

# Manual

## For Practice Enterprise Implementation in Higher Education Institutions



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HEIPNET

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Inclusion of Innovative  
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# Manual for Practice Enterprise Implementation in Higher Education Institutions

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# Table of Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>Concept of a Practice Enterprise</b>	<b>2</b>
2.1	Definition of Practice Enterprise	2
2.2	Distinction from other Types of Business Simulations	3
2.3	Approaches to the Method	5
2.4	Concept of Action-orientation	6
2.5	Didactical Potential of a Practice Enterprise	9
2.5.1	Dual Control Cycle	11
2.5.2	Graz Model for Learning and Working in a Practice Enterprise	12
2.5.3	Practice Enterprise Target Groups	15
2.5.4	Entrepreneurship Competence Framework	16
2.6	Practice Enterprise Economy	18
2.6.1	Involved Institutions	18
2.6.2	Practice Enterprise Economy and Market	20
2.6.3	The International Practice Enterprise Market	21
2.7	Concepts of modelling a Practice Enterprise	23
2.7.1	Characteristics of Models	23
2.7.2	Characteristics of Simulations	26
2.7.3	Tools for Conceptualizing an Economically Valid Model	27
2.8	Role of the Practice Enterprise Teacher	31
<b>3</b>	<b>Performance Assessment in a Practice Enterprise</b>	<b>36</b>
3.1	Central Questions in Assessment	37
3.2	Examples for Assessment Instruments	39
3.2.1	Assessment Circle	40
3.2.2	Assessment Form	40
3.2.3	Portfolio	41
3.2.4	Skills Demonstration	42
3.2.5	Appraisal Interview	43
<b>4</b>	<b>Best practices and initiatives</b>	<b>44</b>
4.1	Best Practice Example – eXpand International Consultancy GmbH (Graz)	44
4.1.1	Structure of eXpand International Consultancy GmbH	46
4.1.2	Internal Processes and Semester Highlights	48
4.1.3	Annual PE Work Process	49
4.2	Best Practice Example – Vilniaus kolegija	50
4.3	Best Practice Example – UNIPV	50
<b>5</b>	<b>Outlook and Conclusion</b>	<b>52</b>
	<b>Bibliography</b>	<b>53</b>
	<b>Appendix</b>	<b>60</b>

## Table of Figures

<i>Figure 1: Holistic, Integrative Ability to Act</i> .....	8
<i>Figure 2: Control Cycle of Complete Action</i> .....	9
<i>Figure 3: Dual Control Cycle – PE from a Business and Learning Perspective</i> .....	12
<i>Figure 4: Graz Model for Learning and Working in a Practice Enterprise</i> .....	13
<i>Figure 5: Competence Areas and Competences</i> .....	16
<i>Figure 6: Progression Model</i> .....	17
<i>Figure 7: PE economy</i> .....	21
<i>Figure 8: Transformation Process of a PE</i> .....	25
<i>Figure 9: Osterwalder Business Model Canvas</i> .....	30
<i>Figure 10: Different Types of Assessment and their Corresponding Purpose</i> .....	36
<i>Figure 11: Assessment in Multi-Dimensional Learning Environments</i> .....	37
<i>Figure 12: Practice Enterprise Assessment Circle</i> .....	40
<i>Figure 13: Syllabus for the course ‘Practice Enterprise’ at the University of Graz.</i> .....	45
<i>Figure 14: Interaction between Processes and Departments</i> .....	46
<i>Figure 15: Overview Internal Processes</i> .....	48
<i>Table 1: Comparison of Simulation Methods</i> .....	4
<i>Table 2: Different Roles in the PE</i> .....	32

# 1 Introduction

A Practice Enterprise (PE) is a business simulation for learning purposes where students learn and act independently while carrying out several business operations. A PE resembles a real company in its form, organization and function and trades with simulated products and services with other companies on the PE market. The international PE market is coordinated by PEN Worldwide in partnership with the national Central Offices and with local education and training institutions in participating countries. A national Central Office is established in each participating country to examine the needs of the local environment and create a tailored plan for the delivery of the concept. In addition, it adapts the curriculum to meet the national education standards in terms of competences. Training is also adapted to suit the different target groups according to age, social and educational background and best practices to constantly improve the concept are shared within the national and international network. Trading with other Practice Enterprises is an essential component of the concept. Practice Enterprises trade with each other in a closed economy according to strict commercial principles. The global Practice Enterprise network consists of thousands of Practice Enterprises. Practice Enterprises simulate the commercial environment but no real money ever changes hands, the result for employees being virtual wages at the end of the month.

This handbook is the result of the Erasmus+ project *Inclusion of Innovative Work-Based-Learning and Business Partnerships in HEI Curricula Development (HEIPNET)* and a joint effort of the project partners at Vilniaus kolegija/University of Applied Sciences (Lithuania), University of Graz (Austria), University of Applied Science Klaipeda State (Lithuania), University of National and World Economy UNWE (Bulgaria), PEN Worldwide (Germany) and the University of Pavia (Italy).

The aim of this handbook is to provide a research-based insight into the multi-dimensional teaching and learning method of Practice Enterprise and to inspire teachers at higher education institutions to implement PEs as an instrument for teaching and learning. To address these aims, this handbook is structured into three main sections following the introduction: (1) Within the section *Concept of a Practice Enterprise*, main aspects of the teaching and learning method of PE are described, such as the concept of action-orientation or the main features of the PE economy. (2) Assessing students' performance in a multi-dimensional teaching and learning setting can be challenging. Within the section *Performance Assessment in a Practice Enterprise* therefore various instruments for assessment are introduced. (3) Since PEs can be implemented with regard to a wide variety of pedagogical aims, within section four different *Best practice examples and initiatives* in the field of higher education are introduced, to show the flexibility of the method and to inspire potential PE teachers.

## 2 Concept of a Practice Enterprise

This chapter intends to provide a theoretical basis and overview about the method of PE. This section covers the definition of a PE, the delimitation from similar teaching methods, a description of the different approaches of the method, the concept of action-orientation and the didactical potential of a PE. Moreover, this section provides information about the modelling of a PE, its features and instruments, an overview about the international PE market and the role of the teacher in a PE.

A PE offers trainees the opportunity to take ownership of their own learning, to learn about problem solving in an authentic and realistic international business environment. Students experience the consequences of their decisions at first hand in a highly cooperative setting and understand the dynamic of working as part of a team (PEN Worldwide, 2020a). The trainees develop entrepreneurship and communication skills. Intercultural learning and the respect of diversity are promoted. Employability is increased through growth in self-confidence and acquisition of transferable business skills. These experiences also offer real-life competences for their Curriculum Vitae, enabling them to compete with others with higher educational qualifications but lack of practical experience.

### 2.1 Definition of Practice Enterprise

Within literature, a broad variety of terms (Practice Enterprise, Practice Firm, Virtual Enterprise) might be found, which all share the most fundamental aspects of the method. The international PE network PEN Worldwide defines a PE as follows:

“A PE is a trainee-run company that operates like a real business. It silhouettes a real enterprise's business procedures, products and services. A *PE resembles a real company* in its form, organization and function. Under the *guidance of a trainer* or coach and business mentors, students and trainees create their PEs from product development, production and distribution to marketing, sales, human resources, accounting/finance and web design. As ‘employees’ of the PE, *trainees are responsible for its performance* and through the learning-by-doing methodology trainees develop ownership competences. They carry out market research, place advertisements, buy inventory, plan logistics, sell simulated goods or services and pay wages, taxes, benefits, etc. Each company engages in business activities, both nationally and internationally, with other companies within the PE network, following standard commercial business procedures and frameworks. There is *no actual transfer of real goods and money* but the *trade transactions* and financial exchanges *take place for real.*” (PEN Worldwide, 2020a; accentuation by the authors)

Summing up the most important aspects of this definition, the method of PE is (1) a **simulation of a real business**, where (2) the **flow of goods and services** is of **simulated** nature, however the **outside contacts** with members of other PEs worldwide are **real**. (3) In addition, the **teacher** or trainer plays a **significant role** within this didactic setting. (4) The method of PE is well suited to implement action-oriented learning (Peterssen, 2009, 142–153), which might also be subscribed by hands-on-learning (PEN Worldwide, 2020a). This type of learning is not identical to learning-by-doing, since learners have already gained a theoretical background on the topic. Other definitions share these aspects, e.g.:

- Tramm (1996a, 1) denotes the PE as a variant of the business-oriented company simulation, which is characterized by the interaction of a large number of PEs in a PE market.
- Stock, Riebenbauer and Dreisiebner (2019, 530–531) describe the PE as a business simulation, which serves the purpose of action and competence-oriented learning. Focused is the connection of thinking and acting in the sense of intellectual regulation of action taking.
- By definition of Seyd (1994, 66 and 151) the PE's function is to support students to understand the workflow within a business and to perform typical work assignments. During the vocational training students pass through various departments (f.e. accounting, secretariat) to understand the interaction of the individual operational processes within a company.

The terminology may vary from country to country (ex. Practice Enterprise, Training Firm, Virtual Enterprise), as well as their translations (ex. Entreprise d'entraînement, Übungsfirma, Empresa Simulada), however the methodology remains the same. Within this handbook, the term *Practice Enterprise* (PE) is used as a synonym for the terms Practice Firm or Virtual Enterprise.

## 2.2 Distinction from other Types of Business Simulations

Aside from the method of PE there are other types of business simulations that are used in vocational education and training. In order to ensure a clear definition of the different simulation methods, the methods Business Games, Learning Office and Junior Company will be clarified. Table 1 gives an overview of the four types of business simulations and the differences of each method:

*Table 1: Comparison of Simulation Methods*

	<b>Learning Office</b>	<b>Practice Enterprise</b>	<b>Junior Company</b>
<b>Flow of goods and services</b>	simulated	<b>simulated</b>	real
<b>External contacts</b>	simulated	<b>real</b>	real (but not with other Junior Companies)

*Adapted from: Gramlinger, 2000, 19.*

### **Distinction from Business Games**

Unlike Practice Enterprises, Business and Simulation Games have a pre-designed game frame. Under the constraint of specific resources and information (e.g. market data) students try to achieve the greatest success for a simulated business (Prim, 1997, 380–381). The game is structured into time units or periods in which the students make their decisions to solve the underlying problem (Kaiser & Kaminski, 1994, 164–165). Greenblat (1988) defines five fields of application for Business Games: (1) increasing motivation and interest, (2) teaching and training, (3) skill development, (4) attitude change and (5) self-evaluation or evaluation by others. However, the fact that only economic success is assessed within most games seems problematic (Kaiser & Kaminski, 1994, 181). Social aspects such as external contacts play no role in a Business Game. Furthermore, the students do not perform any classical commercial tasks such as bookkeeping. The focus lies on making decisions under certain circumstances (Riebenbauer, 2008, 22).

### **Distinction from Learning Offices**

Kaiser & Weitz (1992, 89) define the Learning Office as a complex and self-dynamic model of a real business. The students are divided into smaller learning groups than in Business Games. In an office atmosphere, the company's daily business (e.g. business correspondence, bookkeeping) is performed by the different departments and upcoming business activities are planned (Speth, 2002, 420). There are no real external contacts and the flow of goods and money are fictitious as can be seen in Table 1. In contrast to the Business Game, the focus lies on daily office activities (e.g. correspondence) instead of sole decision making. The difference between the PE and the Learning Office is that the Learning Office is a closed system. There is neither a market where other Learning Offices co-exist, nor real outside contacts since all communication is simulated by the trainer. Therefore, the students cannot observe and react to any market changes (Riebenbauer, 2008, 22).

### **Distinction from Junior Companies**

The Junior Company is a usual set for the duration of one school year, where students establish a company and offer self-developed products and services on the real market. In the beginning, the students develop independently their own business idea and go through all phases of a real business

project. These phases include the idea generation, the team building as well as the planning and the production of the products or services. The students are also responsible for the marketing and sales of their products or services and in the end of the school year for the closure of their business.

As Table 1 indicates, in contrast to the Learning Office and the PE, a Junior Company trades with real products and money and has (just like PEs) real external contacts. However, these contacts and interaction do not take place with other Junior Companies, but directly with suppliers and customers. Real capital is used (although only limited amounts) and business relationships with customers and suppliers are established (Speth, 2002, 423). The Junior Company and the PE differ in the degree of reality. A PE has no real economic risk (Fix, 1989, 23). Learning and working takes place in a protected area. Junior Companies bear entrepreneurial risk and therefore often operate under the legal and financial protection of a parent company (Berchtold & Trummer, 2000, 21–22).

### 2.3 Approaches to the Method

Holistic learning should be enabled by the concept of action taking, which is simulated through a PE. It is an interdisciplinary and multi-dimensional teaching and learning concept to combine theory with the practical application in professional work life in order to acquire competences for coping with future life and work situations (Peterssen, 2009, 287). According to this, Tramm (1996b, 67–68) presents the three following approaches for running a PE:

- Practice Enterprise as a *training of specific skills*. Within the first concept, the focus lies on combining different subjects and giving the learners the opportunity to apply their present skills. The learners should gain and strengthen their professional knowledge and skills in a narrowly defined functional area in order to make the students ready for the job.
- Practice Enterprise as an *instrument to aggregate different subjects*. This approach sees the PE as an extension of theoretical, school-based teaching and is characterized by the concept of practical-oriented exercises and the concentration on business knowledge. The professional knowledge, which the students gained in various business administration subjects in school, is brought together to understand the connection between all subjects. Depending on the situation and the task, the existing knowledge, skills and abilities are applied and strengthened during PE work. For this fact, a sufficient basic knowledge is required. The PE method is used at the end of a vocational training measure – as a supplement to traditional teaching methods and to strengthen acquired knowledge and skills. This shows that theoretical learning and practical-oriented exercises are still separated from each other.
- Practice Enterprise as a *specific learning environment*. The last approach is based on the basic idea of interlinking theoretical-systematic learning and practical application. As a dynamic simulation model of a company, the PE offers students a complex field of action and

experience. Students not only perform isolated commercial activities, they also recognize economic relationships, make company decisions and can track and reflect their effects (Linnenkohl & Ziermann, 1987, 77; Achtenhagen & Tramm, 1993, 164). In contrast to the other approaches, this approach is not located at the end of a vocational training. It is an integral part of the curriculum right from the start of a certain training. This means that the PE, as a dynamic and operative model, depicts operational reality, but detaches itself from an exact imitation of a real company. Instead, it can shape the complexity of operational reality in a situational and didactical manner (Reetz, 1984, 23). This type of shaping is called modeling of a PE and it enables three steps to give reality more transparency and clarity (Reetz, 1984, 352).

With the approach of a *specific learning environment* Reetz (1977, 4) and Tramm (1996b, 66–67) emphasize that the PE offers the didactical opportunity to become a place of learning and to achieve a new connection between theory and the professional work life in the sense of action-oriented teaching and learning. As a result of this approach, Reetz and Tramm reject the common German term *Übungsfirma* (Practice Firm), because a PE is much more than a company to practice with and the term does not imply what this learning environment is capable of.

The learning environment must be modeled didactically in a way that the students can learn and act flexible and theory-based. The focus lies on learning and further competence development, but not only on applying or practicing knowledge, skills and abilities that have been already acquired. This connection between theory and the professional work life controls the rules of business and social reason and the students build a flexible applicable cognitive map of the business model (Tramm, 1996a, 127). The PE designed as a learning environment meets the requirements of a modern vocational training concept.

## 2.4 Concept of Action-orientation

Within a modern work environment, learners are expected to be able to solve problems independently based on their own planning, implementation and control. In order to achieve the ability of acting independently, the comprehensive *concept of action-orientation* is frequently used. Learning processes are action-oriented, when learning events are organized in a way that students can act in a deliberate and systematic manner. A goal-oriented action requires that the learning process contains meaningful goals in the form of tasks and problems from which students can increasingly organize their activities independently. Thinking and practical action are closely related because of their similar structure. Action-orientation always aims to be deliberate and systematic (Reetz & Seyd, 1995, 212).

From a cognitive psychological point of view, the concept of action-orientation is based on Aebli's (1978, 241–243) statement that thinking, knowledge and ability arise from practical action and

perception and that they must prove themselves again in action. In this context action-orientation does not mean any kind of random behavior. For a clear demarcation, Aebli (1978, 18) defines the term *doing* as intentional, targeted behavior.

The PE's didactical focus as an action-oriented method of teaching and learning is therefore a targeted action in the sense of students' doing respectively of their learning actions. Therefore, PE activities take place in the rhythm of action – learning (reflection and abstraction) – (new) action (Reetz & Seyd, 1995, 212). According to Gudjons (1998, 109–111) action-orientation can be characterized by the following five essential characteristics:

- *Activation of as many senses as possible.* The mental and sensual-physical activity is united since the search for factual information results from the goals and necessities of action.
- *Personal responsibility and methodological competence of students.* Action-oriented teaching is goal-oriented or purpose-oriented. However, these goals are not set solely by the teachers. Students are given the opportunity of self-monitoring and personal responsibility.
- *Product orientation.* Products and services can be objective (e.g. a manual, a seminar document, annual financial statements) or they can only have a message value. It is essential that the results of the students' PE work become apparent.
- *Cooperative action.* The process of working together respectively the process of cooperation is just as important as creating a product or service. The students learn from and with each other.
- *Relation to life.* Action-orientation tries to establish a connection between learning in the educational institution (i.e. school, university) and the surrounding reality. This form of teaching and learning tends to be interdisciplinary.

### **Concept of a *Holistic, Integrative Ability to Act***

Weinert (2002, 27–28) interprets competences as the cognitive skills and abilities of individuals, that they already have or that can be learned, to solve certain problems, as well as the motivation, social willingness and responsibility to do so. According to Peterssen (2009, 10), a person is considered capable of acting or competent to act if he or she is able to cope with as many situations as possible in life, because he or she can independently solve the problems that arise.



Figure 1: Holistic, Integrative Ability to Act

Source: adapted from Peterssen, 2009, 14.

Figure 1 shows that action competence is a combination of four components: (1) professional competence, (2) social competence, (3) methodological competence and (4) self-competence. The concept of a *holistic, integrative ability to act*, shown above, makes clear that a single component, such as professional competence, is not enough. To be able to cope with different situations and to solve problems independently on one's own responsibility, a combination of several competences is needed. Action competence only arises through their interaction (Berchtold & Stock, 2006, 6). Since subject orientation is of great importance in the PE, students' personal development is the center of didactic efforts (Ruf, 2006, 6).

### Concept of Complete Action

In the sense of action-orientation, an action is only *complete* when the learners, (1) plan, (2) perform and (3) control their action. The learners go through these phases independently, but not alone. Developing and promoting the ability to regulate action intellectually means that students' actions should be independent and complete. Students are introduced to it step by step (Peterssen, 2009, 145). Action-oriented teaching requires a mutual clarification of learning goals. As Figure 2 shows, the role of the teachers and the students varies in the diverse stages of the model. The process of action-oriented learning is designed in a way that students and teachers first formulate a common goal or learning target (*target formulation*) and then draft a scheme for the planned actions (*plan*). After they perform their actions (*do*), they *check* the outcome independently and reflect on their own actions (Stock, Riebenbauer & Dreisiebner, 2016, 10).

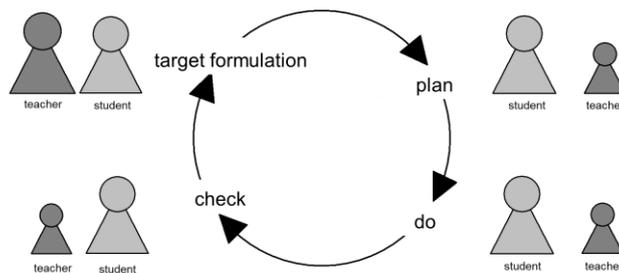


Figure 2: Control Cycle of Complete Action

Source: representation based on Berchtold & Stock, 2006, 6.

In that matter *independent acting* does not mean acting alone. Teachers support their students in this process in terms of support, mentoring and moderation. Senge (1990) described the new tasks of managers as designers, coaches and stewards (Berchtold & Stock, 2006, 6). These requirements can be converted to teachers, as figure 2 illustrates. When setting goals and learning targets, more support and guidance from the teacher is usually required (cone symbols of the same size). Then students take on more and more responsibility during the work progresses (cones of different sizes).

The aim of action-orientation in the PE is primarily to foster the students' ability to regulate their own actions intellectually (Berchtold & Stock, 2006, 6; Peterssen, 2009, 143). This means that students use their own minds before actually taking action. Therefore, they mentally design an action plan and so they are able to plan and control action. This intellectual ability is promoted by the PE's action-oriented method. The PE leaves the conceptual planning of the execution to the students. Central aspects of action-orientation in the PE can be summarized as follows (Berchtold & Stock, 2006, 6):

- Students must be able to act independently in the PE.
- Students cannot be left alone with their tasks and problems in the PE.
- Students of the PE need guidance, advice, supervision and support from the teacher.
- Learning processes respectively PE actions must be targeted, planned, independently and complete.

## 2.5 Didactical Potential of a Practice Enterprise

The PE is a *place for complex actions and experiences* in which a simulated business is developed for learning purposes (Tramm & Grammlinger, 2006, 8). PE activities enable a learning process on two levels. The first level enables a *learning in the model* of the PE and the second level enables a *learning on the model* of the PE (Achtenhagen & Tramm, 1993, 171–172; Stock, Riebenbauer & Dreisiebner, 2016, 12):

- Regarding the first level – learning in the model – the students immerse themselves in the PE and take on various work roles as acting subjects. As employees of the PE, the students

perform commercial activities and can use their theoretical knowledge to solve problems and can develop action-related skills.

- Referring to the second level – learning on the model – the simulation model of the PE plays a central role. The students step out of their daily PE tasks and take a look at the model from a meta level, which means they analyze their own actions and learn from the model company with a holistic corporate perspective

The Practice Enterprise is the ideal forum for entrepreneurship training. Trainees can put their business knowledge to the test, try out new concepts, develop and implement their business plan, experience the different departments and roles in a business and get a first-hand chance to create a budget and manage finances, in an environment with limited risks. The Practice Enterprise action-oriented concept aims at simulating the entrepreneurial spirit and contributes to business competence development and entrepreneurial self-confidence and competence.

Entrepreneurship in a broad sense comprises the development of learners' autonomy on different levels. These levels comprise aside the level of *entrepreneurial autonomy* (the autonomous entrepreneur as founder and leader of a company) also the level of *vocational autonomy* (intrapreneurship). The intrapreneur has the ability to work autonomous within a company and to make own decisions based on the company's goals. In broader terms, the concept of autonomy might also be extended to the ability to the worker's ability to obtain, develop and market one's own competences (*self-marketing*) and to *personal autonomy*, as the ability of organizing her/his own life actively, adequately and in a responsible way (Tramm & Grammlinger, 2006, 2).

Entrepreneurship training in this sense has two main objectives: firstly, help students in making decisions about their training and experience, in order to adapt their competences to working conditions in continuous process of change and, secondly, to make them aware of the need entrepreneurship, considered not only as a set of qualities and competences to start a business, but as a general attitude that can be useful in their professional activities, as in everyday life. From this perspective, the concept of entrepreneurship should include this twofold: basic education in entrepreneurial attitudes and experiences enhance the autonomy, initiative and self-confidence, and a more specific training aimed towards training for the development of a project of entrepreneurship.

Within literature, there is a consensus that measures of entrepreneurship education show a positive impact on learners' intention towards becoming an entrepreneur (Bae, Qian, Miao, & Fiet, 2014; Gorman, Hanlon, & King, 1997). General guidelines for entrepreneurship education in the context of the method of PE are: The subject should enable students to understand the values and new work cultures, namely those concepts and key behaviors to confront successfully the world of work, while giving them confidence in their ability to improve. It should also help to connect the curricula of other matters that may be important in the workplace: the use of computer applications used in

administrative management of companies, using different languages to establish social relations or commercial use strategies applied to solve problematic situations and social competences that promote teamwork and interpersonal relationships. This subject contributes to the attainment of basic competences such as autonomy (with autonomy being a central aspect of entrepreneurship according to Tramm & Gramlinger, 2006) and personal initiative and learning to learn as students develop competences that have to do with leadership, taking responsibility, the ability to by choosing to imagine projects and carry out actions, but also to learn from the mistakes and take risks, and be able to continue to learn more efficiently and independently.

The activities carried out in the field of entrepreneurship also allow to develop competences related to digital competence, which involves the processing and presentation of information and the use of social networks for specific purposes. Moreover, the digital competence is also manifested in the ability to adapt to new patterns of work, involving forms of organization and communication as a result of technological changes (e.g. digital transformation; Matt & Hess & Benlian, 2015) and the willingness to constantly develop the own competences. The matter also contributes to the development of social and civic competence, learning how to assess individual and group interests, to work together to exercise citizenship in the workplace, but also in personal life, and to be able to make decisions with consistency and responsibility as an individual entrepreneur, worker (i.e. intrapreneur) or consumer.

### **2.5.1 Dual Control Cycle**

Since a PE represents a simulation of a real enterprise which is only used for learning purposes, a PE can be seen from a pedagogical point of view (i.e. from a *learning perspective*) and from an operational point of view (i.e. from a *business perspective*). The PE from a business perspective strives for further development from an economic perspective. The PE from a business perspective aims at further development according to pedagogical aspects (Berchtold & Trummer, 2000, 23). Within both perspectives, complete action (as described in section 2.4) should take place.

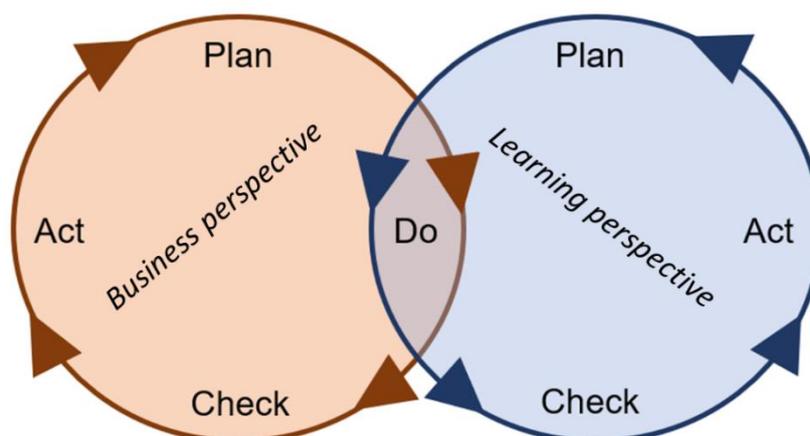


Figure 3: Dual Control Cycle – PE from a Business and Learning Perspective

Source: translated from Stock, Riebenbauer & Dreisiebner, 2016, 13.

The *dual control cycle of a PE* relies on John Dewey's control cycle of the project method, which was derived by David Kolb (learning wheel) and evolved by William Deming to the *Deming Wheel* which involves the phases *Plan – Do – Check – Act*. Figure 3 illustrates the duality of the method, whereby the business and the learning perspective have separate P-D-C-A cycles. The PE is looked upon once from a pedagogical point of view (as a learning process) and once from an operational point of view (as a company). The two circles overlap in the Do-phase, which is the daily PE work. The students have to pass through both cycles to enable a complete acting. The focus lies on the measurement and reflection of the undertaken actions during the daily PE work (Stock, Riebenbauer & Dreisiebner, 2016, 13).

### 2.5.2 Graz Model for Learning and Working in a Practice Enterprise

Based on the Dual Control Cycle, the so-called *Graz Model for Learning and Working in a Practice Enterprise* provides a better understanding of the PE method, its design possibilities as well as the role of the teacher and her/his methodological and didactical questions. Furthermore, the model provides valuable support in the development and further advancement of the PE method, in which connections and networks are shown and a common understanding for the PE method is given (Stock & Riebenbauer, 2008, 1–2, 5). The model consists of *three consecutive levels* (or different perspectives to look upon the method of PE): (1) the *business perspective*, (2) the *learning perspective* and (3) the *meta perspective*.

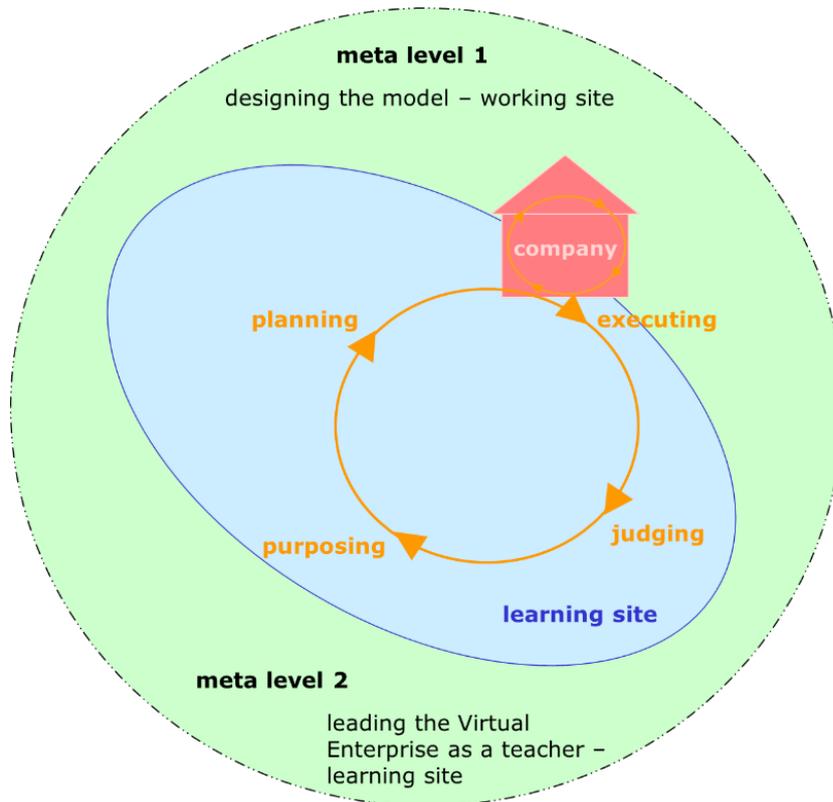


Figure 4: Graz Model for Learning and Working in a Practice Enterprise

Source: representation based on Berchtold & Stock, 2005, 126.

Within Figure 4, the interaction between the three consecutive levels is shown. Within the *business perspective*, the focus is drawn on the PE as a company. Students work in the different departments and processes of the PE, conducting their daily business. However, a PE is defined as business simulation for learning purposes – therefore the *learning perspective* specifically focuses student learning. On both levels, students should perform a complete action cycle (as defined in chapter 2.4). At last, the *meta-perspective* is concerned with the design of the model itself.

## 1) Business perspective

The business perspective is constructed by using the model of the respective PE. The benefit is to depict reality of a real enterprise as much as possible and to enable an optimal learning process. From the business perspective, the students have the role of the employees or team leaders and should set goals, plan, implement and evaluate their actions as well as recognize economic connections (Stock & Riebenbauer, 2008, 4). The business level is the most obvious level for learners (Berchtold & Stock, 2005, 127). In addition to the strategic orientation and the implementation of a process organization, the control cycle and reflection are central components. Above all, the students should understand economic relationships and combine business theory with the professional work life (Stock & Riebenbauer, 2008, 4).

## 2) Learning perspective

The modelling of the *learning environment* (the PE viewed from a learning perspective) can be seen as a central task of the teacher, because the focus of the method lies on learning and an optimal encouragement of the learning process. The teacher is responsible for the creation of an optimal framework, within which students can pass through the cycle of goal setting, planning, implementation, reflection and connection in order to enhance their competence development (Berchtold & Stock, 2005, 128–129). The learning level can be understood as a *time-out* from the business tasks. The students step back from their roles as employees and get back the roles as learners. This level tries to show the students the connections, processes and interactions in the operational context as well as their own development of social skills. The students should get the opportunity to obtain situational distance from their decisions and actions in the company. They should be able to compare and combine the gained knowledge with their assumptions and previously learned theoretical elements (Berchtold & Stock, 2005, 129–130).

## 3) Meta Perspective

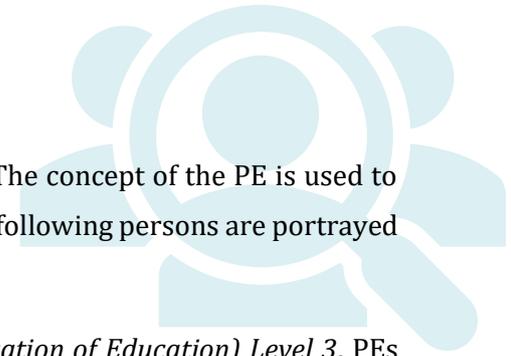
The *meta level* completes this model and affects mainly the teacher of the PE. The subject of reflection is central in the meta level as well as in the other two levels. The meta level has two perspectives: (1) the *perspective of modelling the PE* (business and learning perspective) and (2) the *pedagogical perspective* which involves aspects such as teaching-methods, assessment or the role of the teacher (Berchtold & Stock, 2005, 130–131). Since this level focuses on aspects of leading a PE and methodological-didactical questions, the meta level is especially relevant for ongoing PE teachers. Moreover, the question of modelling and simulating a PE can be considered and this offers the possibility to work intensively with the PE method and the role of teachers and learners. The meta level is therefore indispensable for a university-run PE in the field of business education as with focus on preparing ongoing PE teachers (Stock & Riebenbauer, 2008, 7).

### 2.5.3 Practice Enterprise Target Groups

The target group of the method is as versatile as the method itself. The concept of the PE is used to train and educate young people and adults. For this learning method following persons are portrayed as the target group (PEN Worldwide, 2020b):

- *Secondary Education, ISCED (International Standard Classification of Education) Level 3.* PEs on this level enhance students to try out different tasks and jobs. As a consequence, they experience where their career could take them. Furthermore, intercultural learning and the respect of diversity are promoted. Students are equipped to deal with today's fast-changing world through interacting with other secondary students all over the world.
- *Vocational Education, ISCED Level 4-5.* The majority of PEs worldwide are established in VET (vocational education and training) institutions and schools. Students are able to gain real-world work experience. Through working in a practical way and working together in a group, a change in behavior occurs. Moreover, students can practice taking over a leadership role. All in all, they are provided to succeed in the real world and they can apply their learning experiences to a CV.
- *University Students, ISCED Level 6-7.* This level often is a first work experience for university students. The method enables university students to gain professionalism, business acumen, corporate knowledge, presentation skills and teamwork. Furthermore, hands-on knowledge and expectations of the workplace and the economy are being developed as well as the improvement of employability and the spirit of entrepreneurship.
- *Job Seekers.* A PE provides an ideal learning environment for each participant to work and learn at her or his pace. Real events are simulated. This way participants are given the opportunity to learn from mistakes. PE enhance the quality of life for disadvantaged and disabled people by offering them the opportunity to acquire real-life skills. As a result, their access to the labor market increases.
- *Entrepreneurs.* A PE provides the opportunity to put business knowledge and ideas to test. New concepts are being tried out whereas business plans are developed and implemented. A PE can be an innovative entrepreneurship experience with limited risks. Different target groups are enabled to develop their business skills and increase their entrepreneurial self-confidence and competence.

The method of PE as a multi-dimensional teaching and learning setting is of highly flexible nature. The setting might be applied to a wide variety of target groups, including university students. Depending on the potential target group and the didactical aims, the modelling of a PE might be varied. However, the central aspect of being a *business simulation for learning purposes* remains constant.



## 2.5.4 Entrepreneurship Competence Framework

One of the key policy objectives for the EU and its member states have been the development of the entrepreneurial capacity of European citizens and organisations for many years. The benefit for individuals and the society of entrepreneurial skills, knowledge, and an entrepreneurial attitude can't be outlined enough. For this reason, the European Commission launched the Entrepreneurship Competence study (EntreComp) in 2015. One of the main objectives of EntreComp was to develop a common conceptual approach, which could support the development of entrepreneurship competence at European level (Bacigalupo et al., 2016, 5). For this reason, the EntreComp Framework also plays an important role in this HEIPNET project. The call for entrepreneurship education is becoming increasingly important. Therefore, also the tertiary sector must refer to this topic and deal with it. The action-oriented method of the Practice Enterprises is particularly suitable for promoting entrepreneurship. The Entrepreneurship Competence Framework should be a tool to improve those entrepreneurial skills.

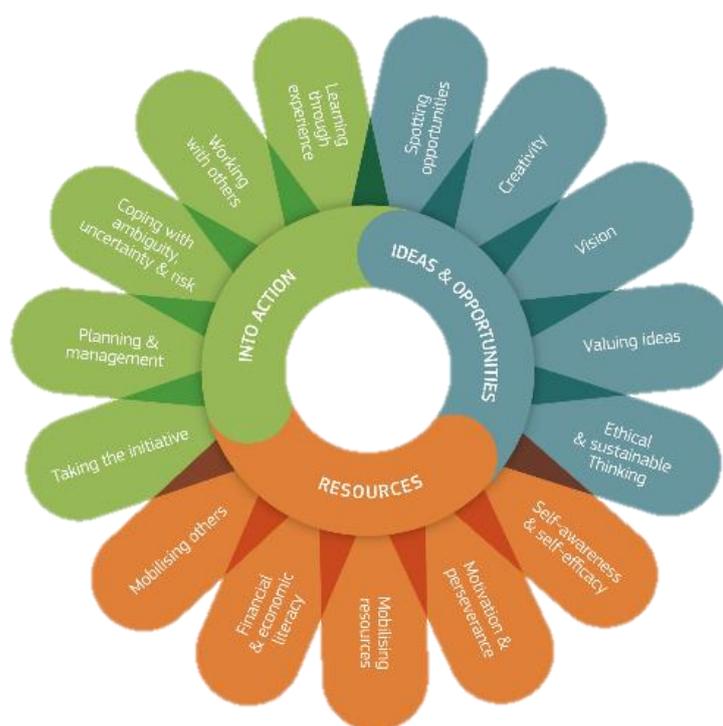


Figure 5: Competence Areas and Competences

Source: EU Science Hub, 2019.

The European Commission defines EntreComp as a framework that “consists of 3 interrelated and interconnected competence areas: *Ideas and Opportunities*, *Resources* and *Into Action*. Each of the areas is made up of 5 competences, which, together, constitute the building blocks of entrepreneurship as a competence.” (Bacigalupo et al., 2016, 5, accentuation by the authors) The aim of EntreComp is to build a common ground and consensus for entrepreneurship and thereby, provide a bridge between education and the world of work.

As seen in Figure 5 EntreComp differentiates 3 competence areas which again are separated into 5 competences. Each competence is explained by a detailed description allowing educators and evaluators more insight into each competence. The 15 competences are further divided into a total of 60 threads. For each thread there are specific Learning Outcomes (EU Science Hub, 2019).<sup>1</sup>

To make each competence evaluable, EntreComp also comprises a Progression Model which shows parallels to other European frameworks such as the CEFR (Council of Europe, 2001). The Progression Model (see Figure 6) is set up in 4 major levels: Foundation, Intermediate, Advanced and Expert. Each level is separated into 2 sublevels as for example in the Foundation level, a learner can be examined as *Discover* or *Explore*. *Discover* referring to the lowest level and very basic competences and threads needing direct supervision and support. *Explore* meaning that the learner already has the competences to work with reduced support from superiors and has some autonomy (McCallum et al., 2018, 18–20).

EntreComp progression model							
FOUNDATION RELYING ON SUPPORT FROM OTHERS		INTERMEDIATE BUILDING INDEPENDENCE		ADVANCED TAKING RESPONSIBILITY		EXPERT DRIVING TRANSFORMATION, INNOVATION AND GROWTH	
Under direct supervision. (Includes, for example, support by teachers, mentors, peers, advisors, or consultancy services)	With reduced support from others, some autonomy and together with my peers.	On my own and together with my peers.	Taking and sharing some responsibilities.	With some guidance and together with others.	Taking responsibility for making decisions and working with others.	Taking responsibility for contributing to complex developments in a specific field	Contributing substantially to the development of a specific field
<b>1. Discover</b> Level 1 focuses mainly on discovering your qualities, potential, interests and wishes. It also focuses on recognising different types of problems and needs that can be solved creatively, and on developing individual skills and attitudes.	<b>2. Explore</b> Level 2 focuses on exploring different approaches to problems, concentrating on diversity and developing social skills and attitudes.	<b>3. Experiment</b> Level 3 focuses on critical thinking and on experimenting with creating value, for instance through practical entrepreneurial experiences.	<b>4. Dare</b> Level 4 focuses on turning ideas into action in 'real life' and on taking responsibility for this.	<b>5. Improve</b> Level 5 focuses on improving your skills for turning ideas into action, taking increasing responsibility for creating value, and developing knowledge about entrepreneurship.	<b>6. Reinforce</b> Level 6 focuses on working with others, using the knowledge you have to generate value, dealing with increasingly complex challenges.	<b>7. Expand</b> Level 7 focuses on the competences needed to deal with complex challenges, handling a constantly changing environment where the degree of uncertainty is high.	<b>8. Transform</b> Level 8 focuses on emerging challenges by developing new knowledge, through research and development and innovation capabilities to achieve excellence and transform the ways things are done.
<b>EXAMPLE: LEARNING OUTCOMES / AREA: IDEAS &amp; OPPORTUNITIES / COMPETENCE: CREATIVITY / THREAD: DEVELOP IDEAS</b>							
I can develop ideas that solve problems that are relevant to me and my surroundings	Alone and as part of a team, I can develop ideas that create value for others.	I can experiment with different techniques to generate alternative solutions to problems, using available resources in an effective way.	I can test the value of my solutions with end users.	I can describe different techniques to test innovative ideas with end users.	I can set up processes to involve stakeholders in finding, developing and testing ideas.	I can tailor a variety of ways of involving stakeholders to suit the needs of my value-creating activity.	I can design new processes to involve stakeholders in generating, developing and testing ideas that create value.

Figure 6: Progression Model

Source: McCallum et al., 2018, 20.

To provide an example, the Competence Area *Ideas and Opportunities* includes the Competence *Creativity*. One of the Threads building the Competence *Creativity* is *Develop Ideas*. To evaluate the Thread, *Develop Ideas*, 8 Learning Outcomes in the form of statements are given. Thereby, a trainer,

<sup>1</sup> More detailed information about the threads and specific learning outcomes can be found on the website <https://ec.europa.eu/jrc/en/entrecomp/competence-areas-and-learning-progress>

teacher or learner can easily read the statements and check which is the best suitable one. Based on the statement the Thread and Competence can be evaluated referring to the Progression Model (compare Figure 6).

Various educational institutions across Europe and abroad are using EntreComp as a base and starting point for capturing different learning levels, student surveys and enabling self-evaluation. As the European Commission states that “EntreComp learning outcomes may not be sufficiently specific to be directly used for didactic planning or curriculum development. They may need to be adapted to real learning contexts to become meaningful and applicable. With the different starting points of an individual learner and the different priorities of a learning activity or goal, learning outcomes for the same activity may be drawn from different levels of the progression model to reflect this.” (McCallum et al., 2018, 19)

For this reason and referring to the implementation of Practice Enterprises in higher education EntreComp can be applied to the Practice Enterprise in terms of evaluating the competences acquired in through the learning-by-doing methodology working in a PE. The statements and threads should be tailored to the specific goals and learning outcomes of a PE/the curriculum and can be evaluated based on the progression model. For example, diverse surveys and self-evaluations should be based on EntreComp and applied before and after working at a PE. This allows a direct comparison of the competence levels and visualizes the student’s progressions and improvements in entrepreneurial skills.

## 2.6 Practice Enterprise Economy

The PE Network is a simulated learning environment in which students are immersed to live business situations. Each unit of the PE Network is a virtual company run like a *real* business silhouetting a *real* firm’s business procedures, products and services. PEs try to reproduce *real conditions*, where students can experience the total environment of working in an organization. The concept of the PE Network is built around five key notions: Coordination Centre, Central Offices, Practice Enterprise Units, Practice Enterprise Market and Business Partners.

### 2.6.1 Involved Institutions

Various institutions ensure a functioning PE economy. Most important – alongside with the *individual Practice Enterprises* – are the *Coordination Center* and the various *National Central Offices*.

#### Coordination Center

Practice Enterprises are integrated into the international Practice Enterprise network, leveraging the use of tools and approaches to optimize Practice Enterprise impact. This international network is

centrally managed through the Coordination Center which supports, coordinates and develops services adding value to the activities carried out at national level to promote and enhance the concept of learning in and from a simulated business environment. All information about the Coordination Center might be accessed via <https://www.penworldwide.org/>

### National Central Office

The National Central Office is a central interface of a particular national PE market and the connection to the international PE network (Phillip, 1998, 6). The staff of a National Central Office provides all essential macro-economic functions and supporting operations which are expected to be available in the real business world to create a complete economic simulation for PEs in a country.

- (1) The Central Office is the reference point for contacts between a unit of a Practice Enterprise and the *simulated outside world*. The PE world is essential for the operation of the Practice Enterprise. The Central Office provides i.e. the services of a bank, insurance services (health, social, possessions), tax office and other government agencies. It functions also as an accountancy adviser, a supplier centre and a financial market for Practice Enterprises.
- (2) The Central Office has charge of coordinating the units of Practice Enterprises under its concession area, providing the link between all Practice Enterprises both in the national and in the international market (i.e. transactions of currency when a Practice Enterprise sells abroad).
- (3) The Central Office acts as a coordinator for trade fairs and seminars in its concession area. There are local, regional, national and international trade fairs.
- (4) The Central Office supports the expansion of the model, aggregating new followers to the system.

#### Interested in your National Central Office?

A full list of National Offices might be accessed via <https://www.penworldwide.org/locations/>  
Some European National Offices include:

National Office	Operating in the country since/ Member of Penworldwide since	Number of Practice Enterprises (April 2020)	Webpage
ACT – Austrian Center for Training Firms	1987/1993	830	<a href="http://www.act.at">www.act.at</a>
Simulith Centre (Lithuania)	1993/1999	45	<a href="http://www.sl.viko.lt">www.sl.viko.lt</a>
BUCT – Bulgarian Center for Training Firms	1995/2003	350	<a href="http://www.buct.org">www.buct.org</a>
Simulimpresa (Italy)	1993/1994	221	<a href="http://www.simulimpresa.com">www.simulimpresa.com</a>
ZÜF – Zentralstelle des deutschen Übungsfirmenrings (Germany)	1954/1993	503	<a href="http://www.die-zentralstelle.de">www.die-zentralstelle.de</a>

### Individual PEs, working and learning from their Practice Enterprise Offices

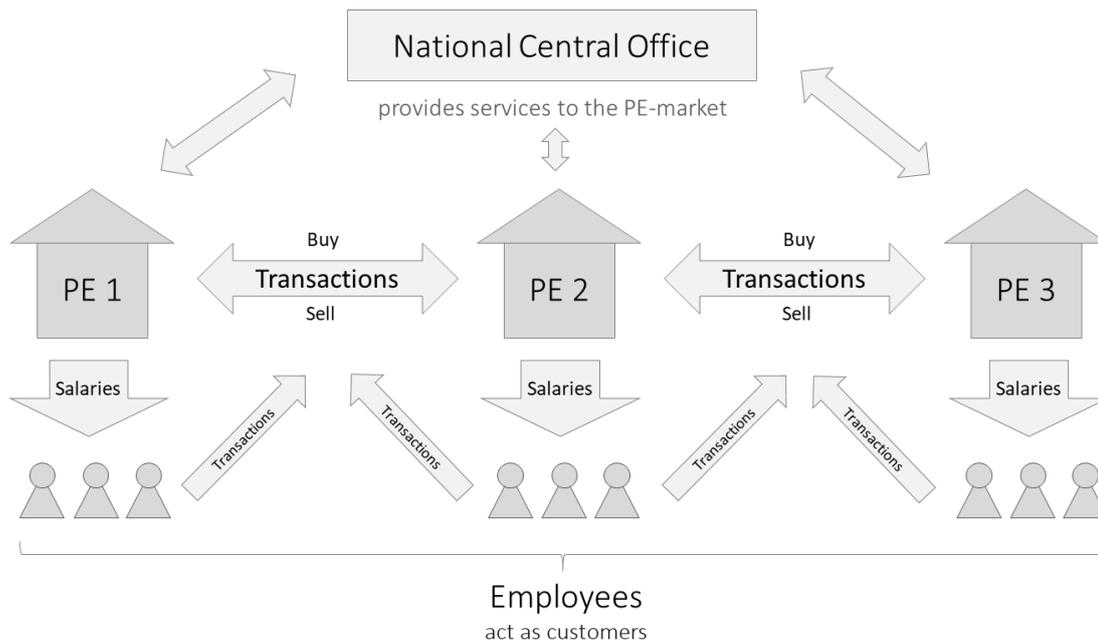
A PE usually has its own physical location which is mostly equipped as an open-plan office. The equipment of a PE office consists of modern office-, information-, and communication facilities such as typical office equipment, computers, printers and telephones. By using the latest IT technology, students train their MS Office skills as well as their skills in the areas of accounting and sales by using special bookkeeping-software. This enables the students to gain valuable experiences while dealing with databases, e-business, online-banking, creating and maintaining websites. PE classes are usually conducted in block lessons, which represent the official PE office hours (Riebenbauer, 2008, 26–27).

The PE is divided into different organizational units like in a real company. The students often work in profit centers or departments such as marketing, accounting, controlling, logistics, secretariat, purchase, sales or human resources, where they perform specific tasks (Phillip, 1998, 5). Even though the students operate mainly in their own department, they should get an overview of the entire PE (which might be achieved via job rotations). However, the focus lies on the process organization and not on the organizational structure. According to this, the students' process-thinking should help them to recognize what contribution their work brings and how their work influences the well-being of the entire company (Berchtold & Trummer, 2000, 71–73).

Riebenbauer (2008, 149) conducted an empirical study on PE work and considered among others the organizational units of PEs in Austria. The results of the 299 PEs show that the five most important departments are Accounting (98%), Secretariat (95%), Purchase (92,6%), Marketing (90%) and Sales (79,9%). About two to three students work together in each organizational unit (Riebenbauer, 2008, 149). The accounting department had the largest average number of employees with the main focus on routine activities such as daily bookkeeping, payment transactions and open item management.

### **2.6.2 Practice Enterprise Economy and Market**

One of the most important benefit is the trade with other PEs on the national and international PE market (Linnenkohl & Ziermann, 1987, 77). PEs have real external contacts with other national and international PEs as well as with PE service centers like the National Central Office. Together they build the PE market respectively the PE economy. This PE network can be understood as an open system, where different PEs are corresponding with each other and the Central Offices. The National Central Office as described before, is the central hub of the PE economy and connects the national with the international PE network (Phillip, 1998, 6).



*Figure 7: PE economy*

*Graphic adapted from Riebenbauer (2008), 26.*

The students take on different roles in the PE economy. One is the role as an employee role when the students fulfill all business activities and are responsible for the success of their PE. Another role is the role as a consumer in the PE economy. As an employee, the students receive a simulated salary or wage which they should spend for goods and services on the PE market. Such purchases of students in the role of an end-consumer are labeled with the term 'staff purchase'. These consumed salaries are then returned to the PE economy and the economic cycle of the PE market is closed (Stock, Riebenbauer & Dreisiebner, 2016, 21). National and international business contacts are maintained with media such as the internet, e-mails, websites, webshops or online trade conferences.

### 2.6.3 The International Practice Enterprise Market

To promote cross-border business activities and cooperation between PEs, both national and international, PE networks have been established. Together the approximately 7,000 PEs worldwide form a global PE market. Through the widespread use of modern information and communication technologies, large spatial distances are easy to overcome in both the real and the virtual economy. The students train their foreign language skills, they get to know the economic cultures of other countries and acquire practical knowledge about contract modalities, payment transactions and legal provisions. The positive consequence of these business relationships between the PEs are often joint projects, school partnerships or even student exchanges with foreign-speaking countries (Riebenbauer, 2008, 26). It gives the students of the PEs the unique opportunity to gain practical experience and competence in international trade.

PEN Worldwide acts as the international coordination center. The organization was established in 1993 in Essen (Germany). It was established as a European Union funded project and is run by the non-profit association PEN Worldwide. PEN Worldwide's target is to help education and training organizations to deliver training in business and entrepreneurship skills through the action-oriented PE methodology.

#### **The worldwide PE-network**

Today, PEN Worldwide manages a network of over 7,000 PEs in 45 countries. More than 200,000 students act and learn in PEs each year (PEN Worldwide, 2020c).

The network comprises PEs from Europe, North and South America, the Asia-Pacific Region, Africa, Oceania and the Middle East. Interested in the PEs in your country? For more information visit the interactive map on <https://www.penworldwide.org/locations/>

The main task of PEN Worldwide is to coordinate the worldwide business activities of the PEs and to agree on uniform standards. The member organizations meet regularly in different member countries in order to press ahead with the further development of the PE concept. Furthermore, they intensify exchanges between the central offices, agree on joint projects and bring the subject of PEs into the international public education debate through concentrated public relations work. In each participating country a national Central Office is being established to examine the needs of the local education system and to design a customized plan for the delivery of the concept. In addition, the curriculum is adapted to fulfill the national education standards in terms of competences. Moreover, the learning environment is adapted in order to meet the needs of multiple target groups (see also the previous discussion in chapter 2.5.3). To constantly improve the concept of the PE (PEN Worldwide, 2020a), best practices are shared within the international network.

Important events on the PE market are (international) *PE Trade Fairs*. These events give an opportunity for students to exhibit and market the products and services of their PEs in a competitive marketplace to local and international colleagues. These Trade Fairs allow students to put the marketing, communication, negotiations and global business skills they have learned in the PE to the test. Also, it offers the possibility to make new business contacts, to conduct business negotiations (also in a foreign language) as well as strengthening social and economic skills. For students, the preparation and the participation in a PE Trade Fair is one of their highlights during a year of PE work (ACT, 2020c).

The participation in a PE Trade Fair results in various tasks for the students. Part of the preparation is the definition of the Trade Fair objectives, a Trade Fair time plan and the calculation of the Trade Fair costs. Moreover, the students must prepare the design for their Trade Fair booth and allocate tasks for each PE employee. During the participation, the students hold several sales conversations and advertise their products. For the implementation of the Trade Fair, documents such as

assessment sheets, order forms, invoices, conversation notes and contact lists of employees and new business partners are used. After the Fair, the students should stay in contact with their new business partners, execute open orders and should reflect on the whole participation during the Trade Fair (Spangl & Tötterström, 2011, 2). Important to mention is, that by participating in a PE Trade Fair, as well as by each other's action, the whole process has to be referred to the complete action circle shown in Figure 2 (chapter 2.4) and the learners have to pass all phases from plan-do-check-act.

PE Trade Fairs are organized in more than 20 countries around the world and range from small regional fairs to large international fairs with over 200 enterprises exhibiting. The last major international PE Trade Fair in Europe, named 'd.a.ch.', took place in Dornbirn (Austria) in November 2018. This Trade Fair was organized by the National Central Offices from Germany, Switzerland and Austria. A PE Trade Fair can be an important highlight, a learning opportunity and a key motivator for the students.

## 2.7 Concepts of modelling a Practice Enterprise

Practice Enterprises are business simulations for learning purposes. The basics of modeling are therefore a prerequisite for the understanding of a PE and the teachers' tasks regarding modelling a PE. For this purpose, the characteristics of models and simulations are described below and implications for a PE are shown.

### 2.7.1 Characteristics of Models

Coping with complexity is a central didactical task. On the one hand, the didactic principle of reduction of the level of complexity can lead students to an easier understanding. On the other hand, complexity can support students to develop a new competence (Arndt, 2006, 5). Even though complexity can lead to a new competence, economic reality is a complex entity and is characterized by a large number of relationships and dependencies. The principle of reduction in case of a PE makes sense. Therefore, teachers use models in the PE classes, which reduce the complex reality and try to make learning processes more transparent. According to the model concept of Stachowiak (1980, 29), models are characterized by the following three features:

- *The illustration feature:* models are always models of something, illustrations, representations more or less natural or artificial originals that can themselves be models again.
- *The simplification feature:* in the context of modeling, not all original aspects are generally included. Only those aspects are integrated in the model that are relevant and lead to a higher transparency.
- *The pragmatic feature:* Berchtold and Trummer (2000, 24) argue that models always have one certain purpose, are used in a certain period of time and are designed for certain users.

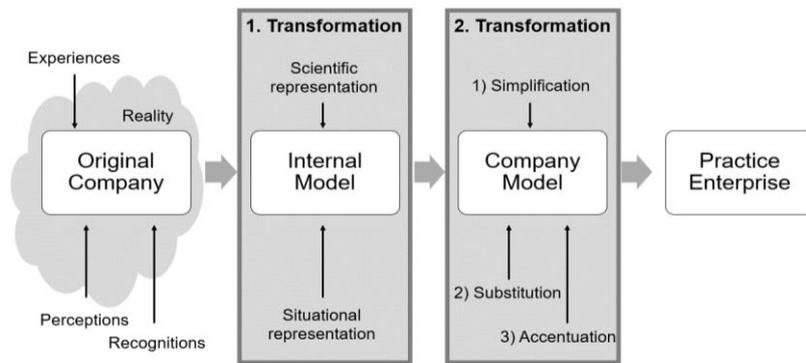
The three mentioned characteristics have a significant influence on the modeling process of the company within the framework of a PE. In the sense of the first feature, the illustration feature, a model always represents parts of an original and is not a representation of the reality (Tramm, 1996a, 338). Reetz (1986, 353–354) defines a transformation process from the original through simplification to a PE model.

The first transformation of the original company starts with the person who is modelling the PE – the *model designer*. The model designer already has a subjective perception of the original and therefore the model is based on the subjective cognitive representation of the perception of this person. Moreover, this person brings in his or her experiences and recognitions (Tramm, 1996a, 339). Based on this original, the model designer creates the first internal model of the PE. The model will be adapted and checked by the scientific and situational representation of the company. The scientific representation includes for example relevant theories and models of business administration, economics and sociology. On the other hand, it refers to the consideration of individual cases of the professional work life. Summarized, the result of the first transformation is a practically oriented, scientifically valid picture of a real company which is influenced by the model designers' experiences, perception and recognition (Reetz, 1986, 353).

For the second transformation of the origin, the three steps according to Reetz (1986, 353) are used:

- In the first step, the *simplification* step, the operational reality is simplified. The complexity is reduced by excluding insignificant aspects of reality. From a system-theoretical point of view, this step requires a reduction of subsystems and their relationship with each other. For example, subsystems of a PE are compared to an original company less large in the number of departments and jobs.
- The second step includes the *substitution*, which is a physical or just symbolic representation of the model. For instance, the office of a PE is an open-plan office and the simulated production facilities or warehouses are usually represented symbolically.
- In the third step, the *accentuation*, certain features of the company model are accentuated. This accentuation refers on the one hand to the design of the operational model structure and on the other hand to the shaping of the operational processes.

The outcome of these two transformations is the PE itself derived from the original company, as shown in Figure 9.



*Figure 8: Transformation Process of a PE*

*Source: Reetz, 1986, 354.*

The modeling of a PE shows a trade-off between a preferable representation of the real company and the increase of transparency created by reduction (Greimel, 1998, 12). In terms of reduction, it is important that the central influencing factors are preserved, which ensure that the functionality and the behavior of the model are still realistic. In case of the PE, those influencing factors and characteristics are economic activities and networks of a company model which are comprehensive for the students (Berchtold & Trummer, 2000, 24).

In general, the use of models opens up a number of possibilities which are described briefly by the following points inspired by Gramlinger (2000, 32) as well as Berchtold and Trummer (2000, 24–25):

- Structures and function of an original can be clarified through the usage of models.
- Complex relationships and connections can be transparently presented.
- Through models, students understand difficult learning contents in an easier way.
- Models give students the opportunity to think in alternatives, because different organizational forms of the reality can be tested.
- Models open up the possibility to question concrete realities by the comparison of real-utopian views created in the PE lessons.
- Students have the chance to practice real business situations with the usage of the model.
- Within the framework of models, students can take over the assessment and control function of the learning process by themselves.

An economically valid modelling of a PE offers all the seven presented possibilities. Through the usage of a PE, the students get the chance to critically examine real companies and to compare the learned perspectives with their own PE. Moreover, the students of a PE have the opportunity to implement their theoretical knowledge in practice to be prepared for a later application of their knowledge, skills and abilities in the professional work life. The aim of the modeling is that the students can act targeted, planned, independently and completely (Peterssen, 2009, 144).

### 2.7.2 Characteristics of Simulations

Simulations can be seen as a special form of models – more precisely as dynamic models. Models picture the structures and relationships of a system, while simulations also show the processes of a system (Greimel, 1998, 12; Gramlinger, 2000, 40). Therefore, simulations not only capture the structural relationships, they also picture the functional relationships between the structural elements and the associated changes in a model (Tramm, 1996a, 64).

The application of simulations has several advantages. In terms of economic factors, it is often cheaper to work with simulation models as with the realistic reference system. It is difficult to observe certain processes and constellations of the real business world. In this case, the use of simulations increases the ability to observe such processes. In addition, simulations enable reproduction in the form of repeated execution of certain processes, which cannot be repeated various times in real work life. In the context of simulations, processes under different environmental situations can be reproduced and their different effects can be analyzed in the model. In the real business world, the environmental conditions cannot be changed random and processes cannot be repeated arbitrarily. Simulations offer the advantage that students' actions have no effect on the real business world, which offers a certain degree of security in the model (Greimel, 1998, 12–13). The term *security* in this context means that simulations offer the opportunity to experience dynamic system relationships on a reduced scale. Furthermore, the focus also lies on making mistakes visible without having the risk of serious economic consequences (Tramm, 1991, 251).

A PE represents a business simulation for learning purposes. Within this business simulation, operational structures and processes within a business become visible for the learners. However, even though the flow of goods and services is of simulated nature, a successful implementation of the business simulation requires various (real) resources:

- Location big enough to offer open plan office environment, with work stations for each person. This station includes computer with office suite, access to internet, telephone system operated at Reception Desk;
- Location to include boardroom, internet access, display board and facilities;
- Location to include Trainer office with Workstation, computer plus printer;
- Office to include printer linked to workstation computers that can handle high load of printing;
- Filing cabinets to store departmental files;
- Display boards to display products and services;
- Backup facilities for all computer-generated materials.

Depending on the size of the PE, corporate structure and the didactical aims, the above list of real resources required for the business simulation might vary. Whereas many schools are equipped with special offices dedicated to the Practice Enterprise work, finding and maintaining the above resources can present a challenge for the initial implementation of a PE at a higher education institution.

### 2.7.3 Tools for Conceptualizing an Economically Valid Model

The conceptualization of an economically valid model represents a highly complex task. Various instruments can be utilized to accomplish this task: (1) *Mentor Companies* can provide a valuable source of information and the PE might be modelled to resemble the mentor companies in terms of products and services or corporate structure. (2) *Industry Key Figures* might be used to develop an economically valid model. (3) The formulation of a *Business Plan* provides the possibility to record essential aspects (e.g. products and services, competitors) and might also be used as document to introduce new students to the PE. (4) Working with *Business Models* represents a rather complex, but structured approach of modelling a PE.

#### 1) Mentor Companies

Mentor companies are companies from the real economy and from the same economic sector in which the Practice Enterprise unit runs its business. Their role is to provide business information and assistance to the students according to the real market. This may include information about numbers of staff, salaries, capital, their own organisation chart and copies of procedures manuals. They may help Practice Enterprises to set up the simulated best practices of business such as marketing strategies, how to elaborate a market pool, budgets and price lists. They may provide students with access to their premises, ideas for project work and later on internship and employment for graduates. As such, mentor companies function as a link between the real market and the simulated educational environment.

Regarding the method business simulation, a real company is often a role model or indication for modelling a PE. As in chapter 2.7.1 explained, modeling a PE requires a transformation from a real business model to a PE model by simplifying, substituting and accentuating complex structures and processes. This process should create a coherent simulation of a real company, which forms the basis for action-oriented learning and working in the PE (Riebenbauer, 2008, 236). In order to ensure this coherent simulation of a real company, PEs often have close cooperation with the real business economy and find real companies as business mentors. Therefore, when founding a PE, real companies from the region are often sought as business mentors in order to support the modeling and further manners (Gramlinger, Kühnböck & Leithner, 2000, 27). This support can be ensured by intangible and/or tangible manners.

Examples for intangible support from a mentor company are a similar company name. Thereby, a PE can achieve a certain recognition value (at least regionally) on the PE market. In addition, the business mentor has industry-specific know-how, which can be used for modeling (in terms of process design) as well as for the ongoing work in a PE. For example, the business mentor could advise the PE by the selection of the range and depth of their offers on the PE market. Furthermore, important information regarding pricing, calculation and industry indicators can be shared by the mentor company (ACT, 2020b, 6–7).

Tangible support can be provided by the mentor company by assuming printing costs for catalogs, brochures and further material for the PE. Mentor companies could also offer their product catalog, which the PE can use to offer these products virtually on the PE market. Riebenbauer (2008, 28) reports that the mentor company is often a sponsor of the PE and offers company tours and excursions for the PE students as part of their PE lessons. While working with a mentor company, it is crucial that students are always aware of the fact that they work in a PE with simulated goods and services and that there is no real connection to the real business world. The students should learn from the mentor company, but they should stay in their business simulation during the PE work.

Beside the support by offering intangible and tangible materials, a cooperation between a PE and a mentor company offers a number of other advantages for the involved parties. For example, the employees of a PE get to know possible job opportunities in their specific region and improve their possible application chances. The mentor company has the opportunity to promote qualified young talents for her/his company at an early stage (ACT, 2020b, 3–4).

## 2) Industry Key Figures

In terms of modelling a PE, the use of industry key figures should ensure that the achieved revenue, generated on the PE market, stands in realistic relations to industry-specific expenses (Riebenbauer & Stock, 2007, 27). Key figures can generally be viewed as condensed and compact quantitative information about the structure and processes of a company. Therefore, key figures encourage the summary of basic information to the most meaningful variable. Moreover, they capture the average values of the indicators of the companies in a particular industry.

Basically, a variety of different key figures are important for modeling a PE. These include, for example, financial indicators (e.g. profitability and liquidity indicators), process indicators (e.g. production and quality indicators), personnel indicators (e.g. labor productivity & fluctuation) or market indicators (e.g. market share, market saturation). However, for the PE work, key figures in the non-financial area such as environmental protection or employee satisfaction are often excluded (Gleich, 2011, 10–11). For the application of industry key figures during PE work, the Balanced Scorecard (Kaplan & Norton, 1997) is recommended because it takes normative and strategic goals

of the company into account. It is essential that key figures for the PE are selected in a meaningful way in terms of PE as a learning spot.

To summarize, key figures ensure a simple and practical modeling of a business simulation. The risk that a PE does not meet the requirements of a commercially valid simulation can be minimized. If the selected key figures differ from the industry figures, the teacher have to take appropriate modeling measures in order to approximate the real values. Nevertheless, key industry figures are usually calculated by banks and insurance companies for their internal need (Riebenbauer, 2008, 237). In higher educational institutions, PEs often work with industry key figures (e.g. eXpand International Consultancy GmbH, 2019, 4–5).

### 3) Business Plan

The Business Plan is a comprehensive tool for modeling a PE as well as for the ongoing operation of a PE. The structure of the Business Plan is a common thread that serves an orientation for all operational areas of a PE (Riebenbauer & Stock, 2007, 27). With regard to the formal design, a Business Plan must be short, meaningful, structured, understandable, reader-friendly and appealing (McKinsey & Company, 2010, 47). Usually, a Business Plan consists of the following elements (Fischl & Wagner, 2011, 23):

- *Executive Summary*
- *Product/Service*
- *Market and Market Competition*
- *Marketing and Sales*
- *Business Model, Business System and Business Structure*
- *Team, Management, Staff*
- *Opportunities and Risks*
- *Financial Planning and Funding*

In some cases, the Business Plan of a PE is not only created for internal use but also for external partners, such as mentor companies or sponsors. In this case, the Executive Summary plays a central role. This element gives a concise overview of the most important aspects of the Business Plan and is intended to arouse the interest of the reader (Fischl & Wagner, 2011, 24).

All parts of the Business Plan must be coordinated with each other in order to create a coherent overall picture of the PE as a company. The Business Plan as a modeling tool for PEs as a company has a number of advantages. For example, the Business Plan forces the management board of the PE to think about the business idea, the structure and the strategy of a business simulation in order to reveal any possible gaps that need to be closed by suitable modeling measures. In addition, the

Business Plan can be used as a central communication and coordination tool for internal use, e.g. for employees and students, and external use, e.g. for schools, mentor companies, sponsors (McKinsey & Company, 2010, 4).

The combined use of a Business Plan and Industry Key Figures has proven to be particularly effective, since on the one hand the Business Plan provides a clear structure for modeling a PE as a company and on the other hand, industry key figures are used to create a business scenario which is close to reality (Riebenbauer, 2008, 237). The Business Plan of eXpand International Consultancy GmbH (2019), a PE at the University of Graz, is a successful example for the combined use of both instruments.

## 4) Business Model

For the term *Business Model*, no generally accepted definition has emerged. At the most rudimentary level, the business model is defined in terms of the company's economic model (Morris, Schindehutte & Allen, 2005, 726–727). Business Models make complexity and dynamics of operational processes and structures visible through a simplified and condensed representation. Therefore, a Business Model depicts the simplified and aggregated representation of a company's performance and production system (Wirtz, 2010, 3).

PEs could also work with business models. Since the work with Business Models is complex, Osterwald and Pigneur (2011, 21–45) developed nine components, which should simplify the work with Business Models. The following Figure 9 should give a clear overview over the components.

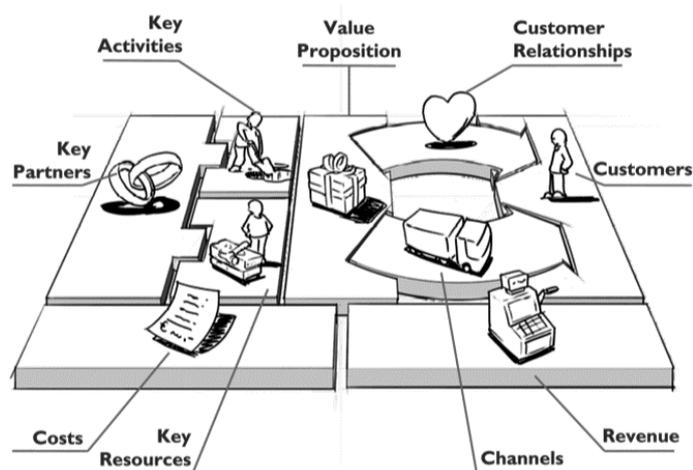


Figure 9: Osterwalder Business Model Canvas

Source: Van Oorschot, 2014, 3.

The first component is the customer segments, which describe which groups of people or organizations a company wants to reach and serve with its products and services. The second component consists of the company's value proposition, which should clarify what value the company wants to deliver to its customers and what bundle of products and services is the company offering to the customer segment. The channels are the third component of the Business Model and determine the communication, distribution and sales channels which are used to reach the customers. The fourth component, customer relationships, determines what type of relationship the company wants to reach with individual customer segments (e.g. individual personal support versus self-service). Fifth, a company's revenue streams are generated based on the question of how much each customer segment is willing to pay. The key resources, as the sixth component, determine which physical, financial, intellectual and personal resources are essential for the functioning of the Business Model. Analogous to the key resources are the key activities as the seventh component. This component is closely related to the value chain of the company because it includes those processes which are central for the functioning of the business model. The eighth component, the key partnerships, comprises the network of suppliers and all other partners who contribute to the success of the business model. Finally, the cost structure as the ninth component describes the most important costs of the Business Model, which arise from the construction and implementation of the other components in the company.

After the explanation of the Business Model according to Osterwald and Pigneur (2011, 21–45), it should be noted that it is also important for PE work that the Business Model of a PE matches the normative and strategic goals of the PE. Furthermore, decisions during the modelling of a PE must be consistent in order to create a coherent and functioning Business Model. In addition, a Business Model must have a certain robustness with regard to the environment of the PE and its dangers, such as new competitors (Casadesus-Masanell & Ricart, 2011, 102).

## 2.8 Role of the Practice Enterprise Teacher

Managing a PE is a great challenge for the teacher. The PE teacher is the initiator and the operator of all the activities of the PE (Berchtold & Trummer, 2000, 98). The quality of the learning and work processes depends on the skills and abilities as well as the commitment and engagement of the PE teacher (Stock & Riebenbauer, 2007, IV). Within the PE, PE teachers have to deal with the duality of roles as being a *teacher* (of the PE from a pedagogical perspective) and a *manager* (of the PE from a business perspective) at the same time. Due to the action-orientation the central task of the PE teacher is to accompany learning processes and to supervise and support the students in the PE work process. As a result, teachers are responsible for not only mediating knowledge. They act as consultants, moderators and coaches. The aim is to enable learning processes and to guarantee complete action

(Stock & Riebenbauer, 2007, IV; Riebenbauer & Stock, 2015, 9; Stock, Riebenbauer & Dreisiebner, 2019, 534–535).

According to Baumann (2009, 493–494), the PE can be seen as an interactionist structure, consisting of the role of the teachers, the role of the students and the role of the simulation. Table 2 shows the interaction of the three roles in the PE. A distinction is made between an active, an initiative approach and a passive *waiting to be approached* approach to the role of the teacher.

Table 2: Different Roles in the PE

	passive	Teachers	simulation	students
active				
teachers			(1) design	(3) intervention
simulation		(2) administration		(6) manipulation
students		(4) consultation	(5) simulation	

Source: own representation based on Baumann, 2009, 494.

The teacher’s role in relation to the simulation in its active form can be described as the *role of a designer* (1). The teacher’s core activities include modeling and simulation. Every PE is created by those core activities (Baumann, 2009, 495). In this context, the teachers have to consider two different quality levels.

On the one hand they are faced with the task of constructing an economically valid model. On the other hand, they have to ensure that complete action and thus high-quality learning processes can take place within the model (Baumann, 2009, 495).

A complex business simulation requires constant maintenance. For this reason, the teacher is responsible for the *continuous administration* (2) of the PE, such as updating the software packages or adapting the space to varying student numbers. The relationship between teachers and students can be described as an alternating and mutually experienced intervention and consultation. The teacher actively *carries out interventions* (3), especially when it comes to learning from the model. The knowledge and experience gained in the model should be linked with business or economic theories, models and techniques by the teachers. This process enables the quality of learning processes.

The teacher is passively available for students (*consultation* [4]). Although learners should plan, carry out and control their actions independently. If learners approach the PE model, they require a business *simulation* (5). For this, the simulation requires *manipulations* (6) on the student’s side (Baumann, 2009, 494–497).

The teacher usually faces a major challenge with the management of a PE. He or she doesn't just have to face the economic challenges. The requirements are more in-depth than one might initially assume.

The amount of these skills required makes clear that one person alone may not be able to master all of them (Stock, Riebenbauer & Dreisiebner, 2016, 24). That is why every teacher should know her or his own limits, reflect on them and be willing to admit them (Stock, Riebenbauer & Dreisiebner, 2019, 535). The strong practical relevance of the teaching material's content forces the teachers to continually adapt their knowledge and/or ability to the changes in business life, information and communication technologies (Philipp, 1998, 13–14). Wherever the teacher lacks competences, he or she has the opportunity to involve experts.

As a multi-dimensional teaching and learning setting, within a PE there is also a broad range of teaching methods applied. The implementation of teaching methods strongly depends on the pedagogical aims and the learners' previously acquired competences. It is therefore not possible to provide a *recipe* for the ideal mix of teaching methods within a PE. However, the following aspects provide some insights into the wide variety of tools, PE teachers have at their hands to promote student learning:

- *Individual work – learning-by-doing methodology.* When students already acquire the minimum skills to develop activity, they should do the tasks trying to understand and solving the problems without the help of the teacher, depending on the group and tasks. The work can be checked at the end of the task and what could be improved or what has been done well can be explained retrospectively and the positive aspect is that the student managed to find out a way and work independently.
- *Frontal training.* The standard method when teaching activities take place from the front of the classroom, especially at the beginning of PE, at the first lesson. Since the method of PE allows for extensive amounts of collaboration between students and individual as well as group work, frontal training plays a rather diminishes role in most PE settings.
- *Conversation and discussions.* Each participant must have the opportunity to express his or her own opinion regarding the functioning of the Practice Enterprise and to propose possible improvements. These proposals will be discussed with other colleagues and as a result conclusions and decisions can be reached. It's important considering student motivation during these discussions and if necessary, help them find the solution. There should be an open and welcoming atmosphere for expressing oneself and making sure all opinions are equally accepted.
- *Guiding text method/Job descriptions.* Operational document for the student, containing the information necessary to ensure autonomy in carrying out activities related to the workplace.
- *Teamwork and cooperation.* During the work in the PE students must help each other and they have to be able to transfer their competencies to the next person who will work in their position. Often for office work it is necessary to do some activities together with other

colleagues. It is important to form a group that works efficiently and that respects the enterprise decisions. They should strive to reach a good result for the enterprise as a whole.

- *Educational games* are designed to help students learn and understand certain subjects and assist them in learning a skill using games. All types of games (board, card, video, etc.) may be used in an educational Practice Enterprise environment. Games teach PE students to reach their goals, identify the rules, be adaptive, solve problems in an enjoyable manner, increase involvement, motivation, creativity, social interaction and emotion in the game itself while the learning takes place.
- *Self-responsible learning*. This sense is mirrored in the documents and in the operations within each department of the PE. Therefore, each student must understand his or her own tasks and feel responsible for carrying them out. Rotating students from one role in the business to another is another instrument for increasing the sense of responsibility.

The work and connections with real-life businesses, working in the same business field as the PE, allows the PE teacher to keep up to date with the changes in the business regulations of their country, office innovations, information and communication technology. A PE teacher who is committed, motivated, enthusiastic, engaging and well prepared for the PE activities with clear tasks will be able to empower students to challenge themselves and develop an entrepreneurial mindset. The teacher has the task to define the working processes and consequently the tasks for each workstation. The tasks list or job description is a strategic tool that gives students autonomy from the first moment. It is necessary to have a certain prudence in defining the tasks list, by checking their compatibility with the logistical aspects of the PE, with the flow of documents and tools. For each E task lists are adapted in relation to the different target groups.

## Summing up

Roles and objectives of the PE Teacher:

- Act as the company expert in the field in which he/she works, treating the students as *staff*.
- Collaborate actively with the coordinator /manager in setting up the Practice Enterprise and, in terms of personal expertise, in defining personal training and development.
- Check and give feedback on skills acquired during the course, suggesting times for people to stay in that department.
- Work as part of the team of teachers in assigning workloads, resolving problems and student difficulties, correcting errors, stimulating working autonomy, and giving a sense of responsibility to the students.
- Show flexibility in planning the course, especially if he or she is also a teacher of complementary courses, where the application of techniques learnt when practicing is essential for the good outcome of the Practice Enterprise.
- Has initiative in dealing with unforeseen circumstances in the day-to-day operation of the Practice Enterprise, justifying choices made and actions undertaken which involve the students, increasing motivation.

### 3 Performance Assessment in a Practice Enterprise

At the beginning of a PE year, teaching and learning goals (on company and individual level) are formulated in order to analyze how the *process* of learning has shaped and the learning outcome (*product*) has developed during the course or training. Nevertheless, this so-called target-performance comparison should not be understood as a one-off measurement. It should be carried out in regular intervals. The teacher is responsible for the performance assessment and the evaluation. An evaluation process consists of three steps. The first step implies the measurement and determination. Evaluation is the second step and finally the assessment builds the last step.

Teaching and learning aims to acquire and develop the learners' competences. Teachers need information about the learners' progress so that they can support them in a targeted manner and give them feedback on their learning to encourage their further development. The performance assessment is therefore an essential element of an educational process. Thereby it is very useful to also collect feedback from students on their own learning process or on their colleagues' development. The different demands on performance assessment show how complex this element is (Stock, 2010, 127). The following three central types are decisive for performance assessment in a PE: (1) assessment of learning, (2) assessment for learning and (3) assessment as learning (Earl, 2003, 21-22; Stock, 2010, 127-128). All three types serve different purposes for the learning process (Figure 10).

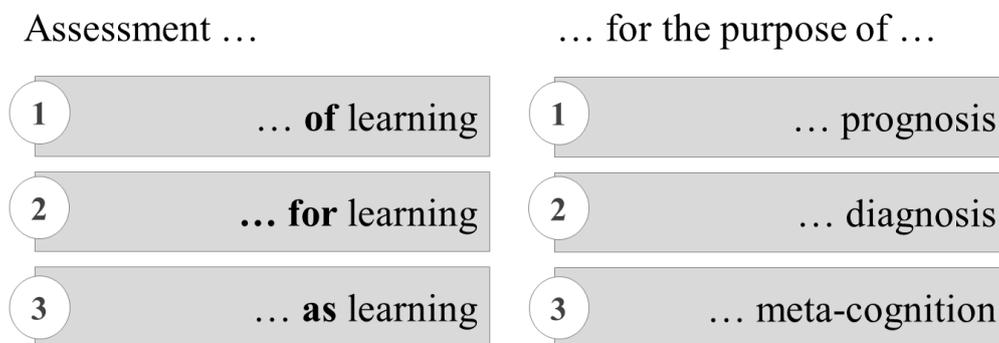


Figure 10: Different Types of Assessment and their Corresponding Purpose

Source: authors' own representation.

The first type, *assessment of learning*, serves as *prognosis* for selection and presentation of the student's success. This form of performance assessment takes place at the middle or at the end of a learning process (i.e. through a PE school grade). The second type, *assessment for learning*, is executed continuously throughout the entire learning process. This task is interactive and aims to support the students' learning process. Teachers give feedback to the students on their PE work, call attention to their strengths and weaknesses and foster individual learning potentials of the students (*diagnosis*). The *assessment as learning*, the third type, focuses on the role of the learner in a PE and it actively

involves them in the performance assessment process. In the sense of a reflection, by looking back on one's own learning and working, the students should practice self-monitoring, self-evaluation and self-correction. Meta-cognition means to design, question and further develop one's own learning processes in a self-responsible and self-directed manner.

With regard to competence-oriented teaching in a PE (see chapter 2.4), the third type, meta-cognition – assessment as learning, appears to be particularly important for supporting the competence development of students in a PE. For an assessment of the entire competence spectrum, a variety of methods of performance assessment in the PE are required (Stock, Riebenbauer & Dreisiebner, 2016, 26). In the following subchapters a selection of instruments of a multidimensional performance assessment based on self and/or external assessment is presented.

### 3.1 Central Questions in Assessment

In contrast to other typical course settings in higher education, PEs do not rely on a single exam at the end of the course, but on continuous evaluation. *Continuous evaluation of students* is a system of evaluation when the student's performance is assessed throughout the entire period of practice done at PE. As indicated in Figure 11, there are several aspects to be considered: First, there is the question which student performance should be assessed. Then, it has to be clarified how, by which instruments and in which dimensions the above-mentioned student performance should be assessed.

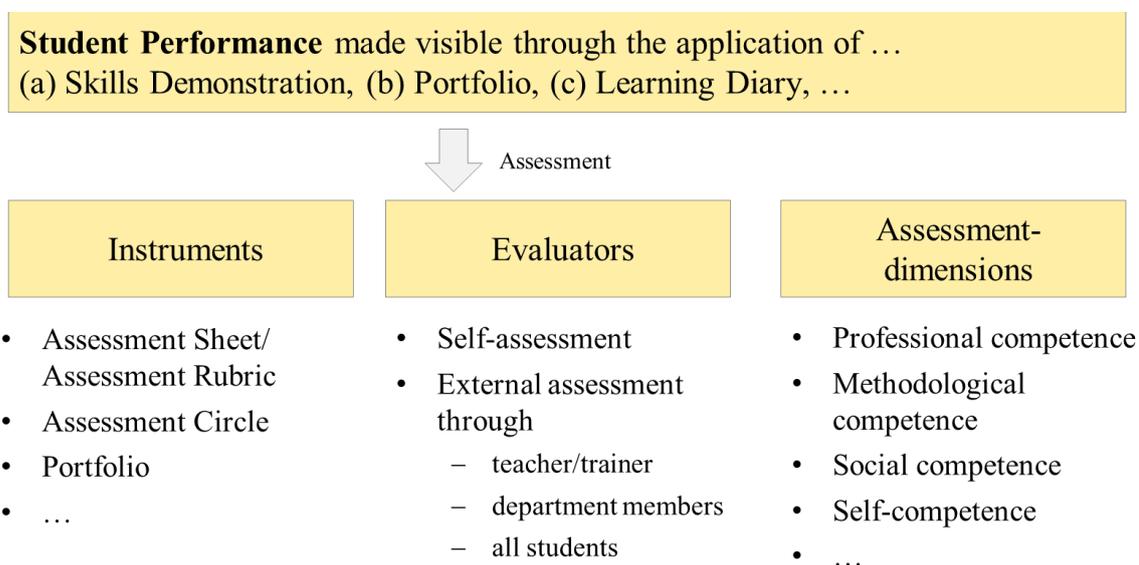


Figure 11: Assessment in Multi-Dimensional Learning Environments

Source: authors' own representation.

Each PE trainer organizes the process of assessment in PE on the basis of students' learning objectives and the following leading questions of assessment:

- *Evaluators.* Who assesses the students' competence development? This might be the PE trainer, the student him- or herself (in terms of self-assessment), another student on an individual basis (e.g. a team-leader assesses her/his teammates) or an entire group of trainees (assessing each other).
- *Assessment dimensions.* What (in terms of which of the students work or competences) is evaluated? Assessment-dimensions might be professional and technical knowledge, social skills, competences development, results of practical activity, understanding, attempts or thinking operations. With a focus on competence-oriented teaching, assessment dimensions will most likely be a mixture of professional, methodological, social and self-competences.
- *Time of assessment.* When is the assessment made? Assessment is not limited to the end of the course but might be made on completion and on submitting independent (individual or team) tasks and after public appearance in the events (fairs, etc.). When utilizing a job-rotation between departments or processes, assessment might be carried out on finishing the work at one team/department and before transfer to another one.
- *Assessment process.* How is assessment made? Assessment is made by applying assessment criteria and different methods of assessment, by matching these methods between one another, by sharing experience with other PE trainers, by informing trainers, registering results, using reversible information and often by applying cumulative assessment throughout the semester.
- *Instruments.* Which instruments are used for the assessment? Different methods of assessment, both usual and innovative, are used in PE activity. Instruments might be – but are not limited to – assessment sheets, assessment circles, appraisal interviews, practice reports, learning diary or the application of a PE portfolio, where students collect and reflect upon their work throughout the semester (Stock, Riebenbauer, Winkelbauer 2010, 25–27).

Clear communication of the assessment process and the criteria is important at the beginning of the semester, especially since the assessment in multi-dimensional teaching and learning environments is often different from typical assessment designs in higher education. The following example illustrates the assessment procedure of the PE Vilnius kolegija, including a continuous evaluation with several instruments and evaluators. Students might also assess each other in terms of a team-assessment and might even be asked to grade themselves to some extent (self-assessment). This intensive involvement of the students in the process enables *assessment as learning*, where students learn to use assessment as a tool to regulate their own learning processes.

It becomes apparent, that ‘classical’ instruments of assessment (such as written exams) play a rather diminished role in PEs. The nature of a written exam is to assess mainly components of professional knowledge and this narrow approach is not in line with the potentials of the action-oriented teaching and learning setting of a PE.

### Practical example – Assessment in the PE at Vilniaus kolegija

The practice at PE is assessed by individual cumulative grade – ICG:

$X_1$							$X_2$
Evaluation by PE administration	Self-evaluation	Evaluation of practical competences in divisions	Evaluation of reports on division activities	Preparation of documents	Evaluation of additional tasks	Survey in writing	

$$ICG = 50\%X_1 + 50\%X_2$$

(where  $X_1$  is a mean of evaluation of practical work performance)

Before starting to work in PE students are familiarized with overall evaluation criteria, methods and the meaning of each component of the evaluation process during the introductory lecture. The evaluation of practical work performance includes:

- Evaluation by PE administration. The PE administration consists of the director and her/his deputy for quality. The administration creates (according to trainer’s recommendations) students’ evaluation criteria which are approved and presented to all trainees during a meeting. The activity of the elected PE director is distinguished by the fact that from the very beginning of her/his work he/she is stimulated to treat each member of the team as an exclusively important personality while assigning tasks to him/her and assessing their quality.
- Self-evaluation
- Evaluation of practical competences in divisions
- Evaluation of reports on division activities
- Preparation of documents
- Evaluation of additional tasks
- Survey in writing

**$X_2$  – evaluation of student’s independent work.** Usually  $X_2$  is assessment of practical work proving PE trainees’ competences acquired during practice.

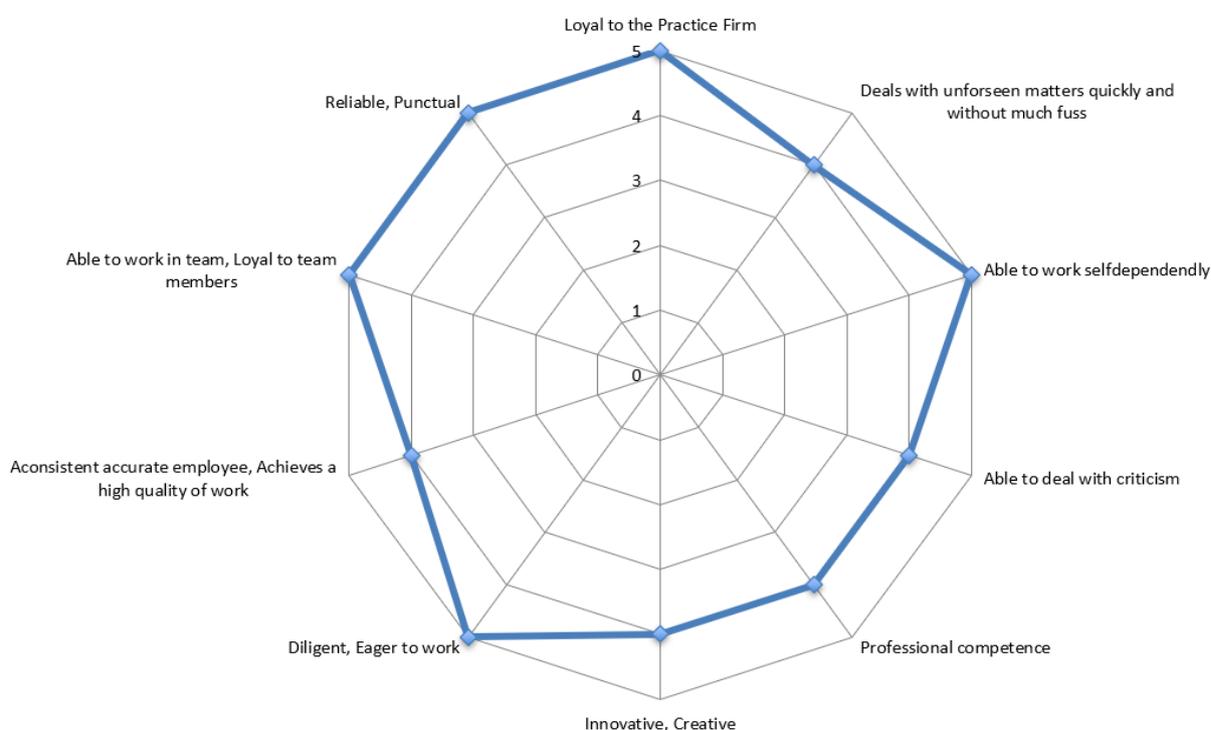
## 3.2 Examples for Assessment Instruments

Although the choice of assessment instruments represents only a small portion of all aspects to be considered in assessment, some examples are discussed to provide impulses for design of a multidimensional student assessment within PEs. These instruments include the assessment circle,

assessment forms, portfolios, skills demonstration, learning diaries and appraisal interviews (Stock, Riebenbauer, Winkelbauer 2010, 24–27).

### 3.2.1 Assessment Circle

The 360-degree feedback forms the basis for the concept of the assessment circle, which can be used in the PE as an instrument for self- and external evaluation. The use of this instrument enables students to make a comparison between self-perception and how they are perceived by other PE members (Paradies, Wester & Grevin, 2005, 92–94). By using this tool in the PE, the students can recognize the gaps between their current and desired maturity level in connection with their work at the PE. Figure 12 shows an example of an assessment circle (see also Appendix B for a fillable form):



*Figure 12: Practice Enterprise Assessment Circle*

*Source: representation based on Stock, Riebenbauer & Winkelbauer, 2010, 26.*

Self-assessment and comparison of knowledge, skills and competences of oneself and other trainees is an efficient method of evaluation applied by PE. It is aimed at strengthening of self-esteem and self-confidence. Having assessed themselves, the trainees have an opportunity to check how their activity is judged by their colleagues.

### 3.2.2 Assessment Form

The Assessment Form is based on the four competence dimensions consisting of professional competences, methodological competences, social competences and self-competences. With this instrument, the colleagues of a student should evaluate her/his different competences. Evaluating

team colleagues is a difficult task for students. Winter (2008) remarks that students give critical feedback but are unwilling to give marks. However, due to the intensive cooperation in the PE, students are often in a better position to assess the performance of their colleagues than the teacher (Stock, Riebenbauer & Winkelbauer, 2010, 26). A suggestion for an assessment form can be viewed in Appendix C and D.

### 3.2.3 Portfolio

The portfolio literature (i.e. Bräuer, 2007; Winter 2010; Häcker, 2011b; Bauer & Baumgartner, 2012) contains many different types of portfolios whose relationship to each other is still unclear. Stock, Riebenbauer and Winkelbauer (2010, 26) state that the portfolio should describe the learning and working process, experiences and achievements of the students during a PE year. The creation of a portfolio is described by the three essential steps *collect, select, and reflect* (Belgrad, Burke & Fogarty, 2008). Thus, a portfolio represents the learning progress over a longer period and allows the comparison between the students' performances. Due to the fact that the concept of portfolios is often used during PE work, the following characteristics of portfolios have to be clarified and discussed with the students (Häcker 2011a, 132; Winter 2010, 10–13):

- The specific purpose for which the portfolio is used (e.g., work portfolio, application portfolio, development portfolio, presentation portfolio, examination portfolio).
- The specific qualifications that the portfolio is used to demonstrate (e.g., media portfolio, language portfolio, competence portfolio).
- The content and area of the portfolio (e.g., different subjects such as German, English, Accounting or even across the school and its development).
- The duration for which a portfolio is kept (e.g., project portfolio, annual portfolio, epoch portfolio).
- The medium in which the portfolio is created (e.g., ePortfolio, the form of teaching associated with the portfolio such as a project portfolio).

As one can see, there are many different types of portfolios. At PEs in higher education institutions, the portfolio contains different works samples of the students such as i.e. application diary, personal learning targets, reflection reports and documents of their staff purchase (Stock, Riebenbauer & Winkelbauer, 2010, 26).

A portfolio – as applied within the PEs at the University of Graz – might include:

- Application documents
- Protocol of working hours: date, time, working description, mood (alternative: PF diary with working hours)

- Documentation of the individual students' best three pieces of work
- Staff purchase and its payment
- Students' aim for the semester
- Planning document for the aims of the individual departments
- Reflection report

Other documents might be included depending on the didactical aims (e.g. visit reports at other PEs, or the planning of an own PE in teacher education).

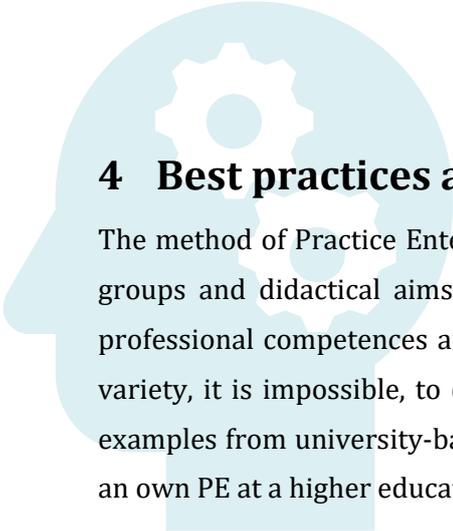
### 3.2.4 Skills Demonstration

The method of skills demonstration is adapted from the Finish National Board of Education (Räkköläinen & Ecclestone, 2005), where students demonstrate their professional skills on their working respectively learning place. They show where they have improved and present their learning results. Examples for skills demonstration in a PE can be sales talks, fair presentations, introduction the PE to a guest or business partner, moderation of a PE meeting, discussion of controlling reports or presentation of the annual financial statement. The skills demonstration is an important opportunity to observe the students' level of performance and their development during the semester. This external evaluation can be done by the teachers, partners or other students (Stock, Riebenbauer & Winkelbauer, 2010, 27).

Specific ways of receiving skills demonstrations are offered during events, regular meetings or simply by the direct observation in the working place. During the semester, a series of PE meetings can be held with the students to discuss aspects of the daily PE work (form a pedagogical or from a business perspective). Several skills can be demonstrated especially in PE business meetings. One student can act as a moderator and is responsible for the preparation of the meeting, the schedule according the agenda and the moderation of the discussion of different topics. Other skills demonstrations which can be observed during the meeting are i.e. reports of team leaders of several departments. They present a short report of the week, explaining the aim of the department's activity in that week, the tasks set, the specific benefit received by each trainee and the way how they could use these experiences for future activities. They can also refer to shortcomings they have encountered and the way they plan to eliminate them in the upcoming week. PE trainers and (if appropriate also) other participants can assess the performance and give feedback to the presenters. Skills demonstrations need to be assessed according to pre-defined criteria, e.g. accuracy and efficiency or the degree of independence and originality of reasoning.

### **3.2.5 Appraisal Interview**

The appraisal interview is based on the concept of management by objectives and can be organized in two parts. The first part is held at the beginning of the PE term, discussing of one's own learning objectives as well as the objectives of the respective area/department of the PE, which usually requires coordination with the PE management and other colleagues. This leads to a higher motivation of the students and offers them the opportunity to work independently and to make their own decisions. The second part takes place at the end of the semester, where students reflect on topics such as the personal learning process and goal achievement. Strength, weaknesses, and possibilities for further competence development can be discussed with the PE teacher too (Stock, Riebenbauer & Winkelbauer, 2010, 27).



## 4 Best practices and initiatives

The method of Practice Enterprise is of high flexibility. There is a broad variety of potential target groups and didactical aims to be addressed – ranging from experiencing teamwork, to specific professional competences and up to entrepreneurship education in a broad sense. Because of this variety, it is impossible, to determine a single best solution. However, the following best practice examples from university-based PEs are intended to serve as inspiration for the implementation of an own PE at a higher education institution.

### 4.1 Best Practice Example – eXpand International Consultancy GmbH (Graz)

At the University of Graz, the Department of Business Education and Development is currently running two PEs with students of the corresponding Master’s Program of Business Education and Development:

- KFUNline WeiterbildungsGmbH, founded in 1996 by Michaela Stock. Products offered on the PE market: Seminars and trainings.
- eXpand International Consultancy GmbH, founded in 2004 by Elisabeth Riebenbauer. Products offered on the PE market: Consulting services.

At the Department of Business Education and Development exists more than 20 years of experience in teaching and research regarding business simulations. Since then, more than 1,000 students have participated in this particular learning setting. Members of the department have contributed their expertise to numerous practice and research projects regarding the ongoing development of the teaching and learning setting of business simulations (partly in close cooperation with the Austrian Center for Training Firms, ACT).

The aim of the Department of Business Education and Development is to qualify their students for teaching in the school and training sector as well as for jobs in the field of business and economics. The department operates the two PE in order to offer a practice-orientated education and to prepare their students optimally for the role as a teacher of economic subjects. Thus, these Practice Enterprises serve as an innovative learning site for students as well as for the PE management.

In this chapter, eXpand International Consultancy GmbH (eXpand) – as one of the two PEs at Graz – is examined in more detail regarding the PE’s structure, processes, priorities and events as well as the annual PE work process. eXpand is one of the leading providers of consulting services and market analyses on the national PE market concerning business analysis, marketing strategy, social media and e-business. (Stock, Riebenbauer & Dreisiebner, 2016, 61–65).

## Practical example – Syllabus for the course ‘Practice Enterprise’ at the University of Graz

### Course Description:

The Practice Enterprise is a business simulation conducted for training purposes, in which students work and learn in a Practice Enterprise. In their double function as employees and students of the Practice Enterprise they participate actively in the national and international Practice Enterprise market, thus gaining a first-hand experience of micro- and macro-economic contexts from a business and pedagogical perspective.

### Course Objectives:

The Practice Enterprise constitutes a complex action-oriented learning opportunity for students, allowing them to experience, develop and reflect on micro- and macro-economic structures and processes. Students are encouraged to view the Practice Enterprise from three different perspectives: as learners, reflecting on the Practice Enterprise as a learning location; as employees of an enterprise applying their theoretical knowledge in a business environment and as future teachers, studying the creation and maintenance of such a simulation. By actively engaging with the Practice Enterprise as a learning location, students gain competence with regard to decision-making and responsibility (‘Handlungskompetenz’), developing their professional, social, methodical and personal skills.

### Teaching and Learning Methods:

Action-oriented methods of teaching and learning involved in the Practice Enterprise as well as moderation, discussion, presentation, World Café.

### New Media:

E-Portfolio, collectively-created manual (wiki), website, webshop, web conference

### Requirements:

Grading Components	Factor
Meetings (Contributions, presentations)	10%
Independent Practice Enterprise work in departments/processes	20%
Discussion of relevant literature, reflection on the Practice Enterprise as a learning and teaching method	20%
Practice Enterprise visit at VET school	10%
Skills Demonstration	20%
Portfolio	20%

Self- and external evaluation of different competences are based on various evaluation methods (evaluation by team members, staff, management).

### Attendance:

Obligatory attendance in all class/staff meetings. (One meeting can be missed provided that students have correctly applied for and been granted a holiday).

Flexible time management for tasks in the Practice Enterprise office with regard to the operational business of the Practice Enterprise.

### Contents:

Dates	Duration (U)	Content
1st Meeting	4 U	General Agreements; the Practice Enterprise as a Teaching and Learning Method
2nd Meeting	4 U	Target Agreements, Simulation, Business Plan
3rd Meeting	4 U	Business Agenda
4th Meeting	4 U	Pedagogical Topics
5th Meeting	4 U	Business Agenda
6th Meeting	4 U	Pedagogical Topics
7th Meeting	4 U	Business Agenda
8th Meeting	4 U	Pedagogical Topics
9th Meeting	4 U	Business Agenda + Pedagogical Topics
10th Meeting	4 U	Final Presentations.

1 unit corresponds to 45 minutes!

### Recommended scholarly reading:

- Berchtold, Stephan; Stock, Michaela (2006): Wo ist das Denken im handlungsorientierten Unterricht, in: bwp@ Berufs- und Wirtschaftspädagogik – online, Nr. 10, <http://www.bwpat.de/> (March 2020), 1–17
- Berchtold, Stephan; Stock, Michaela (2005): 10 Jahre Übungsfirmenarbeit an der Universität Graz - Zeit für Reflexion und Vorstellung eines Modells, in: Schweizerische Zeitschrift für kaufmännisches Bildungswesen, 99(3), , 120–134
- Riebenbauer, Elisabeth (2007): Accounting in der Übungsfirma – ein internationaler Vergleich der Übungsfirma in Österreich mit den Übungsfirmen in Deutschland und Italien sowie den Virtual Enterprises in den Vereinigten Staaten, Dissertation
- Tramm, Tade; Gramlinger, Franz (2006): Lernfirmenarbeit als Instrument zur Förderung beruflicher und personaler Selbständigkeit, in: bwp@ Berufs- und Wirtschaftspädagogik – online, Nr. 10, <http://www.bwpat.de/> (March 2020), 1–21

Figure 13: Syllabus for the course ‘Practice Enterprise’ at the University of Graz.

Translated from: Department for Business Education and Development, 2020.

Figure 13 shows the syllabus of the PE course, showing the key aspects of the PE work. The students who learn and work in in the PE have access to their office 24 hours a day, seven days a week.

Additionally, there are three-hour meetings every week, where pedagogical and business topics are covered. In the pedagogical meetings the roles and tasks of a teacher are investigated, e.g. planning of the PE year, modelling or assessment in a PE. The students' experiences in other Practice Enterprises at school are discussed too.

The Practice Enterprise's principles are based on Total Quality Management through all processes and departments to establish the basis for further development of the PE. Thus, the students make suggestions for continuous improvement (one proposal per area, per month). Goal-oriented decision-making and working is required from the Practice Enterprise members. Derived from the mission statement the students set objectives and compile aim sheets in which they plan their actions. After goals have been reached, they analyse the results and try to improve the processes. At the end, they finalise their portfolios with a reflection report about their learning outcome. To handle the business activity, monthly controlling reports are submitted and interim or annual financial statements are created by the students every semester. The students attach great importance to a well-planned handing-over process to the members of the following semester. An extensive use of new technology is important in this learning and working environment. The web site and web shop are central parts of the daily trade procedure.

#### 4.1.1 Structure of eXpand International Consultancy GmbH

eXpand International Consultancy GmbH consists of three processes which are Consulting & Sales, Learning Point and Management (see eXpand's Business Plan 2019, 5). The three departments are Marketing, Monitoring & Support and Accounting. Figure 14 represents the structure and the interaction between the different processes and departments:

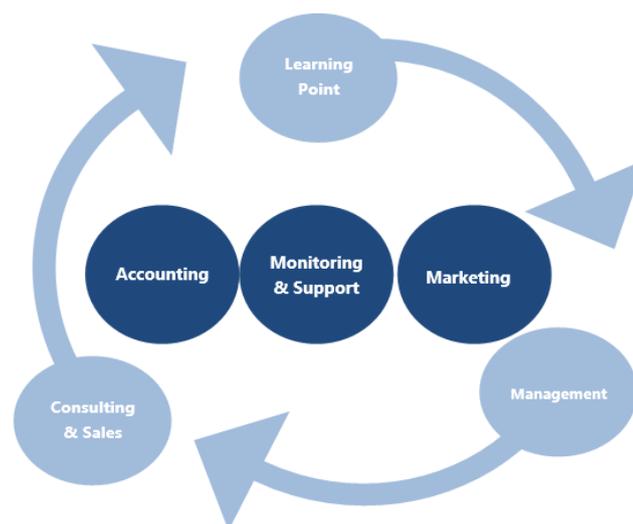


Figure 14: Interaction between Processes and Departments

Source: eXpand International Consultancy GmbH, 2019, 5.

The process Learning Point is value-adding for the learning side and the process Consulting is value-adding for the business side of eXpand. The process of the management supports both, the learning and business side. The three departments support the value-adding processes and make a substantial contribution to achieve the operational and pedagogical goals (Stock, Riebenbauer & Dreisiebner, 2016, 63–64):

*Consulting & Sales.* The aim of this process is to stay in contact with the customers and fulfill all customer needs regarding the selling of the offered products. The major responsibilities are the handling of the incoming orders (i.e. order confirmation, invoice), the adaption of the product portfolio aligned with the customers' needs and further development of the product portfolio. The employees of this process try to recognize changes within the market, to be flexible to customers' changing needs and to provide products that are up to date. The outcome of this process are two product categories namely Market Analysis and Consulting Services.

*Learning Point.* This process focuses on the increase of value creation for the learning side through activities in the area of human resource management (e.g. monthly payroll) and organizational development. The main goal of Learning Point is to ensure the maximum output of the learning processes. Therefore, the PE members are supported in their reflection-based learning, in identifying the role of a PE teacher and in thinking about their learning and development process within eXpand. Therefore, Learning Point provides the members feedback methods in PE meetings and they are responsible for peer- and self-assessment at the end of a PE semester as well as for the evaluation of application documents of the incoming students for the next semester.

*Accounting.* The department Accounting is responsible for all financial businesses including the ongoing bookkeeping associated with incoming and outgoing invoices, bank account statements, reminders, payroll, corporate income tax and value added tax. Furthermore, this department prepares and presents the monthly controlling reports as well as the interim/annual financial statement at the end of the semester. Moreover, the accounting team is responsible for the communication with the tax office and processing the social insurance tasks.

*Marketing.* The Marketing department is responsible for corporate design and communication, handling of public relations as well as the PE's marketing strategies. Furthermore, the department coordinates offers and demands of existing customers and acquires new customers. In addition, the Marketing employees take care of the relationship with sponsors and other business partners. Moreover, one important task is updating the website of eXpand and organizing an info-evening for new students of the next semester.

*Monitoring & Support.* The department Monitoring & Support is the heart of the company since it is linked to every department/process. Their main tasks are the responsibility for modelling eXpand and the monitoring of the PE market. This means that the employees observe the PE market and

organizes realistic expenses. Thus, they execute purchases and simulations for expenses in relation to the model of the PE. Since not every product can be purchased on the PE market (e.g. telecommunication, rental expenses), simulation is sometimes necessary (but simulations should be only done if a required product/service is not available on the PE market). Moreover, this department distributes the incoming letters and e-mails to the other departments and processes and updates the business plan of the PE. Finally, it is the technical supporter in the PE and responsible for the properly running hardware, office equipment and office organization.

#### 4.1.2 Internal Processes and Semester Highlights

With reference to the business plan of the PE eXpand (2019, 8), there are many different internal processes within the eXpand International Consultancy GmbH. Figure 15 demonstrates how the departments and processes work together, how communication flows and how information is provided.

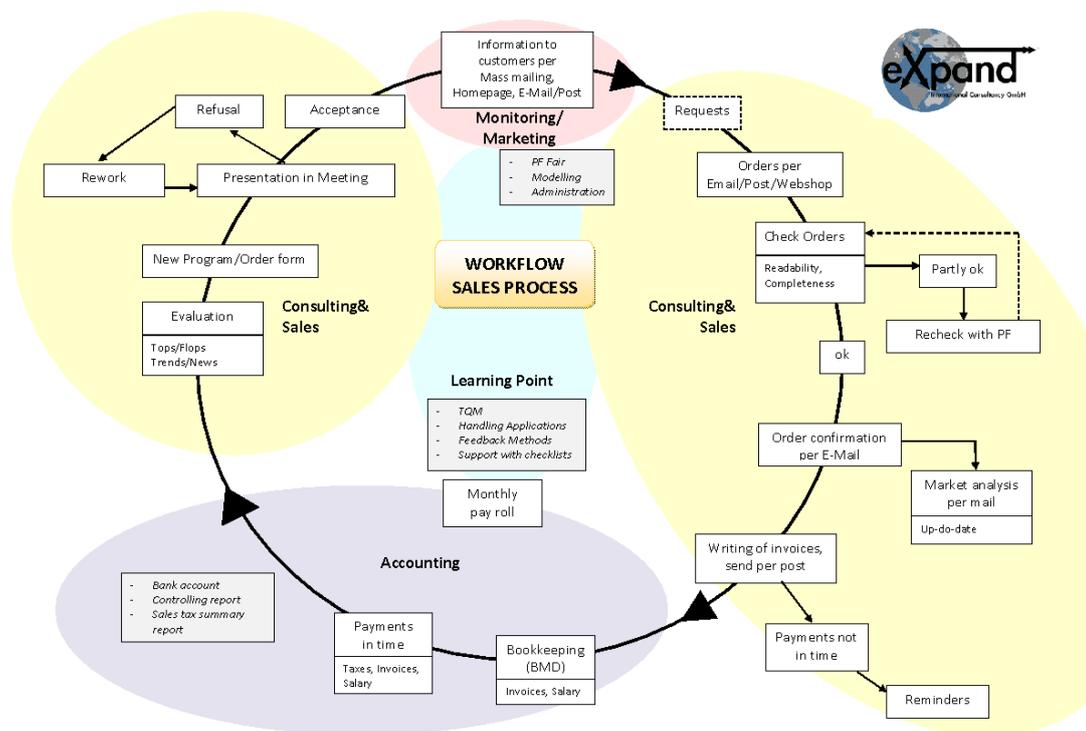


Figure 15: Overview Internal Processes

Source: eXpand International Consultancy GmbH, 2019, 8.

Aside from the regular PE work, special semester highlights and projects enable students to conduct even more complex learning tasks. Highlights have varied over the last semesters as the following examples show: After the founding in 2004, eXpand's employees developed the first handing over manuals and had communication training days with business experts. Another highlight was the preparation for the participation in the New York Trade Fair where 14 PE members travelled to New

York in spring 2006. In 2014 the employees of eXpand and KFUNline participated in the PE Trade Fair in Essen (Germany) and in 2018 PE members took part at the European Trade Fair in Dornbirn (Austria). Highlights of 2019 and 2020 are the organization of Online Trading Days, where other PEs are invited to participate via web conference. Each PE presents their company and their products and after a short discussion with other participants the trading starts via webshop. Every semester the members of eXpand and KFUNline attend a *PE World Café*. The team leaders act as hosts and prepare a poster on the table, where they represent their departments. The poster is then discussed in smaller groups and before the group moves on, they write down their ideas on the poster to give the next group incentives for further discussions. With this method, students create and discuss new ideas, learn from each other and discover links between different departments.

### **4.1.3 Annual PE Work Process**

The PE work starts with an annual planning, which is determined by the teacher and includes the pedagogical and operational priorities as well as the strategic and operational goals of the PE. The first step of the students is the application process where they write an application letter and a CV and name their department priorities. After that the teacher allocates the students to their certain department prioritization. Here the teacher tries to respond to the students' priorities and individual strength and weaknesses.

The next step is the handing over where students from the previous semester present and demonstrate their processes, tasks and handing over manual to the new students of the specific department. For example, the students of the previous accounting department show payment transactions and bookings in order to make the new students familiar with their new tasks. During the first weeks, the students familiarize themselves with the processes and tasks. For this purpose, the department handbook is very helpful because it describes the main aims and processes of each department and it is always updated.

After the familiarization, the students work on ongoing tasks such as independently processing business cases, adapting the product range, setting marketing measures, processing orders, performing payroll accounting, making payment transactions, maintaining the web shop and many more. In order to keep a high-quality standard of our processes the eXpand International Consultancy GmbH have regular business meeting to discuss strategic questions and their daily business (updates on ongoing work, controlling reports, updates on projects and priorities).

Beside the ongoing work the students work on determined priorities. These priorities can comprise one or more departments or even the whole PE. For instants, organizing the Online Trading Day, create an online assessment tool, overwork the business plan and many more. During this work

process, the students record their experiences in a portfolio. This forms one part of assessment beside the assessment of the ongoing work, peer-assessment and the students' self-assessment.

## **4.2 Best Practice Example – Vilniaus kolegija**

At *Vilniaus kolegija*, students have six or nine weeks of practice within the PE. The students represent a mixture of different learners, since there are full-time students and part-time (half time in Moodle) students enrolled within the course. In addition, external persons participate in the setting: People from the Lithuanian Labor Exchange Office had participated in PE activities for few months according to an EU structural fund project (national level). A group of students from foreign educational institution (Italy, Calabria region, professional school level) used to have three weeks practice in the PE according to a Leonardo da Vinci Project, which lasted few years. Every time a different group has different hours of practice within the PE, but every time the group goes through four main departments: Human Resources, Sales & Marketing, Purchase and Accounting.

The individual tasks for students are the following: (1) Students have to prepare the comparative analysis of PE and real company according to organizational structures and functions of each department. (2) Students have to choose one position and to present the job description. Some students already had some working experience in a real company, so they give presentations about their experience and they can skip working in some particular departments in the PE.

The PEs at *Vilniaus kolegija* are the main organizers of the *Students International Practical Conference* every year. Students prepare the presentations and articles according to PE relevant topics. In addition, a PE participated in the *Global Business Challenge*, for instance, in New York, where the students met colleagues from USA, China, Brazil, Austria, Italy, Lithuania and had to prepare the tasks in international teams like one person from one country. The PE also participates on PE national and international fairs when students prepare the booth of their PE and trade between themselves. Practice in the PE is integrated into different modules of study in different programs, leading to a high diversity of students attending the PE. The study programs (modules) include: International Business – specializations Sales and Logistics (Innovation and New Product Creation), Trade Management (Entrepreneurship), Advertising Management (Entrepreneurship), Tourism Management (Sales of Tourism Products) and Office Administration (Event Management).

## **4.3 Best Practice Example – UNIPV**

The UNIPV, according to previous experiences, collaborated with the University of Bologna at the course "Simulimpresa" that is aimed at developing direct knowledge of the functioning of the company through the faithful reproduction of its way of operating by involving students in a process of learning and consolidation of what is dealt with in company study courses, to move from an

exclusively theoretical type of learning to a concrete and active approach. It is to be underlined that the UNIBO Course is inserted in the official curricula of studies and operated from 2001. With the business simulation, the student is an active and responsible part of a virtual company's management and operation, and, therefore, he/she has to elaborate managerial choices. In order to perform these activities, there is a dedicated space in the School of Economics, Management and Statistics, which materially reproduces the typical organizational functions. This allows students to develop relational skills, to reduce the gap in job placement, to improve behavioral skills, attitudes and roles, and to generate new knowledge that can be used in the subsequent stages of study paths.

This course falls within the broader Simulimpresa Program that is aimed at promoting training in the management, tourism and industrial fields, through experience in simulated work situations in order to provide users with professional skills in the above-mentioned fields. The positive results of the experimentation started in 1994/95, when it has attracted considerable interest both at regional and national level. Nowadays the network of Italian simulated companies involves a plurality of both public and private actors.

An example of PE in the Simulimpresa Program is represented by Perting S.r.l. (EUROPEN IT01 – PER), that is a company focused on commercializing economic-informatics services, to take advantage of the valuable opportunities coming from the market. The company is grounded on the continuous integration between informatics and economy and elements of innovation. It is the first simulated enterprise introduced in the Italian University starting from the academic year 2001-2002 at the University of Bologna, involving students from business and economics disciplines.

Last PE experiences (2018-2019) were regarding two startups as:

- Future Energy – (IT01 FTE) Project management and merchandising for energy saving (22 students, 1 teacher, 1 tutor, 1 mentor – Mother Company Apollon – Cesena FC Italy [www.apollon.it](http://www.apollon.it); Coordinator D. Gualdi; Tutor M. Bianchi)
- Smart Light Culture – (IT01-SLC) Soft lighting for cultural heritage (museums, archaeological sites expositions, historical premises; 22 students, 1 teacher, 1 tutor, 1 mentor – Mother Company – Ghisamestieri Green Way of Light – Specchia – LE Italy [www.ghisamestieri.it](http://www.ghisamestieri.it); Coordinator D. Gualdi; Tutor G. Paganelli)

Remarkable is the involvement of two mother companies that contributes to the realistic evolution of activities giving its practical experiences in the field. This can be considered also a tool to ensure the sustainability of PE activities.

## 5 Outlook and Conclusion

The aim of this handbook was to provide a research-based insight into the multi-dimensional teaching and learning method of Practice Enterprise and to inspire teachers at higher education institutions to implement PEs as an instrument for teaching and learning. The method of PE has a long (and successful) history, but is not at all outdated. Especially in the digitalization and digital transformation (Matt, Hess & Benlian, 2015), the method possesses great potential. Erpenbeck & Sauter (2013) conclude that, all mere school-like learning is overrun by learning in the process of work. As a consequence, didactic-methodological concepts such as action-oriented learning – and thus also the PE method – remain to be of high relevance (Riebenbauer, Stock & Dreisiebner, 2018, 9–10).

The international PE network considers the acquisition of digital competences of great importance. PEs simulate real-life commerce. Therefore, trading at the international PE market makes use of software and online tools for accounting, banking, taxes, shipping and excise, so that students become familiar with the use of technology for business activities and develop their IT skills at the same time (PEN Worldwide, 2020d, 10). Especially during the Covid-19 pandemic, online events (such as online PE-fairs) and working remotely outside the PE-offices while collaborating digitally gained increasing importance.

The focus of the method of PE as a business simulation is to create a simplified picture of the reality – for the purpose of enable student learning. This is possible by a reduction to essential aspects, a substitution or by accentuating certain model aspects. Possible accentuations are e.g. a focus on the implementation of external corporate accounting agendas, the design of communication policy measures – or to set focus on aspects of digitalization. The starting point of the modelling activities for a *digital* PE is thus also the question of how digitalization changes a real enterprise. This digital transformation, however, reaches beyond the mere use of technology and also includes a change in the value creation process, for example due to new business models, as well as structural changes, for example with regard to organizational structure and management. The essential partial aspects of it can be visualized within the framework of business process modelling. If digitalization shall be increasingly incorporated into the learning processes of a PE, it is obvious to first consider the business processes at the company level. In this way, digitalization potentials can be located, and the operational model of the respective PE can be further developed (Riebenbauer, Dreisiebner & Stock, 2018, 10).

In the light of these insights, the method of PE remains of high relevance in a 21<sup>st</sup> century educational setting. Moreover, its potential as an action-oriented and competence-oriented teaching and learning method even increases in the light of volatility, complexity and uncertainty of future work environments.

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# Appendix

## Appendix A Vocabulary of Practice Enterprise Terms in a HEI-context

<b>Practice Enterprise Trainees</b> <ul style="list-style-type: none"><li>- are the “employees” and “managers” of their business and work in teams,</li><li>- students work in each department or in a specific department such as Finance and Purchasing, Administration, Human Relations, Sales and Marketing, etc.</li><li>- perform the business procedures – tasks and skills required to ensure their business is working successfully.</li></ul>	<b>Practice Enterprise Trainers</b> <ul style="list-style-type: none"><li>- the role of a workplace coach or mentor,</li><li>- helps with activities: motivating, challenging and supporting the students – their role and responsibilities are often very different from their usual training activities,</li><li>- initially the trainer takes a strong role in directing and structuring activities,</li><li>- later on, the trainer slips into a supportive role and supervises the work of students.</li></ul>
<b>PEN Worldwide Coordination Centre</b> <ul style="list-style-type: none"><li>- the Practice Enterprise Network main office</li><li>- connects the Practice Enterprises from all over the world, in more than 40 countries</li><li>- allows students international trading and have business contacts in different countries</li><li>- aim: to help students learn business and entrepreneurship skills through an engaging PE methodology “learning by doing”.</li></ul>	<b>Practice Enterprise</b> <ul style="list-style-type: none"><li>- the concept is developed by PEN Worldwide with national Central Offices and national universities</li><li>- a national Central Office is established in each participating country to find out the needs of the local environment and universities</li><li>- the curriculum is adapted to meet the national education standards in terms of competences</li><li>- training is adapted to target groups according to field of study, social and educational background</li></ul>
<b>National Central Office</b> <ul style="list-style-type: none"><li>- established in countries with a national network</li><li>- staff provide all important government functions and support operations, which create a complete economic simulation in the country</li><li>- some services offered which are expected to be accessible to the business world, like banking, customs and taxation, utilities and a post office.</li><li>- also responsible for training trainers, the national database, banking system and online connections between national and global Practice Enterprises.</li></ul>	<b>Business Mentor</b> <ul style="list-style-type: none"><li>- a company that comes from the real business world</li><li>- helps the Practice Enterprise as business mentor - gives advice and ideas to the trainers and trainees about processes and running a business</li><li>- can provide the real-world products and services for sale within the practice environment</li><li>- in some cases, they are involved in the evaluation process of the trainees.</li></ul>

# Appendix B Assessment Circle

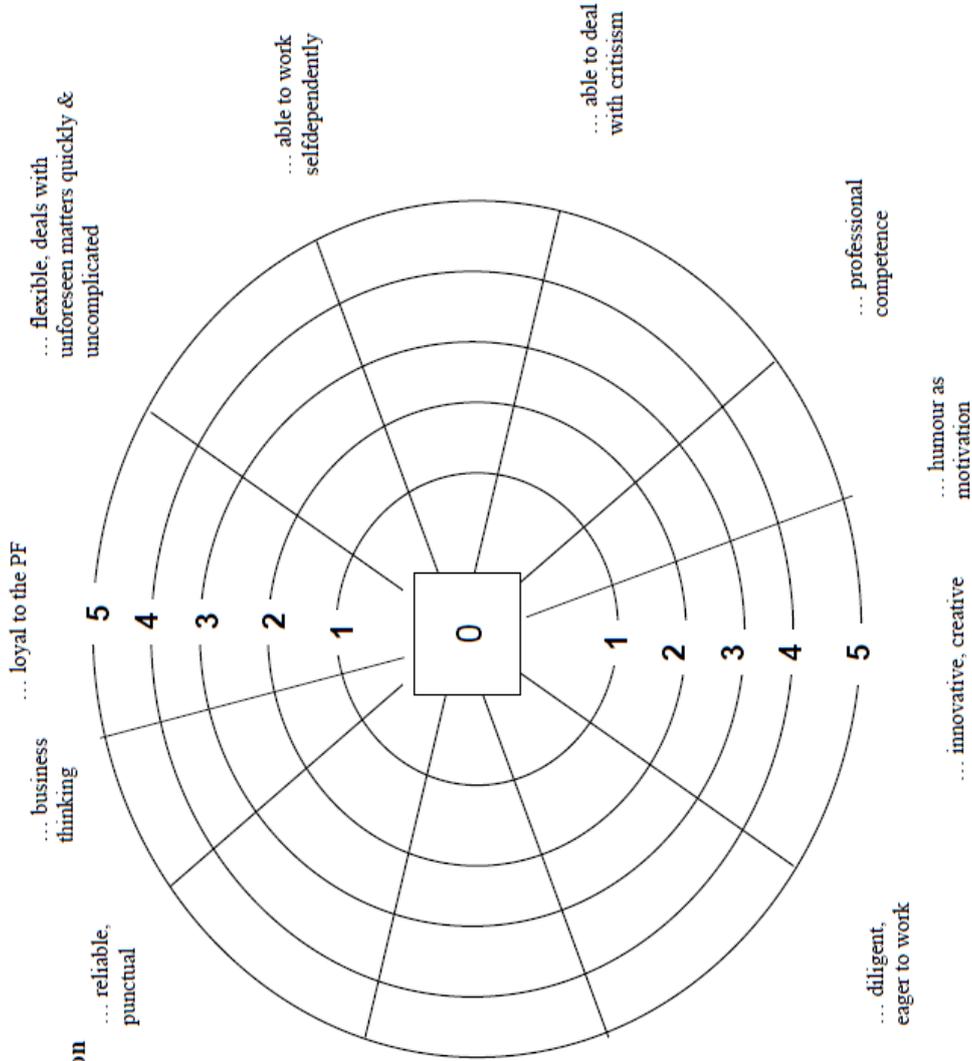
## Assessment Circle

Name of employee:

.....

**According to the contact I had to this person within the PE I can assess her/him: very well/ well/ not well**

Please underline the right one



**Final grade and further comments:**

## Appendix C – Assessment Form

ASSESSMENT SHEET for .....

Department/Process .....

Assessment	Verbal assessment	Grade
<b>Professional competence</b> e.g.: Organisation of work, Independence		
<b>Social competence</b> e.g.: ability to deal with criticism, active participation in PF-meeting, readiness to help, willingness to cooperate with others		
<b>Self-competence</b> e.g.: punctuality, loyalty, reliability, flexibility, sense of order		
<b>Methodological competence</b> e.g.: search and handling of information, use of strategies and techniques for problem solving		
<b>Total Assessment</b>		

## Appendix D – Self-Assessment Tool based on EntreComp-Recommendations

Ideas and opportunities		
Core competencies	PE Activities	Self-evaluation
<b>Spotting opportunities</b>		
<b>Creativity</b>		
<b>Vision</b>		
<b>Valuing ideas</b>		
<b>Ethical and sustainable thinking</b>		

<b>Resources</b>		
<b>Core competencies</b>	<b>PE Activities</b>	<b>Self-evaluation</b>
<b>Self-awareness and self-efficacy</b>		
<b>Motivation and perseverance</b>		
<b>Mobilizing resources</b>		
<b>Financial and economic literacy</b>		
<b>Mobilizing others</b>		
<b>Into action</b>		
<b>Core competencies</b>	<b>PE Activities</b>	<b>Self-evaluation</b>
<b>Taking initiative</b>		
<b>Planning and management</b>		
<b>Coping with uncertainty, ambiguity and risk</b>		
<b>Working with others</b>		
<b>Learning through experience</b>		