example knowledge on entrepreneurship, foreign languages, bookkeeping, correspondence etc.).

The experiment of the training firm was initiated in the 1996/97 school year and follows the example of Austrian system. SC PBT's training firm is part of a large network (headquarters in Vienna) consisting of 1000 similar training firms (in different countries).

The concept itself is relatively new in Slovenia, only few schools actually practise it. However, it is very interesting form of training in the initial educational programmes, especially in the service sector. Besides, the characteristics of Slovenian educational and employment legislation, that makes training of pupils in the companies rather difficult, makes the concept even more interesting for the secondary schools. The concept itself presents a good potential to offer the pupils some kind of work- related experiences from which they should benefit later on.

The potentials of the concept are themselves sufficient reasons for its assessment and dissemination. However, dissemination and broader use (e.g. for the post-secondary students, for the unemployed) of the concept demanded a closer look into the actual practice. The tasks of the research/development team were therefore focused around the following questions:

- a) How to organise better (more efficiently from the IWL point of view) the work of pupils in the training firm (i.e. the issues of job rotation, the role and the training of supervisors, project learning, introducing the non-standardised and problem solving situations, etc.).
- b) How to use the experiences with the training firm for youngsters, and how to modify the training firm for implementing it in the new two-year post-secondary programme of business economics that the School Centre started to offer in the school year 1999/2000.

2.2 Identification of training needs

SC PBT expressed interest in the issue of identification of the new training needs in the areas that they cover (post, business and telecommunications). The School Centre (especially its Centre for

Adult Education) already occasionally performed short surveys about the educational and training needs in the companies with which the School Centre cooperates. These surveys were especially aimed at the identification of areas and subjects for which the short training courses could be developed. The focus group of the surveys was the employees of companies. They were asked about their knowledge (awareness) of the programmes for adults offered by SC PBT, how the companies they were employed at approached the training of employees, which knowledge and skills they lacked most in their everyday work situations, what kind of training they lacked and what would be their suggestions and recommendations for the possible training programmes.

The unit for Adult Education within the SC PBT also carried out an assessment survey among the part-time students of post-secondary programme of Technology of traffics. The elements that this assessment survey asked about were: the motivation for studies, assessment of the organisation of the studies (according to the modules), assessment of the study conditions (space, equipment) and of the content (how interesting it was, how useful it was in their work practice, whether some issues were too much stressed or not stressed enough, etc.), assessment of study literature and the materials and assessment of the teaching itself.

It was agreed that within the project of Integration of work and learning the teams of the Faculty of Social Sciences and the SC PBT (its Centre for Adult Education) would together focus on the assessment of existing evaluation practices at SC PBT and assessment of the existing practices of identification of training needs, as well as on the possible improvements of both.

3 THE STEPS TAKEN

3.1 Training firm

After we agreed upon the development tasks, we moved to the **first step** in the development process. The first task was to set up the necessary framework for successful further work. The experts from the school were appointed to the research/development team and the main conditions of co-operation were determined.

In the **second step** we collected the most important information and relevant materials and documents related to the establishment and functioning of the training firm.

After we got the insight into the practise of the training firm, we moved to the **third step** – the participation and observation of the actual training of pupils. On the basis of the participation and observation, the observations and comments for the possible improvements of the implementation of training firm were prepared (in collaboration with the adviser from Centre for Vocational Education).

A training firm is a simulation of a »regular« firm. Its organisation is similar to the real organisation. It consists of different departments (e.g. administration, human resource department, accounting, selling, marketing, etc.) and different job tasks. Each pupil has his/her own working place and must perform particular job tasks. The overall goal of the training firm is to familiarise pupils with different job tasks that are usually performed within the company and therefore to prepare the pupils for work.

The outcome of the training firm largely depends on:

- The organisational structure of the firm (the organisational structure depends on the business activity which is performed and which in turn influences the job tasks);
- The frequency of rotation of pupils between the working places;
- The capabilities and capacities of mentors to motivate pupils and to conduct the training process;
- The communication among different training firms (the job tasks are more or less determined with every day communication with other established firms).

The participation and observation in the training firm has revealed two main problems:

- Lack of rotation between different job tasks (departments), and
- Standardisation of job tasks and the role of tutors.

Ad a) Lack of rotation between different job tasks (departments)

The pupils choose the working places at the beginning of the school year and they do not rotate between them. Therefore they get familiar only with one type of job tasks, which in turn does not enable them to develop the holistic view of working process and could make them even more rigid.

Nevertheless, one of the goals of the training firm is to make workforce more flexible, and thus, the rotation among different job tasks is necessary. Most desirable would be to change the working place at least four times per year. If this is not possible, at least the working meetings (team meetings) should be introduced. Team meetings could be held after a “working day”, where each student (department) would present his/her job tasks (what was done, etc) and they would discuss open questions and problems. Such form of working would stimulate the group dynamic, communication and the sense of integration into the same project.

Ad b) Standardisation of job tasks and the role of tutors

The job tasks are determined by the communication with other established training firms and are beforehand standardised. Only at the beginning of a school year the work of pupils is innovative and creative, later on the performance of job tasks becomes too standardised.

The tutor has a key role in the training process, since he/she has to motivate the students for common project and to place the specific job tasks into the broader context. The performance of job tasks helps students to understand the theoretical issues presented to them in regular classes, but the role of tutors is to relate separated job tasks and integrate them into the broader context.

The training firm has changed the role of the teachers throughout. The traditional concept of teaching, where the teacher is the leader of the process, is not a suitable and a desirable method anymore. In the training firm the teacher should become the tutor and adviser and the responsibility for work should be transferred to the pupils. Teacher should be able to improvise, to learn out of his/her own faults and should be innovative. He/she should have the characteristics of the entrepreneur – i.e. be capable of handling new problems and dilemmas. He/she should be familiar with the working process (e.g. job tasks) of the organisation (e.g. bank,

insurance company, etc.), which is simulated by the training firm. In Slovenia these preconditions could be problematic. The teachers are usually rather narrowly specialised what makes the application of the holistic approach more difficult. Here the training of tutors (teachers) plays the essential role. The Centre for Vocational Education already runs some programmes and projects for this purpose.

After the above stated conclusions about the actual practice of the training firm at the SC PBT, the next step – **the fourth** was the preparation of the suggestions for the improvements of the existing practice in the training firm.

The proposed suggestions were the following:

- To overcome the problem with the lack of rotation between different job tasks, the team meetings could be introduced. On those team meetings each student (department) would present his/her job tasks (what was done, etc), they would discuss open questions and problems. Such form of working would stimulate group dynamic, communication, and the sense of integration into the same project.
- The shortcomings of the standardised working environment could be reduced with the introduction of the real work-related problems into the training and with constant training of teachers (mentors).

To achieve the optimal training of the pupils, the closer connection with the environment (companies) should be established. One of the possible forms for this is the project work, where the experts from the companies would give to the pupils the examples of real work problems (real problems emerging in the work situations). The pupils would than analyse the problem, work on the possible solutions and propose the best solutions (with all the argumentation) to the companies. During this phase the experts from companies and the teachers would offer the help to the pupils. This method would stimulate the teamwork, analytical thinking of pupils, their problem solving orientation, etc. Such project work could be a form of updating the existing training firm.

Another form of connecting the school and the environment could also be the professional training of teachers within the firms. The teachers could along with the pupils become more familiar with the working environment, real working problems, innovations and expertise knowledge.

These suggestions were than, in the **fifth step**, discussed with the representatives of the school. They agreed with the observed shortcomings and have more or less accepted all the suggested improvements. Only the issue of too standardised environment was discussed more in detail. From the school representatives' point of view, at the secondary level the pupils are still too young (17 years) for the non-standardised problems, since they have to learn the basic standardised situations first.

The real work-related problems could be introduced into the training firm applied at the post-secondary level. The first enrolment figures showed that the participants in the two-year post-secondary programme are mostly young persons without much working experiences (immediately after the secondary school) and the unemployed persons, so the training firm would be a good

way of simulating the concrete working experience. On the post-secondary level the non-standardised situations for the real problem-solving could be introduced. The possibility of asking the companies to present the real problems that they are facing and the projects they are implementing, and ask the students to solve these problems and help the projects, was discussed. The school decided to approach the Post of Slovenia, the Telekom company and some banks for the co-operation.

Finally, it has to be mentioned that the circumstances for the implementation of the training firm changed substantially from the beginning of the project. Namely, at the beginning of the project the training firm was not part of the curriculum, but an extra-curriculum activity (a pilot project of the School Centre). Consequently, the school had to find its own resources for implementing it, there was not much training of the teachers (tutors) for it, and it was sometimes difficult to motivate pupils for more intensive co-operation (the participation in the training firm was not marked). With the school year 1999/2000 (starting in September 1999) the training firm was accepted (by the national accreditation bodies) to become part of the curriculum in the four-year programme for technician in economics (as the training carried out through the third year of the programme, one day per week). This was a result of the efforts of several schools all over Slovenia (including SC PBT) offering the programmes of economy and implementing the training firm on the pilot basis. With the training firm becoming part of the curriculum, the circumstances for its implementation changed – school is now able to obtain financial resources for its implementation (to pay the teachers, tutors and supervisors), the training of the supervisors is organised, and the pupils are more motivated to participate, since this is part of their regular school activities. Many shortcomings were in that way removed.