

## Comparison of modern and traditional coaching styles in ice hockey

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### ABSTRACT

Our study focuses on comparing the modern coaching style with the traditional style by examining the efficiency of training sessions designed by us. Additionally, we compared the results of our monitored club, HK Brezno, with two other clubs: HK Sportrend Žiar nad Hronom and HK Iskra Partizánske. For the comparison of training sessions, we selected four attributes: players' active time, decision-making element, number of shots, and number of passes. The observed players participated in five training sessions reflecting modern coaching methods and five sessions based on traditional coaching methods. The measured results indicate that modern coaching is significantly more effective in HK Brezno than the traditional style. Similarly, in the other two clubs, we concluded that the traditional approach is not effective for the needs of contemporary hockey, whereas the modern coaching style meets all the requirements of modern hockey.

**KEY WORDS:** ice hockey, youth category, traditional coaching style, modern coaching style

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### INTRODUCTION

The evolution of the game and increasing competition have created a demand for specialized training to help players enhance their skills, abilities, and on-ice performance. This development has led to the emergence of various approaches to hockey training, differing based on culture, traditions, and available resources. With the advent of new technologies, changes in player dynamics, and the increasing complexity of competitions, new pathways for modern training approaches in this sport have opened. This study compares modern and traditional

coaching styles in ice hockey. Both training methods have distinct characteristics, approaches, and philosophies. The modern approach often leverages the latest knowledge to optimize player performance, while the traditional approach is grounded in time-tested practices and fundamental principles. The aim of this paper is to compare the efficiency of on-ice training sessions using selected attributes in the youth team of HK Brezno. Subsequently, the collected data were compared with two other clubs - HK Sportrend Žiar nad Hronom and HK Iskra Partizánske.

## OBJECTIVE

The objective of our work was to compare the efficiency of on-ice training sessions between traditional and modern coaching styles using selected attributes in the youth category of HK Brezno during the 2023/2024 season and subsequently compare these results with

teams from HK Sportrend Žiar nad Hronom and HK Iskra Partizánske.

H1: We hypothesize that the efficiency of training sessions using the traditional coaching style will be 50% less effective across all attributes compared to the modern coaching style.

## METHODOLOGY

The observed group consisted of the youth team of HK Brezno, comprising 21 children born in 2013 and 2014, with ages ranging from 9 to 10 years. The average decimal age was 9.62 years, the average body weight was 34.14 kilograms, and the average height was 138 centimeters. All participants were active hockey players of the Brezno club with no health issues. Data collection was conducted during the 2023/2024 season, from December 2023 to March 2024. After discussions with the head coach of the youth team, we developed five training sessions typical of the traditional style and five sessions representative of the modern coaching style in ice hockey. After consultation and approval, these sessions were incorporated into the training process, which predominantly utilized modern coaching methods. Traditional training was alternated with modern training to maintain continuity in the established process. Subsequently, the collected data from HK Brezno were compared with those

from HK Iskra Partizánske and HK Sportrend Žiar nad Hronom.

The evaluation method used was measurement, employed to collect data for the practical part of our work. Measurements were conducted by observing active player time during on-ice sessions and the duration of decision-making elements in these sessions. The decision-making element was defined as an activity where the player did not have a predetermined movement direction, skating path, or execution method but was guided only by basic game rules, objectives, and exercises, allowing for individual choice in skating path and technique. Measurements were taken using digital stopwatches or smartphone timers. Observations were also conducted to record the number of shots and passes during training sessions. Data processing involved calculating arithmetic means to ensure absences did not impact the final results. Average results for each training session were summarized in tables. The comparison method was then used to

evaluate similarities and differences between the observed attributes.

## RESULTS

Table 1 provides a comparison of training parameters between traditional and modern coaching styles across three hockey clubs. The first column lists the individual clubs, followed by selected attributes for traditional coaching and then for modern coaching. As shown in Table 2 - 3, each team exhibited significantly different values between traditional and modern coaching styles. Active time was 116 minutes and 19 seconds longer in modern coaching than in traditional methods. Decision-making time improved by 135 minutes and 44 seconds compared to traditional training. Differences in measured

values for active time and decision-making were over 50% higher. In HK Sportrend Žiar nad Hronom and HK Iskra Partizánske, differences were also noticeable in the number of passes. However, in HK Brezno, traditional coaching showed one more pass than modern coaching. The frequency of shots was higher in modern training, exceeding traditional methods by more than half. This indicates that the efficiency of training sessions in modern coaching is vastly different from traditional coaching. It should be noted that each club's coaching plan, whether modern or traditional, is set up differently.

*Table 1: Comparison of Traditional and Modern Coaching Styles Across All Teams.*

Clubs	Traditional Coaching Style					Modern Coaching Style				
	Training Time	Active Time	Decision-Making Process	Passes	Shots	Training Time	Active Time	Decision-Making Process	Passes	Shots
HK Brezno	300'	91:25	49:03	24	61	300'	207:44	184:35	113	125
HK Sportrend Žiar nad Hronom	300'	91:53	27:15	26	59	300'	222:37	220:07	101	137
HK Iskra Partizánske	300'	88:05	27:15	95	41	300'	220:23	208:40	110	128

Table 2: Differences Between Traditional and Modern Coaching Styles Across All Teams.

Traditional vs. Modern Style				
Training Time	Active Time	Decision-Making Process	Passes	Shots
0'	116:19	135:32	89	64
0'	130,84	192:92	75	78
0'	132:18	181:25	15	87

Table 3: Differences Between Traditional and Modern Coaching Styles in Brezno for a Single Training Session.

Measured Values	Traditional Coaching Style	Modern Coaching Style	Difference
Training Time	60'	60'	0'
Active Time	18:25	41:48	23:23
Decision-Making Process	09:80	36:87	27:07
Passes	5	22	17
Shots	12	25	13

Table 4: Differences Between Traditional and Modern Coaching Styles in Brezno Across Five Training Sessions.

Measured Values	Traditional Coaching Style	Modern Coaching Style	Difference
Training Time	300'	300'	0'
Active Time	91:25	207:44	116:19
Decision-Making Process	49:03	184:35	135:32
Passes	24	113	89
Shots	61	125	64

## CONCLUSIONS

Based on the findings of this study, we recommend the following steps for coaches and team managers:

- After comparing the selected attributes, we identified improvements in modern training sessions. Therefore, we recommend implementing modern training methods and exercises into the

training process to enhance player preparation efficiency.

- Our analysis revealed that, in the long term, modern training methods can provide a significant advantage in active time and other aspects compared to traditional methods. Based on these findings, we suggest that coaches maintain a detailed database of measured attribute values

and regularly compare them. This comparison should include not only historical data but also data from Slovak teams and hockey-advanced countries (e.g., Finland, USA, Canada).

- We recommend reconsidering and evaluating drills focused on passing, as the number of passes in modern training was similar to that in traditional training.
- The difference in active time and the decision-making element in modern training was 2.5 times greater than in traditional training.
- We observed a threefold increase in the number of passes and shots in modern training compared to traditional training.

## REFERENCES

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