

Delivering a hybrid knowledge transfer network model for basketball engagement and development

D4.2 – Evaluation and Impact Analysis

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1. Background: About the Basketball-KTN Project

Basketball-KTN aims to actively participate and engage young people in sports in general and actively engage in basketball by introducing a hybrid knowledge transfer tool that will be supported by digital means as well as by face-to-face interventions. The main aim of Basketball Knowledge Transfer Network (Basketball-KTN) is to create a variety of diverse connections to drive positive and consistent change. The consortium is committed to address the societal challenge of 'inclusivity' through basketball engagement, by promoting a healthy lifestyle for children under 18 years old. The project BASKETBALL-KTN focuses on the youth and their continuous and active involvement with Basketball. The overarching aim of the project is to provide equal opportunities through putting together small 'clusters' of twinned clubs and academies to exchange knowledge and experience. This will form the 'Communities of Practice' in Basketball, having as ambition to incorporate more countries and clubs on a Pan-European Level.

The program will be implemented through 4 main pillars of activities:

- Sustainable development of basketball
- Psychological support of young athletes and parents
- Promote and Engage
- Sustainability and legacy

2. Introduction

2.1. Purpose and Scope of the Document

Over the course of Basketball KTN project implementation, the initiative delivered multiple **iterations and training activities** aimed at strengthening basic basketball knowledge, providing psychological support, promoting healthy lifestyles, ethical behavior and dual career. These activities were conducted across all five partner countries: Greece, Serbia, Spain, Italy and Ukraine, bringing together diverse expertise and cultural perspectives. As the project comes to its conclusion, it is essential to examine how this vision translated into concrete results.

The purpose of the Evaluation and Impact Analysis task was to provide a comprehensive look at the outcomes, impact, and overall effectiveness of the implemented iterations/trainings. It considers not only quantitative indicators—such as participation rates and skill development—but also qualitative feedback from coaches, young athletes, and other stakeholders. For the realization of this task, a questionnaire was created and distributed after completion of each iteration/training. The analysis of the responses will be presented in this document. Through that we will share valuable insights into how well the project fulfilled its objectives and where its activities made the strongest contributions. Moreover, the findings highlight successful iterations/trainings that can serve as models for future initiatives within youth sport development.

Ultimately, this evaluation can represent a bridge between initial aspirations and demonstrated achievements, offering a clear reflection on what was accomplished and what lessons can guide future programs.

3. Questionnaire Report

The questionnaire consisted of two parts. The first part includes personal information about the respondents: gender, age, country of origin, role in the club - athlete, parent, club staff. The second part includes eight statements that relate to the following question: To what extent do you agree with the following statements about the implementation of the Basketball KTN activities? They were applied in 5 countries (partner countries of the project) during the implementation of the iteration/training activities from June to November 2025. Research with young athletes and kids was done with the prior consent of parents or guardians.

3.1. Personal information

Table 1 presents the structure of the sample across countries and respondent roles. The majority of participants are players, who represent 74.6% of the total sample (870 out of 1166). This strong player representation suggests that the findings predominantly reflect the perspectives of youth athletes, which is appropriate given the project context.

Table 1 - Distribution of the respondents according to the role and country

	Serbia	Ukraine	Italy	Spain	Greece	Total
Player	182	193	132	133	230	870
Parent	21	32	30	50	18	151
Club's staff	10	44	39	42	10	145
Total	213	269	201	225	258	1.166

Greece (230) and Ukraine (193) contributed the highest number of players, while Italy and Spain show similar participation levels. The number of parents (151) and club staff (145) is considerably lower but offers valuable complementary viewpoints. Notably, Ukraine reports a relatively high number of staff respondents (44), indicating strong engagement by club personnel.

Overall, the table demonstrates a balanced geographic distribution, although the dominance of player responses should be considered when interpreting the results. The total number of respondents (1.166) provides a robust dataset for further analysis.

Table 2 illustrates the gender composition of the sample across countries. Male respondents form the majority with 746 participants (64%), while female respondents account for 405 participants (34.7%). This distribution mirrors typical participation patterns in youth basketball, where boys often represent a larger proportion of players.

Table 2 - Distribution of the respondents according to the gender and country

	Serbia	Ukraine	Italy	Spain	Greece	Total
Male	166	146	138	124	172	746
Female	44	115	62	98	86	405
PNTS	3	8	1	3	0	15
Total	213	269	201	225	258	1.166

*PNTS – prefer not to say

Gender representation varies across countries. Ukraine and Spain show notably higher numbers of female respondents (115 and 98, respectively), whereas Serbia has the smallest female group (44). The category PNTS (prefer not to say) is minimal (15 respondents), indicating high comfort in reporting gender identity. The table highlights a clear gender imbalance in favor of male participants, which should be acknowledged in gender-related analyses and interpretation of the study's findings.

Table 3 illustrates the age distribution of respondents. It shows that the sample is strongly concentrated within the typical developmental stages of youth basketball. The largest groups fall within the 13–14 years (279 respondents) and 15–16 years (299 respondents) categories, which together represent almost 50% of the entire sample. This indicates that the survey predominantly reflects the experiences and perceptions of early- to mid-adolescent athletes, a period crucial for skill development, talent identification, and structured training.

Table 3 – Distribution of the respondents according to the age

Age	No.
10-12	127
13-14	279
15-16	299
17-18	128
>18	37

Younger participants aged 10–12 years account for 127 respondents, demonstrating meaningful engagement even at the introductory stages of basketball involvement. The representation decreases in the older age groups: 17–18 years (128 respondents) and over 18 (37 respondents). This decline is expected, as participation

in organized youth programs often decreases with age due to increased academic demands, specialization, or transition to senior-level sport.

Overall, the age distribution confirms that the survey captures a broad developmental range, while still being centered around the core adolescent years where most structured basketball training and talent development occur. This should be taken into account when interpreting the findings, as responses may predominantly reflect the experiences of mid-adolescent athletes.

3.2. Impressions of implemented iterations (trainings)

Respondents gave ratings from 1 for "Strongly disagree" to 5 for "Strongly agree" to each of the eight statements in the question "To what extent do you agree with the following statements about the implementation of the Basketball KTN activities?".

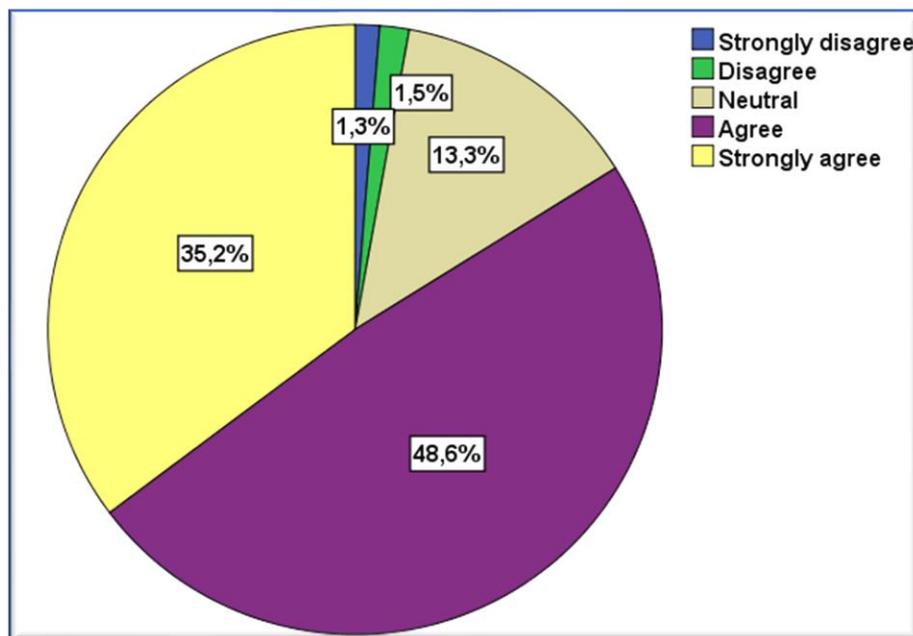


Figure 1 - The presentation/implementation of the contents was clearly designed

Almost 84% of participants agreed or strongly agreed that the content was clearly designed and developed (Figure 1). This indicates that the structure, flow, and organization of the Basketball KTN sessions were effective and easy to follow. The low percentage of disagreement (under 3%) suggests that very few participants encountered confusion or unclear instructions. Clear presentation is essential in youth sport education, as it enhances learning efficiency and ensures participants stay engaged and confident throughout the training process.

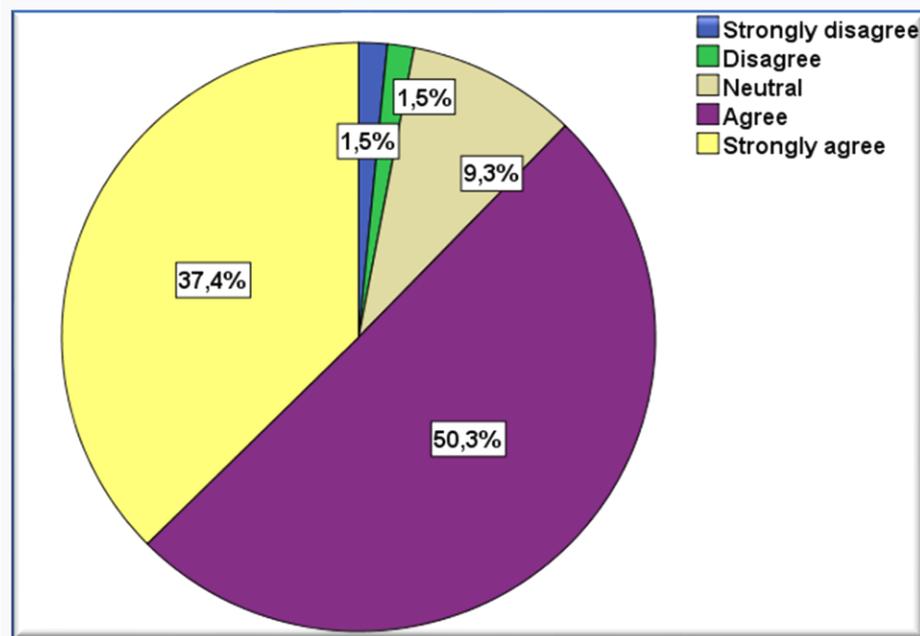


Figure 2 - The presentation/implementation of the contents was easily.

The results show that 87.7% of participants found the content easy to understand, with more than half selecting *strongly agree* (Figure 2). This reflects the use of age-appropriate explanations, demonstrations, and communication strategies during the sessions. High comprehensibility also suggests that coaches and facilitators successfully adapted the content to the diverse learning levels of the participants. When content is easy to understand, participants are more likely to internalize skills and concepts effectively.

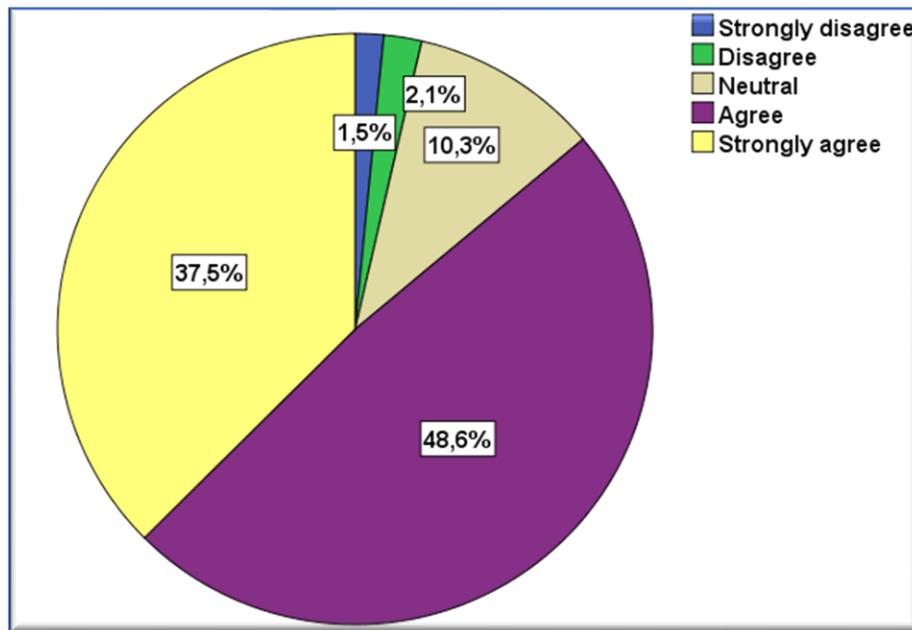


Figure 3- Participants engaged and actively participated during the iteration/training.

A combined 86.1% of respondents reported active engagement during the training (Figure 3). This is a strong indicator of successful session design, as high engagement typically reflects activities that are interactive, motivating, and appropriately challenging. Active participation is key in practical sports education, where learning occurs primarily through doing. The low rate of disagreement (3.6%) suggests that only a small number of participants felt disengaged, possibly due to individual motivational or contextual factors.

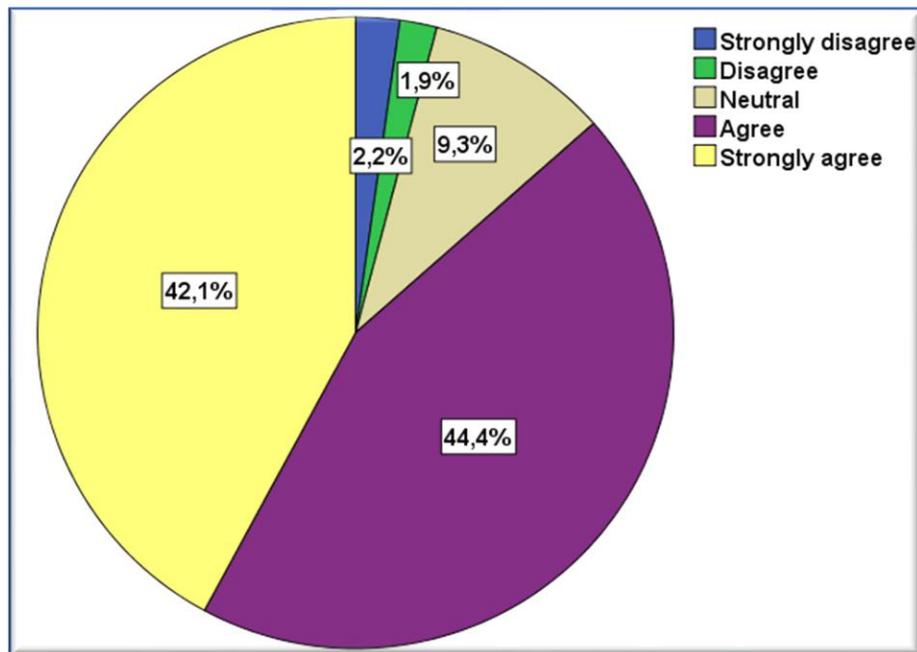


Figure 4- I enjoyed the iteration/training

Enjoyment levels were very high, with 86.5% agreeing or strongly agreeing that they enjoyed the training (Figure 4). Enjoyment is a critical predictor of long-term participation in physical activity and sport, especially among youth. This result implies that the Basketball KTN activities not only delivered educational value but also created a positive and fun learning environment. The balance between instruction and engaging practical activities likely contributed to these positive perceptions.

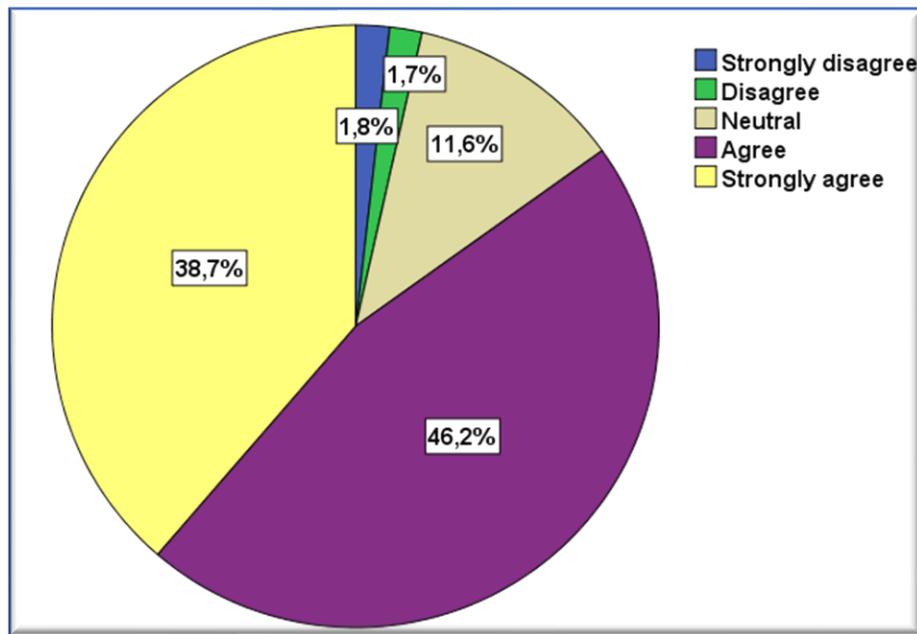


Figure 5 - The iteration/training helped me to improve my knowledge and skills related to the topic

A total of 84.9% of participants felt that their skills and knowledge improved (Figure 5). This underscores the program's effectiveness in delivering meaningful learning outcomes. Whether the focus was on technical basketball skills, tactical understanding, or broader topics such as health, nutrition, and psychological support, participants perceived clear developmental benefits. Such perceptions are important, as they can increase self-confidence and encourage further involvement in structured sports programs.

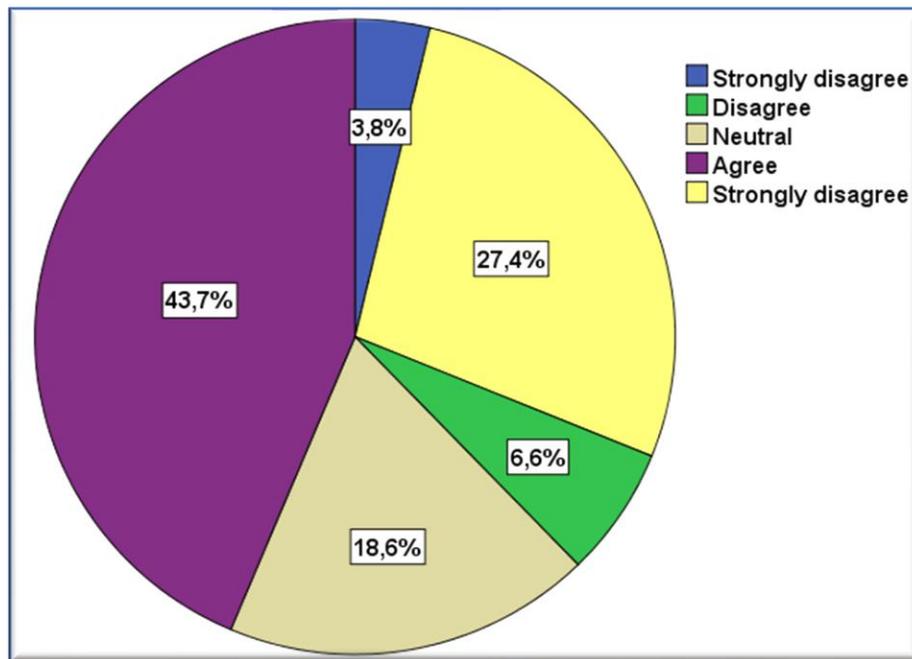


Figure 6 - The topic presented was new to me

Two-thirds of respondents (71.1%) agreed that the topic was new to them (Figure 6). This suggests that the Basketball KTN introduced content that participants had not previously encountered—either completely new concepts or new perspectives on familiar topics. The novelty of the content may have contributed to the high levels of engagement and learning reported in earlier items. Introducing new and relevant topics can boost curiosity and broaden participants' understanding of basketball and related developmental areas.

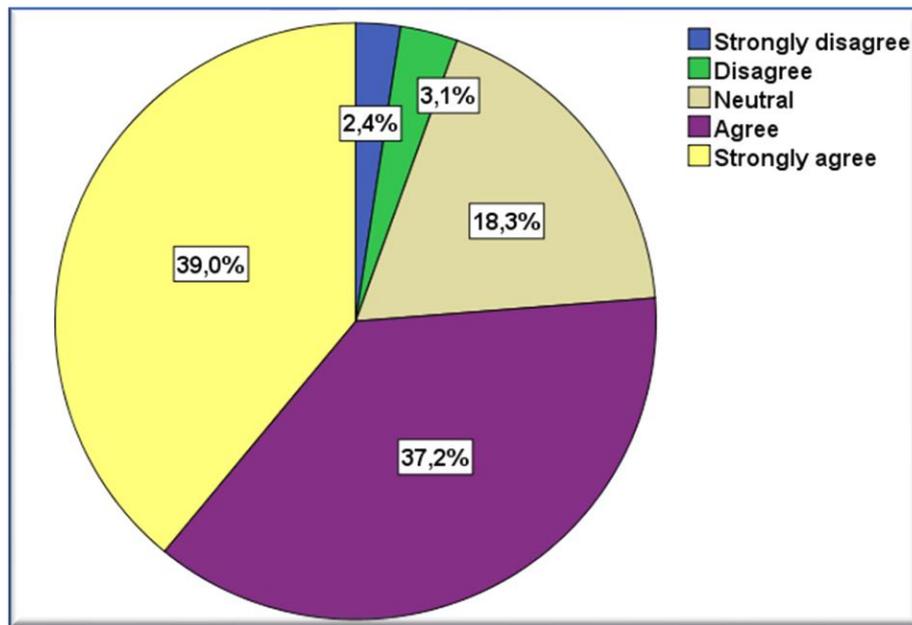


Figure 7 -After participating in Basketball KTN activities, my interest in basketball increased

Approximately 76.2% of participants reported increased interest in basketball after taking part in the activities (Figure 7). This is a significant outcome, showing the program's ability to positively influence attitudes toward the sport. Increased interest is a strong indicator of potential long-term participation, which is essential for talent development and for fostering healthy, active lifestyles among youth. The relatively small neutral and disagreement rates suggest that the majority experienced a motivational shift.

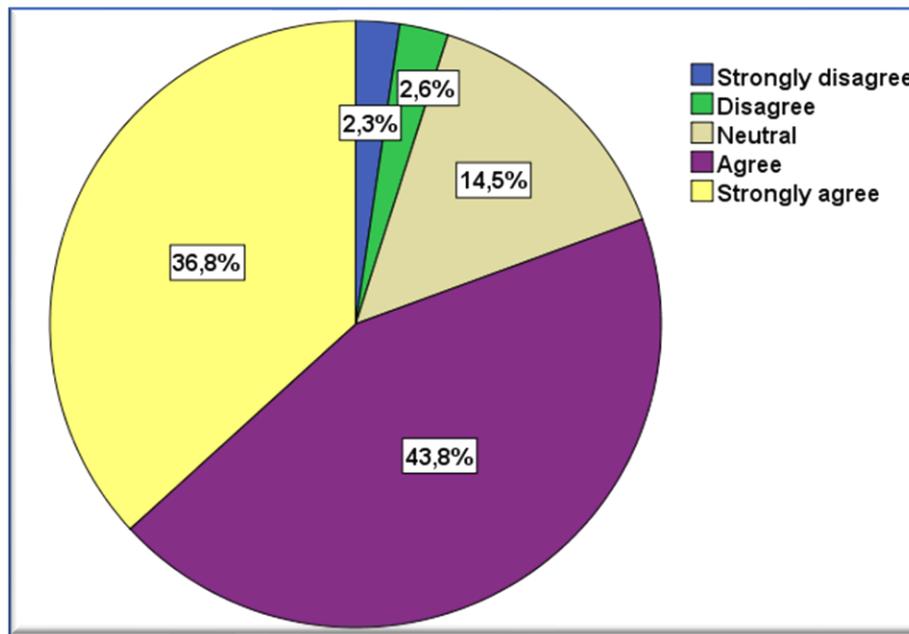


Figure 8 - I am more likely to recommend others to join an organized basketball team or program after this experience

Over 80% of participants stated that they are more likely to recommend joining an organized basketball program after their experience (Figure 8). This finding reflects strong overall satisfaction with the Basketball KTN initiative. It demonstrates that participants perceived value not only personally but also for their peers. Such word-of-mouth promotion is crucial for expanding grassroots sports programs and strengthening community-based basketball engagement.

3.2.1. Differences across countries

The results presented in Table 4 reveal a consistently positive evaluation of the Basketball KTN activities across the five participating countries. Overall mean scores for all items fall between 3.84 and 4.22, suggesting high satisfaction levels, strong engagement, and a generally favorable perception of the training iterations. However, the statistical analyses demonstrate that these experiences are not uniform across countries, with the ANOVA revealing significant between-country differences for all variables ($p < .05$).

A recurring pattern shows that Serbia, Italy, and Ukraine tend to report slightly higher mean scores on most items, particularly those related to clarity of implementation, understanding of content, and enjoyment of the sessions. For example, Italy and Ukraine display the highest ratings for “I enjoyed the iteration,” while Serbia and Italy lead in perceiving the content as clearly designed and easily understood. These

findings may indicate stronger alignment of the training content with existing local coaching approaches or higher familiarity with structured basketball education formats within these countries.

Table 4 - Mean values of each statement according to the countries

Country	S1 Mean	S2 Mean	S3 Mean	S4 Mean	S5 Mean	S6 Mean	S7 Mean	S8 Mean
Greece	3.98	4.00	4.05	4.08	4.07	4.03	4.04	4.02
Serbia	4.31	4.33	4.29	4.23	4.08	3.12	3.65	3.84
Spain	3.90	4.00	4.03	3.97	4.08	4.01	4.40	4.09
Italy	4.31	4.38	4.19	4.42	4.34	3.99	4.02	4.25
Ukraine	4.28	4.35	4.35	4.42	4.34	3.98	4.21	4.29
Total	4.15	4.21	4.18	4.22	4.18	3.84	4.07	4.10

In contrast, Spain and Greece generally report lower mean scores across several indicators, although still within a positive range. The slightly lower values may reflect differences in local expectations, variation in facilitator styles, or contextual factors such as training environment or cultural preferences in teaching and communication. Yet, despite these differences, mean scores remain high, indicating that the activities were well received in every country.

One of the most notable findings concerns the item *“The topic presented was new to me”*. Here, Serbia stands out with a markedly lower mean (3.12), while the other countries cluster around 4.0. This suggests that Serbian participants were more familiar with the topics prior to training, possibly due to pre-existing exposure to similar programs or more advanced baseline knowledge.

Despite variations in baseline familiarity and subjective evaluations, the broader impact indicators paint a cohesive picture. Scores related to increased interest in basketball and likelihood of recommending participation are consistently high across all countries, with Spain and Ukraine displaying especially strong responses. These findings are encouraging, as they demonstrate the program’s ability to enhance motivation and promote continued involvement in basketball, even among participants who may have evaluated certain aspects of the training less favorably.

Taken together, the results suggest a program that is universally effective, yet experienced differently depending on local context. Such differences may arise from

cultural expectations, previous exposure to similar training, or national characteristics of basketball development systems. The findings highlight the value of tailoring future iterations of the Basketball KTN to better address country-specific needs while maintaining the strong core model that has already demonstrated broad appeal and impact.

3.2.2. Differences across roles

The results presented in Table 5 reveal a consistently positive evaluation of the Basketball KTN activities across the role of the participants in the basketball club – player, parent or club’s staff. Overall mean scores for all items fall between 3.77 and 4.41, suggesting high satisfaction levels, strong engagement, and a generally favorable perception of the iteration/training. However, the statistical analyses demonstrate that these experiences are not uniform across roles, with the ANOVA revealing significant between-role differences for all variables ($p < .05$).

Table 5 - Mean values of each statement according to the role

Country	S1 Mean	S2 Mean	S3 Mean	S4 Mean	S5 Mean	S6 Mean	S7 Mean	S8 Mean
Player	4.08	4.15	4.14	4.17	4.11	3.77	3.99	4.01
Parent	4.36	4.36	4.30	4.38	4.37	4.00	4.32	4.34
Cl. staff	4.33	4.40	4.36	4.39	4.39	4.12	4.33	4.41
Total	4.15	4.21	4.18	4.22	4.18	3.84	4.07	4.10

Across the board, parents and club staff consistently report higher levels of agreement than players, suggesting that adults perceive the organization, clarity, and impact of the activities more favorably.

First, regarding the design and clarity of the content, players provided lower mean scores compared to parents and staff, and post-hoc tests confirm significant differences primarily between players and the two adult groups. This suggests that while the content was well-received generally, younger participants may require more tailored or adaptive instructional methods to fully match the adults’ perceptions of clarity.

A similar pattern appears in the item measuring whether the content was easily understood. Again, players rated this dimension lower, and post-hoc comparisons

show significant differences between players and both parents and staff. These results may point to differences in prior knowledge, cognitive processing of instructional material or communication styles more aligned with adult learners.

For engagement and participation, the difference between players and staff reached significance, while the difference between players and parents approached significance. This could imply that adults perceive group engagement more positively, potentially because they view participation from an observational rather than experiential standpoint. Players, being directly engaged in activities, may assess participation more critically based on personal involvement.

The items related to enjoyment, knowledge and skill improvement, and novelty of the topic again reflect significantly higher evaluations from parents and club staff. Players consistently show slightly more moderate perceptions. While still positive, this may indicate that the level of novelty or challenge embedded in the activities could be better fine-tuned to match players' expectations or developmental stages.

Particularly important are the items addressing interest in basketball after participation and recommendations for joining organized basketball programs. Adults—both parents and club staff—express stronger post-activity motivation and endorsement than players. The significant differences observed here suggest that the program may have had greater persuasive or motivational impact on adult stakeholders, possibly due to their broader understanding of the program's aims and potential benefits.

Overall, these ANOVA results highlight a consistent pattern of players assigning lower ratings compared to adults, although all means remain positive and above the midpoint. This indicates overall program success, while also pointing to opportunities for refining training delivery to better resonate with youth participants. Improving communication strategies, simplifying certain content elements, or integrating more interactive, age-adapted methods may help further enhance players' learning experience and post-program motivation.

4. Conclusions

The evaluation of the Basketball KTN project demonstrates that the implemented iterations/training activities successfully fulfilled their core objectives of informing, engaging, and motivating young participants across all partner countries. The results consistently show high levels of satisfaction among respondents, with strong agreement that the content was clearly designed, easy to understand, and delivered in a way that encouraged active participation. These findings affirm the quality and relevance of the project's pedagogical and practical approaches.

Despite overall positive perceptions, differences across countries and roles reveal valuable insights. Participants from Serbia, Italy, and Ukraine often reported slightly higher levels of satisfaction, while players—compared with parents and club staff—tended to evaluate the sessions more moderately. These patterns suggest that contextual differences, as well as age-specific learning needs, should be considered when designing future activities. Importantly, all means remained firmly within the positive range, underscoring the project's broad acceptability and effectiveness.

A key strength of the Basketball KTN initiative lies in its ability to enhance participants' interest in basketball and promote long-term engagement in organized sport. The positive shift in motivation—combined with high intentions to recommend the program to others—indicates that the activities not only provided immediate learning benefits but also contributed to strengthening the grassroots basketball ecosystem in each participating country.

Furthermore, the project succeeded in introducing new and meaningful topics to most participants, enriching their knowledge of basketball-related skills, psychological support, health, and ethical behavior. This aligns with the project's overarching goals of inclusivity, healthy lifestyle promotion, and community building through sport.

In conclusion, the Basketball KTN project has delivered a coherent, impactful, and well-received model for hybrid knowledge transfer in youth basketball. The findings demonstrate significant progress toward fostering informed, motivated, and better-prepared young athletes, while also engaging parents and club staff as essential partners in the developmental process. The insights gained from this evaluation can guide refinement of future iterations, ensuring even stronger alignment with cultural contexts, participant needs, and long-term sustainability objectives. Overall, the project has established a strong foundation for continued expansion and innovation in basketball education across Europe.

Appendix 1 – Questionnaire

PERSONAL INFORMATION

Age:	Gender: <ul style="list-style-type: none"> <input type="radio"/> Male <input type="radio"/> Female <input type="radio"/> Prefer not to say
Country: <ul style="list-style-type: none"> <input type="radio"/> Greece <input type="radio"/> Spain <input type="radio"/> Italy <input type="radio"/> Ukraine <input type="radio"/> Serbia <input type="radio"/> Other 	Role in the club? <ul style="list-style-type: none"> <input type="radio"/> Player <input type="radio"/> Parent <input type="radio"/> Club's staff (coach, management, etc...)

To what extent do you agree with the following statements about the implementation of the Basketball KTN activities? (Choose one of the following grades: 1 – Strongly disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly agree).

Statement	1	2	3	4	5
The presentation/implementation of the contents was clearly designed and developed.					
The presentation/implementation of the contents was easily understood.					
The participants engaged and actively participated during the iteration/training.					
I enjoyed the iteration/training.					
The iteration/training helped me to improve my knowledge and skills related to the topic.					
The topic presented was new to me.					
After participating in Basketball KTN activities, my interest in basketball increased.					
I am more likely to recommend others to join an organized basketball team or program after this experience.					