

## **EDUCATION CONTROLLING – OVERVIEW AND STATUS**

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### **Abstract**

*In line with shrinking budgets for continuing vocational trainings, the importance of educational controlling is growing more and more. Which criteria and aspects should be taken into consideration when establishing a sustainable educational controlling? What is the status quo in Austrian companies in terms of educational controlling? This article gives an overview about educational controlling in literature and shows results of a survey of Austrian companies.*

### **Key words**

*Management, Controlling, Education*

### **Introduction**

Continuing education is seen more and more as investment, and a possibility to gain additional know-how. A study of the Austrian “Institut für Grundlagenforschung” in 2008 showed that 64 % of the companies would support their employees with additional vacation, 59 % would provide financial support for the employees' education.

The economic crises necessarily leads to extensive economies. The budget for continuing education is driven by variable costs and therefore often falls victim to budget cutbacks.<sup>1</sup>

Economic crises lead therefore to necessary of target-orientated controlling for continuing education.

This article will give a definition of education controlling, an overview of education controlling in literature and presents the results of a survey of Austrian companies, which want to give a picture of the status quo in selected Austrian companies, of education controlling.

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<sup>1</sup>Cf. Kurz- und Mittelfristige Auswirkungen der aktuellen Wirtschaftskrise auf die Personalentwicklung, Zoch Thomas/ Schulz Doreen/ Koukoudis Apostoles/ Holdbrook Harold, Grin Verlag, 2011, p. 77

## Education Controlling – Definition

### *What is continuing education?*

“Education Controlling“ contains measurements of companies, which are only focused on their employees and organised as well as financed by the companies themselves.<sup>2</sup> Günter Albert defines education controlling in context with the definition of human resource development<sup>3</sup>:

- Every measurement,
- which wants to support employees in their career,
- in teaching and transferring the appropriate qualification,
- to bear up a better sensitivity for current and future tasks,
- in adjustment with personal interests.

There are several definitions which can be applied, especially in comparison to off-the-job trainings, advanced professional trainings and extended vocational trainings<sup>4</sup>, but this is not a focal point or an objective of the following article. Albert defines the goals of continuing education as follows

#### Goals of the company

- to utilise the potential of skills
- autonomy of the job market
- improved corporate image
- to create qualification in consultation with the requirements
- to realise technical development
- consideration and flexible employees
- Education: to shape employees who are independent, decisive and willing to take responsibility

#### Goals of the employees

- motivation
- support in finding the right educational programme
- a better mobility all over the enterprise and beyond
- lower risks to be made redundant
- personal fulfilment

### *Education Controlling*

Initial ideas of education controlling already came up in the 1950's in the USA, when Donald L. Kirkpatrick developed the Four-Level-Education-Model: (1) Reaction – what did the participant think about the course/training? (2) Learning – did the participant gain additional know-how? (3) Behaviour – was it possible to transfer new knowledge to the job? (4) Results – what was the final benefit for the employee and the employer because of the attendance of the course/the training?

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<sup>2</sup>Cf. Falk 2000: p. 161

<sup>3</sup>Cf. Albert 2009: p. 126

<sup>4</sup>Cf. Breiter 2009

The first model for education controlling in the German-speaking-world was developed in 1983, Bronner and Schröder started their research with “Erfolgssteuerung in der Weiterbildung” (Success-Control in Education)<sup>5</sup>.

The number of Models, Articles and Research studies was rapidly rising within the last decade. When dealing with matters of education controlling, it is necessary to differ between two principal directions: (1) Education controlling in continuing education and (2) Controlling in education companies, the first deals with the controlling of lectures and events within education programmes, the second is more likely a financial controlling system customised for companies of the growing business area “continuing education”.

All in all, it can be said that literature of education controlling basically deals with the same topic as financial controlling does: Planning, Informing, Analysing, Examining and Controlling<sup>6</sup>.

The Planning-Data derive from the guidelines and targets pre-defined by the education institution. In accordance with these data, all controllable processes can be measured and the assessable processes within controlling can be estimated within these scheme-/target data.

The Education Controlling provides Information for the Management about key figures, indicators and parameters. The parameters derive from defined processes; they include information about the planning of an educational measurement as well as the output. Finally, based on real-data, certain variations can be specified in comparison to planning-data.

### ***Distinction of the term “education controlling”***

Education controlling is specified by its complexity and numerous aspects. It ranges from controlling of single trainings to a whole management-tool for education companies. This paragraph wants to give an overview about the dimensions of education controlling and its difference to evaluation, quality management and some related fields.

### **Duality of education controlling**<sup>7</sup>

Education controlling should bridge economical controlling matters with pedagogical aspects. The economical field is covered by financial controlling tools like budgeting, well-known key figures and indicators. These controlling-tools are not related to educational affairs, therefore we have to add this controlling-system to related pedagogic aspects<sup>8</sup>. We are in need of indicators to measure the qualification of teachers, learning efficiency, information about the success of implantation of new know-how and much more.<sup>9</sup>

### **Strategic Education Controlling versus operational Education Controlling**<sup>10</sup>

Education Controlling is based on defined company targets. The definition of short- and longterm targets leads us to differ between operational and strategic controlling actions. Operational Education Controlling deals with short-term targets, a time horizon of up to one year, strategic Education Controlling handles actions and measures with concentration on mid- and longterm targets, so the time horizon is up to three years. The strategic controlling focus is on operations of the entire enterprise

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<sup>5</sup>Cf. Schöni 2006: p. 18

<sup>6</sup>Cf. Schöni 2006: p. 36 ff.

<sup>7</sup>Cf. Breiter 2009: p. 30 ff.

<sup>8</sup>Breiter 2009: p. 30

<sup>9</sup>Cf. Schöni 2006: p. 37 ff.

<sup>10</sup>Cf. Breiter 2009: p. 33 ff.

### Quantitativ versus qualitative Education Controlling<sup>11</sup>

The quantitative Education Controlling deals with figures and parameters that are measurable. Quantitative Controlling instruments like Budgeting, Expanding for Continuing Education are in direct relation to selected areas which should be stated.

The qualitative Education Controlling covers all instruments that want to give information about cost- and success drivers that could hardly be measured with figures and numbers, for example changes in employees motivation or the success in implementation of new know-how.

### Education and its environment<sup>12</sup>

Education and continuing education is influenced by various matters. Education politics, trends, the situation of the labour market, official guidelines are important factors besides the demand of the target group.

### Qualitymanagement and Evaluation versus Education Controlling<sup>13</sup>

Schöni defined key questions to answer the questions about the difference of quality management, Evaluation and Education Controlling:

- Evaluation: „Evaluation asks for the quality: What is the quality of the learning opportunity, the service provider, the education institution?“
- Quality Management: “How can we guarantee that quality and effectivity of all processes of the learning opportunity, the service provider, the education institution gets measured and developed regularly?“
- Education Controlling: “Education Controlling asks for the overall controlling of all processes: What is the quality and quantity of all education activities and services? How can we measure and control all areas of influence.

### Education Company versus Education Departments

Education Controlling is a matter for all institutions and facilities, which are dealing with education and trainings, either we speak about (1) Education Company or about (2) education departments. To find a suitable controlling-system, it is most important to differ between these two different organisation forms, because of the need to know, how far and in which fields processes can be influenced.

- An Education Company is a private or public institution providing education programmes for specified target groups to meet the interests of their customers and clients, trends on the market and official guidelines.“<sup>14</sup>
- An education department is a department that acts by order of its institution/organisation/company. The education programmes empowers employees to manage their tasks better.“<sup>15</sup>
- Education companies and Education departments differ in following areas.
  - Education Departments are led by strategic targets of the company.

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<sup>11</sup>Cf. Breiter 2009: p. 34 ff.

<sup>12</sup>Cf. Schöni 2006: p. 37 ff.

<sup>13</sup>Cf. Schöni 2006: p. 55

<sup>14</sup>Schöni 2006: p. 39

<sup>15</sup>Schöni 2006: p. 39

- Education Departments have to report to the next level/ the company in all matters.
- The Education Programme is strongly influenced by the order situation of the company.
- It is hardly possible to find benchmarks to compare service/costs and success of the education programme, because of the fact that education programmes are tailor-made to the own company.
- own company.

### **Controlling models for further educational programmes**

#### ***Four-levels-model by Kirkpatrick***

The four-levels-model by Kirkpatrick is one of the first working papers in the research field of education controlling and was established in the 1950ies. It consists of:

- (1) Reaction: Kirkpatrick subsumes the customer satisfaction, which are measured by surveys. Basically it is about appliance of evaluation. „Are the participants happy with the conducted training?“ Educational institutions often run evaluations, for that reason data often exists. Kirkpatrick emphasises on the importance of obtaining the reactions of participants in the following way: „In a situation where they pay, their reaction determines whether they attend again or recommend the training to others from their institution. [...] Reactions of participants should be measured on all programs for two reasons: to let the participants know value their reaction, and to measure their reactions and obtain suggestions for improvement.” (Kirkpatrick/ Kirkpatrick 2005, 5).
- (2) For Kirkpatrick the obtaining of reaction is important for two reasons: (1) The participants should become aware that their view is important, even for progression, and (2) these reactions should provide the basis for further improvement. After all the reactions of participants for fee-based educational institutes determine whether they would participate in a course again and whether they would recommend it.<sup>16</sup>
- (3) Learning: Kirkpatrick defines Learning as the immediate result of the education schemes, the success rate, which is measured by tests and surveys. „Which tasks and how well was learned by the participants?“ (ibid.) “Three things can be accomplished in a training programme: (1) Understand the concepts, principles, and techniques being taught. (2) Develop and/or improve skills. (3) Change attitudes.”<sup>17</sup>
- (4) Behaviour: It has to do with the achievement of transferring the newly gained knowledge to practical experience. „Do participants apply the newly gained knowledge to their work area?“ „Measuring behaviour change is necessary, not only to see if behaviour has changed, but also to determine the reasons why change has not occurred” (vgl. ebd., 6). Kirkpatrick outlines that the achievement of transferring the newly gained knowledge to practical experience is a key success factor. Therefore, a considerable data base is needed. Kirkpatrick recommends that surveys before and after the training should be analysed. For the data collection superiors, employees and work colleagues can be appointed. The survey should be repeated regularly.<sup>18</sup>

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<sup>16</sup>Cf. Brauwer 2008: p 65 ff.

<sup>17</sup>Kirkpatrick, J. D./ Kirkpatrick, D. L. 2005: p. 65

<sup>18</sup>Cf. Brauwer 2008: p. 65 ff.

- (5) Results: Kirkpatrick defines Results as qualitative results of the implementation of gained knowledge into the praxis. „Results could be determined by many factors including less turn over, improved quantity of work, improved quality, reduction of waste, reduction in wasted time, increased sales, reduction in costs, increase in profits, and return on investment (ROI).“ It is all about specific impacts of the training on turnover, work efficiency, quality of work and the like. (ibid.)

### ***ROI-Approach by Phillips***

‘Phillips‘ approach is based on Kirkpatrick’s work and adds a fifth item: Return on Investment. Phillips attempts to assess the success of education with numbers, which is a very controversial attempt within education controlling. The formular for the ROI of educational trainings is as follows:<sup>19</sup>

$$ROI(\%) = \frac{\text{benefitsofthetrainng} - \text{costsofthetraining}}{\text{costsofthetraining}} \times 100\%$$

If ROI = 130 %, for each invested Euro a return of 1,30€ (net) was achieved. If ROI < 100%, the investment exceeds the return (vgl. Phillips/ Schirmer 2005, 31). The crucial question is the identification of the benefits of the training. Therefore, Phillips selected a 9-level process. Levels 1 to 4 conform to Kirkpatrick’s model. Levels 5 to 9 apply to quantification respectively to qualification of the benefits of the training. Data are assessed before and during the training, compared and effects are finally isolated to be financially evaluated and used for the index calculation. Possible paramters could be, for example reduction of extra hours, efficiency enhancement of process operations, low error rate (ibid.)

### ***VOI-Approach by Kellner***

Kellner and his team of „The Institute of Training and Development“ added a sixth level to Phillips‘ adapted Kirkpatrick.model: The Value of Investment. Kellner notes that the success of the educational training by Phillips could appear negative, which could have positive effects from a macroorientated point of view, which could exceed the investments of the educational training. Kellner beliefs that in a sixth step the benefit of training for all participants has to be identified, to be made concrete and to be described in detail. The realized benefit can be provided with a certain value. The sixth level corresponds from a intermediate to a long-term measurement of qualitative results of educational trainings<sup>20</sup>.

### **Description of arrangements to control trainings activities within selected enterprises**

A non-representative survey within selected Austrian industrial companies tells that extended vocational training becomes more and more important to the companies. Participants were HR of Alpine Bau GmbH, the second largest building enterprise within Europe, Andritz AG, a leading Austrian plant construction firm, Binder & CO GmbH, a growing machinery installer and largest employer of the region Oststeiermark, Sappi AG, a leading paper production company.

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<sup>19</sup> Cf. Phillips/Schirmer 2005

<sup>20</sup> Cf. Krauß, 2008 (p. 26 ff.)

According to the criteria for demarcation, which are outlined under point 3, we deal with quantitative and qualitative instruments of education controlling in training sectors of companies.

The status of analysis of further educational training based on the four-levels-model by Kirkpatrick (Point 3.3.1) and added by the term „needs survey“, can be outlined as follows:

- Assessment of demand

The identification of needs is based on staff appraisal. The immediate superior identifies training requirements, the decision on further educational training is to be made by the management. For each employee a competence profile will be created, within these competence profiles qualifications and competences of the employee will be noted, and compared with the requirements of the job-description. In this way, a considerable overview of the company's qualification level should be given. The most common method of dedicating the training needs is the personal dialogue between employee and superior. The certain education training will be chosen based on the current duties or the results of the staff appraisal.

- Reaction

The reaction of the participants of educational trainings will be collected through an evaluation questionnaire or through personal discussions with the superior. All companies indicate that the reactions will be forwarded to the training institute and will influence the further progress of the courses.

- Learning

There is no assessment of training success like tests or oral examinations. Exceptions are certification processes, where upgrade training course become certification processes and as a result the benefit can be clearly detected.

- Behaviour & Results

All interviewed enterprises indicated that staff appraisals told them whether employees could apply the newly gained knowledge from training courses to practice or whether changes in the work result thereby could be identified.

- Return

The measurement of the monetary success of further educational training is very challenging and is hardly made. It is attempted to outline the monetary success by obtaining feedbacks from the participants. Employees/participants are asked for projects, which have profited from the further educational training like saving of time, reduction of costs or increase of turnover.

In another step, this monetary success could be set proportional to the applied training costs. In this way, the Return on Investment of the educational training could be calculated.

## **Conclusion**

Vocational further training becomes more and more important to businesses. Crisis and budgetary bottlenecks put more pressure onto expenses for vocational education. Therefore, the development of special controlling instruments is a vital need. This two different target groups must be taken into account: (1) Education institutes respectively (2) training departments of businesses. These target groups differ in strategic controlling opportunities. Despite

intense development in the literature market of education controlling in the last ten years, most approaches base on the 4-levels-model by Kirkpatrick from 1950 (assessment of demand – Reaction – Learning – Behaviour).

A survey of representative Austrian companies 2012 indicates that this model is partially implemented. The assessment of demand is realised by most companies by personal appraisal interviews and noted in an company competence development profile.

The reactions of participants of educational trainings will be collected by all companies by evaluation sheets or by personal dialogues with the superior. However, an information back flow to the superior is rare. Assessments of training success are rarely conducted, exceptions are special educational trainings, which conclude with certifications and audits. The success of the advanced training will be measured by appraisal interviews, held after the conducted training.

To sum up, it can be said that selected controlling instruments are applied to vocational education and training. Especially the determination of success of further education is in the early stages of development. The qualification of the success of further education would be a giant stride towards professionalisation of education economy.

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