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Guide/Curriculum for the Training of Teaching Personnel and Concept for LTTA Implementation

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Guide/Curriculum fort the Training of Teaching Personnel

I) General Guide

The training of the teaching staff must take place in various dimensions.
One aspect is the level of expertise on the subject of digitization in the nursing/healthcare industry. In addition, methodological and didactic considerations should be addressed regarding the current or future integration of digital media and methods in teaching.
To assess specific training needs, it is advisable to conduct the following surveys/inquiries among the teaching staff:
1) To what extent are digital media currently being utilized in general and integrated into teaching?
2) Is there a media concept in place for the vocational school?
3) Which digital elements (e.g., online media library, learning platform, apps) are currently being used specifically for nursing education at the vocational school and/or in practical training facilities?
4) What is the vocational school's level of equipment and infrastructure in regard to digital elements?
5) How proficient are the teachers, as well as the students, in utilizing digital applications?
6) What are the areas of desired professional development:
a) Practical training for utilizing digital media/tools
b) Technical training on the present and future state of digitalization in healthcare/nursing, focusing on topics such as telematics/telecare, robotics, and supportive software/apps for everyday working life
c) Media-pedagogical trainings for the use of modern methodical-didactical elements.

Based on the answers of the teachers and the objectives of the curriculum, the necessary training units will be planned, involving subject matter experts and organizing the required technical resources. Methods such as peer case consultations, supervision, team teaching/internships with subsequent reflection should be utilized within the teaching team. Therefore, the training sessions should be implemented as application-oriented and collaborative as possible.

Ideally, each teacher should have personal professional development goals, or at least each teaching team (e.g., within a vocational nursing school). The achievement of the professional development goals will be evaluated and documented through an effectiveness assessment, and any additional training needs will be identified.

II) Training of Teachers

Day 1: Objectives on the Content Level

Lecturers and vocational school teachers familiarize themselves with the content of the curriculum within the thematic blocks:
1. Digitalization in the nursing process
2. Telecare
3. Prevention of demotivation on the job
4. Human-Robot-Human Interaction
5. Environmental protection

In this context, particular emphasis is placed on discussing the specific learning objectives that should be achieved by the learners on the content level for each thematic block. The presentation will be delivered as a lecture, followed by a discussion on the contents of the lecture, taking into account the teachers' own experiences on the topic.

Day 2: Methodology and Didactics of the Learning Units

For mutual inspiration, the educators take turns presenting didactic tips and materials to each other:

1) Presentation of didactic materials.

2) Evaluation of the results of learners' LTTA - Focus: Presentation of the employed teaching methodology/didactics and subsequent reflection.

Day 3: Integration of the Results from Days 1 and 2 (Content and Methodology/Didactics) - Derivation of Lesson Plans

In small groups, multiple teaching units of the curricula are developed and planned as instructional sequences in the form of lesson plans.

Day 4 and Day 5: Integration of the Results from Days 1, 2, and 3 (Formulating and Planning Content as well as Methodology/Didactics as Objectives) - Implementation of Lesson Plans

Each small group implements its lesson plan with the plenary acting as the "student body". Mutual reflection takes place, and action recommendations are derived.

Finally, a feedback round concludes the session, with each participant providing a statement on their personal learning gains from the event.

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Concept for LTTA Implementation

Programme/Curriculum
Time: Approximately 8:00 AM - 3:30 PM
Teachers: Teaching personnel (TP)

Goal of the learning unit:
Exploration of the opportunities and challenges posed by digitalization in nursing, fostering various competencies of the learners (subject-specific-, self-related-, methodological-, social competency).

Didactic principles:
Interlocking theory and practice, logical coherence, reflection and practice phases, promoting student activity and synthesis for sustainable thematic engagement, collaborative methods to enhance social competency, utilization of expert knowledge, variety of methods for diversified learning.

Day	Content	Objectives of the Unit
Day 1 Discourse on the presented curriculum Distinctive features of the country-specific nursing training	Introduction and interaction among teachers and learners; Evaluation of the curriculum template; Reflection on the curriculum by teachers after initial reading; Introduction of a digital platform in nursing education (e.g., Clinical Key).	Establish a unified professional foundation and develop working relationships; Foster mutual understanding; Identify commonalities; Provide content-related feedback on the catalog of innovative modules and curricula; Introduce and present a representative digital platform for nursing education (e.g., Clinical Key, a European provider).
Day 2 Human-Robot-Human-Interaction	Learning in a Different Setting: Excursion to a care facility with robot deployment (Pepper); Class of general nursing education in the 2nd year and teachers participate in a guided tour and practical demonstration by staff of the care facility; Observation and interview assignments for the students, e.g., regarding robot	Expanding Practical Knowledge on Robotics in Nursing; Gaining insights into the opportunities, challenges, and negative aspects; Engaging with the topic on both emotional and rational levels, including direct interaction with Pepper; Recognizing the psychosocial aspects for both - those

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	maintenance/training and psychological aspects related to residents' interaction with the robot.	receiving care and the caregivers in human-robot-human interaction.
Day 3 Human-Robot-Human-Interaction	Teaching Sequence on Human-Robot Interaction: Theory; Input on available robot technology and established use in healthcare; Classroom discussion and practical exercises.	In-depth study of the possibilities, needs, and prerequisites of robotics in healthcare; Active engagement and clarification of one's own standpoint as a (future) nurse/caregiver; Inclusion of ethical considerations; Enhancement of subject expertise in the field; Strengthening of critical analysis and communication skills.
Day 4 Human-Robot-Human-Interaction	The course addresses reflection tasks on the question of applicability (opportunities/limitations or risks) of robots like Pepper; Evaluation of the teaching events.	Further exploration of possibilities, needs, and prerequisites for robotics in nursing; Enhancement of subject expertise in the topic; Strengthening of critical discussion and analytical skills; Evaluation for gaining insights about the teaching unit on robotics.
Day 5 Human-Robot-Human-Interaction	Evaluation of robot deployment in nursing/care from an ethical point of view; Preparation of pro and con group discussions, to be conducted in front of the plenary.	Engagement with psychosocial and ethical issues; Influence on the understanding of the nursing role; Promotion of self-management; Presentation skills; Conflict and teamwork abilities of the participants.
Day 6	Learners receive prompts (nursing scenarios - worked on in groups) and are expected to use a digital	Participants practice the application of digital tools in a real-life professional situation;

Digitalization, utilization of professional databases/learning platforms	platform in nursing education (e.g., Clinical Key) to analyze complex cases, derive nursing care plans - development phase.	Enhancement of methodological competency.
Day 7 Digitalization, utilization of professional databases/learning platforms	Learners receive prompts (nursing scenarios - worked on in groups) and are expected to use a digital platform in nursing education (e.g., Clinical Key) to analyze complex cases, derive nursing care plans - reflection phase.	Participants practice the application of digital tools in a real-life professional situation; Enhancement of methodological competency.
Day 8 Digitalization - Application in Nursing/Care (Education)	Collection of Applications of Digitalization in Nursing Education and Practice; Overview Presentation; Preparation of a Gallery Walk/Station Work	Promotion of subject competency, self-competency, and methodological competency; training in communication; consolidation of knowledge.
Day 9 Telecare Technical capabilities and limitations of distance communication	Telecare- model of the future? Chancen/Risiken; Practical exercises in pairs for communication via telephone; in face-to-face interaction, via video conference; information sharing through written documentation.	Promotion of subject and methodological competency; practicing communication skills and teamwork; social competency.
Day 10 Guidelines for implementing remote communication. Evaluation of the program	Practical exercises in small groups (preferably with partners of different native languages) for communication via telephone; in face-to-face interaction, via video conferencing; Information dissemination through written documentation; Derivation of guidelines for successful implementation of each communication method; Student survey/Teacher interview.	Consolidation of knowledge; Promotion of subject-specific and methodological competency; Training in communication, including remote communication and the use of technical media; Training in teamwork; Social competency; Practice in analytical and reflective skills.

Conclusion

The time and opportunity for personal engagement with the topic, as offered by modern teaching didactics, may initially be not perceived as fruitful by some of the LTTA participants. However, the sustainability in competency growth will become evident in their further learning progress.

The following outcomes can be expected through the direct reflection at the conclusion of the LTTA:

- The methodological mix of the LTTA, particularly learning in different settings (e.g., in a nursing home), was highly regarded.
- Digitalization is naturally and already integrated into the professional everyday life of nursing and is gaining increasing significance. This is particularly evident in the realm of digital application programs, such as documentation or planning tools, as well as automated measurement and warning systems.
- The topic of telematics/telecare is particularly accepted as an additional option for providing care in areas with limited infrastructure.
- The field of robotics is sometimes evaluated with strong emotional triggers and has sparked controversial discussions within the group of participants. The use of robotics is sometimes accompanied by fears, particularly regarding the question of whether machines could potentially surpass or even replace skilled professionals in the future. However, there was consensus that engaging with the topic is necessary and that robotics also presents opportunities.
- During the visit to the care facility, it became evident that technological aids, including robots, can only be as effective and helpful as the human programming and maintenance allows.

Within the framework of the LTTA, all participants have the opportunity to acquire valuable new competencies. Both learners and educators have the chance to either learn entirely new skills or expand upon their existing knowledge. Through professional exchange during the LTTA, all participants can benefit from the experiences and insights of others. Furthermore, the LTTA provides a valuable opportunity to address and overcome existing prejudices and fears in a constructive manner through collaborative learning.

Moreover, participants are equipped with tools to independently expand their acquired knowledge and continuously develop their competencies. Based on the positive experiences and outcomes of this LTTA, it is highly recommended to utilize this teaching and learning

format in vocational education and training. It not only enables effective competency acquisition, but also fosters professional exchange, reflection, and productive collaboration.

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