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Review Article

Capacity Building at the Virtual Classroom: Education for E-Coaches and E-Trainer

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Abstract

Changes at the workplace and learning and living environment produce new opportunities as well as new demands regarding coaching and training and their accompanying training. Media is one of the key tools for the communication and interaction. The article concentrates on a concept on capacity building at the Virtual Classroom which involves Media as a key for problem solving using the example of already certified coaches and trainers. They participate at a training which is provided virtually to become certified E-Coaches and E-Trainers. As this kind of training is already established practical examples will be provided throughout the article. The concept and implementation of the virtual training will be explained based on the scientific theories on self-directed and virtual learning and put into context of the modus operandi.

Keywords: *E-Coaching; E-Training; Education; Virtual Classroom*

Introduction

If work and organizational processes are to be improved and changes are to be established in the company in everyday work, then it is essential to design appropriate high-quality training courses geared towards the needs of employees. And so coaching and training have been established instruments for many years to make processes in companies more successful and to further develop the skills of employees. For this purpose, the coaches and trainers are trained accordingly, mostly in the classic form of presence. In their work, they also usually act conventionally in face-to-face settings, using the advantages of these, since „direct face-to-face communication [...] is the most natural form of communication for us [represents]" [1]. This approach is practicable and has proven itself in the past. Today, however, it is coming under increasing pressure.

Companies are more active nationally and internationally and are required to train and coach employees in various branches directly at the workplace - in the office or in the home office - and also around the world. Personal encounters, in the same room and at the same time, are therefore increasingly the exception. Coaches and trainers must also react to this and look for ways and means by which the people involved can communicate and interact with one another in a targeted manner under these conditions in order to acquire the to enable required skills. The resulting need for the use of flexible learning arrangements leads to didactic scenarios in which media are used as a means of solving problems [2,3].

In order for coaches and trainers who have already been trained to be successful in their work in media settings too, their skills need to be expanded by means of suitable training measures, on the one hand to be able to know and use the media possibilities and, on the other hand, to use them as a method and instrument in coaching - and use training process.

The purely virtual virtual classroom training for e-coaches and e-trainers developed for this purpose is presented and discussed in this article after the requirements and scientific principles have been described. It should also be mentioned that the training in this form is the only one that consistently focuses on the development of practical skills and that participants develop and reflect on this exclusively in virtual space.

Requirements and Scientific Basis

If now, as previously stated, coaches and trainers are increasingly required to relocate their activities to media (virtual) learning and work spaces, then it is inevitable that they expand their „tools" to include specific media skills, which, according to Backe (1996) can be understood as „the ability to actively appropriately use all kinds of media for the communication and action repertoire of people" (Backe, 1996, p. 119).

Conceptual Classification

In order to achieve a uniform understanding of the terms media, virtual classroom and e-coach or e-trainer, the following working definition is used:

Media are understood as "technology-based means of communication and interaction" [4] and competence according to Weinert [5] is defined as "the cognitive abilities and skills available to individuals or that can be learned through them to deal with specific problems to solve […] [and] to be able to use problem solutions in variable situations successfully and responsibly." [5].

The term virtual classroom, in its own definition and based on the latest - also technical - developments in the Anglo-American region, is used as a superordinate term that not only enables synchronous and asynchronous learning scenarios (see below), but also enables work with freely accessible online resources such as videos, articles, social web and other websites are allowed and - in particular, as usual from the presence scenario - includes other learners as learning resources. Kerres, Hölterhof and Nattland (2011) emphasize the importance of this when they describe that other learners serve as a knowledge resource, provided that available knowledge can be taken up, linked and reconstructed. As defined, the term virtual classroom goes well beyond the previous definition of a virtual classroom and means the didactically well-founded use of a variety of media-based tools and learning options that do not necessarily have to be combined under a uniform interface, also including other learners as learning resources.

For a better understanding, according to Busch [6], it should be stated that asynchronous learning possibilities enable time-shifted communication between participants and thus allow the learner flexibility in terms of time and space. Furthermore, the learner can work on contributions in more depth at his own pace. Examples of asynchronous tools in the media or virtual space are wiki, forum, blog and email. Synchronous virtual learning options, on the other hand, require simultaneous communication between the participants, but leave room for spatial flexibility for coach or trainer and learner. They enable a direct reaction and immediate feedback from those involved and are therefore more likely to be experienced „first hand". The possibility to proceed spontaneously and flexibly within a learning sequence or session should also be emphasized. Tools in synchronous learning settings include chat, audio and video conferencing and the virtual classroom. In particular, the virtual classroom (in its initial definition) allows the simultaneous written, auditory and visual communication and cooperation of the participants on, for example, a virtual whiteboard, mind maps or other files from different programs by combining different tools on one surface [7].

When e-coach or e-trainer is mentioned, the terms are defined here, based on Geißler [8], and characterized on the basis of two aspects: In the coaching or learning process, both sides (coach/client or. trainer/learner) (1) use media options for communication and interaction and (2) use media for their part to create artifacts required in the process (such as videos, images, presentations and other files) or to use existing ones. The coach or trainer expands his previous field of action to include media options [9].

At this point, I should like to make a further remark: Despite all the differentiation between coach and trainer in terms of activity and target group, both have a lot in common in the modern understanding of learning, which is why hardly any differences need to be made in a training of action competence as described here. While it seems natural for the coach to view his work as a process and to adjust means and possibilities again and again to the client and the current needs, the trainer should also have long since arrived more and more in the role of the learning coach, with all of them Tasks of a „real" coach. Formerly regarded as a "mediator of knowledge", the trainer based his actions on the status quo, on what was already known, which is an indispensable basis. In innovative learning, viewed as a social process, this must be understood as insufficient [10,11].

Scientific Basis

In order to develop specific media competence in coaches and trainers in accordance with the requirements mentioned above, the conception of such a training requires the consideration of suitable models and theories. The training described here is based in particular on the following three approaches: the model of online teaching and learning according to Salmon [12], the self-determination theory according to Deci and Ryan [13] and the didactic triangle of virtual learning according to Schulmeister [3].

The model of online teaching and learning according to Salmon (2004) describes a structured process to introduce learners to online learning (learning with media) and to make the best possible use of the learning environment, here the virtual classroom. This model is not only important because the coach and trainer go through this process themselves, but because every learner in the virtual classroom (as the "opposite" of the coach and trainer) also goes through this process and the choice of methods and scenarios must be carefully tailored to this.

The model describes five levels and each of them can be assigned specific teaching and learning methods depending on the context, whereby the intensity of the interactions increases over time in the coaching or training process. It should be noted that learning in this model is viewed as a multi-stage process that does not necessarily have to be linear and ascending over the five defined stages.

At level I (access and motivation), the focus is on access to the system used (e.g. virtual classroom, forum, etc.) the motivation of the learner and the unfamiliar way of communicating, interacting and learning to accept. At level II (online socialization) the learners can use simple tools of the respective system and can now begin to communicate with each other. You will also see how a group can work together online. At level III (information exchange), information is exchanged asynchronously and, if necessary, synchronously, additional learning materials are used and cooperative assignments are fulfilled. At level IV (knowledge construction), with the involvement of other learners as a knowledge resource, new knowledge can be actively constructed, since, for example, visualizing, discussing and comparing as well as processing problem-oriented questions are now part of the repertoire of action. And at the last level V (development), the learner not only takes responsibility for their own learning process, but also supports the group's learning. In addition, he actively uses resources outside of the system provided and brings them back into the learning of the group.

Since learning in the media space increasingly requires self-directed learning, the question arises as to how it can be possible to maintain the learner's motivation over a longer period of time and to create specific situations in order to activate self-control in the learning process. To this end, Deci and Ryan [13] use the self-determination theory to formulate the conditions under which learners activate their potential for self-control. They name competence („Everyone wants to be able to do something and develop."), autonomy („Everyone would like to have freedom to make decisions.") and social integration („Nobody likes to be an outsider.") as factors [14].

If a learner experiences himself as competent in the learning process, if he can acquire new skills and abilities - and also show this - this is accompanied by an increase in intrinsic motivation. If the learner has room for maneuver and freedom of choice with regard to, for example, the subject matter and goal, the learning path and time, he or she experiences learning as being more self-determined. Assuming that learning is viewed as a social process [15], social involvement enables joint problem solving, discussion and interaction and thus supports the learner to actively deal with a topic over a longer period of time.

It is therefore essential to pay special attention to creating a learning scenario that enables the learner to gradually acquire (and be aware of) competence, e.g. when carrying out their own coaching or learning sequences and the assumption of moderation tasks; in particular to give him room for maneuver with regard to the processing of tasks (adapted to the very personal daily routine with its framework conditions), for example allowing the choice of tasks and/or the means/programs used; and to use the group as a resource and supporter in knowledge construction, e.g. actively requesting feedback and sharing knowledge.

When learning in virtual space, the focus is initially on the learning object itself, while the social presence, i.e. the perception of the other person as a natural person [16], first has to be laboriously established, which, from a learning psychological point of view, means communication and collaboration special attention must be paid to such a learning arrangement. Schulmeister [3] describes the didactic triangle of virtual learning, consisting of the cornerstones cognition, communication and collaboration, always related to each other and to the learning object (as the center). Learners deal cognitively with the learning object (construction of knowledge), which, however, only leads to a conventionalization of knowledge through communication with other learners (in the sense of a consistent image of a topic or subject matter). Finally, with the collaboration of learners, an examination of the respective learning object that goes beyond communication and cooperation between participants, a co-construction of knowledge becomes possible, on which subsequent action is based.

Representation of training

As previously stated, the virtual classroom training is aimed at coaches and trainers who have already been trained and who increasingly want and need to relocate their work to the media space. Thus, the focus is not on the usual content of the training of a coach or a trainer, but on the question of how existing knowledge and skills can be used in the media space, what new, other possibilities there are here and what stumbling blocks must be observed. However, this does not exclude conventionally conveyed coaching and training content, especially as an object of reflection.

Procedure

The training to become an e-coach or e-trainer extends over a period of six weeks, in which a two-hour live online training takes place every week (simultaneous meeting of the participants in an online meeting room with audio and video switching). In the time between the live online training, a self-learning phase is used, which encourages the processing of tasks in a moderated forum and the content-related discussion of the topic. The latter is based on around one hour of learning time per day.

The time interval of one week between the live online training sessions has proven to be sensible, as sequences that are too short usually do not leave enough time to process the tasks set, in addition to everyday work, but with a longer time interval the tasks quickly lose sight of the field „disappear". In order to provide additional support, the participants also form learning tandems right at the beginning of the training in order to further develop what they have learned and to coach each other in the learning process outside of the group situation. In this way, the necessary skills can be developed from the beginning and the coaching or training itself can be practiced further as e-coaching or e-training.

It should be emphasized that the training is carried out purely virtually, without any presence. This is of particular benefit to the participants, as they can work directly from the workplace (and there are no travel time or costs), but the participants can also be given the greatest possible flexibility in processing the tasks (with regard to processing time and duration). With the use of a tablet or smartphone, you can also work on the go. Another advantage of a purely virtual training is the direct and immediate examination of the learning object in a „real-life environment". The participants experience themselves alternately in the role of the coach or trainer and the client or learner. In this way difficulties can be anticipated in later work. This and the combination of synchronous and asynchronous learning opportunities is very much welcomed by the participants and is an argument for them to opt for such a training course.

The weekly live online training sets thematic priorities that serve as the starting point for the self-learning phase that follows. The focal points include one's own presence in virtual space (from image and sound to language and posture), the didactic development of a

coaching or training concept, the methodical design of one's own sequences and the visual presentation and moderation of coaching and training sequences.

Both in the live online training and in the self-learning phase, the step model of online teaching and learning [12] is conceptually implemented in such a way that the degree of difficulty of the tasks and the degree of interactivity are step-by-step in view Learners and the entire learning process. In addition, both phases, in the sense of the self-determination theory according to Deci and Ryan [13], offer freedom of choice with regard to the task and/or tool used (e.g. chat or audio or text file), the opportunity to be active yourself in order to show competence and sufficient opportunity to Interaction with the other participants. Particular attention is paid to the latter in order to support the emergence of a social presence in virtual space.

The collegial feedback, which is an essential part of the training, has proven to be a particularly suitable element. During the entire training, the learners are always required to become active with their own hands-on exercises in live online training or work in the self-learning phase and to receive collegial feedback, with the other participants simultaneously becoming active as a learning and knowledge resource.

The completion of the virtual classroom training for e-coaches and e-trainers is a live online session from the participant's own area of activity, conceived to accompany the training and carried out by himself. This training phase concludes structured collegial feedback.

Development of Action Skills

The specialty of the training format described here is that action competence, which was previously developed in classic face-to-face situations such as face-to-face training, is now emerging from this spatial, temporal and spatial limitation and shifting into an open media space.

In the live online training, the participants learn how to use various tools such as whiteboard, chat and survey tools. They reflect the respective suitability for a specific, initially given and later individual coaching or learning scenario, work out stumbling blocks with regard to technology, method, but also communication and interaction and test possible uses by not only changing roles from the start experience as a participant, but also as a coach or trainer. You experience both your own presence in the media space and that of the other participants very intensively and test, accompanied by an extensive structured and collegial feedback process, the effect of communication and the possibilities of interaction in different settings (e.g. with regard to language and audio, more figuratively Perception in presentations and videos, the lack of cues, but also the overstimulation). You will also learn to adapt means and methods to the respective requirements of the client or learner and the situation and to acquire a repertoire of possibilities and variants that can be used depending on the situation.

The accompanying moderated forum is of particular importance in the training: Not only are documents available here to support self-learning. The forum serves as a platform for collegial feedback on the coaching and learning scenarios developed step-by-step over the entire period; as a discussion space for content, methods and technology; as an open learning resource for exchange and information about freely accessible content from the Internet, such as videos, film sequences, diagrams. Participants also submit their own materials and comment on those of the other coaches or trainers.

The course or the content of a real coaching or learning situation must be thought through with the inclusion of further media resources. This is also practiced and used in the training. In addition to resources that are openly available on the Internet, other media "aids" such as short video sequences and specialist articles or informal exchanges among colleagues can be used. It is important to track down those resources from the almost inexhaustible and low-access pool that advance the coaching or learning process.

It is also conceivable to include existing media such as smartphones for the client or learner. This can be used to send text or voice messages via chat or SMS/Whats App in order to remind of developed behavior or to communicate situational sensitivities. A smartphone

or tablet can also be used as a digital (learning) diary to work with at the right time, to analyze certain moments later and, if necessary, to recognize connections.

Also conceivable are gadgets such as the smartwatch and live logging wristbands, which are already being used as support in the fitness area and are particularly effective through community building [17]. With simple apps such as mood trackers, a mood image, albeit a simple one, can be recorded and incorporated into the work process.

In this way, clients and learners can also be accompanied over longer periods of time outside of "fixed" coaching and learning times, and can later receive more sustainable support.

Practical Experience

Group size. For the format described here, a number of participants of four to eight people has proven to be sensible, with a group of six people appearing to be optimal. If the training group is too small, the method of collegial feedback and the use of other learners as a knowledge resource, both in live online training and in the moderated forum, cannot be used sufficiently due to the lack of diversity of perspectives. If the number of participants is too high, the learning needs of the individual participant cannot be adequately addressed. In live online training in particular, there is not enough time for individuals to gain practical experience, for example in different moderation formats or with the tools available.

Technology. Fast internet access, a webcam and a headset (headphones with microphone) can be named as technical requirements. A few years ago technology presented itself as a difficulty in online-based learning arrangements, today these problems have generally disappeared. Audio and video conference tools, in particular, now mostly work without problems even on tablets and smartphones. Despite everything, a technical check is recommended before the start of the training in order to test the network speed (sometimes slow in rural areas) and the operation of the webcam and headset. This initially offers a first opportunity for a meeting between trainer and participant. But it also gives the participant a more secure feeling to look forward to the start of the first live online training. It should be noted here that participants repeatedly report „bad" experiences in online-based learning, which can certainly be traced back to fault-free technology and immature learning concepts from previous years. These learning experiences should be taken seriously and discussed at an early stage in the training process.

Social presence. A lack of social presence in media (virtual) space is still cited as an obstacle to online-based learning settings. First of all, Döring [18] countered that face-to-face communication should not necessarily be seen as the "highest" of all forms of communication. There are u. a. to consider the communication task and the context of the communication in order to arrive at an assessment [19,20]. In the area of written communication, for example, as used in this training in the moderated forum, studies have shown that the contributions to the discussion written by the participants in an effort to prevent misunderstandings were longer and more informative than in personal encounters [18].

Nonetheless, if there is a direct social presence in a face-to-face encounter, it must be created consciously through media communication, and sometimes with some effort; and above all, the participant must be made aware of this during the training. Therefore, in the virtual classroom training, both the trainer and the participant presence (in a later role as coach or trainer) are particularly addressed. These include a. the presence of the people involved (camera and sitting position, clothing, eye contact, lighting of the workplace, etc.). Voice and language should also be mentioned, which contribute to establishing closeness and trust in media learning settings [21]. (Note: This is why it is worth investing in a high-quality headset, for example.) Furthermore, suitable methods are deliberately used to create closeness between the participants and between trainer and participant. Surveys should be mentioned here as examples, which prompt the participants in the subsequent discussion to share their own positive or less successful coaching or training experiences with others. In the self-learning phase, too, tasks are processed in which personal experiences can be exchanged and reflected upon. The training is not limited to coaching or learning topics, but consciously includes the participants' personal experiences.

Interestingly, during the course of the training, the participants are constantly amazed at how quickly they open up to each other and to the trainer, how quickly a familiarity develops between the participants that is as good as a face-to-face encounter. Signs of this are, for example, nodding the head in the webcam in the live online training or even turning the head and upper body towards the person speaking, that gestures that are self-evident, such as in a personal encounter (using a show of hands, spontaneous clapping up to to La Ola waves across the webcams).

In the moderated forum, particularly very personal contributions are to be named as indicators. The participants seem to quickly perceive the offered learning setting as a protected learning space without this being discussed. Missing cues in media communication (compared to face-to-face communication) do not seem to be perceived as annoying (see, in contrast, reduced social cues approach, [22]. The participants may even feel more free in their oral and written statements because their counterpart is not (tangibly) present.

Discussion

For years, companies have been experimenting with the most varied of media-based learning methods, with varying degrees of success. It is all the more important to focus attention on a match between technical possibilities and people's communication and interaction needs.

The spectrum ranges from self-responsible learning by means of a prefabricated self-learning module without the possibility of feedback (on CD/DVD or on the Internet), via e-learning based on learning platforms with tutorial support, to purely Internet-based cooperation and collaboration options with a high potential for interaction. A different understanding of the terms used makes it difficult to get an overview of the topic. "New media", as opposed to traditional mass media (radio, TV, press), are no longer new; and „virtual" learning, communication, etc. are no longer „artificial" in the literal sense of the word, but have arrived in everyday life and learning [23-25].

While in the past few years the focus was on the possibilities that media forms of learning offered, including the difficulties of handling them and their reliability, it is now once again that, as these seem to have been overcome, a sophisticated didactic scenario, suitable for the target group and the respective framework conditions, are important for the success of learning. We should accept the intellectual challenge and consistently replace an either/or thinking with an as well as thinking and consider additional (new) media possibilities as an extension of the previous spectrum (see below). For example, Digenti [2] names learning opportunities that can be classified between face-to-face and virtual learning as well as formal and informal learning (from classic seminars and video conferences to online courses and web-based collaboration). Schulmeister [3] describes possible didactic scenarios of virtual learning in terms of method, form and function: face-to-face learning is expanded to include virtual learning (and may replace the former); both in different and context-dependent forms (local, temporal and cognitive). Such learning ranges from instructive to self-organized learning, from pure information on a topic to asynchronous and synchronous cooperation and collaboration between the learners.

If you turn your attention at this point to the previous and current technical development of e-learning and the methodical and didactic design of e-scenarios, it is noticeable that the main focus is still on how a presence situation is best recreated and modeled using the media and how content can be conveyed here. However, it is necessary that media are understood as expanded, additional possibilities, i.e. one can move from an either/or to an both/and, with a view to the requirements of the person and the situation. McLuhan [26] already points out that „All media [...] are extensions of a psychological or physical ability of humans." [26-31]. Media change our perception, our understanding of the world and of ourselves, our knowledge and our cultural actions. As long as media are seen as something artificial (= virtual), media learning scenarios remain artificial because they are separate from the rest of the world of experience of the learner or client.

Outlook

It can be stated that under the framework conditions described, the offer of a purely virtual training for e-coaches and e-trainers represents an opportunity to meet changing work requirements. E-coaches and e-trainers not only expand their existing repertoire of action, but can also gain new clients and training participants through global availability. With a well thought-out conception of the trai-

ning it seems possible to cushion (individually perceived) differences in the way of communication and interaction as not disturbing or not superficial.

A theoretical framework for the perceptions described above is still pending; previous research is mostly based on the paradigm of difference, in which face-to-face communication is used as a benchmark for comparisons [22]. In the face of a wide range of technical possibilities, this no longer seems appropriate. Instead of examining how face-to-face communication can be reproduced in the best possible way or what is missing can be compensated for, studies could start from the expansion of previous communication and interaction options, in which the focus is no longer on the type of communication but, for example, on quality this.

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