

Quality Assurance Plan

Deliverable 3.2

Report on procurement of lab equipment and corresponding lab designs in partner HEIs

Form QAC 3.2b: For the preparation of the training material
Quality Assurance Committee, BIOMED5.0

This QAP may be used by a trainer while preparing the training material. One important part of Deliverable 3.2 (D3.2) is the training of the faculty and the lab teaching staff on the new equipment as well as the software-based VR/AR/MR based solutions. The quality plan for D3.2 comprises several check lists to assure quality of the training process. The checklist of Table 3.2b assures the quality of the training material by ensuring the completeness of the training material with regard to the inclusion of necessary qualities. This table lists the aspects / qualities that the training material must possess. Below the table, one finds the elaboration of the listed actions.

Table QAC 3.2b: A checklist of activities

Activity		Comments	Mark (✓)
1	Relevant	Content → Activity / Exercise → Outcome → Objective	
2	Peer Review	Accurate, concise, and suitable	
3	Engaging and interactive	Text, images, videos, audio, quizzes, games, animations, simulations, case studies, and scenarios	
4	Medium of communication	English / Sindhi / Urdu	
5	Multitude of training methods	Instructor-led training, e-learning, blended learning, coaching, mentoring, peer learning, self-directed learning	

ELABORATION

1. The training material should be relevant to the identified objectives and the outcomes of the training. The material must be well aligned with the project's goals as well. The explanatory content must be organized in a manner to ensure its alignment with the included examples, exercises, which in turn must be aligned with specific outcomes and ultimately to the objectives of the training.
2. The trainer must ensure peer review of the training material for its technical accuracy, conciseness, and the suitability of the target audience. The material must be concise enough to be practically viable for its use in the assumed timeframe.
3. The training material must be engaging and interactive. This may be ensured by including variety of formats and media spanning from suitable illustrations, animations, simulations, videos, and audios, to games, quizzes, case studies, and practical scenarios.
4. The medium of communication / instructions must be suitable for the audience. It must be the first language of preference or the usual medium of instructions for the target audience.
5. The training material must target the use of a multitude of learning methods, including Instructor-led training, e-learning, blended learning, coaching, mentoring, peer learning, self-directed learning.

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QAC Form 3.2c: Preparing for the training
Quality Assurance Committee, BIOMED5.0

One important part of Deliverable 3.2 (D3.2) is the training of the faculty and the lab teaching staff. This QAP tool may be used by an HEI team lead for the planning of training sessions, which may target any group within the HEI such as students and faculty, or a group of participants from any other local actors such as engineering graduates, staff from the education department, or non-governmental organizations. The checklist of Table 3.2c assures the quality of the training by defining the process of preparing for training sessions. This includes the responsibilities for the actions to be taken.

Table QAC 3.2c: The checklist of responsibilities

Activity		Responsibility	Mark (✓)
1	Define target group	HEI team lead	
2	Define objectives of the training	Coordinator WP3	
3	Hire a trainer	HEI team lead	
4	Identify training outcomes aligned with the outcomes of BIOMED5.0	Trainer	
5	Define the number of trainees	HEI team lead	
6	The training sessions clearly correspond to the identified training outcomes	Trainer	
7	Sessions are planned in a logical order		
8	Considered working with and improving the capacities of local actors, if relevant	HEI team lead	
9	Define criteria for successful completion of the training by a trainee	Trainer	
10	Promote the planned training sessions	SIC	
11	Define criteria for success of the training program	HEI team lead	
12	Design the certificate of completion		
13	Prepare the training material	Trainer	
14	The training material uploaded and/or printed		
15	Planned the venue and the schedule of the training	HEI team lead	
16	Trainers / organizers must conform to the medium of instructions relevant to the target group/ or arrange translation services		
17	Prepared budget		
18	Communicated the schedule / venue of the training		
19	Printed the attendance list with PIN, project name, relevant donor logos, and banners		
20	Printed the certificates with proper logos as per donor requirement in terms of visibility		
21	Visibility materials displayed at the training venue		
22	Prepared material for after-training promotion of BIOMED5.0	SIC	

ELABORATION

1. A target group of trainees shall be identified with some existing skills and the lacking skills. Without this, objectives and the required outcomes of the training cannot be outlined.
 2. The HEI team lead must identify and document broad objectives of each training session.
 3. HEI team lead shall hire trainer(s) with the required competence, qualifications, and skills.
 4. Trainers must also write in clear and concise manner, some tangible outcomes of each training session, which must be aligned with the expected outcomes of BIOMED5.0.
 5. HEI team lead must define the size of the trainee groups.
 6. Trainers must make a list of activities to be carried out during the planned training sessions. These activities must be well aligned with the defined outcomes.
 7. The training activities and sessions must be organized and conducted in a logical order, taking into consideration the dependencies of the outcomes of one session on that of other sessions.
 8. HEI team lead may consider involving local service providers, government extension agents, private sector actors, non-governmental organizations, to provide training and ongoing extension support.
 9. In accordance with the targeted outcomes, criteria for the successful completion of each training session must be defined eloquently so that the certificate of completion is awarded only to the successful trainees.
 10. The society impact champion (SIC) shall promote the planned training session as a drive for registration of trainees to the training.
 11. The criteria for a training session to be considered successful should be defined beforehand.
 12. The certificate of completion to be awarded to the successful trainees must be drafted.
 13. Trainers must prepare beforehand, the content of the training sessions. The content includes:
 - a. The presentations to be used by the trainers
 - b. The descriptive content along with necessary illustrations, computer codes, details of algorithms, solved examples, and exercise questions.
- The QAC Form 3.2d outlines a quality assurance process for preparation of the training material.
14. The training material must be printed and / or uploaded on an online learning platform.
 15. The organizing host team must plan the schedule and the venue of the training sessions.
 16. The trainers / organizers must conform to the medium of instructions relevant to the target group. This may require hiring the translation and communication services in the target language.
 17. Trainers must make a budget plan and arrange for / allocate the required funds and the logistics required for conducting the training sessions.
 18. The organizers must communicate the venue and the schedule of the training sessions to the trainees / send invitations if necessary.
 19. The organizers must print the attendance sheets before the day of the training. The list must display the project information, donor logos / banners, and the names and the identifications of the attendees.
 20. The certificates of successful completion of the training must be printed well in time. The certificates must display the project information and proper logos as per donor requirement in terms of visibility.
 21. The banners / displays must be screen printed beforehand and must be displayed at the venue.
 22. The SIC shall promote the outcomes of the training session after the completion of training.

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Form QAC 3.2d: Preparation of the training material
Quality Assurance Committee, BIOMED5.0

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Table QAC 3.2d: The important aspects of a training session

Activity	Comments	Mark (✓)
1 Relevant	Content → Activity / Exercise → Outcome → Objectives	
2 Peer Review	Accurate, concise, and suitable	
3 Engaging and interactive	Text, images, videos, audio, quizzes, games, animations, simulations, case studies, and scenarios	
4 Medium of communication	English / Sindhi / Urdu	
5 Multitude of training methods	Instructor-led training, e-learning, blended learning, coaching, mentoring, peer learning, self-directed learning	

ELABORATION

1. The training material should be relevant to the identified objectives and the outcomes of the training. The material must be well aligned with the project's goals as well. The explanatory content must be organized in a manner to ensure its alignment with the included examples, exercises, which in turn must be aligned with specific outcomes and ultimately to the objectives of the training.
2. The trainer must ensure peer review of the training material for its technical accuracy, conciseness, and the suitability of the target audience. The material must be concise enough to be practically viable for its use in the assumed timeframe.
3. The training material must be engaging and interactive. This may be ensured by including variety of formats and media spanning from suitable illustrations, animations, simulations, videos, and audios, to games, quizzes, case studies, and practical scenarios.
4. The medium of communication / instructions must be suitable for the audience. It must be the first language of preference or the usual medium of instructions for the target audience.
5. The training material must target the use of a multitude of learning methods, including Instructor-led training, e-learning, blended learning, coaching, mentoring, peer learning, self-directed learning.

Important Deadlines

Action	Responsible	Deadline
1 Submission of the training material	Trainer	16 weeks prior to commencement
2 Peer Review	HEI team lead	12 weeks prior to commencement
3 Translation into Sindhi / Urdu	Trainer	4 weeks prior to commencement

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Form QAC 3.2e: Checklist of trainings
Quality Assurance Committee, BIOMED5.0

This QAP may be used by the coordinator of Work Package 3 (WP3) to ensure that the planned trainings are held at all the partner HEIs.

Table QAC 3.2e: Training held at HEIs

Training		Dead-line	HEI							
			MUET	LUMHS	SSUET	SHU	ZU	UETL	UETT	BUET
1	Training on innovative pedagogy	30-06-26								
2	Training on CAD / CAM	30-06-26								
3	Training on Digital transformation and I4.0/5.0	30-06-26								
4	Training on Physiological modelling in Open Cell	30-06-26								
5	Training on Cryptography in EHR	30-06-26								
6	CPR training using AR	30-06-26								
7	Training on New Value Creation	30-06-26								
8	Training on reconciling tensions and dilemmas for digital transformation	30-06-26								
9	Training on taking responsibility to drive innovation and leading digital transformation	30-06-26								
10	Training on mental health and wellbeing for professional and personal development	30-06-26								