

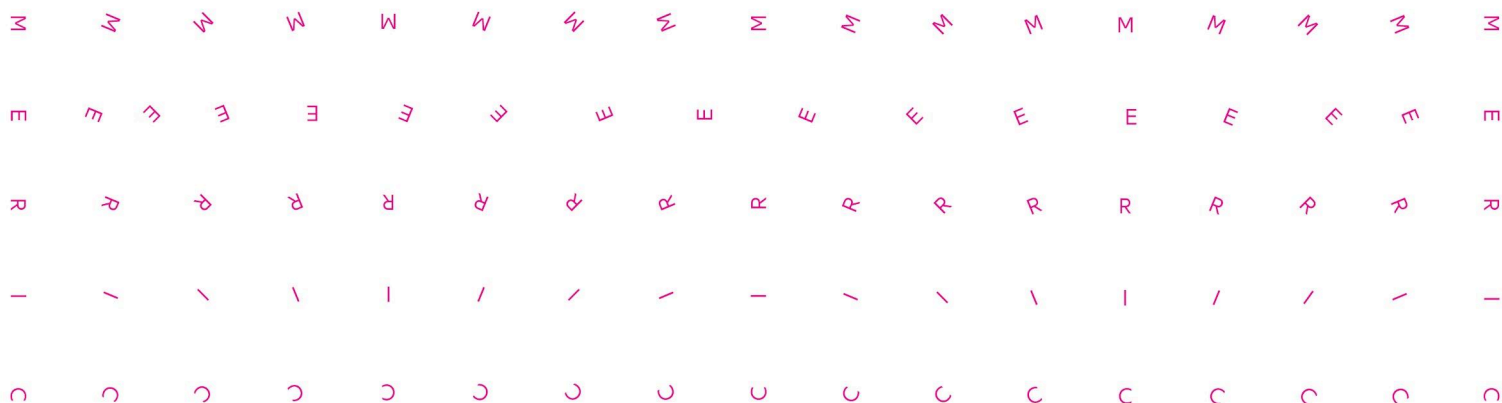
The research leading to these results has received funding from the European Commission under grant agreement No. 621610-EPP-1-2020-1-NL-EPPKA2-KA.



# D5.6 – Assessment and Final Evaluation Report

**Version 1.1 (*Final*)**

**March 8, 2024**



**Grant Agreement number:** 621610-EPP-1-2020-1-NL-EPPKA2-KA

**Project acronym:** MediaNumeric

**Project title:** MediaNumeric: Alliance on Multimedia Data-Driven Journalism & Media Production

**Funding Scheme:** ERASMUS+ KA2: Cooperation for Innovation and the Exchange of Good Practices - Knowledge Alliances

**Project coordinator name, Title and Organisation:** Johan Oomen, The Netherlands Institute for Sound and Vision

**E-mail:** joomen@beeldengeluid.nl

**Project website address:** <http://medianumeric.eu/>

# Revisions

Version	Date	Author	Reviewer(s)	Changes
1.0	05.01.2024	Natalia Berger Clément Malherbe	Johan Oomen, Rachel Somers Miles	The text has been altered into a narrative and more analytic form, reference to the Needs Analysis has been implemented; analysis of the partners' impact assessment survey has been added.
1.1	08.03.2024	Natalia Berger	Rebecca Haselhoff, Susannah Mongomery, Rachel Somers Miles	Some wording and grammar adjustments have been made. More explanation added to 2.1.

## Statement of Originality

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

# Table of Contents

<b>1. Executive Summary</b>	<b>4</b>
<b>2. Assessment of Participant Satisfaction</b>	<b>5</b>
2.1. On-the-Spot Evaluation	5
2.1.1. Global Satisfaction	6
2.1.2. Objectives of the Course	11
2.1.3. Training Content	13
2.1.4. Reception and Support Conditions of the Training Course	15
2.1.5. Experience of the Training Course’s Teaching	17
2.1.6. Training Conditions	20
2.1.7. Concluding Thoughts	21
2.2. Post-Training Evaluation	23
2.2.1. Acquisition of New Skills	24
2.2.2. Practical Application of Knowledge	25
2.2.3. Professional Perspectives	27
2.2.4. Participant Suggestions	29
<b>3. Internal Evaluation</b>	<b>30</b>
3.1. Global Evaluation	31
3.2. Content Evaluation	32
3.3. Pace and Progression	32
3.4. Pedagogical Framework and Evaluation	33
3.5. Case Study	34
3.6. Communication with Students and Lecturers	35
3.7. Technical and Organisational Aspects	36
<b>4. External Evaluation</b>	<b>37</b>
4.1. Stakeholders Board Feedback & Advice	37
4.2. Other Stakeholder Feedback & Advice	38
4.3. Partners’ Survey on Impact	39
<b>5. Conclusion</b>	<b>42</b>

# 1. Executive Summary

This deliverable presents the final evaluation report of MediaNumeric's training sessions conducted in Issy-les-Moulineaux (France), from 21st to 26th February 2021; at Inholland's University campus in The Hague (The Netherlands), from 27th June to 2nd July 2022 and at SWPS University in Warsaw (Poland), from 20th to 25th February 2023. Based on revising and evaluating the previously published Evaluation Reports 1, 2 and 3 (D5.3, D5.4 and D5.5 (Assessment & Internal evaluation)) the final document integrates a detailed assessment that aligns with the objectives outlined in the [Updated Needs Analysis Report](#) (D2.1), scrutinising the effectiveness of the training in imparting relevant skills and knowledge to the students. Furthermore, it goes into the broader impact of these sessions on the sector, drawing on insights gathered from interviews and questionnaires distributed to the Stakeholder Board, project partners, and participants six months and one year post-attendance (External evaluation).

The report provides a nuanced understanding of the training's relevance and efficacy by incorporating feedback from diverse stakeholders. This feedback has played a crucial role in identifying areas for enhancement, leading to targeted recommendations to refine the training program's approach, content, format, and methodology. Through this systematic approach, the report conducts an impact assessment of the project, highlighting its strengths and improvement areas. These interactions occurred at different stages of the training program iterations. An essential aspect of this assessment was an interactive evaluation of how well the training program aligns with the industry's needs, established during the project's initial phase. By assessing the programme's transformative effects on stakeholders and examining shifts in knowledge, skills, and attitudes toward data-driven practices in the media industry, the report aims to understand the programme's influence thoroughly.

Through this multifaceted evaluation process, the report aims to ensure that the MediaNumeric training sessions meet current educational and industry standards and adapt to evolving needs and expectations, thereby maximising their impact and value to participants and the sector at large.

The impact assessment, detailed in Part II of the report, analyses participants' reflections and highlights the substantial contributions of MediaNumeric training sessions in meeting educational and industry standards. It also offers insights into necessary adaptations to sustain and improve their positive effects on participants and the broader sector. This evaluation is explicitly derived from internal and external assessments outlined in Parts III and IV.

This document describes the three main steps of the evaluation:

- The assessment of participant satisfaction ('on-the-spot' evaluation and delayed evaluation).
- The internal evaluation: led by the consortium during and after the training course.
- The external evaluation: was arranged by the consortium in September 2022 and June – September 2023.

## 2. Assessment of Participant Satisfaction

### 2.1. On-the-spot evaluation

All three Evaluation Reports emphasise the primary aim of the evaluation: to gather immediate, 'on-the-spot' feedback and suggestions from participants. The MediaNumeric consortium needed to understand participant expectations and improve future sessions.

*Methodology.* The [evaluation questionnaire](#) (D5.2), designed by INA with the support of the MediaNumeric consortium, was a key tool in the process of evaluating the MediaNumeric onsite course and curriculum. Distributed via Google Forms on the spot at the end of the course, the responses were anonymised to ensure student participants felt free to share their real perspectives and feedback.

*Implementation and response.* The response rate varied across the three onsite school reports, with 79% completion in one instance and complete participation in others. One factor could be technical issues related to INA's implementation of the questionnaire during the first school, in Paris, due to an internet breakdown. As a result, the survey was shifted to be offered via email after the course; this change, although unexpected, proved to be effective nonetheless. In total, 42 students participated in completing the questionnaire across the three different onsite MediaNumeric training courses.

*Transparency and Analysis.* Transparency was the focus in the approach to our data analysis and presentation. Quotes from students were included to provide a comprehensive and clear picture of their feedback. This approach underscores the commitment to a thorough and honest evaluation.

*Satisfaction.* The overall level of satisfaction among participants was good, though nuanced. The reports indicate a generally positive reception of the training course. However, there were instances of dissatisfaction, including two participants who expressed mixed feedback, suggesting possible data entry errors or difficulties in understanding.

*Contextual challenges.* The training course was characterised by several contextual challenges, notably student withdrawals due to the impacts of COVID-19. These circumstances impacted the group dynamics and possibly the feedback received.

*In conclusion,* the evaluation of the MediaNumeric training sessions reflects a comprehensive and adaptive approach to gathering participant feedback. Students' high level of engagement and detailed analysis of their responses provide valuable insights for enhancing future sessions. It's also evident that the training managed to maintain a positive reception despite the challenges posed by external factors like the pandemic.

### 2.1.1. Global Satisfaction

#### Are you satisfied with the training course?

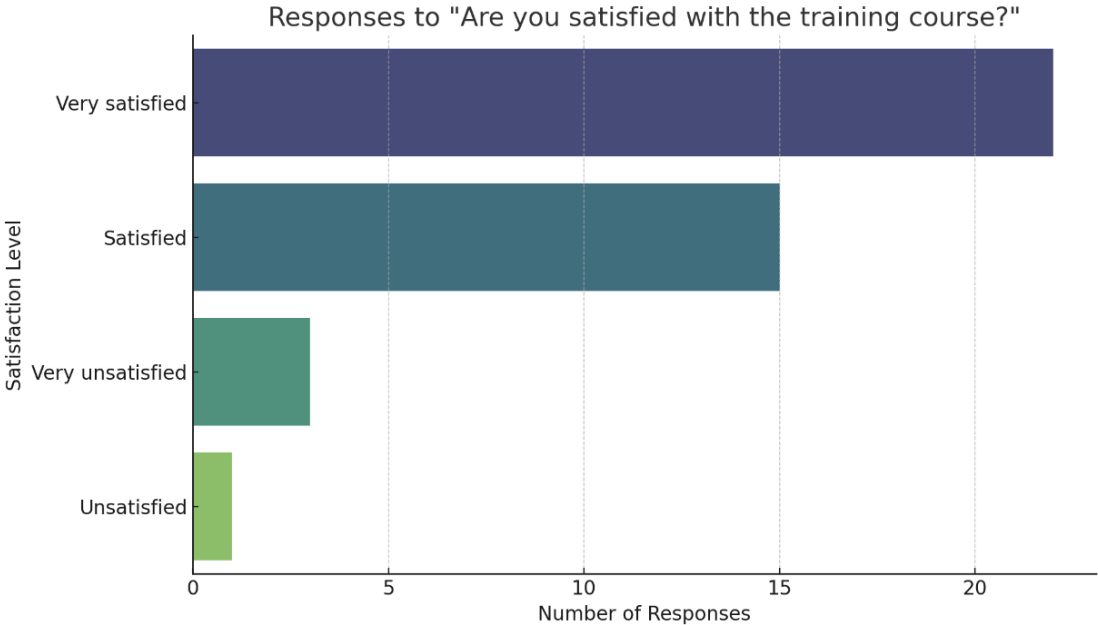


Figure 1. The graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

Based on the answers from all 42 students who participated in all three sessions, 90.24% expressed a positive level of satisfaction with the training course, including both "Very satisfied" and "Satisfied" responses.

### What were the strengths of the course?

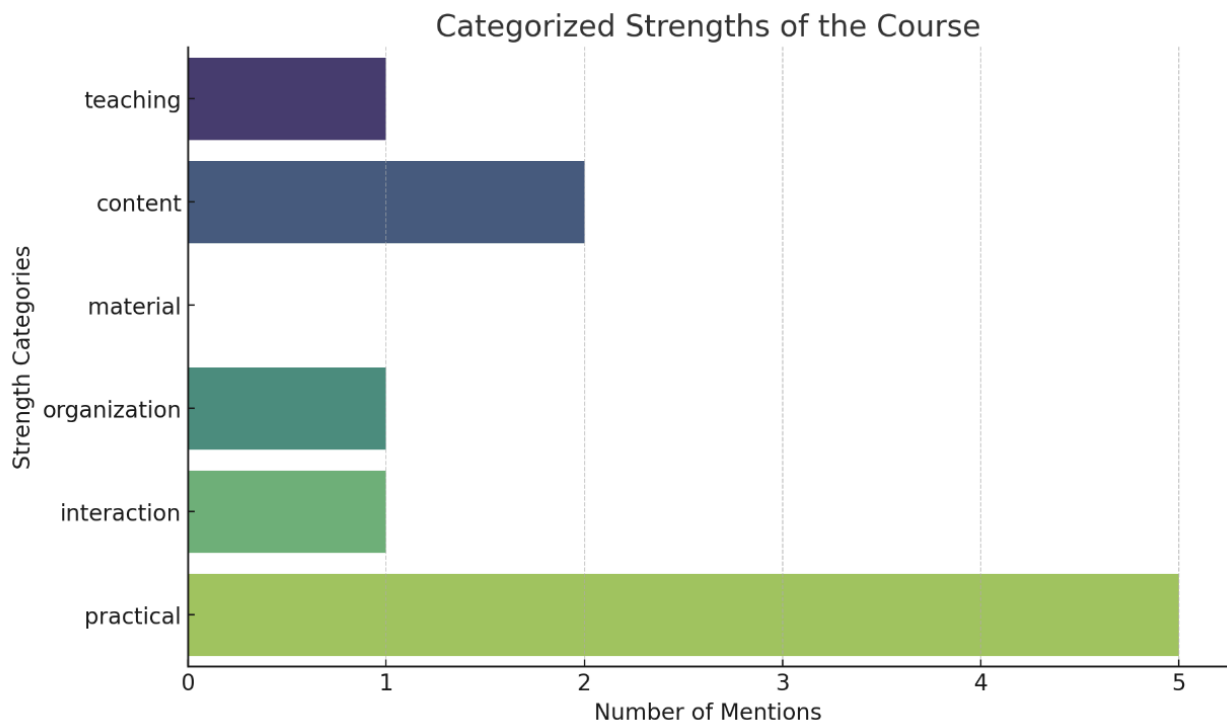


Figure 2. The graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

The students acclaimed the course for its systematic approach, combining diverse, high-quality content with the expertise of its presenters, which reflected our intention to create a curriculum that was both broad in scope and deep in knowledge. Our aim to balance theory with practice has been recognised, and we received positive feedback on the variety of topics, the practical tasks, and the hands-on workshops that complemented the theoretical lectures. This blend was designed to enrich the learning experience, and the students' appreciation confirmed the effectiveness of our approach, as informed by the initially conducted needs analysis.

While conducting the needs analysis, we discovered that experts from creative or technical backgrounds unanimously believe that foundational skills are essential for compelling and responsible data-driven storytelling. To begin with, *journalistic and storytelling skills* are considered pivotal for creating engaging, captivating and informing narratives. *Ethical considerations* are also deemed crucial for handling and representing data with integrity. Additionally, a solid grasp of *basic statistical knowledge* and *data manipulation* abilities, such as data collection, cleaning, analysis, and the ability to differentiate between correlation and causality, is essential for precise and insightful interpretation of data. Finally, *critical thinking* is identified as a cornerstone skill, requiring practitioners to adopt a rigorous and analytical attitude towards data and its broader implications, enabling them to scrutinise, analyse, and counteract misinformation effectively. These foundational skills were later referred to as "the evergreens" of storytelling with data during



the Stakeholder's board meeting in Paris, underscoring their enduring importance and relevance in the field.

The Needs Analysis report laid the groundwork for developing our training course, ensuring that all "evergreens" were fully integrated. This integration guaranteed the programme's comprehensiveness and contributed to its density, providing a solid foundation from which participants could build their skills and understanding in data-driven storytelling.

Following the experts' advice, the engagement and proficiency of the lecturers were central to our strategy, ensuring that students had access to a range of specialists with outstanding professional backgrounds. This aspect of the course facilitated learning and encouraged interaction, caring for an environment where curiosity and questions were welcomed. The positive feedback in this area attests to our efforts in selecting a diverse and skilled teaching team. We continued to invite lecturers who received the most student appreciation during the first on-site session.

Networking and international exposure emerged as significant strengths, aligning with our objective to provide students with a platform for building professional connections across borders. The diversity of students and lecturers from various backgrounds was intentionally curated to enhance the learning experience through different perspectives, and the feedback confirmed the value of this international scope.

The students' supportive and collaborative environment reflected the course's ethos, emphasising the importance of community and mutual encouragement in the learning process. This environment, combined with the organisational excellence of the course, underscored our commitment to creating a structured yet flexible learning journey.

Special activities such as study visits and professional meetings were integral to our vision of offering an immersive experience. These elements aimed to extend learning beyond the classroom, providing real-world insights and opportunities for application.

In response to these strengths, we have continued to reflect on and analyse our approach, considering further enhancing the course's structure and content. After each on-site session, partners revised each programme's modules and made adjustments aligned with the feedback from the students, teachers and internal observations. The positive reception of the MediaNumeric course's diverse content, practical approach, and international perspective reinforces our commitment to educational excellence, professional expertise, and a nurturing, collaborative environment. Moving forward, we plan to build on these strengths while seeking opportunities for improvement and innovation in response to student feedback and evolving industry trends.

### What were the weaknesses of the course?

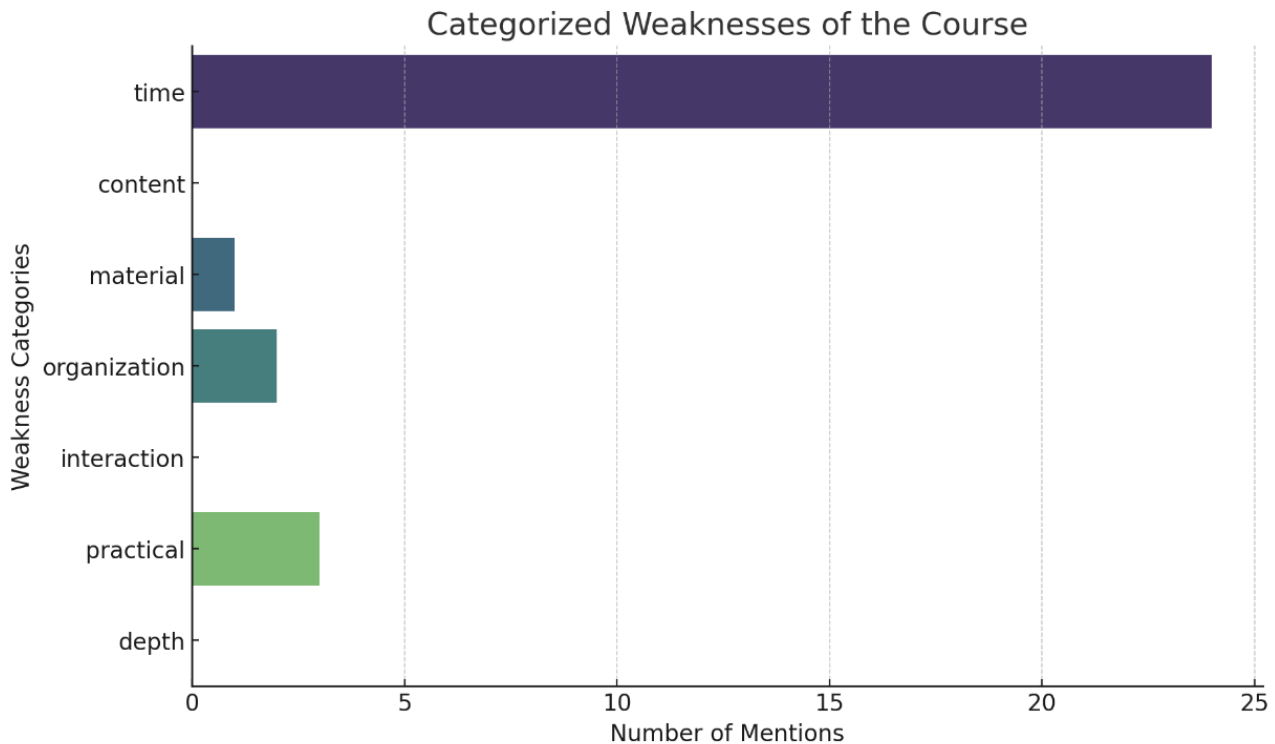


Figure 3. This graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

The feedback we received from the students highlighted the need for more reflection and analysis from the partner's side in addressing the critical issues regarding the MediaNumeric course. One of the main criticisms was the perception of *excessive course intensity and time constraints*, making it challenging for students to absorb and integrate the materials thoroughly. Several adjustments were proposed and implemented in response, including allocating free afternoons, reducing extra activities, and increasing group sessions dedicated to working on case studies. However, the criticism persisted despite these efforts, particularly during the Warsaw session. In the third evaluation report, we acknowledged that the density of work is inherent to the course, which aims to cover a wide range of topics within a limited timeframe. While adjustments were made iteratively to the schedule and flow of the course, the intensity remained a fundamental aspect of the learning experience.

There was a desire for *more hands-on learning opportunities* while working on practical applications and case studies. This desire is very much in line with our findings collected in the Needs Analysis, where the experts advised us to arrange lessons in a learning-by-doing fashion. Aiming to strengthen this practical approach, we incorporated additional group sessions into the study timetable. This allowed students more time to engage with case studies and apply theoretical knowledge to real-world scenarios. The collaborative element was included in all three

on-site sessions as we followed advice from our experts, who agreed that collaboration is becoming more critical in data-driven projects. To work with tech specialists, one needs to formulate the right questions and understand the answers, was the argument. However, due to time constraints and the diverse academic backgrounds of the students, effective collaboration in group work remained a challenge. Despite efforts to facilitate group dynamics, limited time and unfamiliarity among students continued to pose obstacles to effective collaboration.

In terms of *technical and organisational issues*, the respondents noted minor problems such as room temperature fluctuations and varying session lengths. While these aspects occasionally detracted from the learning experience, they were addressed promptly to minimise disruption.

The critique also pointed out concerns about *specific lectures being overly dense or repetitive*, especially for students with prior knowledge in related fields. In response, a proposal was made for a more structured approach to complex topics, such as data analysis, to balance theoretical concepts and practical skills better. This was applied to the second and third on-site training. However, it's important to note that the consortium members made a deliberate choice at the outset of the project, which was reaffirmed during the Stakeholders Board meeting in Paris, to design an intensive, dense, and challenging course. Consequently, it was anticipated that students might encounter difficulties in keeping pace with the rigorous demands of the programme.

Moreover, the original intention behind the course design was to bring together students from diverse backgrounds—journalism, creative business, and computer science—who share an interest in storytelling with data. During our needs analysis interviews, experts suggested that this interdisciplinary mix could replicate the dynamics of real teams working on data-driven projects, fostering collaboration and innovation. However, recruiting students with the desired profiles, including specific age and educational backgrounds, proved to be challenging. Consequently, classes from all three on-site sessions included a mix of students with varying levels of familiarity with the subject matter, posing challenges in maintaining an optimal learning pace for all participants. Despite efforts to refine the target group criteria and enhance recruitment strategies, securing a sufficient number of motivated students from creative business programmes remained a hurdle. This difficulty may stem from a prevalent apprehension towards data-related subjects, particularly among those less comfortable with numbers and mathematics—an issue underscored by our experts as a significant barrier to data literacy in general.

While the diversity of lecturers was appreciated, there were concerns about *the pace and scheduling* of lectures. Efforts were made to ensure a more consistent pace and schedule, but challenges remained in balancing the diversity of topics with the student's ability to engage deeply with the content. The nature of the chosen format—a six-day intensive course condensed into a single week—inevitably leaves little room for flexibility in pace and scheduling.

Lastly, the course's intensity impacted the *scheduling of external activities*, leading to a desire for more balanced time management. While the course organisers tried to balance learning with

activities (such as networking with experts, for instance), the inherent intensity of the course limited flexibility in scheduling.

### 2.1.2. Objectives of the Course

The feedback from the MediaNumeric training programmes underscores a high degree of participant satisfaction, with 85% of attendees reporting that the course surpassed their expectations in meeting their needs. A remarkable 95% of participants acknowledged acquiring significant new knowledge, underscoring the program's effectiveness in delivering substantive, enriching content. Furthermore, 90% found the training directly relevant to their professional objectives, affirming its practical applicability and the tangible benefits it offers for career advancement.

However, the feedback also illuminated areas for improvement, with about 10% of responses suggesting the need for finer adjustments to fully cater to its audience's diverse requirements.

#### ***According to your needs and expectations, how would you rate this course:***

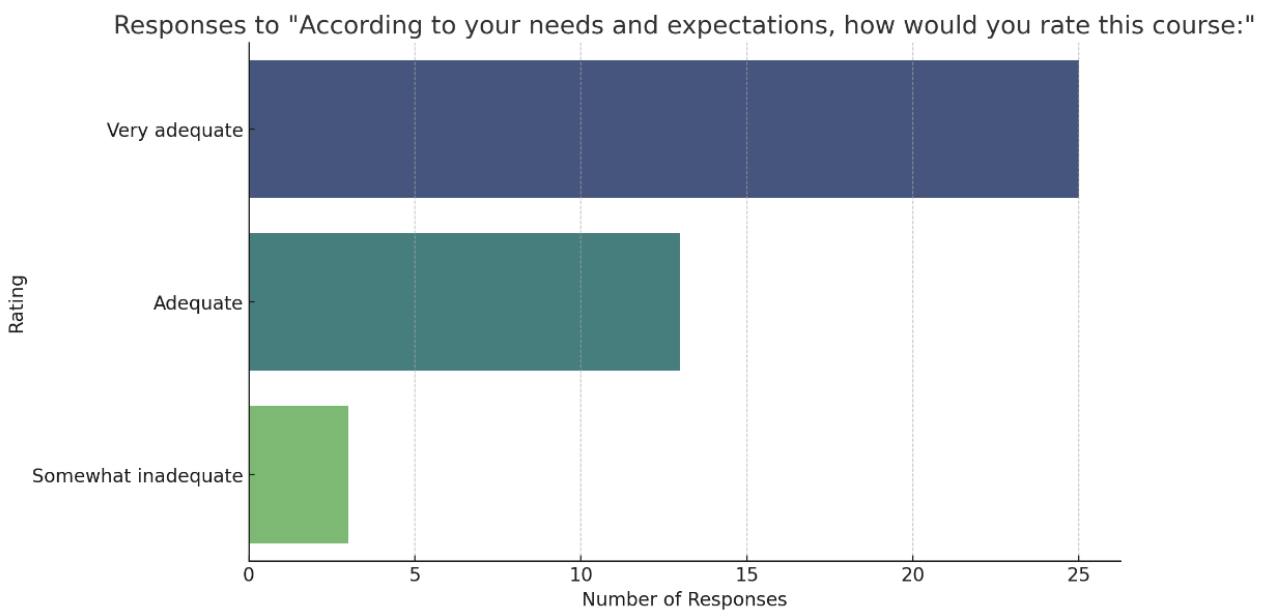


Figure 4. This graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

**Do you think you have acquired new knowledge?**

Responses to "Do you think you have acquired new knowledge?"

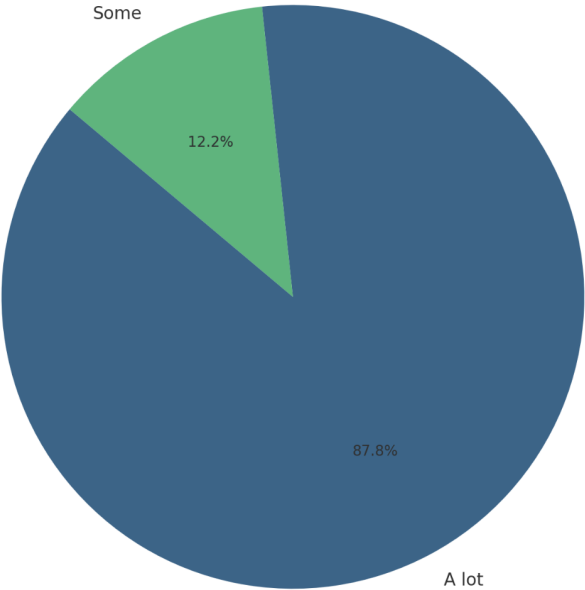


Figure 5. This graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

**Did you find the training course relevant with respect to your professional objectives?**

Responses to "Did you find the training course relevant with respect to your professional objectives?"

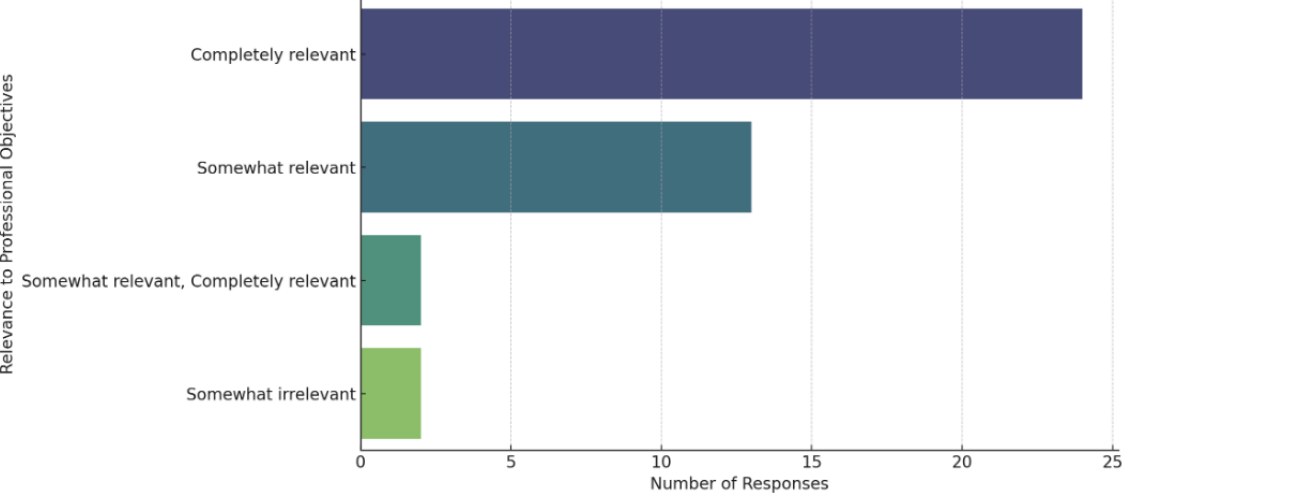


Figure 6. This graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

### 2.1.3. Training Content

The analysis of the feedback from 42 participants across three MediaNumeric training programmeParticipants rated the quality of the teaching content, with 63.41% expressing very satisfied and 31.71% satisfied. This indicates that the majority found the teaching content well-aligned with their needs and expectations, underscoring the effectiveness of the course's educational material.

The lecturers' profiles also received a commendation, as 73.17% rated them as very adequate and 19.51% as adequate, highlighting the high calibre of educators involved in the program and their profound impact on the learning experience.

Regarding the consistency of different interventions, 50% found them to be very consistent and 40.48% consistent, suggesting a well-structured course delivery that effectively integrated various educational components.

These percentages underscore the MediaNumeric training's success in providing high-quality education through expertly curated content, distinguished lecturers, and coherent instructional methods, affirming its value and relevance to participants' professional development. This indicates positive evaluations of the teaching content quality, lecturer profiles, and intervention consistency, highlighting the overall success and effectiveness of the training.

**How would you rate your experience of the quality of the teaching content:**

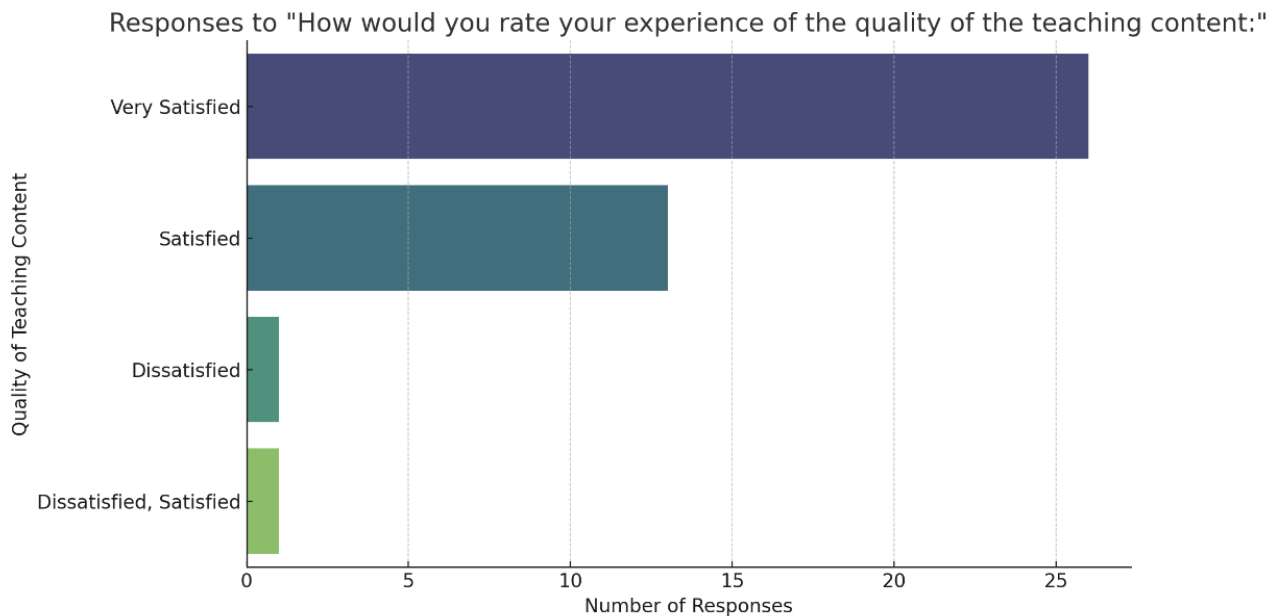


Figure 7. This graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

**How would you rate the profile of the lecturers:**

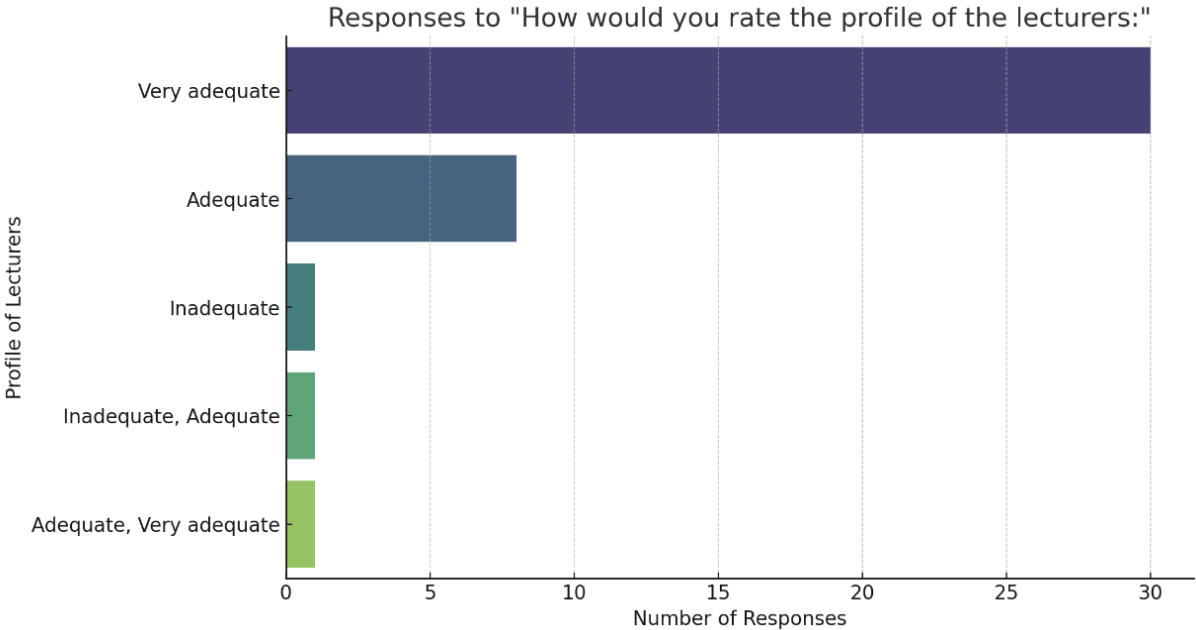


Figure 8. This graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

**How would you rate the consistency of the different interventions?**

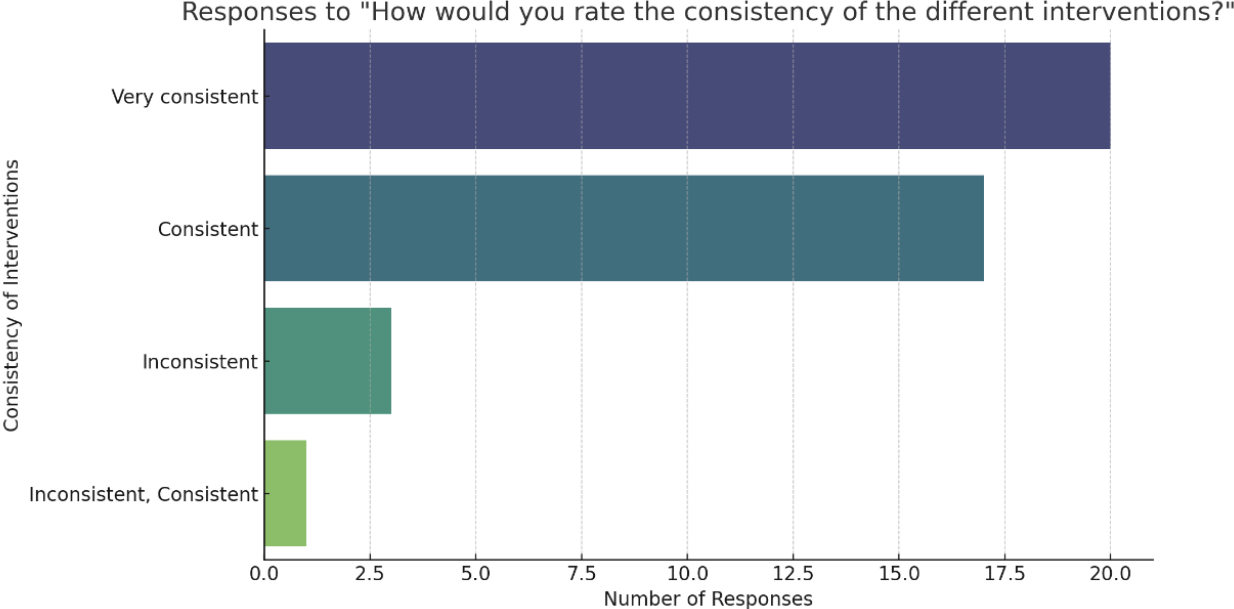


Figure 9. This graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

### 2.1.4. Reception and Support Conditions of the Training Course

Overall, the conditions were highly regarded, with participants particularly commending the quality of reception and the attentive care provided by the course hosts. However, the tables also reflect some areas of concern, especially in administrative and logistical management and the quality of premises, as pointed out by a minority of participants. This juxtaposition of high satisfaction with specific areas of discontent provides a nuanced understanding of the participants' overall experience regarding the logistical and support aspects of the course.

#### ***How would you rate the quality of reception and care by the hosts of the training programme:***

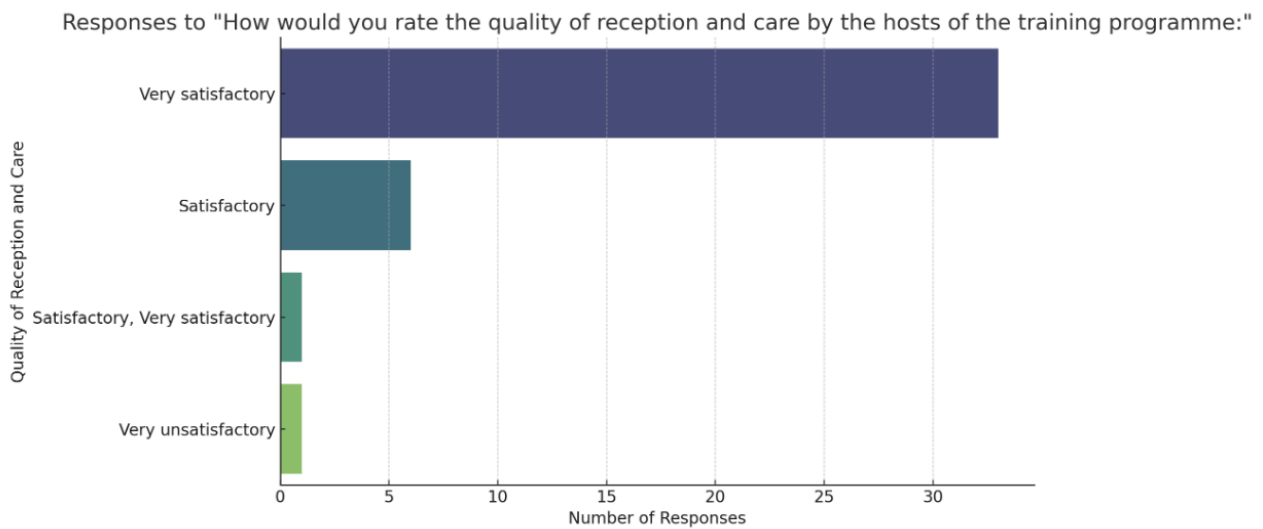


Figure 10. This graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.



**How would you rate the quality of training course premises:**

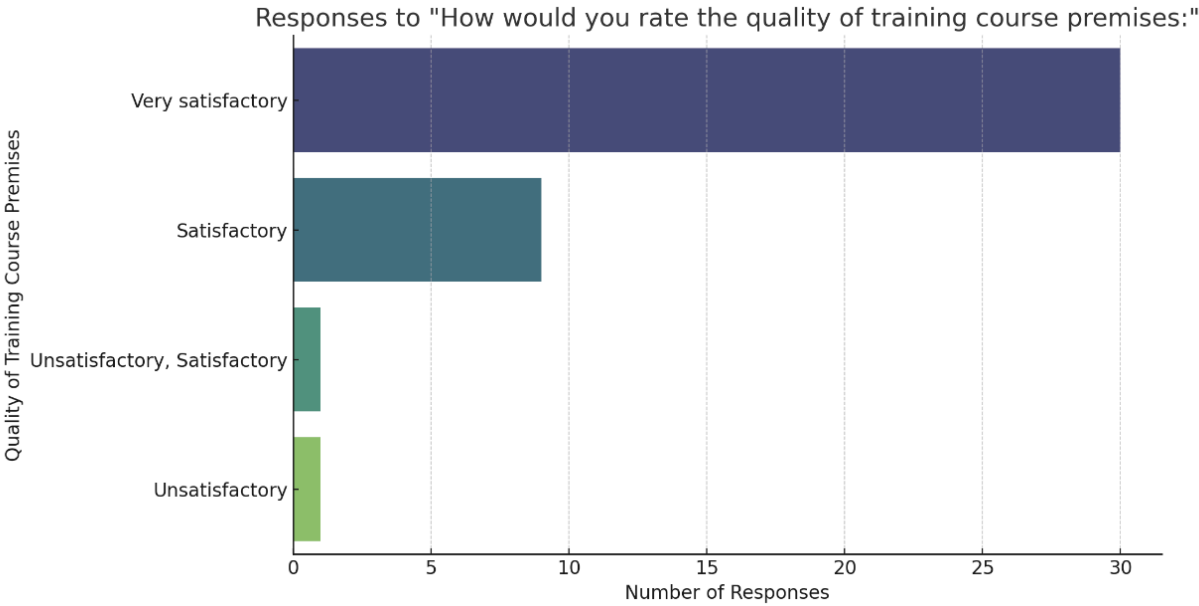


Figure 11. The graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

**How would you rate the administrative and logistical management of the training course:**

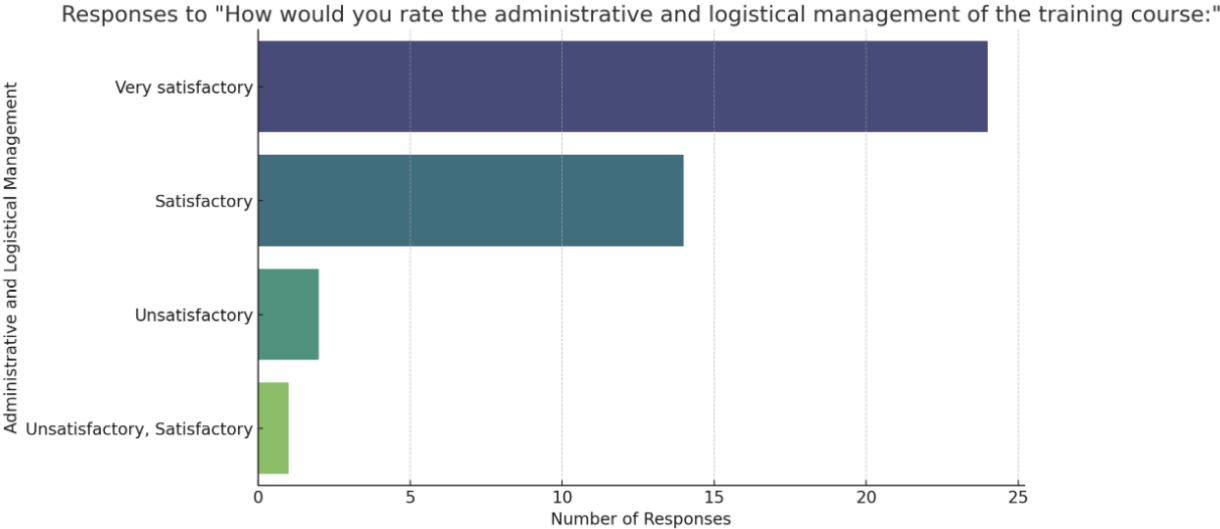


Figure 12. The graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

**2.1.5. Experience of the Training Course’s Teaching**

The feedback highlights a unanimous appreciation for the teaching style, especially the lecturers' willingness to engage in discussions and address student queries. A notable aspect is the students' satisfaction with the level of teaching, animation, and teaching methods employed. The relationship between students and trainers, characterised by attentive listening and availability, was also rated positively. However, many students expressed a common feeling that the course was too dense, moving at a pace that was too fast for effective learning and educational progression.

**How would you rate the level of teaching:**

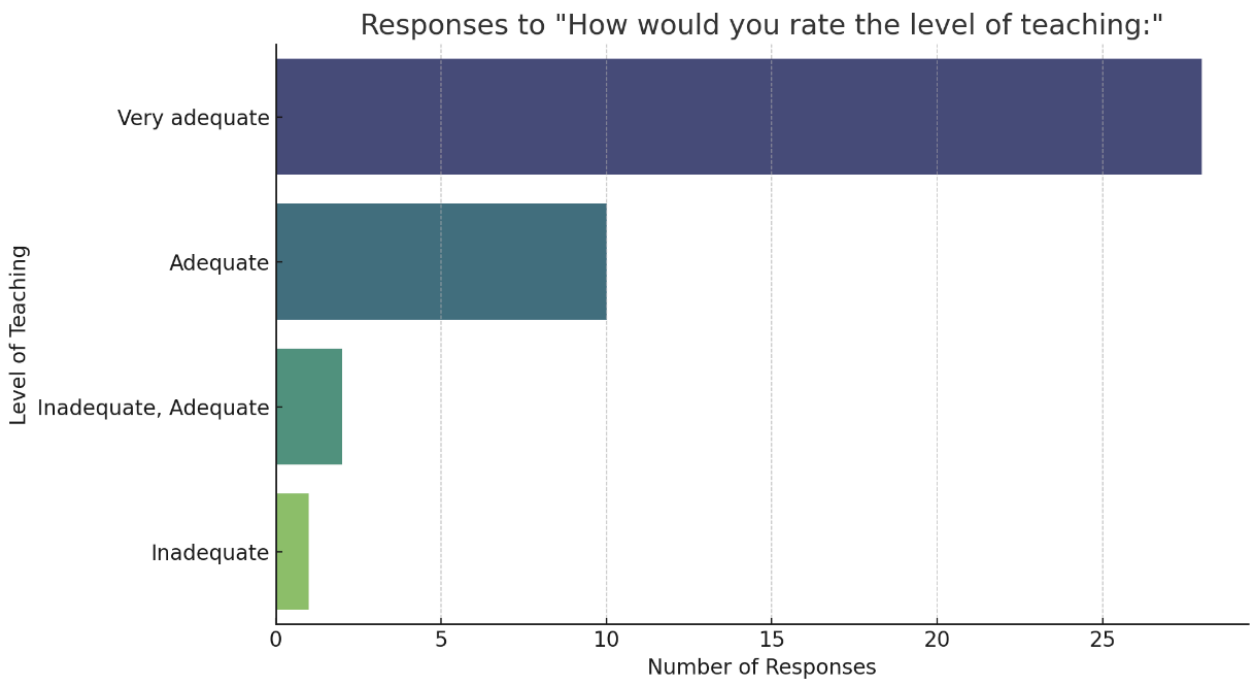


Figure 13. The graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

**How would you rate the animation and teaching methods used by the teachers:**

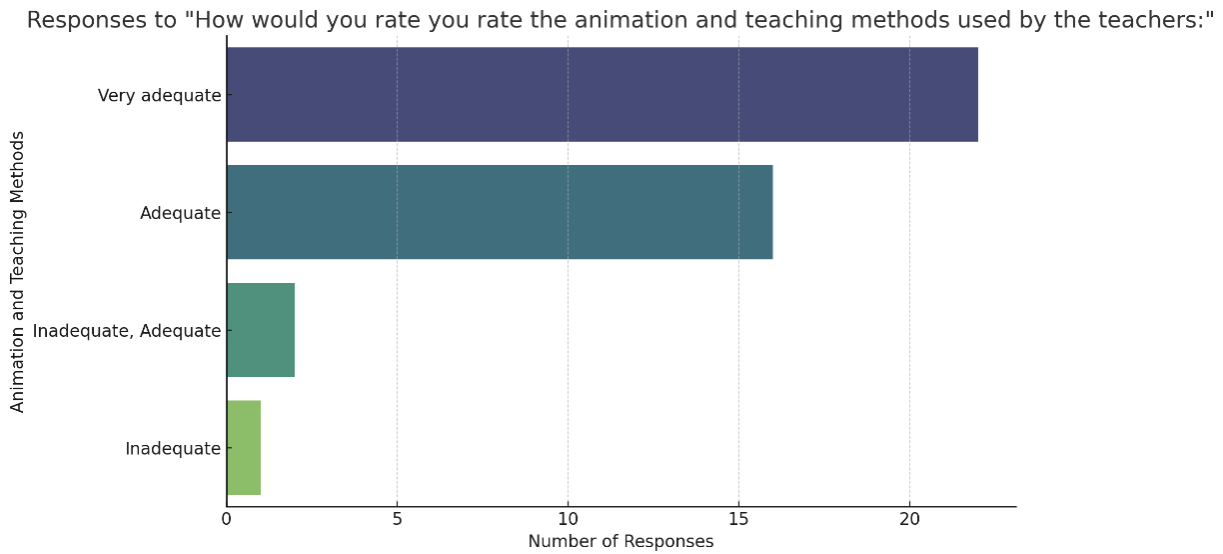


Figure 14. The graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

**In terms of listening and availability, how would you rate the relationship between the trainers and the participants:**

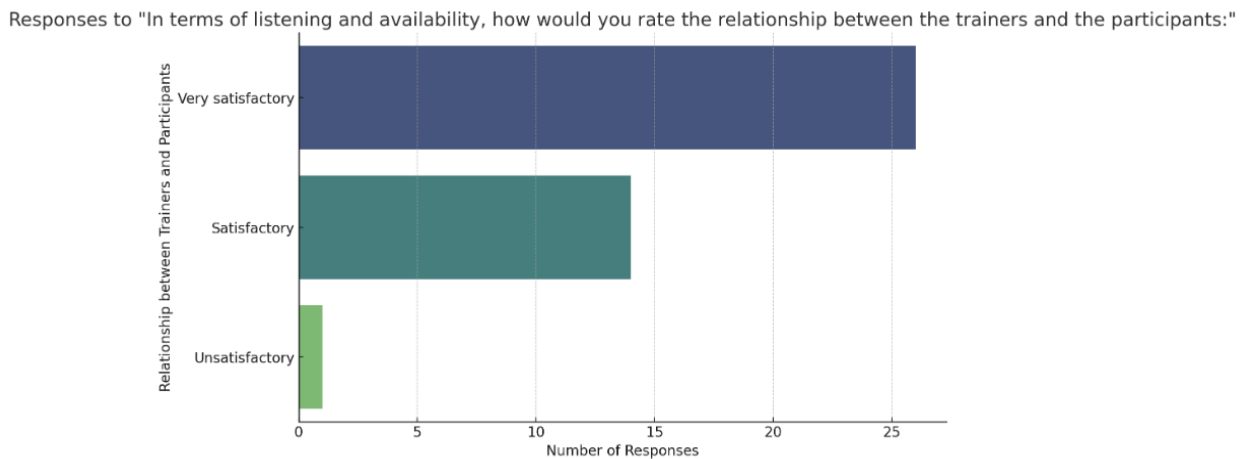


Figure 15. The graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

**How would you characterise the pace and progression of the lessons:**

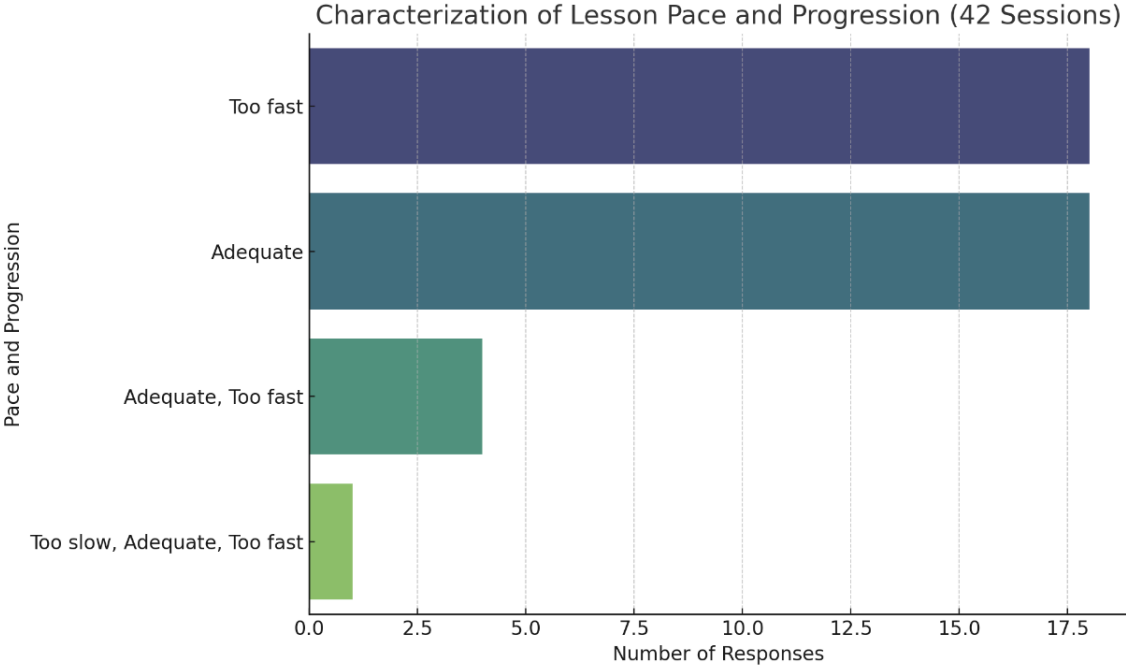


Figure 16. The graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

**How would you characterise the duration of the course:**

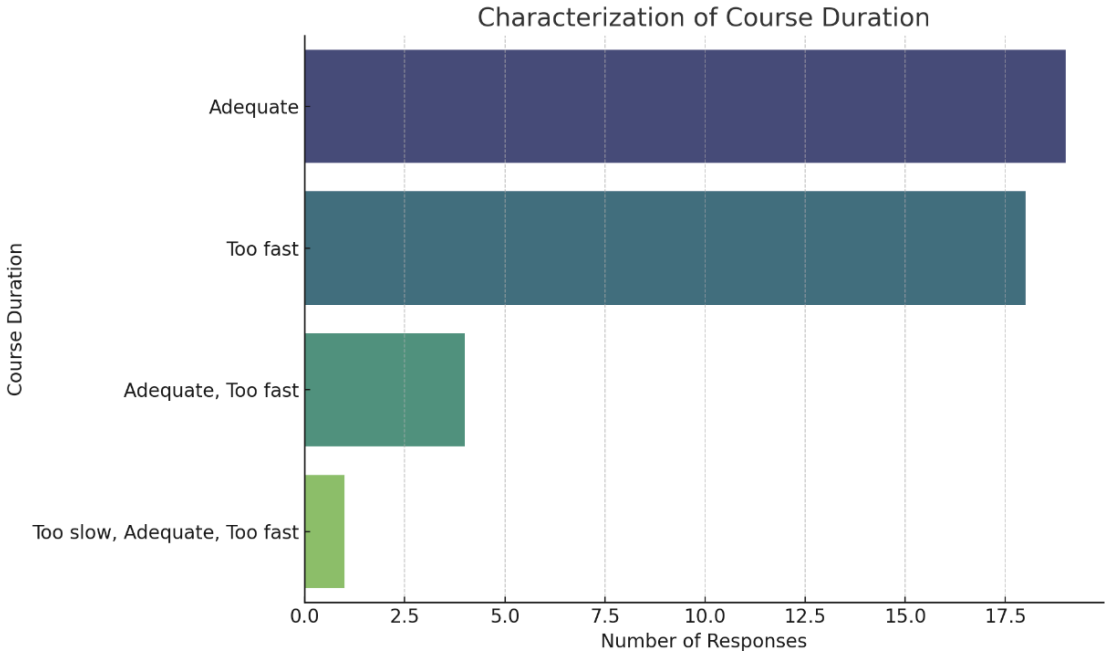


Figure 17. The graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

### 2.1.6. Training Conditions

The students generally rated the training conditions favourably. Particularly the adequacy of the teaching materials, and especially those accessible on Google Drive, have been rated positively. However, the tables also show a more varied response regarding the technical equipment, such as the video projection device and camera for course retransmission via Zoom from an adjacent room. Issues like Internet connection problems and limited visibility for some students in the classroom contributed to this mixed assessment.

***How would you rate the quality of the teaching materials given to you:***

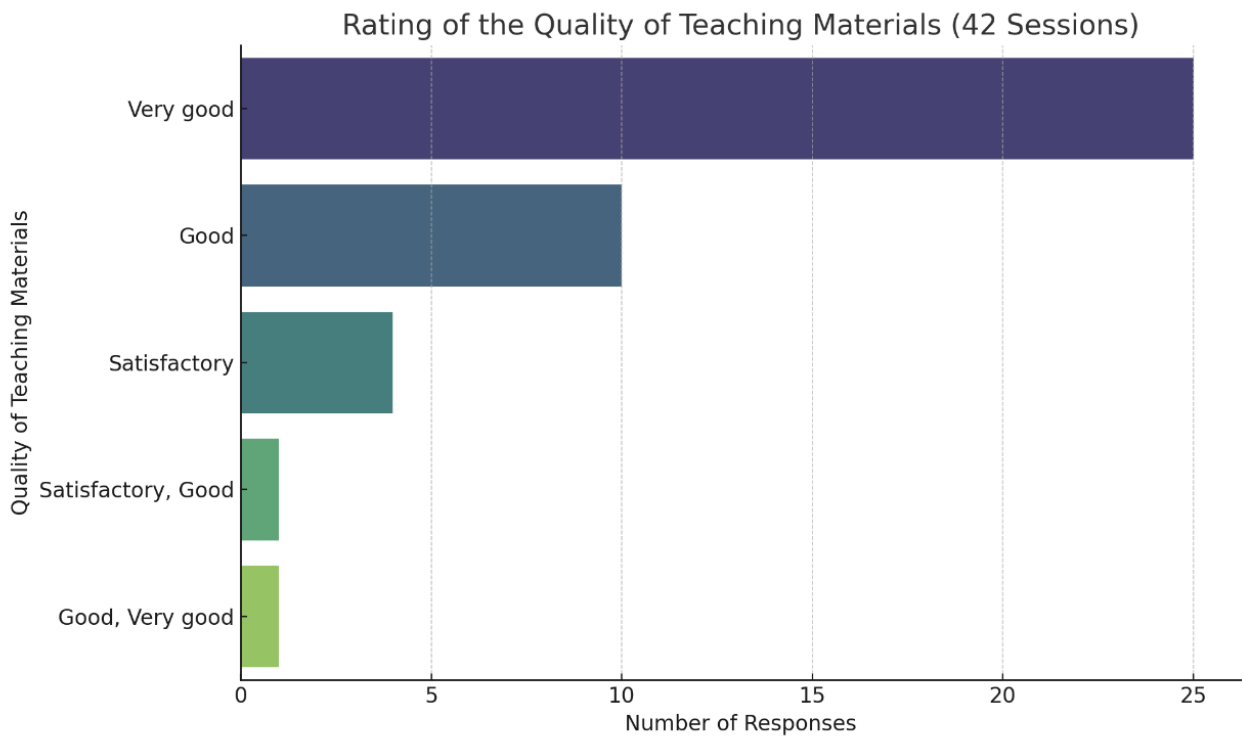


Figure 18. The graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

**How would you rate the quality of the technical equipment provided to you and the other students:**

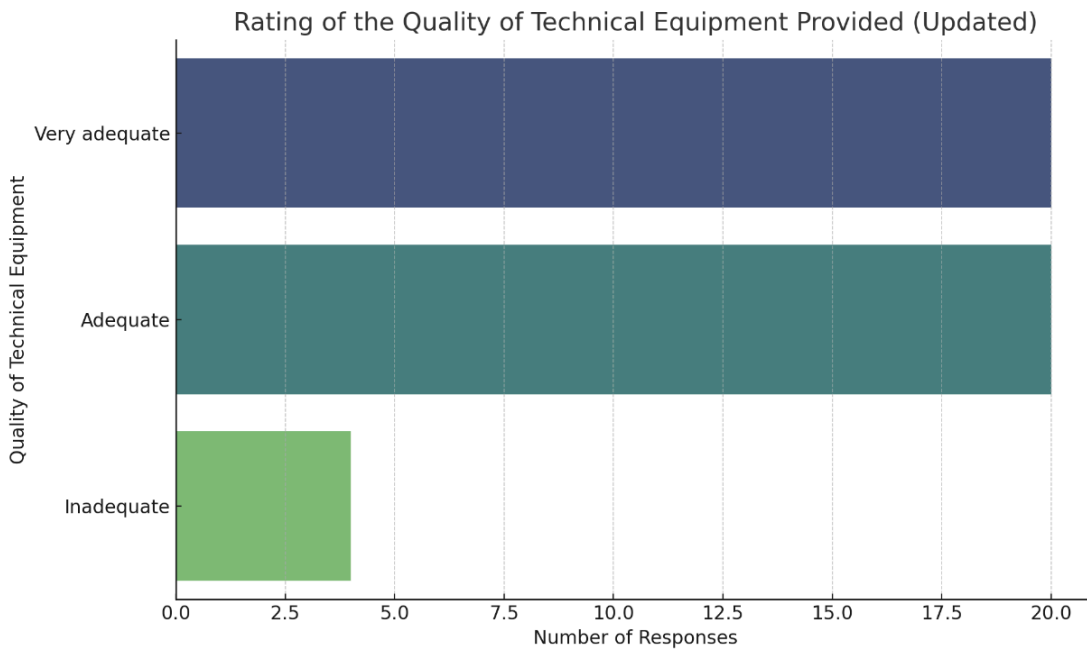


Figure 19. The graph combines data from all three on-site MediaNumeric training programmes, representing feedback from a total of 42 participants.

**2.1.7. Concluding Thoughts**

As previously stated, the concluding thoughts in the survey reflect a holistic view of the students' experiences and insights. They desire a more practice-oriented approach, a better balance between theoretical and practical aspects, and adjustments to the course's structure to enhance its effectiveness. While acknowledging the course's strengths in content quality, teaching methods, and networking opportunities, the students also pointed out areas for improvement, such as addressing technical issues and ensuring content consistency. These reflective insights underscore the students' overall positive experience and constructive recommendations for making the MediaNumeric course even more beneficial and aligned with their educational and professional needs.

**How could the training course be improved (content, teaching methods, teaching material, etc.)?**

The student's feedback underscores a consistent desire to *extend the course duration and enhance practical learning experiences*. For instance, one student reflected, "Increasing the time would be a good thing, and the groups would also have more time to do their research." This sentiment was echoed in suggestions like "Maybe leave more time to do the case study, or say that it's just an exercise" and "More Time! Shorter days."

The *need for improved technical support and resources* was highlighted, with comments such as "Better wifi. The content was good, I especially liked the coding class" and suggestions for "more practical material" and "more interactive projects." The idea of a balanced approach to content and teaching style was captured in remarks like "Letting the student more time to learn the lessons materials & maybe fewer lessons but less in a rush" and "I think some of the lectures should go a little slower and be less information heavy."

Students also expressed a desire for a more tailored learning experience, with one noting, "Make sure the lecturers know what kind of students we are, the content was either too basic and slow or too high levels, rarely was it the right standard." Additionally, the importance of a practical focus was underlined in statements like "More time devoted to the preparation of presentations" and "We could maybe practise a bit more on the various tools we've been working with."

In summary, while the course was valued for its content and structure, students clearly indicated areas for enhancement, emphasising the need for a longer course duration with more practical, interactive sessions and a better alignment of teaching methods and materials to the diverse needs of the participants.

***Please share any additional thoughts or ideas you have about the training course and your experience of it.***

While the students cherished their experience, they highlighted areas for improvement, such as extending the course duration, increasing practical elements, enhancing group dynamics, and ensuring technical reliability.

*Quality of teaching and interaction with lecturers:* Students were positive about the lecturers, noting their professionalism and approachability. Comments such as "The intervenants [speakers] need to stay the way they were, really nice, concerned and professional!" and "I just want to add that the teachers were really exceptional" highlight this sentiment. Moreover, there were comments that suggested to include more opportunities for interaction and sharing experiences with lecturers.

*Group project and course format:* Students suggested making the group project more adaptable to different media formats like TV, radio, web, or written. One student mentioned, "And the group project could be more 'journalistic'." Additionally, there was a desire for a more practical, hands-on approach: "I think we might learn more if the courses were less like lectures and more like very practical exercises."

*Course duration and technical aspects:* Several students felt the course could benefit from a longer duration. Concerns about technical issues were also voiced: "The technical issues delayed the programme sometimes so maybe that could be prevented for upcoming sessions."

*Brainstorming and interactive sessions:* There was a call for more brainstorming and discussion-oriented sessions, as one student suggested, "I think it would be nice to have a much more brainstorming lecture than the typical sit and listen."

*Diverse participation and teamwork:* Students appreciated the diversity of the course and suggested more involvement from a broader range of countries. However, there were challenges in group dynamics: "We struggled with our groupmates not providing an equal amount of work."

*Practical tasks and balance of content:* Students desired more practical tasks and a balanced approach between storytelling/journalism and data. "More practical tasks during lectures, more involvement of participants and more teamwork during individual presentations," was a typical recommendation.

*Overall appreciation and future suggestions:* The course was highly praised for its impact and educational value. Students expressed gratitude and a desire to stay connected after the course. "I am very glad that I signed up for and was accepted to the course," and "A community to keep in touch after the course ends," encapsulate these feelings.

## 2.2. Post-Training Evaluation

The following statistical tables explore the MediaNumeric course's impact on participants' activities, training, and professional paths post-attendance. This second evaluation, distinct from the on-the-spot feedback, was conducted through [a Post-training Evaluation questionnaire](#) designed by INA and supported by the MediaNumeric consortium. Distributed by Centrum Cyfrowe at varying intervals (2 – 3 months) after the training sessions, the responses offer insights into the long-term effects of the course.

It is essential to note the varying response rates, with approximately 53% (10 out of 19 participants), 33% (4 out of 12 participants), and 50% (8 out of 16 participants) responding in different instances. This variation in participation rates and the timing of the evaluations – some shortly after the course and others including a summer vacation – may influence the nature of the feedback received. The statistics in this section are based on the analysis of the answers from all **22 students who participated in all three post-training evaluation moments**, providing an overview of the participant feedback across these sessions.



Despite these differences, the responses, all anonymised to ensure candidness, provide valuable data on how the course influenced the participants' professional development and application of skills learned. The analysis of these responses, as presented in the upcoming tables, will shed light on the effectiveness of the MediaNumeric course in contributing to the participants' career trajectories and ongoing learning experiences.

### **2.2.1. Acquisition of New Skills**

In terms of the feedback on acquiring new skills through the MediaNumeric training course, it is clear that participants across different sessions uniformly reported gaining new skills due to their participation. The respondents consistently highlighted this positive outcome, indicating the course's effectiveness in enhancing their skills. Whether from the group of eight respondents or the group of four, the sentiment was the same: the MediaNumeric training course successfully provided valuable new skills to its students. This consensus among participants underscores the practical and educational value of the course in contributing to their personal and professional development.

**To what extent do you agree with the statement that this training course enabled you to acquire new skills? (1 for strongly disagree to 5 for strongly agree)**

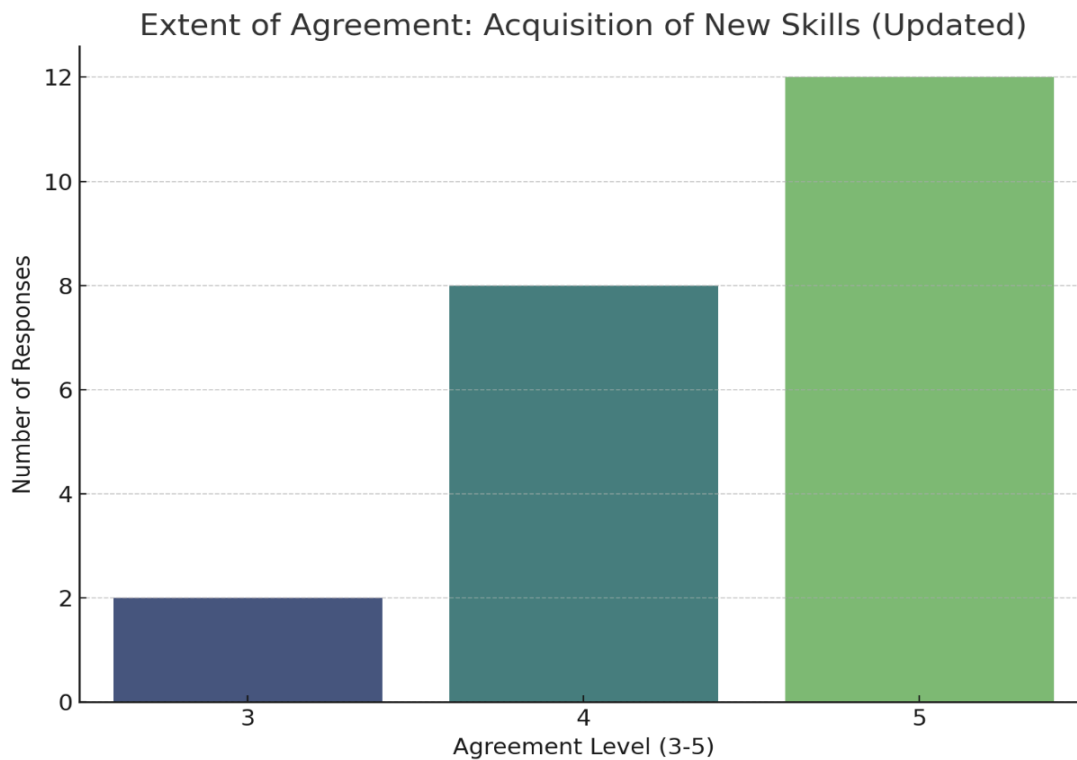


Figure 20. The graph combines data from the post-training evaluation conducted after all three on-site MediaNumeric training programmes, representing feedback from a total of 22 participants.

### 2.2.2. Practical Application of Knowledge

The feedback regarding the practical application of knowledge gained from the MediaNumeric training course demonstrates high success in transferring learned skills to real-world scenarios. Among the respondents, a substantial majority reported being able to apply the knowledge and skills acquired during the course in the short term. Specifically, nine out of ten students in one group and three out of four students in the other two groups confirmed the applicability of their new skills.

The areas where these skills were most effectively applied include data visualisation, data search, data analysis, and fact-checking. This indicates that the course provided theoretical understanding and equipped students with practical tools and techniques that could be directly implemented in their respective fields or activities. The emphasis on data visualisation and fact-checking modules highlights the course's focus on contemporary and relevant skills within the media and journalism landscapes.

**Have you been able to put the skills you acquired during the training course into practice?**

Ability to Put Skills into Practice Post-Training

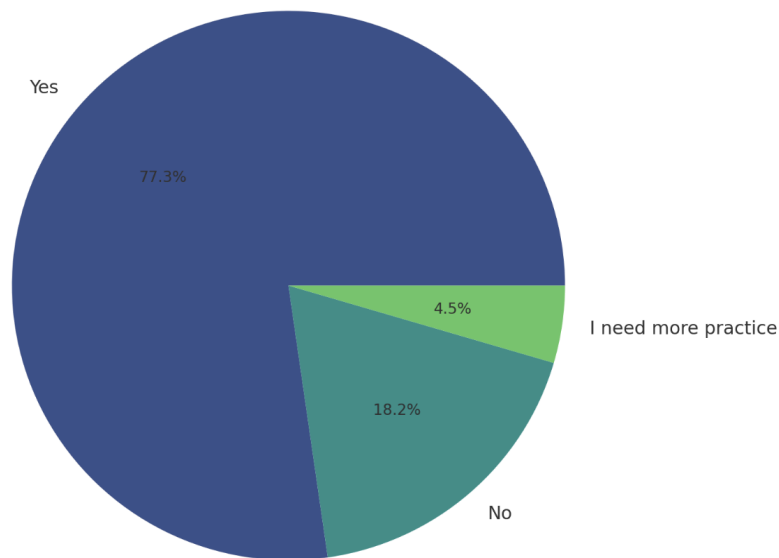


Figure 21. The graph combines data from the post-training evaluation conducted after all three on-site MediaNumeric training programmes, representing feedback from a total of 22 participants.

**If yes, please share which particular skills you have put into practice since the training.**

The students' responses regarding the application of skills acquired from the MediaNumeric training course vividly illustrate the diverse range of competencies they have been employing in various contexts:

- **Data visualisation:** This skill was a major takeaway, as reflected in comments such as "Data visualisation is what I learned the most and that I use at my university often."
- **Fact-checking and critical thinking:** Students emphasised the importance of critical evaluation of information, with one noting, "Fact-checking and data visualisation" and another stating, "I would definitely say fact checking, critical thinking, checking graphs and statistics and overall not assuming everything to be true."
- **Storytelling and visualisation skills:** The ability to convey information effectively was highlighted in responses like "Storytelling and visualisation skills."
- **Graphs and tools like Flourish:** Specific tools for data representation were mentioned, such as "Graphs/Flourish" and "cleaning and visualising data, data search."

- **Reverse image search and web archives:** Skills in verifying images and using archives were noted: "Image reverse search, data visualisation" and "Image reverse, modules like web archives."
- **Data search and analysis:** The practical application of data analysis skills was evident in statements like "The course helped me to improve my skills in data gathering and data visualisation."
- **Awareness of media consumption:** Beyond technical skills, a heightened media awareness was reported: "I'm more aware of the content I consume and I'm adapting to use several methods to check the resources for it."

### 2.2.3. Professional Perspectives

Across different sessions, there is a consensus among the respondents on the value of the course for their professional development. All participants indicated they would recommend the course to others, underscoring its effectiveness in consolidating existing knowledge and expanding professional skills. Most respondents acknowledged that the training reinforced their skills in their original fields and introduced new professional opportunities and perspectives.

This unanimous endorsement of the course reflects its impact on the participants' professional growth and broadening their career horizons. The participants' positive feedback and willingness to recommend the course to others highlight its relevance and efficacy in ongoing professional and academic development.

***To what extent do you agree with the statement that the newly acquired skills have opened up new professional perspectives for you? (1 for strongly disagree to 5 for strongly agree)***

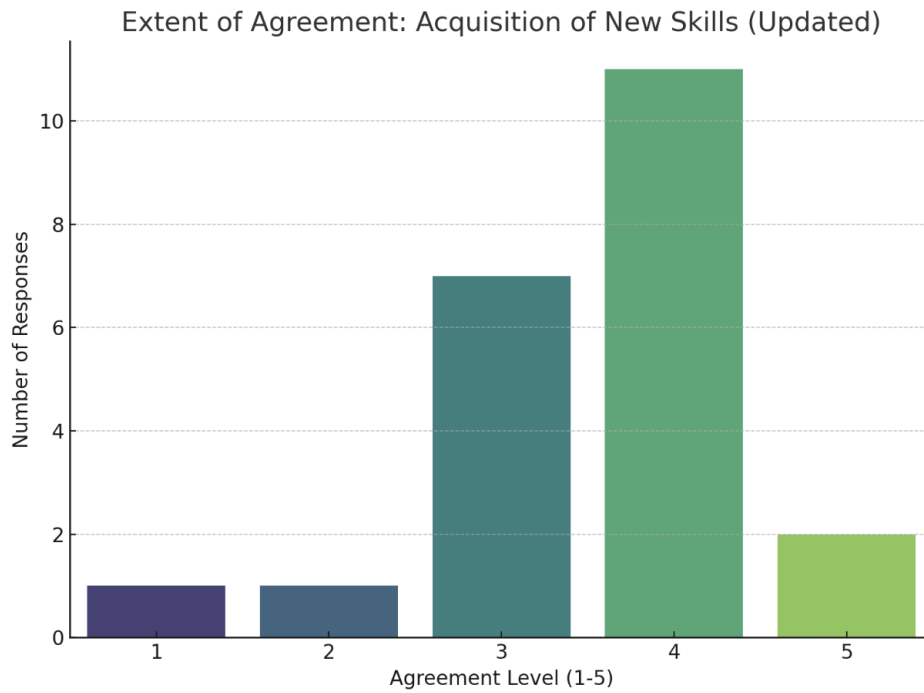


Figure 22. The graph combines data from the post-training evaluation conducted after all three on-site MediaNumeric training programmes, representing feedback from a total of 22 participants.

**Please tell us to what extent do you agree with the statement that the skills acquired have enabled you to strengthen and broaden your knowledge in your original professional field? (1 for strongly disagree to 5 for strongly agree)**

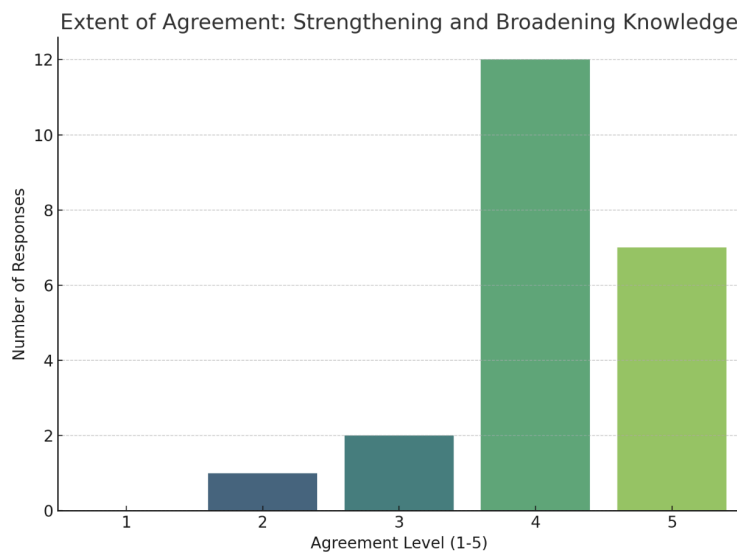


Figure 23. The graph combines data from the post-training evaluation conducted after all three on-site MediaNumeric training programmes, representing feedback from a total of 22 participants.

***Would you recommend the MediaNumeric training course to your professional entourage or as part of your studies?***

Recommendation of MediaNumeric Training Course

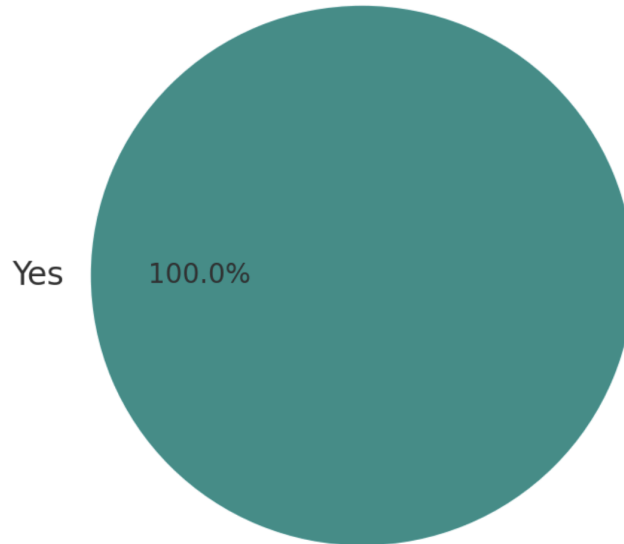


Figure 23. The graph combines data from the post-training evaluation conducted after all three on-site MediaNumeric training programmes, representing feedback from a total of 22 participants.

#### **2.2.4. Participant Suggestions**

***To conclude, do you have any additional comments or suggestions to add?***

The students' concluding comments and suggestions for the MediaNumeric training course present a mix of appreciation and constructive feedback:

- **Need for more practice:** Several students expressed a desire for more hands-on training with the tools taught in the course. One student noted, "Elaborate more on the tools. There was not enough time for practice."
- **Positive impact and application:** The course's relevance and impact on academic and professional realms were highlighted. A participant shared, "MediaNumeric training was very interesting to me. Today the knowledge acquired is useful to me whether at school and in the professional world."
- **Memorable experience:** Students fondly recalled their experience, with remarks like "It was an amazing experience and I miss it & the people a lot!"

- **Suggestions for case study:** Suggestions for improving the case study component included allowing more time for exercises and group familiarisation, as indicated by a student: "The case study seemed kind of rushed given how little the course lasted and how little we knew each other."
- **Request for recap and follow-up:** One student suggested sending a global recap a month after the course to reinforce learning and prevent forgetting essential points: "Maybe a global recap could be sent, like one month after... I am scared to forget everything by the time I will have a moment to go back through my notes."
- **Appreciation for organisers and teachers:** Participants expressed gratitude towards those who facilitated the course, as one student said, "I would like to thank the teachers and the people who helped organise the MediaNumeric training, and say good luck for their next one."
- **Career impact:** The course's significant influence on career paths was also mentioned, with a student reflecting, "I think MediaNumeric has been the best thing that has come onto my path of pursuing my career and a career that resonates with my interests."

### 3. Internal Evaluation

The MediaNumeric consortium internally evaluated their training sessions, complementing the participant satisfaction assessments. This internal evaluation was completed at different levels: per lecture/workshop/teacher, per day, per thematic module, site visit, pitching session on Day 6, and globally. The goal was to ensure continuous course improvement in both program content and logistics and make necessary adjustments for future sessions.

To facilitate the partners' evaluation work, a [questionnaire about the lectures](#) was developed and incorporated afterwards into Google Forms.

This assessment was performed by consortium partners present during the training sessions. They employed a multi-level approach, evaluating individual lectures, workshops, teachers, thematic modules, site visits, and the overall course structure. The evaluation involved cross-checking different criteria and examining nuances in the training content and teaching methods.

Due to COVID-related constraints (25 people maximum in the room, which included students, teachers and MediaNumeric partners), only a few partners could physically attend the lectures of the first course programme in Paris, with others following via Zoom. While enabling participation, this setup did not offer a complete perspective on all lectures. Nevertheless, detailed notes were taken based on in-person observations, discussions with students and teachers, and feedback from

the on-the-spot evaluation questionnaires. These notes formed the basis of the internal evaluation.

The gathered feedback was then analysed in online meetings organised by the consortium, where partners shared their observations and insights. These meetings were crucial in collating a comprehensive assessment of each training session and identifying improvement areas. The evaluations were vital for the consortium to refine and enhance the MediaNumeric programme, ensuring its relevance and effectiveness in future iterations.

### 3.1. Global Evaluation

The partners' global evaluation of the MediaNumeric training sessions revealed a general satisfaction with the course's execution and content, highlighting strengths and pinpointing areas needing enhancement. Satisfaction followed from the *course's quality* and students' positive engagement, who actively participated and posed numerous questions, demonstrating their enthusiasm and interest. Despite this, the course's density emerged as a significant challenge, with partners and participants noting the need for more free time for practical applications, such as tool usage and case study work.

The praised *balance between theoretical instruction and practical application* highlighted the course's diverse topics and the accessibility of teachers. Yet, the ambitious scope within a limited timeframe often left practical aspects underexplored. Partners called for a shift towards more hands-on learning, suggesting reduced lecture numbers in favour of more seminars and group work to encourage direct experience.

Specific sessions, like those in The Hague, encountered challenges due to COVID-19-related student withdrawals and a *disconnect between student profiles and the course content*. The journalism-centric curriculum did not resonate enough with many Dutch students, who are more interested in communication and marketing, highlighting the need for a more explicit focus on attracting journalism students.

The evaluation also noted *differences in student engagement across the sessions*, with the Warsaw session experiencing higher participation levels despite not perfectly matching the *target audience profile*. The Paris session attracted an older demographic with a higher concentration of journalism students, resulting in greater motivation. These findings emphasised the significance of aligning student demographics with course content to maximise the training's effectiveness and relevance.

Overall, the partners' evaluations recognised the strengths of the MediaNumeric training sessions in student engagement and content quality. However, they also emphasised the need to adjust the program to balance theoretical and practical elements better, alleviate its density, and align the course content with the appropriate target audience. Implementing these changes is crucial for the



course's future iterations to more effectively meet participants' needs and expectations, thereby enhancing its impact and value.

## 3.2. Content Evaluation

The partners actively evaluated the content of the MediaNumeric training sessions during and shortly after each on-site training session, discussing key strengths and recommending improvements for lectures, study visits, and the course's overall flow. The partners suggested several course content and format adjustments, emphasising the need for a more practical approach during study visits and thoughtful consideration of the course's density to enhance its effectiveness and relevance.

In the *lectures*, partners found that technical topics like 'Tools & databases' were overly technical and suggested allocating more time for practical application, which is in line with the expert's recommendations described in the Needs Analysis. Consortium members suggested narrowing the focus to fewer tools and supplementing classroom instruction with more resources in handouts, which was consequently done for the case study assignments. For example, students in the Hague session accessed the data sets from Chartmetrics. For courses like 'Media Ethics' and 'Social Impact of Journalism and Media Transitions,' partners advised moving these to the start of the course to effectively 'set the scene.' They also encouraged a shift towards more interactive lectures, proposing that PowerPoint presentations be sent to students in advance, followed by in-class Q&A sessions to deepen understanding. The relevance of specific courses, such as "Archival Search," to the MediaNumeric curriculum needed more precise articulation, according to the partners. The blend of recurring and local experts was often mentioned among the positive aspects. However, including topics like archival data was considered more problematic because they required more focused integration into the curriculum, emphasising their practical relevance and application.

Regarding *study visits*, the AFP visit impressed partners with its professionalism and engagement. Still, they noted that future sessions focusing more on data might benefit from visits to places like the NISV for a closer alignment with course objectives. The visit to the Netherlands Institute for Sound and Vision was well-received, yet partners suggested making such excursions more practice-oriented and delving deeper into media-related topics. The session with Outriders was particularly valuable, providing practical and inspiring examples of how data can enhance journalistic reporting.

## 3.3. Pace and Progression

The partners evaluated the pace and progression of the MediaNumeric training sessions, identifying the challenge of balancing the course's content density with enough time for practical work, networking, and relaxation.

They recognised the value of *informal networking events* in the evenings for facilitating participant interaction but saw these as opportunities to create more free time. There was a unanimous agreement on providing additional free afternoons for practice, group work, and networking. This led to the decision to introduce a free afternoon mid-week, ensuring the course's content and diversity remained intact.

The *logistical challenge* of travelling to various locations emerged as a significant consideration, especially in efficiently managing the overall schedule and making the most of the participants' time during the training. It was solved every time by the partner responsible for the particular session (AFP, INH or SWPS) when the travelling issues occurred.

Addressing the *balance between course content and free time*, the partners acknowledged the importance of dedicating more time to practical work and case study sessions. Initiatives like providing an afternoon off on Day 3 in The Hague session and distributing networking events more evenly were steps toward reducing the programme's overall density.

Despite these efforts, the characteristic fullness and density of the training program persisted, recognised by both participants and organisers. While some viewed this density as a drawback, it was also seen as an essential and deliberate aspect of the MediaNumeric training's structure grounded on the results of the Needs Analysis.

The evaluation by the partners highlighted the need for a careful balance between the intensive nature of the course and sufficient opportunities for practical application and informal networking. While preserving the course's rich and varied content, it became evident that allocating time for skill practice, group projects, and networking was crucial for enhancing the training experience and enabling participants to assimilate and utilise the taught knowledge and skills effectively.

### **3.4. Pedagogical Framework and Evaluation**

The partners' assessment of the MediaNumeric training sessions' pedagogical framework and evaluation process scrutinised the course's structure, participant expectations, and assessment methods.

Regarding the pedagogical framework, the partners identified a need for more straightforward communication about course expectations and requirements right from the outset. Despite presenting the pedagogical framework on Day 1, participants still expressed a need for more clarity on aspects such as quizzes, satisfaction questionnaires, and case study work. Highlighting the award of 5 ECTS early on could help participants anticipate the training's intensive nature. The introduction of a 'teaching assistant' for addressing general queries related to lectures and workshops, alongside a 'classroom assistant' for technical, data-related questions, was

recommended to offer more focused support, particularly for workshops utilising specific tools like Flourish. This was implemented already in the second on-site session in the Hague.

Partners suggested that all students' full participation and commitment to the course have to be ensured and that accommodations for those with other obligations like internship interviews should be made. However, the attempts to solve this issue did not lead to the desired result.

The timely preparation for the training sessions and clear definition of roles, for example, in managing the presentation MasterDeck, were considered crucial to preventing confusion just before the presentation.

The quiz component was generally successful in evaluation, with a high student pass rate. To combat student exhaustion and provide more time for study, conducting quizzes in the morning rather than following a lecture or workshop was advised. The clarity of quiz questions emerged as an area needing attention, focusing on rewording and clarifying questions in future sessions to eliminate student confusion.

The importance of the pitch session on Day 6, although not graded, was highlighted as a compulsory element of the course. A student's absence on the final day underscored the necessity of communicating the mandatory nature of all course components to ensure full participation.

All partners advocated for more transparent communication about the course's demands, the integration of teaching and classroom assistants for better support, careful scheduling of evaluation components, and clear communication about the compulsory aspects of the course to enhance the overall pedagogical structure and evaluation process of the MediaNumeric training sessions.

### **3.5. Case Study**

The partners' evaluation of the MediaNumeric training sessions' case study component provided valuable insights into its execution and identified areas for improvement. Partners noted that some students were confused about the case study's role in the final evaluation, leading to the recommendation to establish and communicate upfront clear evaluation criteria for case studies to manage expectations.

To optimise the case study process, partners advocated for providing students with predefined data sets instead of having them search for their own. This approach would save time and allow students to focus more effectively right from the start. Additionally, clarifying the role of coaches early in the course could enhance student understanding and engagement, with the introduction of coach profiles and expertise seen as beneficial. The organisation of the sessions in The Hague and Warsaw took this recommendation into account.

The diversity of the coaching team and the panel evaluating the case study pitches was praised for adding value to the learning experience. Establishing a diverse panel in advance was recommended to improve outcomes further. However, limitations were encountered with tools like Chartmetric, which lacked historical data, prompting partners to suggest more flexible topics and the use of publicly available datasets for future sessions. Narrowing down broad topics like migration was suggested to streamline student research and minimise confusion. This attempt was performed in the Warsaw session.

Positive feedback was received for grouping students based on their interests and skills. Implementing a pre-course mini-survey could facilitate the formation of more balanced groups in the future. Additionally, enhancing students' ability to craft persuasive stories and pitches was identified as crucial. Providing reading materials on storytelling and dedicated coaching on story structure could elevate the quality of final presentations.

Challenges were also noted with broad topics like the war in Ukraine, which made it difficult for students to focus their research and effectively visualise data. Mind mapping proved helpful for some groups in refining their ideas. Students also struggled with critical data analysis and assessing data trustworthiness, indicating a need for more support in choosing and critically analysing datasets.

The partners' assessment emphasised the importance of clarifying objectives, improving preparation for data sets and topics, clearly defining coaching roles, and offering better guidance in group organisation and storytelling skills. Implementing these enhancements could significantly boost the case study component's role as an effective educational tool in the MediaNumeric training sessions.

### **3.6. Communication with Students and Lecturers**

The MediaNumeric training sessions highlighted areas for improvement in communication with students and speakers and the recruitment process.

In terms of communication with students, challenges were noted in accessing Google Drive documents. To address this, partners should gather both university and personal email addresses to ensure smooth access to Drive. Additionally, introducing direct live communication tools like Basecamp, Slack, or WhatsApp was recommended to enhance communication efficiency and reduce email volume. Despite preliminary information being sent out, some students remained unaware of specific program activities, such as evening sessions and study visits, indicating the need for clearer communication. Furthermore, there needed to be more clarity about expenses covered by the course, necessitating more explicit communication on what costs are included.

Communication with speakers encountered issues due to information overload from multiple partners, sometimes over various channels, causing potential confusion. Organising communication more effectively and specifying which tools are used for what purposes are critical steps to avoid information scattering. During each iteration, partners made advancements in communication with students and teachers, but there is still room for improvement.

In terms of student recruitment, attracting journalism students posed a challenge, with social science students showing greater interest. Conducting the program during the semester and offering travel propositions made recruitment more doable. However, concerns arose from students dropping out without notification, highlighting the need for better engagement and communication to ensure commitment and reduce unexpected withdrawals. This problem occurred during all three sessions (with the Paris session with minimum drop-offs).

Improving these communication and recruitment aspects is essential for the success of future MediaNumeric training sessions, requiring clearer, more structured information sharing and enhanced engagement strategies to ensure all participants are well-informed and committed.

### **3.7. Technical and Organisational Aspects**

Feedback on the technical and organisational aspects of the MediaNumeric training sessions highlighted several areas for improvement in logistical planning and infrastructure.

Partners recommended and implemented creating a technical checklist for the course to ensure all necessary equipment and backup plans are in place. Assigning specific roles to all MediaNumeric personnel during the training was also suggested to enhance efficiency and accountability.

Regarding technical support and IT issues, although technical support was generally helpful and responsive, participants encountered problems with WiFi access and experienced delays in receiving login information (Paris session). IT staff swiftly resolved these issues by manually creating accounts for everyone involved. During the following second and third iterations, IT issues were minimal.

The classroom environment and facilities received mixed feedback. The close proximity of the canteen to the classroom minimised time wasted travelling to meals, and participants appreciated the availability of coffee and snacks in the classroom. However, discomfort from the air conditioning settings, visibility issues for students seated at the back due to screen and pillar placement, and poor acoustics were identified as key areas needing improvement. While the partners concerned did what was possible to improve conditions, it was not always possible (think about the temperature in the classroom in the Hague or the distance to the canteen in Paris and Warsaw).

In terms of room management and catering, having access to multiple rooms proved beneficial, particularly when equipment malfunctions occurred. However, the challenge of having only one key per room led to complications in access and required additional coordination. While the catering services were satisfactory and easy to manage, a more detailed schedule for logistical support from the hosting institution could have facilitated smoother setup and cleanup operations each day.

Summarising, the technical and organisational infrastructure for the MediaNumeric training sessions generally met the course's needs but highlighted the necessity for improvements in temperature control, classroom visibility, acoustics, and access management. Implementing a technical checklist, clearly defining staff roles, and enhancing logistical coordination are recommended to streamline future sessions and create a better learning environment.

## 4. External Evaluation

### 4.1. Stakeholders Board Feedback & Advice

This section compiles feedback from external stakeholders, including academics, media industry members, and Stakeholder Board members. Their input focuses on providing recommendations to improve and refine various aspects of the MediaNumeric training programme—including its approach, content, format, and methodology—particularly in the context of transitioning the programme from offline to online learning.

During the [Paris Coaching and Training Workshop](#) in September 2022, consortium members and stakeholders actively used innovative tools to contribute to a solid roadmap for the online course. They employed the design thinking approach to ideate on critical elements such as the interactivity of the course, the learning environment, the module structure, exercise formats, and style of learning materials. shape the MediaNumeric online course as a service in the online environment. The workshop participants suggested expanding the course's target groups to include journalism / humanities students, media professionals, independent content creators, archivists, and researchers. They also agreed that the curriculum should be designed with a practice-oriented, self-guided approach and include diverse formats for delivering information (i.e. videos, readings, etc.), case study examples that are "evergreen" (i.e. will not need to be updated too often to be relevant), and interactive exercise formats for demonstration mastery of the material. Participants also identified stakeholders in the European ecosystem for partnerships, delivery, and financing.

In the initial planning of the Final Evaluation Report, we intended to conduct a series of interviews and questionnaires directed at the Stakeholder Board. However, after careful consideration, we collectively decided not to proceed with interviewing or sending questionnaires to the Stakeholder Board for this phase of the evaluation. This decision was based on our recognition that we had

already significantly engaged the Stakeholder Board's assistance throughout the various workshops conducted during the project. We determined that further solicitation of their input through questionnaires would not yield additional value to our assessment process. Our focus was on ensuring the efficient use of our stakeholders' time and contributions, acknowledging their valuable input received during earlier interactions, and avoiding redundancy in feedback collection. This strategic choice reflects our commitment to a thoughtful and targeted approach to evaluation, prioritising meaningful engagement and respecting the contributions of all involved parties.

The consortium's action items included:

- Developing a paper-based prototype.
- Conducting a feasibility study for the technical platform.
- Initiating a content planning forum.
- Updating the stakeholder list.
- Devising a financing strategy.
- Creating a project management plan.

These steps aimed to ensure the effective development and deployment of the online course.

## 4.2. Other Stakeholder Feedback & Advice

In June and September 2023, the Stakeholder Board members and specialists from higher education institutions, particularly those with expertise in MOOCs and professionals from the industry, provided detailed feedback on the online edition of the MediaNumeric programme. Their input centred on enhancing value creation, improving communication effectiveness, and implementing reward systems. The advice given was thoroughly considered and implemented to the fullest extent possible. The experts recommended identifying the target age group, formulating guidelines for partners or HEIs, focusing on reflection, personalising content, using testimonials pedagogically, and delving into ethical topics. The online panel members advised structuring the course as well-organised and easy to comprehend, suggesting positioning it as an *academy* rather than merely an online course.

The panel members also considered the importance of human traits concerning AI, visibility of workload, feedback for quiz answers, connecting the certificate to recognised micro-credits, and creating opportunities for online workshops. Promoting the course, releasing content gradually, fostering community, and conducting webinars were additional focal points.

In conclusion, the Paris workshop and Stakeholders feedback played a crucial role in shaping the MediaNumeric online course, ensuring it meets market needs and bridges the gap between university curricula and media market demands. The consortium remains focused on the business model and financial viability, striving to surpass expectations in developing and launching the course.

### 4.3. Partners' Survey on Impact

In January 2024, the partners of the MediaNumeric consortium participated in a survey as part of the Impact Assessment of the MediaNumeric Programme. This survey, developed collaboratively by INA and INH, consisted solely of open-ended questions. Given the small target group (7 out of 8 respondents completed the survey), statistical analysis was deemed impractical, and the survey results were analysed qualitatively.

The primary objective of this survey was to assess the impact of the training program on the partners' activities, focusing on four key criteria:

1. The role of the MediaNumeric training program in the overall strategy and activities of their institution;
2. The significance of the alliances formed through the MediaNumeric training programme within their national and international networks;
3. The organisational benefits derived from participating in the programme;
4. Other topic-related activities or projects planned by the partners in the short term.

The respondents noted a remarkable *enhancement in their knowledge and expertise* concerning data-driven journalism, creative storytelling, and fact-checking. Partners affirmed that the MediaNumeric programme provided their institutions with valuable insights and updated knowledge, empowering them to strengthen their expertise and credibility in multimedia data mining, storytelling with multimedia data, and combating disinformation. Partners viewed the project as an exceptional opportunity to showcase their research activities and educational expertise to a broader and younger audience. They emphasised that the skills acquired through the training programme enabled them to solidify their experience, leading to the initiation of new European projects aligned with the themes covered by MediaNumeric.



According to one of the partners, "The MediaNumeric project has allowed us to deepen our knowledge in the areas of data literacy and digital media responsibility." Another partner highlighted how the venture updated their team's knowledge and equipped them with new competencies relevant to journalism and cultural studies degree programs. Additionally, partners expressed that *MediaNumeric positioned their organisations as critical players in the field*, enhancing their capacity, recognition, and engagement in similar thematic projects on national and international levels. Partners also stated that *the program facilitated the dissemination of tools and expertise developed by their organisations*, such as fact-checking tools like InVid and WeVerify.

Furthermore, partners mentioned *specific initiatives and projects initiated or strengthened due to their participation in MediaNumeric*. For example, one partner mentioned developing a gamified exhibition about misinformation and public elections. In contrast, another partner highlighted ongoing projects focused on training journalists in socio-economic issues, fact-checking, and data visualisation. Additionally, partners mentioned their involvement in other collaborative projects and consortiums, leveraging their expertise in data journalism and related fields to address contemporary challenges, such as the impact of communication platforms on democracy and the implications of new European regulations.

Another significant outcome the partners pointed out was ***creating new digitally-oriented training content facilitated by the MediaNumeric project***. Partners emphasised that this initiative resulted in developing high-quality educational materials that can be utilised sustainably for future courses. This enriched their training offerings and enabled them to delve into subjects in which they were not previously specialised. The establishment of the MediaNumeric Academy played a crucial role in this process, providing partners with the opportunity to enhance their experience in designing and developing online training modules within a Moodle environment:

"Participating in MN has helped us to develop usable educational materials for our program and trend research on the creative industries that we can use to further these strategic themes," [...] "This venture also has simply ready-made materials to use in the classroom."

Partners acknowledged the impact of MediaNumeric in *aiding the development of educational materials* tailored to their programs and facilitating research on strategic themes related to the creative industries. They highlighted the *accessibility of ready-made materials* that could be seamlessly integrated into their classroom instruction. Furthermore, partners expressed that the elements developed through MediaNumeric were *already being implemented* in classes with students, underscoring the practical application of the training content.

Partners noted that their participation in MediaNumeric *bolstered their skills in building digital learning programs* using platforms like Moodle. They mentioned meaningful advancements in creating online video content and deploying e-learning courses, attributing these achievements to the experience gained through MediaNumeric.

The ***strengthening of links between consortium partners, both nationally and internationally***, is considered as one of the main positive outcomes of the MediaNumeric project. Partners emphasised that the project served as a platform for forging closer connections at the national level, facilitating *knowledge sharing and collaboration within the consortium*. One partner noted, "On a national level, this project has enabled us to forge stronger relationships with SWPS University and AFP in Poland, creating opportunities for forming other partnerships related to media literacy and technological citizenship." Another partner highlighted the opportunity to collaborate on fact-checking training courses, stating, "At the national level, this project has allowed us to forge closer links with AFP, for example, in the area of fact-checking training courses."

Internationally, MediaNumeric played a focal *role in expanding and consolidating professional networks across four EU countries*, particularly concerning issues related to data journalism and information verification. Partners expressed gratitude for the project's role in fostering stronger ties with higher education institutions and other organisations abroad, paving the way for potential collaborations on future international projects. "Internationally, this project has enabled us to build strong relationships with HEI such as INH and strengthen ties with NISV," remarked one partner. Another partner echoed this sentiment, stating, "At the international level, we became better acquainted with partners with a similar range of expertise to ours, both in the context of submitting further international grant proposals, but also simply collaborating on the organisation of various events and projects."

Partners testified that the project facilitated ***collaborations with journalists, media outlets, and industry stakeholders***, contributing to a broader understanding and engagement with data-driven journalism practices globally. Partners highlighted the significance of the project in enhancing their experience of working in international teams, leading to tangible outcomes such as the *development of new projects and activities*. "MediaNumeric helped in making our international network grow," affirmed one partner. Another partner shared their excitement for the future, stating, "We're continuing to build out our news literacy portfolio and are excited that MediaNumeric has been such an important part of raising the profile of this work."

The expansion of networks between HEIs and various stakeholders, including academia, the independent sector, and media groups, was repeated by respondents in their answers. Partners underscored the project's role in *affirming the significance of topics related to data-driven content, journalism, and multimedia storytelling within their curricula and educational programs*. One partner remarked, "This project enabled us to expand our network of speakers/lecturers [...] with whom we could work with for future training courses, and also journalists from Le Monde, for example."

According to the partners, MediaNumeric facilitated the broadening of networks by connecting training organisations with a diverse range of experts and professionals. Partners expressed appreciation for the opportunity to collaborate with experts from academia, the independent sector, and media groups, thereby enriching the quality and scope of their educational offerings. Additionally, the project *provided students with valuable insights and experiences, enabling them to engage with current topics and interact with peers from diverse cultural backgrounds.* "MediaNumeric gave students from these establishments the opportunity to acquire new knowledge on current topics and to meet other foreign students, from an international perspective," noted one partner.

The survey analysis revealed the meaningful impact of the MediaNumeric project on the creative business sector and HEIs' practices in media and creative business, as perceived by consortium partners. Partners acknowledged that MediaNumeric notably enhanced their knowledge and expertise, leading to new projects and initiatives to address critical issues within the media landscape. They specifically lauded the creation of new, digitally-oriented training content, which has enriched their educational offerings and bolstered their capabilities in online learning development. This achievement highlights the project's effectiveness in preparing partners to navigate and thrive in digital education trends and successfully engage students in an online environment.

MediaNumeric was instrumental in fostering collaboration and knowledge exchange among partners, enhancing professional networks, and promoting cross-border cooperation. This has been pivotal in advancing best practices in data-driven journalism and media literacy. Additionally, the project significantly expanded networks among HEIs, educational organisations, and media stakeholders, further enriching educational programs and student learning experiences. Partners are committed to leveraging these outcomes to deal with emerging challenges and opportunities in media education and professional development, underscoring MediaNumeric's lasting impact on the field.

## 5. Conclusion

The MediaNumeric consortium has undertaken a systematic and iterative evaluation of its training course and its impact, incorporating feedback from participant satisfaction surveys and internal assessments and building on the foundation laid by the previously conducted Needs Analysis. This extensive review process highlighted high satisfaction among participants, who praised the trainers' quality and diversity, the program's relevance, and the excellent networking opportunities provided. The course successfully addressed key areas such as data journalism, creative storytelling, and fact-checking, aligning with the Needs Analysis objectives to explore these topics in-depth.

Despite its achievements, areas for improvement were identified, such as the program's density and the need for more time for the practical application of tools and case study work. Technical challenges also signalled the necessity for better communication and material access. In response, the consortium iteratively adapted these insights, recognizing the challenges of delivering an intensive curriculum within a limited timeframe. A more balanced approach was proposed, focusing on fewer tools and adding teaching and technical assistants for specialised workshop support.

Organisational aspects requiring attention included classroom environment factors like temperature, visibility, and acoustics. Although multiple rooms and catering provisions were adequate, opportunities for better logistical support and task management were noted.

Recruitment strategies were refined to match student demographics with course content better, enhancing engagement. Pre-course surveys were introduced to create more cohesive case study groups, applying insights from the Needs Analysis to foster productive dynamics.

Feedback from external stakeholders, including academics, online education specialists, media industry professionals, and the Stakeholder Board, further contributed to the evaluation process. Their recommendations for value creation, effective communication, and rewards have been instrumental in shaping the MediaNumeric online course to meet market needs, bridging the gap between academic offerings and industry requirements.

The project's impact on the creative business sector and HEIs practices in media and creative business, as perceived by consortium partners, has been meaningful. MediaNumeric has enhanced partner knowledge and expertise and led to the development of new projects and initiatives. It has created new, digitally oriented training content, improved training offerings, and strengthened expertise in online learning. The project fostered collaboration and knowledge exchange among partners, expanding networks and enriching educational programs and students' learning experiences.

In conclusion, with a foundation set by a comprehensive Needs Analysis and continually improved through evaluation, the MediaNumeric training course has achieved significant success across multiple aspects. It also presents clear opportunities for further refinement to meet participant needs and expectations better, embodying a responsive and dynamic approach to professional education in data journalism and storytelling. The consortium remains committed to leveraging the momentum generated by MediaNumeric to address emerging challenges and opportunities in the field, ensuring the project's lasting impact on the creative business sector and HEIs practices in media and creative business. The project will be continued by incorporating the MediaNumeric course and its elements into the partner's curricula and by functioning at the MediaNumeric Academy. While desired and being discussed during the different project meetings, the follow-up project ideas are not yet formalised and, therewith, could not be presented in this report.

