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Reflective professional development

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ABSTRACT

The exorbitant growth of internet and social media has not only contributed to an immense expansion of virtual markets but also to the growth of availability of different knowledge resources for the users (Rice-Lively/ Racine, 2002). From the beginning of mankind until the initiation of the Web 2.0 specialized knowledge was restricted to an inner circle of privileged individuals. Accordingly, growth of knowledge was limited. Today though, knowledge has become an infinite resource available in abundance to virtually anybody disposing of an internet connection (Gruber, 2007). Information pools, as a result, are growing exponentially. The challenge of raising the treasure of knowledge has shifted from getting access to information to selecting adequate, topical and relevant information (Webber, 2000). According to multichannel communication output, relevant input given by adequate insights becomes more necessary.

KEYWORDS

Quality Management, Development, Learning, Reflection

ABBREVIATIONS

CAFM	Computer Aided Facility Management
TAM	Technology Acceptance Model
TRA	Theory of Reasoned Action

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1. RESEARCH ISSUE AND KEY QUESTIONS

The clarification of research intentions and the well-aimed development of methods of information evaluation and learning are indispensable to make the process of knowledge selection and adoption succeed. On the other hand, research intentions determine the process of study. Analyzing and evaluating these mechanisms and their interaction is the central concern of this paper. This leads us to following three research questions:

1. What is the impetus of professional development?
2. How, i.e. by what mechanisms does learning enable to professional development?
3. How do research impetus and mechanisms interact and co-determine each other?

Working on these questions the paper takes a double perspective. Conducting a systematic literature analyses it approaches the “what” and “how” of academic learning from an established academic perspective and systematizes the insights. The study then reflects on the insights from a personalized viewpoint, evaluating the process and objectives of composing a doctorate on quality management in the communications industry.

The core insight is: Academic study is a helix-shaped process in which research objectives and research results continuously influence each other. Knowledge development resembles a soaring spiral.

1.1 COURSE OF ARGUMENTATION

The paper is structured as follows:

Chapter 2 sheds light on basic terms and concepts relevant to the course of argumentation. From the perspective of the question “what is the main aim of professional development?”, the study conducts a semantic field analysis of the term development.

Departing from these insights it works out intentions of human resource growth (section 2.1). To explore the second key issue, “how does academic learning work?”, basic knowledge on theories of learning and the relevance of reflection to the process of learning are evaluated (section 2.2).

Drawing on these terms chapter 3 seeks answers to the key questions conducting a systematic literature review that developed in the process of writing my thesis. Part 3.1 explains the method of data base research and literature evaluation and drafts a conceptual model of the learning-teaching interaction. Section 3.2 evaluates studies focusing on the learning perspective and refers to two fundamental explanations of learning impetus (the Theory of reasoned Action (Ajzen/ Fishbein, 1980) and the Technology Acceptance Model (Davis, 1985). Section 3.3 evaluates studies on mechanisms and impetus departing from the teaching perspective of academic research. The mechanisms of trust building, knowledge sharing and integration as well as communicative interchange are identified as core drivers of learning processes.

2. TERMS AND DELIMITATIONS

Chapter 2 delimits basic concepts relevant to further discussion. Regarding the above key questions human resource development and learning are the core issues.

2.1 THE WHAT: HUMAN RESOURCE DEVELOPMENT

An analysis of the semantic field of “development” is a first approach to learning intentions. Development, according to ARD, an English-English dictionary, comprises

“The act of developing or disclosing that which is unknown; a gradual unfolding process by which anything is developed, as a plan or method, or an image upon a photographic plate; gradual advancement or growth through a series of progressive changes; also, the result of developing, or a developed state.” (ARD, 2012)

The following paragraphs discuss the essential key terms contained in this definition from a personal perspective:

Disclosing and unfolding imply that something previously unknown or unobservable is discovered in the process of developing. This corresponds to my personal experience during learning and writing: New ideas gradually unfold when expressing and reflecting

on established thought. Studying can be described as a way to un-discover the own personality and implies an evolution of the self by the adoption of additional concepts of reflection and previously unknown insights.

The definition further points out the “gradual” progress of the development process. It reconnects development to the term of growth. I partly share this idea with respect to my personal study development. Though most of the time studying is hard work and progresses only slowly, novel insights occasionally pounce out of a sudden as soon as the learner has worked through a critical amount of new knowledge. Accordingly, the glimpse of the core causal model described in figure 7 of the main thesis came to my mind out of a sudden after carefully working through established EFQM approaches. Development thus according to my experience frequently resembles a discontinuous process marked by evolutionary phases interrupted by revolutionary intermezzos.

The above quotation also points out the ambiguity of the term of development, which can take a process-related as well as a stationary connotation (state of being developed). Drawing on the insight of discontinuity of development, in my personal experience, any conception of a “development status” returns to a “development process”, if the term development is adequate. Though development speed may vary, development remains a process and resembles a status only in very short discrete time points.

The process of my personal study as well as the resulting doctorate underline this notion. On the one hand the evaluation is clearly job related since it assesses possibilities of improving quality of professional communication. On the other hand, it additionally implies a personal development with respect to methods and insights. The novel insights obtained from the survey contribute to collective academic knowledge development.

The so far semantic analysis has referred to development in general. Learning usually is associated with living and reflecting beings. Development in the context of learning frequently is described by the term “human resource” development. What does “human resource” mean in general and from a personal viewpoint?

The term human resource development usually refers to a business context, where manpower first of all is considered a production factor. The original concept of HR-development is not self-referential but implies that the developed characteristic is helpful to the economic and financial success of an organization (Werner, De Simone, 2009:5-13). Swanson and Hulton (1997, 24-26) think that HR- development improves the individual contribution to the entrepreneurial value added chain. According to Joy-Matthews, Megginson and Surtees (2004, 6-7) human resource development comprises employee education, training and learning and additionally the development of personal organization, inner potentials and character. The basic idea of the management perspective of HR-development is to make the individual fit in with superordinate organizational objectives.

Indeed, university education with respect to the training objectives – a comprehensive development of practical and theoretical skills as well as personal characteristics and character traits – corresponds to HR development in a business context. In my experience though, in a university context human resource or more broadly professional development goes far beyond the above mentioned management approach. The development of individual capacities never serves the objective of performing in job alone but additionally and primarily is a personal and social development path. Swanson points out that Human Resource development theory essentially rests on three columns: economics, social sciences and psychology. The underlying foundation of these columns is ethics. Human resource development should be directed towards the organization but equally to the individual and to a collective process of interaction (Swanson, 2001, 306). For this reason, I prefer to use the expression “professional development” instead of “human resource development”.

The basic intentions of professional development, originating in an academic context, are following: Apart from a job related development, insights obtained are self-referential and contribute to the individual psychological development. The last point is knowledge. Knowledge boosts social development and enriches the process of academic discussion.

2.2 THE HOW: LEARNING AND REFLECTION

The second key question outlined in 1.1 deals with the “how” of professional development. An introductory

discussion and reflection on learning theories and their relevance is essential for a better understanding:

Illeris (2004, 20-26) defines learning as a process and the particular way of combining cognitive, emotional and environmental influences and experiences to improve one's knowledge. Merriam and Caffarella (1991, 138) differentiate three basic philosophical explanations of learning.

The behaviouristic approach conceives learning as a process of changing one's behaviour due to a change in environmental conditions. Conditioning, i.e. reward or punishment encourages this behavioural change. Education should offer environmental conditions strengthening the intended behaviour (Kin/ Axelrod, 2005, 111).

Cognitivism criticizes behaviourist approaches for overemphasizing the relevance of observable behaviour in the learning process. Cognitivist theories point out, that learning to large extent implies the inner reflection of observations and previous knowledge of things. The learner himself turns out to be the driving force behind any knowledge acquisition (Lilienfeld et al, 2010, 24-28).

Constructivist learning models expand the idea of learners' participation to the extent that the student constructs his own knowledge actively by selecting from past experience. Advanced learners introduce less experienced students to this method. Learning thus becomes a culturally established process. Students themselves shape this cultural development by their participation in that process (Driver et al., 1994).

An assessment of these development strands shows

- that perceptions of learning have increasingly emphasized the active role of the student
- and have developed from the idea students' heteronomy to autonomy (Leonard, 2002, 2-3).
- While initially teachers were seen as leaders in the learning process, recent research sees them as equal participants in a comprehensive and socially relevant learning process.

Considering my personal learning process from the beginning to the present I observe a similar development. My personal primary school learning experience is following the thought of the teacher word by word trying to memorize essential patterns. During secondary school personal learning autonomy increased. The inner readiness to accept new

information became essential to learning success. Instead of stupidly memorizing, reflection became an important factor.

University study accomplished this process. Students and teachers here work on an equal level attempting to jointly create new experiences reflecting on existing thought. Empirical study permits new insights founded in and confirmed by social reality. Academic science thus to large extent corresponds to constructivist learning models: The researcher draws on university culture and participates in shaping it by adding and documenting new insights. Academic learning is an active process of reflection on information established in society. Learning on the one hand develops within the researcher and on the other hand manifests itself in the researcher's contributions to social development.

3. SYSTEMATIC LITERATURE REVIEW AND PERSONAL REFLECTION ON PROFESSIONAL DEVELOPMENT INTENTIONS AND METHODS

Departing from these basic insights the following chapter evaluates the research question conducting on a systematic literature review of studies from the learning-teaching context that impressed me.

3.1 METHOD OF LITERATURE EVALUATION

A systematic literature review extracts and contrasts ideas on predefined research questions from previous studies and draws own and new conclusions from the insights. A systematic methodology is essential to obtain reliable results. Eisend (2004, 6) suggests a five steps process which comprises: defining the key question, identifying selection criteria, systematic data base research, coding and evaluating the studies according to adequate criteria.

The method of literature review here is applied to the two initial research questions developed in Section 1.1: What are the intentions of professional development? How does learning enable to professional development?

In the course of my study I identified a series of texts from a business, psychological or social context that point out intentions of professional development. The following sub-questions are helpful in evaluating their contents in detail:

- What is the context of the studies?
- What is professional development considered to be?
- How are the insights proven?
- Which intentions can be identified?
- What, according to the studies, is the relevance of development intentions?
- How does professional development work at a psychological and social level?

In order to reduce selection and detection biases three data bases have been searched repeatedly: *Scirus*, *Emerald Insight* and *Scholar Google*. The following key word combinations were helpful:

Referring to the basic concepts derived in 2.1

Human resource OR professional AND development AND empirical

Referring to the basic concepts derived in 2.2

learning AND process AND empirical

Applying this methodology, a series of studies on a broad range of topics has been identified. The following paragraphs evaluate a selection of texts which are of particular relevance or interest to my personal study process. An evaluation of the contents results in sort of a patchwork puzzle on knowledge acquisition and diffusion processes and intentions from a psychological, management and sociological context. Attempting to systematize the insights derived applying the above research questions I would like to suggest a communication model of learning:

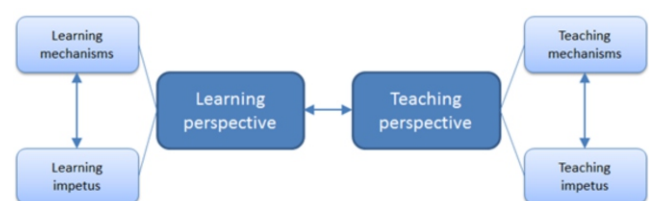


Figure 1: Model of knowledge diffusion and acquisition (own draft)

Knowledge diffusion and acquisition according to this concept are a specialized form of communicative interchange between a teaching and a learning party. Texts departing from the learning perspective analyze mechanisms and impetuses in the environment of or inside the learner that encourage knowledge acquisition and personal reflection. Contributions departing from the teaching perspective evaluate impetuses and mechanisms of sharing knowledge with others.

In each of the evaluated texts, the what, i.e. the impetus and the how, i.e. the mechanisms, of learning and respectively teaching are discussed jointly. Both initial core questions appear inseparable from each other.

3.2 MECHANISMS AND IMPETUS OF LEARNING

Two basic psychological explanations of learning processes and impetus have been of particular relevance to my personal development: The Theory of reasoned Action initialized by Ajzen and Fishbein and Davis' Technology Acceptance Model. Both models evaluate the process of knowledge acquisition from the learner's perspective. Both models assess impacts encouraging or hampering a learning process. The following paragraphs illustrate these approaches, discuss their reflections and thus are fundamental to my personal reflection on learning processes.

3.2.1 A psychological explanation for learning - The Theory of reasoned Action

Ajzen and Fishbein's (1980) Theory of reasoned Action is among the first academic evaluations on the formation of individual knowledge acceptance behaviour. They find that attitudes and subjective norms are central to learning intentions and learning behaviour (Ajzen/ Fishbein 1991).

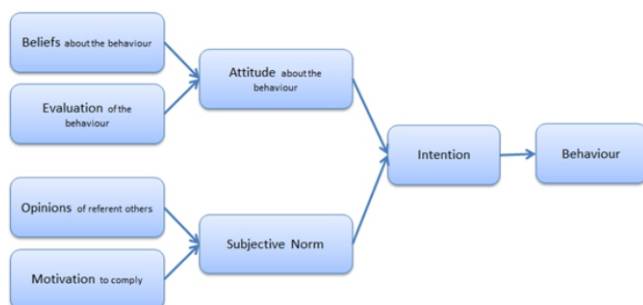


Figure 2: : TRA-Model (source: Vallerand et al., 1992, fig. 1a; own layout)

Attitude according to the authors is “a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object” (Ajzen/ Fishbein, 1975, 6) and accordingly determines the learning process. Attitude is determined by inner beliefs resulting from previous experience and their evaluation. Ajzen and Fishbein assert, that “attitude” usually relies on a multitude of opinions, which represent the information available to an individual concerning a certain object.

Attitude according to the model is measurable on a one-dimensional scale. Its subjective value W can be negative, neutral or positive and ranges between a

maximum and a minimum level. The TRA assumes that the formation of attitudes follows a linear approach, i.e. individual beliefs are weighted by a precise factor. Their weighted sum results in an attitude (Ajzen/ Fishbein, 1975, 6).

Subjective norm results from the own reflection of others' opinions and an own inner motivation to comply. Anybody uses opinions to value the attributes of an object. Active learning processes, i.e. observation, information heard or read or own conclusions, according to Ajzen and Fishbein are at the bottom of opinion formation (Ajzen/ Fishbein, 1975, 12-14). Subjective norms are based on expectations that the social group an individual belongs and individual intentions are resulting from these expectations. The weighting of the influence of behavioural intentions and social norm on the behavioural intention depends on the situation the individual is in and on the object of evaluation. According to Ajzen and Fishbein individual attitudes and social norms and values are inseparable. Society codetermines the individual learning process.

The TRA thus aligns with constructive and cognitive learning theories. The learning process is characterized by individual and inner opinion formation on an object or cause.

Sheppard, Hartwick and Warshaw (1988) prove that the model fit of the TRA is fairly good in general. They evaluate correlations for each of the parameters suggested by Ajzen and Fishbein in 85 empirical studies and discover that correlations observed in the majority of cases are significant.

On the other hand, the TRA has repeatedly been criticized since it overemphasizes rational consideration with respect to the formation of attitudes and subjective norms. Potential affective reactions or emotions are neglected by the TRA (Vogelsang, 2004, 16-18). Connor and Armitage (1998) though explain that affective components can be integrated into the model approach if measures of emotions are introduced.

In practice the process of intention creation is more complex than assumed in the TRA. Opinions overlap and mingle and reinforce or attenuate each other. A linear model is insufficient to describe this process (Manstead/ Parker, 1995). Still the TRA model is the first psychological approach integrating the concepts of attitude, intention and behaviour into a single learning

model and as a result has coined further attitudinal research.

3.2.2 Technology related learning - The Technology acceptance model

The Technology acceptance model was derived from the TRA to explain technology acceptance and technology related learning. Though the model considers primarily the technology-related aspect of learning it provides some fundamental explanations of earning mechanisms and results frequently discussed in a business context (Braun, 2007, 3-4). According to the TAM perceived usefulness and perceived ease of use encourage an individual to accept and learn new technologies.

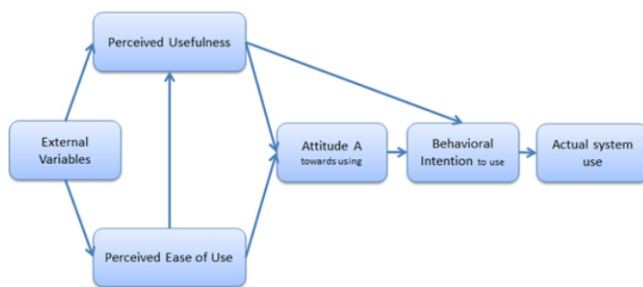


Figure 3: Original TAM (Davis/ Bagozzi/ Warshaw, 1989, 985; own layout)

Both usefulness and ease of use contribute to the development of an attitude on a technology. This inner attitude defines to what extent an individual actually makes use of an information system (Davis, 1986, 24-25). While Davis' 1986 dissertation argues a direct interconnection between attitude towards using and actual system use, the 1989 (Davis/ Bagozzi/ Warshaw, 1989) publication introduces the additional intervening parameter of behavioural intention to use. The TAM thus takes over the categories of intention and behaviour from the TRA. The concept of intention to use points out that an inner attitude not necessarily leads to action. It might be influenced by further variables, but will determine user's intention to accept a technology.

Davis argues that the individual design elements of a technology determine users' perceptions of usefulness and ease of use. In later contributions Davis, Bagozzi and Warshaw (1989, 985) extend this concept to "external factors" in general. These factors are not restricted to pure IT features any more but similarly to the TRA may additionally stand for social expectations, the availability of further information or service and other features. The generalized concept of external

factors thus makes the TAM highly flexible to a large variety of applications.

As compared to the TRA, Davis' initial work (1985, 24) subdivides users' response into cognitive and affective patterns: While ease of use and usefulness are based on mental reflection processes, attitudes result from an affective or emotional response. Davis thus assumes that cognition determines affections and excludes an inverse causal effect. Repeatedly the TAM has been criticized: Benbasat and Barik (2007) assume that it is inadequate to adapt to continuously changing information systems. The TAM does not explicitly pay regard to social processes but sees the user as an independent individual, deciding freely which application to use. In practice though learning depends on network effects and social standards to a large extent. Within a company for instance a user may be unable to deny using a common data processing system (Bagozzi, 2007).

On the other hand, the validity of the TAM in the context of various applications has repeatedly been proven. Saadé, Nebebe and Tan evaluate the validity of the TAM categories referring to the example of an electronic teaching system. (Saadé/ Nebebe/ Tan, 2007, 176-177). They find that all correlations proposed by the TAM are statistically significant. Perceived ease of use has got a positive impact on use. High perceived use fosters the behavioural intention to use the program and stimulates a positive inner attitude. Positive inner attitudes again heighten the intention to use the program (Saadé/ Nebebe/ Tan, 2007, 181).

Davis, Bagozzi and Warshaw test the relevance of the TAM as compared to the categories of the TRA model on the usage of a voluntary word processing program among 704 undergraduate MBA students (1989, 989). They find that the categories of the TAM are all valid and dispose of a higher exploratory value than the TRA concepts. Particularly the partial correlations between attitude and use as well as ease of use in the TAM (0.37, significant at the 1% level) are significantly higher than for attitude and opinions in the TRA (0.07, significant at the 5% level only). Attitudes are described more reliably by the categories ease of use and perceived usefulness than by opinions and beliefs in general (Davis/ Bagozzi/ Warshaw, 1989, 992).

Summarizing the mechanisms and impetus of learning conveyed by the basic ideas of the TRA and the TAM the

following points are important for further discussion:

- Learning intention is pre-conditional to learning behaviour.
- Learning intention develops on an individual level on the basis of inner attitudes and on a social level on the basis of subjective norm. The individual's learning intention is determined by an own inner resolution and by social influences.
- Personal inner attitudes rest on social norms and their individual assessment.
- Social influences (i.e. subjective norms) may be explicit (for instance extrinsic incentives) or implicit (i.e. opinions or expectations of peers or leaders).
- Learning is determined by the perceived usefulness of contents and the perceived ease of application.

3.3 MECHANISMS AND IMPETUS OF TEACHING

Repeatedly these basic insights as well as the underlying models have been transferred to a teaching context to evaluate human resource development characterized by aspects like learning intentions, information processes and information quality within organizations. Trust, knowledge sharing and integration as well as knowledge communications turn out to be central to successful knowledge diffusion processes and reinforce collective learning processes.

3.3.1 Trust and knowledge acquisition

Milchrahm studies the readiness of HypoVereinsbank employees to learn a concrete new credit risk assessment system. She finds that the parameters ease of use and usefulness are insufficient to explain learning intentions (Milchrahm, 2002, 36). Adding the indicator variable system trust she obtains on a valid model. System trust enhances both learning intentions and actual learning processes (Milchrahm, 2002, 38). Perceived ease of use correlates with system trust. An optimal learning atmosphere significantly increases user trust and learning success (Milchrahm, 2002, 39-40).

Ulrich et al. (2009) come to similar conclusions on the relevance of trust but focus on the role of the human resource expert in the learning processes. Credibility is among the most important characteristics of the HR professional since trust is a core enabler of learning processes. The HR professional then acts as an intercultural steward. Cultural interchange is the driving force of most learning processes in a global context, intercultural communication makes different

viewpoints merge and helps to create new ideas (Ulrich, 2009, 4). The HR professional thus understands to merge organizational capabilities with systems and processes dominating in workflows and creates human relationships building on that knowledge. Learning processes develop from successful communication across all organizational levels (Ulrich, 2009, 5).

According to both contributions trust makes an important part in learner-teacher interactions and co-determines the success of learning processes. Building trust between teaching and learning parties is an essential driver of knowledge acquisition.

3.3.2 Knowledge sharing and knowledge integration

Probably a trustful relationship between teachers and learners encourages communicative interchange: Kulkinari et al. (2007) analyse the correlation between knowledge sharing, knowledge quality and knowledge use in firms in a structural equation model based on the TAM. They evaluate correlations between organizational support and knowledge content and quality as well as the impact of knowledge quality on perceived usefulness and user satisfaction. Drawing on a sample of 150 firms the authors find that actual knowledge use depends on organizational support as well as on perceived individual usefulness. The factor loading of knowledge quality on user satisfaction is significant at the 0.01 level. The quality of the information system involved determines perceived usefulness and user satisfaction. Organizational support - particularly leadership encouragement and incentive systems - enhance learning motivation.

Newmann et al. (2000) confirm this insight for elementary school teaching. Teacher's knowledge and practical teaching experience is crucial to students' success. Environment factors, like an efficient leadership and adequate technical resources though are indispensable in the teaching process. Professional development encourages the teaching party to make use of these media adequately (Newman et al, 2002, 262). Continuous professional development support for the teaching staff usually originates in a process of enhanced student performance.

Bobrowsky et al. (2001) suggest that learning processes are characterized by communicative interchange. Their success depends on the active participation of the relevant target group: Their meta-analysis on teachers' participation in professional development shows that

most professional development programs are conducted with volunteers. Non-volunteers, who primarily should be in need of such programs, hardly participate. He concludes that teaching reforms are hard to implement if the main target group is not reached. Research on professional development possibly comes to misleading conclusions since participants are not representative for the population that should be addressed by professional development programs.

According to Von den Akker (2008) development research is an innovative approach applied in highly ambiguous and risky research areas. It is based on the essential principles of learning and integrates experimental design studies, formative inquiry and experiments as well as action and engineering research (Von den Akker, 2008, 4-6). This apparently little structured concept though resembles practical learning and development processes and leads to the creation of new ideas, where traditional progressive methods are little successful. An ex post evaluation of the development path leading to novel solutions is employed to discover new approaches for similar problems (Von Akker, 2008, 10). Learning processes, to some extent, are abstracted from sequential analysis and transformed into an associative pattern. As Von den Akker points out development research runs the risk of neglecting cause and effect relationships in that process. An integration of conventional research methods and this experimental design might help to avoid this intricacy (Von Akker, 2008, 12-13).

Summarizing these insights,

- knowledge grows through communicative interchange. Teaching and learning party shift roles in the process of learning.
- Environmental factors like the availability of resources and leadership encouragement are important determinants of any teaching-learning process.
- Teaching is not restricted to the traditional classroom situation. New ideas develop in creative and associative processes integrating participants with diverging backgrounds.
- The success of a teacher-learner relationship depends on the active participation of all interest groups.

3.3.3 Teaching and learning as a creative process

These assumptions suggest that innovative teaching and learning results imply the continuous communication between all participants in that process.

Borko evaluates teacher professional development methods analysing research proceedings during a conference. He identifies four elements of a professional education program: It comprises a learning environment, the contents of professional development, participants and training staff. Education programs accordingly differ with respect to the number of study areas covered, the number of training facilitators and the number of focuses taken. A well specified training program takes a multifocal perspective on individual research targets. This strategy allows the integration of a broad range of viewpoints participants thus profit from a variety of backgrounds.

According to Gruber the Web 2.0 is an ideal learning background, characterized by multi-focal information. It represents a collective knowledge system that meets with a dense social network. Information consequently propagates quickly. The user faces the challenge of focussing on a research target and selecting relevant information. The web thus represents a comprehensive assembly of collective information which in the process of research and evaluation has to be opened up for the individual with respect to a concrete topic. Gruber suggests to employ machine knowledge to implement advanced research strategies in an "ask & answer" interface (Gruber, 2007, 4). On the other hand, semi-structured information might become a virtual reality experience allowing learning processes beyond conventional training standards. Relying on social communication media in a meta-reality, users might adopt information similar to practical experience in real world (Gruber, 2007, 14).

Savelsbergh et al. test impacts on team learning empirically in a survey among team members and their leaders. They find that team learning behaviour correlates positively with team performance. Teams that are ready to seek feedback and reflect on action outcomes as well as established processes are more successful than teams with less interest in development. Error communication and analysis as well as the joint exploration of new ideas and meanings are essential success factors too (Savelsbergh et al., 2009, 597).

The essentials that characterize teaching as a creative process and thus are the main drivers of learning innovation extracted from the above studies are summarized as follows:

- “Multi-focality” enriches the teaching – learning atmosphere by new ideas and conceptions.
- Taking a learning perspective, the web 2.0 results an infinite source of information.
- The challenge of knowledge acquisition is concentrating multifocal ideas on concrete items graspable within each of the contexts.
- Self-reflection and openness are key competences enriching the learning atmosphere.

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