DIGITAL SKILLS FOR PEOPLE WITH DISABILITIES - A CONCEPT FOR A PRACTICE-ORIENTED, BLENDED ONLINE AND FACE-TO-FACE TRAINING FOR PROFESSIONALS WORKING ON DIGITAL INCLUSION IN DISABILITY WORK

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Introduction

"The Covid 19 pandemic has made the importance of digitalization particularly clear. It is therefore important that all people can use the possibilities of the new methods and techniques - even if they are mentally or physically limited." (Leibniz-Institut für Bildungsforschung und Bildungsinformation, 2020) However, this demand for digital participation for people with disabilities, formulated by the German Leibnitz Institute for Educational Research and Educational Information in light of the Covid 19 pandemic, also exists independently of the particular pandemic situation. The trend study "Digital Participation of People with Disabilities" conducted by the German SINUS Institute (Borgstedt & Möller-Slawinski, 2020) already examined the digital participation of people with disabilities "on", "through" and "in" digital technologies and media in 2019 and identified a need for action. The study concludes that the opportunities presented by digitalization outweigh the risks for people with disabilities. The opportunities named are: (1) Compensation of impairments, (2) new access to areas of society, (3) autonomy and self-determined living, (4) expansion of skills and competences, and (5) networking. These opportunities are offset by the risks of (1) a lack of digital skills among users and professionals, (2) high costs, and (3) growing inequality.

Regarding the need for further training of professionals in disability care, the SINUS study emphasizes that the currently still insufficient digital competence of people with disabilities is "particularly linked to the caring, teaching and accompanying staff, who themselves have to establish professionalized access to digital media in the first place". In addition, "competences must be acquired to provide these accesses for people with disabilities, to carry out appropriate training and to be able to monitor and accompany their use in a

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professional manner". In addition to basic skills in the use of programs, apps, or assistance technologies, this also involves more far-reaching aspects in dealing with data and consenting to the terms and conditions of applications. Furthermore, questions arise, for example, as to how informed decisions can be made at all in the case of quasi unreadable terms and conditions, how the special need for protection of users can be ensured due to their sometimes-low critical faculties and stress resistance, or how one moves between the dilemma of providing access and the duty of care. Added to these practical questions is the fear that "we are far from a digital code on the internet and that recklessness and harshness in social media are increasing rather than decreasing".

To recognize not only the risks but also the opportunities of digitalization and to use them in a self-determined, critical, and creative way, it is therefore necessary to qualify the caring, teaching, and accompanying professionals. This is where the training we have conceptualized in this chapter comes in, with the aim of promoting a well-founded discussion of digitalization and mediatization and their methodical use by professionals.

To introduce the training concept in the following, in this chapter we will present the project context of the training, the objectives of the training, the participants addressed, the didactic approaches, the structure and forms of the training, and a detailed description of the objectives and activities, the schedule, and the workload. After providing guidance on examination and certification, we conclude the chapter with a discussion of the strengths, weaknesses, opportunities, and issues of the designed training.

Context of the Training

The development of this training concept goes back to a specific request for continuing training from a regional provider of care services for people with disabilities. This provider is represented at 35 locations and with over 2,000 employees is one of the major employers in the region. Today, 45 facilities belong to the organization, in which about 3,000 people with disabilities are cared for. The services include in-patient and out-patient residential care for adults with disabilities, out-patient assisted living, inpatient care for the elderly and residential care for children and young people.

To cope with the diversity of the professionals' working environments and at the same time to ensure the highest possible transfer of theory to practice, the training is designed as an in-house training. For this purpose, the professionals from different fields of work are brought together and taught in groups as well as individually in a blended learning approach (Friesen, 2012), both onsite in the classroom and online.

Objectives of the Training

The long-term overall objective of this training is to increase the digital inclusion of people with disabilities, considering their individual abilities and the

opportunities and risks of digitalization in their everyday lives. Therefore, this training essentially addresses the professionals who accompany, care for, instruct, or also nurture them in their everyday lives. The short-term objective is to enable the professionals to support people with disabilities in acquiring digital competences and thus to shape the digital inclusion of people with disabilities in a way that is tailored to their individual everyday lives. Another objective is that the qualification of the professionals will stimulate the institution's engagement with the topics of digitalization and mediatization, which will ensure the digital inclusion of people with disabilities in the long term.

This continuing vocational training enables professionals working with people with disabilities

- to work with people with disabilities using digital technology by acquiring technical knowledge about hardware and software,
- to acquire personal and professional digital competences,
- to be inspired and to further develop one's own (media-)pedagogical attitude,
- to discuss legal and ethical aspects of digitalization and mediatization,
- to contribute via qualified practice to balancing the tension between self-determination and the duty to supervise and thus to enable people with disabilities to participate in a protected way in an increasingly digitized society,
- to expand one's own horizons and fields of activity through practice assignments by using (digital) technologies for people with high needs for help,
- to transfer competences on digitalization and mediatization to other professionals and thus act as a multiplier, and
- to link up with existing competences and tasks represented for example by the persons responsible for augmentative and alternative communication.

Participants

Conceptualized as a continuing education and training (CVET) (European Centre for the Development of Vocational Training, 2008), the training is aimed at educational and care professionals working with people with disabilities with a qualification level 4 or higher, referring to the European Qualifications Framework (The Council of the European Union, 2017). Typically, these professionals have completed their initial education and training for working with people with disabilities, have already entered working life, and are now looking to improve or update their knowledge and/or skills, acquire new skills for a career move or retraining, or continue their personal or professional development.

The training will be conducted in groups of 10 to 15 professionals from different institutions working with people with disabilities in order to enable a broad exchange and connectivist learning (Siemens, 2005). In the composition of the training group, a diversity of participants in terms of age, gender, field of work, function, position and digitality is aimed for.

Didactic Approaches

The training is based on the following five interrelated didactic approaches:

1. Situated learning (Lave & Wenger, 1991): Training contents are related to the everyday situations of the participating professionals by means of the professionals' own case studies - or, if not available, by means of provided prototypical examples - in order to ensure a high level of theory-practice transfer.
2. Problem-based learning (Schmidt, Rotgans, & Yew, 2011): Concrete everyday pedagogical problems are dealt with and - as far as possible - solved within the training, so that practical self-confidence can be achieved.
3. Self-directed learning (Brookfield, 2009): Adapted to the knowledge level and learning style of the participants, they are encouraged to work on topics as self-directed as possible in order to promote learning autonomy so that competence development can continue appropriately after the training in the dynamic field of digitalization.
4. (Enhanced) Discovery learning (Marzano, 2017): The participants deal with the topics in an "exploratory" way by observing, discussing, trying out and reflecting, which strengthens self-confidence through the independently acquired experience and makes them curious about further experiences.
5. Connectivist learning (Siemens, 2005): Participants learn not as isolated individuals but as networked individuals. They form networks with both human contacts (colleagues, friends, institutions, organizations, and communities) and non-human sources of knowledge (data, images, books, texts, videos, podcasts, etc.). Participants learn by identifying appropriate sources of knowledge and filtering out what is important from the flood of information.

Structure And Forms of Work of The Training

The methodological-didactic elements of the training are, on the one hand, in-house seminars, during which central contents are taught to all the participants, and, on the other hand, consultations of smaller working groups and coaching of the individual participants by trainers. The seminars, consultations, and coaching frame an assignment for a practice-oriented learning project in which the participants work in the smaller working groups together with people with disabilities and colleagues as far as possible.

In these practice-oriented learning projects, the participants work on concrete challenges of the people with disabilities in their digital everyday life and develop and test new professional actions with the people with disabilities and colleagues. Given the wide range of disabilities - from mild cognitive impairments to severe multiple disabilities - that are commonplace in the practice of the participating professionals, the digital methods and tools with which the participants engage are not already specified in the training program. Rather, the goal of the training is to find or develop the methods and tools to be used based on concrete practical challenges. An example of this could be teaching the use of apps or digital services in easy language or with the help of assisted communication. The practice-oriented learning projects ensure theory-practice transfer and stimulate the development of both individual competence among the people with disabilities and the professionals as well as team-based professional confidence.

To round off the learning process, each participant sets him/herself individual learning goals in relation to the support of the people with disabilities, whereby he/she is coached by a trainer. As far as possible, the participants work on these learning goals in an existing or a new working group (learning community) together with people with disabilities and colleagues.

Accordingly, the following six interwoven forms of work are used in the training:

- In-house seminars: Here all participants are gathered in one place for one day. Content is taught (lectures), discussions and exercises are held, and planning and working methods are coordinated.
- Online meetings: For shorter units, for example feedback or work planning, all participants are brought together online using e.g. Zoom or Microsoft Teams.
- Individual assignments: Participants receive assignments that they carry out individually, for example to advance the competence development and digital participation of people with disabilities or to prepare group work.
- Individual coaching: Participants receive individual coaching on the individual assignments.
- Group assignments: Building on the individual assignments and also parallel to them, the participants work and learn in smaller working groups executing practice-oriented learning projects.
- Group consulting: During the work in the smaller working groups, the participants are offered consulting by the trainers to support them.

Objectives, Activities, Time Schedule, And Workload (From the Participants' Point of View)

The activities of the training are prepared according to the didactic approaches and distributed over 16 training weeks with the help of the above-mentioned forms of work. For the participants, this results in a total workload of 69 lessons (one lesson corresponds to 45 minutes). The schedule, objectives and related activities, and workload are presented in detail in **Hata! Başvuru kaynağı bulunamadı.**

Table 1 Time schedule, objective, activities, and workload of the training

Week	Objective	Activities	Workload
1	Kick-Off and input on digital attitude and relationship	In-house seminar #1 "Kick-Off" • The participants get to know each other and the training. • Own personal and professional experiences with digitalization and mediatization in relation to the institution and the people with disabilities and colleagues ("How digital are we already?") are discussed and sorted. • Inputs on "establishing digital relationship " and "attitude towards digitalization and mediatization" ("cheerful obsession"), opportunities and risks of digitalization/mediatization. • Explanation of the following steps until the next presence day.	8
2	Kick-off in the participants' facilities	Individual assignment #1 "Project information, target group and needs analysis" • The participants clarify the question: "What do my clients and colleagues want, need and are able to do?".	2
3	Forming a project group	Online meeting #1 „Forming a project group" • Participants present the results of their target group and needs analysis in their facility, agree on goals for practice-oriented learning projects and form smaller working groups. • Short input: Design Thinking (Ideation, Inspiration, Implementation).	2
4	Idea-tion/Empathy	Group assignment #1 "What is the problem/opportunity here?" • The smaller working groups start working on their practice-based learning project by analyzing the problem/possibility, comparing the different observations, and defining a point of view.	2
4	Feedback	Group consulting #1 • The small group presents its results so far and receives feedback (-> inspiration) from the trainer.	1
5	Input on ethics and law	In-house seminar #2 „Is it allowed?" • Flashlight" status reports of the smaller working groups. • Input on ethics and law in relation to digitalization and mediatization in work with people with disabilities. • Ethical and legal aspects are discussed based on practical examples and methodical approaches to handling dilemma situations are taught. • Explanation of the following steps.	8

6	Ideation: brainstorming & "thinking outside the box"	**Group assignment #2 "I have an idea!"** • The small group develops ideas - as far as possible together with people with disabilities and colleagues - prioritizes them and researches possibilities related to the practice-oriented learning project.	2
	Set individual learning goal	**Individual assignment #2 "Individual competence analysis"** • Based on the previous training experiences in the in-house seminars and the smaller working groups on the one hand and on the training goals on the other hand, the participants deal individually with the question "What am I already able to do, what do I want to learn?" and develop ideas for individual learning goals related to the promotion of the digital participation of the people with disabilities.	2
	Determine individual learning activities	**Individual coaching #1 "Determining the learning goal"** • In individual discussions with the trainer, the participants present the result of their individual competence analysis and receive feedback (-> Determine learning activities for and with people with disabilities and colleagues).	1
7	Feedback	**Group consulting #2** • The smaller working group presents its results so far and receives feedback from the trainer (->prototyping).	1
	Build learning communities	**Online meeting #2 "I want to learn that too - let's learn it together"** • The participants present their learning goals and activities to each other and form topic-centered learning groups (learning communities). These can - but do not have to - be identical to the previous smaller working groups.	2
8	Implementation: Prototyping	**Group assignment #3 "This is how it could work!"** • The smaller working group designs a "ready to try out" solution for and with people with disabilities and colleagues for their practice-oriented learning project.	2
	Kick-Off Learning Community	**Group consulting #2 "Kick-Off Learning Community"** • Together with the trainer, the learning group formed at the second online meeting determines what and how they will learn together and how they will involve people with disabilities and colleagues in the learning process.	1
9	Run Learning Community	**Group assignment #4 "Learning together"** • The learning group formed at the second online meeting starts or continues its work (as far as possible with people with disabilities and colleagues).	2
10	Input on networking and QM	**In-house seminar #3 "My facility?"** • "Flashlight" status reports of the smaller working/learning groups. • Input on networking and continuous quality development (QM) • Using examples from the smaller working groups, aspects of networking and QM are discussed, especially in relation to the Design Thinking process (implementation) • Explanation of the following steps	8

11	Individual network analysis	Individual assignment #3 "My network" • Participants individually analyze their personal and professional network regarding its relevance for their smaller working group and learning group activities.	2
12	Implementation: Testing	Group assignment #5 "The proof of the pudding is in the eating" • The smaller working group tries out the prototypical solution for their practice-oriented learning project with people with disabilities and colleagues.	2
	Run Learning Community	Group assignment #6 "Learning together" • The learning group formed at the second online meeting continues its work (as far as possible with people with disabilities and colleagues).	2
13	Implementation: Iteration	Group assignment #7 "OK ... again!" • The smaller working group improves the solution for their practice-oriented learning project in several iterations.	2
	Run Learning Community	Group assignment #8 "Learning together" • The learning group formed at the second online meeting continues its work (as far as possible with people with disabilities and colleagues).	2
14	Evaluate learning community and individual learning process	Individual coaching #2 " What have I learned?" • In individual conversations with the trainer, participants reflect on the outcome of their learning activities in relation to the promotion of digital inclusion of people with disabilities, which they have carried out individually and/or in the learning community.	1
	Planning of the closing activities	Online meeting #3 "What? Already finished?" • The conclusion of the training is planned.	2
15	Preparation of results	Group assignment #9 "Wrap up" • Preparation of the results of the project group together with the people with disabilities for the final meeting.	2
		Group assignment #10 "Wrap up" • Preparation of results of the learning community for the final meeting.	2
16	Closing event	In-house seminar #4 "Closing event • Participants, people with disabilities and colleagues present the results of the practical projects and learning communities to each other. • Evaluation of the training. • Future perspectives.	8

Examination

Whether and to what extent the learning objectives are achieved by the participants, this is the subject of formative and summative examination.

Formative Examination (Process)

The formative examination moments serve to shape the training and learning process and take place continuously during the training in the context of

1. small group consultations,
2. individual coaching and
3. large group presentations and discussions of the work progress.

In the formative review moments, participants receive feedback and feedfordward from the trainers on their learning process.

Summative Examination (Result)

The summative examination moments serve the evaluation of the participation and refer to the training result of the participants. A positive evaluation of the training outcome is a prerequisite for certification. The evaluation takes place at the end of the training (final event) by the trainers based on the

1. presentation of the learning project (group work, in which the individual contribution of each group member must be clear) and the
2. reflection of the work on the individual learning objectives.

The summative examination is done based on the following criteria:

Presentation

1. The addressed problem regarding digital inclusion is described.
2. Different alternative solutions are named.
3. The choice of the solution is justified. The role of hardware and/or software is also described, and legal and ethical aspects are discussed.
4. The participation of people with disabilities, other professionals, and relevant stakeholders in the development of the solution is described.
5. The solution is evaluated in terms of its effectiveness with respect to the problem addressed, on the one hand, and its transferability to similar situations of digital inclusion, on the other.

Reflection (STARR)

1. The initial situation of the learning process is described.
2. The individual learning goal related to the practical work on digital inclusion of people with disabilities is described. The individual learning goal is challenging.
3. The learning activities are described.
4. The learning outcome is described.
5. The learning progress is reflected and new learning objectives that may build on this are stated.

For the examination, the presentation and the reflection will be assessed based on the "pass"/"fail" criteria at the final session. To pass the exam, at least 80% of the criteria (=four out of five) must be assessed as "passed" for both parts (presentation, reflection).

Strengths, Weaknesses, Opportunities, And Threats Of The Training Concept

To conclude this chapter, we will discuss the proposed concept from the perspective of the SWOT analysis method (Leigh, 2009) in order to highlight some of its strengths, weaknesses, opportunities and threats in relation to achieving the set objectives of fostering digital inclusion of people with disabilities through mediating digital competences.

Strengths

The concept is not only effective, it is at the same time economical, targeting all relevant professionals and achieving a multiplication effect that will cover several thousand people with disabilities and that will also cover the other professionals within the institution. It is expected that this training will have a significant impact on the digital daily life of people with disabilities and achieve a sustainable change for them.

At the same time, the training was developed in close consultation with the management and professionals of the service provider, which suggests a high ecological validity of the training concept. Furthermore, the training is clearly oriented towards the practice and everyday life of people with disabilities and professionals and ultimately leads to the development of methods that can be used directly in practice.

Weaknesses

One weakness of the approach is that its methodology makes it very dependent on the commitment and activities of the professionals addressed. Everyday work in facilities for people with disabilities is often characterized by staff shortages, substitutions due to illness, overwork, and stress. This can make it difficult for participants to engage, as they may simply not be able to free up enough quality time to make the training work for them.

Another weakness is that while the care provider's management and professionals were involved in the conceptualization, the people with disabilities themselves were not at the table. This weakness, which is often found in the development of didactic concepts, is very regrettable in that the needs of the final target group may not have been sufficiently taken into account here, which at the same time means that the idea of inclusion has not been consistently implemented.

Opportunities

One chance of the training is that, after positive evaluation and possible adjustments, it can be transferred to other providers of care services for people with disabilities and thus also unfold a change in the digital everyday life of people with disabilities beyond the care provider now addressed. We do not know of a comparably massive approach to promoting digital inclusion in a single and at the same time such a large care provider here in the northwest of Germany and are confident that this will leave its mark beyond the facilities.

Another opportunity is that the participants of the training, the addressed people with disabilities and other stakeholders within the care provider form a

permanent working group that continuously and sustainably advances the topic of digitalization and mediatization within the facility. We have already seen such developments at other facilities where we have conducted comparable training.

Threats

One threat for the development targeted by the training is that the participating professionals will attach the importance of the training primarily to the Corona pandemic, and therefore place less emphasis on the topic of digitization and mediatization as the Corona crisis subsides. This could lead to an anti-digital rollback in individual areas.

Another threat is that the targeted professionals fail to adequately engage all participants in their multiplicative activities, thus reproducing the digital divide (Rogers, 2016) within the institution, which is the very aim of the training to overcome.

Ultimately, a threat to training is that it requires the adequate and timely provision of sufficient financial, time, and technical resources. This training concept can only be reasonably realized if, at the same time, an expansion of the digital infrastructure takes place or has already taken place. And good trainers cost money.

Summing Up Swot

We ourselves are aware of the weaknesses and threats, but we see good opportunities to keep them in view and to counteract them. The training concept has many components that can be used flexibly and, due to our own flexibility, can be tailored to the capabilities of the participating professionals. This limits the risks of failure. In particular, we will counter the danger of a post-Corona rollback through the concept itself and our didactic approaches, but also through intensive internal communication that emphasizes the importance of digital inclusion of people with disabilities. Whether and to what extent we succeed in managing the weaknesses and threats and in exploiting the strengths and opportunities will be the subject of formative and summative evaluation.

Conclusion

The training presented in this chapter addresses the topic of education for digital inclusion of people with disabilities in an innovative way by implementing a variety of didactic approaches in a contemporary blended learning setting. The concept thus takes up current educational trends (e.g. connectivist learning, blended learning) and implements them practically for the field of continuing education and training (CVET). It is described in an implementation-oriented way and can thus be directly implemented by training and practice organizations. The SWOT analysis of the concept shows the good balance of the training in terms of its different aspects.

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