



Effect of an Educational Approach Using Various Methods to Learn Some Basic Skills for Deaf and Mute Futsal Players

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Abstract
<p>Objectives. This research aims to design an educational approach that utilizes various teaching methods to assist deaf and mute individuals in learning fundamental futsal skills. Additionally, the study seeks to determine the effectiveness of the proposed educational approach in improving the basic futsal skills among deaf and mute players, thereby contributing to the development of more inclusive sports education programs.</p> <p>Materials and Methods. The researcher employed the experimental method, utilizing a two-group design consisting of an experimental group and a control group, both subjected to pre-test and post-test assessments. The research sample included 20 players from the Paralympic Committee in Maysan Governorate who participated in futsal during the 2021–2022 season. The participants were selected deliberately and randomly and divided equally into two groups, each containing 10 players. The experimental group was trained using the specially designed educational approach with varied teaching methods, while the control group continued with traditional methods of instruction. Data were collected before and after the intervention to measure improvements in basic futsal skills.</p> <p>Results. The results demonstrated that the educational approach utilizing various methods had a significant positive impact on the learning and development of basic futsal skills among deaf and mute individuals. Both the experimental and control groups showed improvements in the post-test results compared to the pre-tests; however, the experimental group outperformed the control group in all physical and skill variables, indicating the superior effectiveness of the diverse educational methods employed in the experimental training program.</p> <p>Conclusion. In conclusion, the educational approach based on diverse teaching methods proved highly effective in enhancing the learning process and improving the basic futsal skills of deaf and mute players. The findings revealed that players in the experimental group achieved greater progress across all tested variables compared to those in the control group. These results support the adoption of varied and inclusive teaching strategies in sports education for individuals with hearing and speech impairments.</p>
<p>Keywords : Educational approach, Learning methods, Basic skills, Deaf and Mute, Futsal.</p>

Introduction

In recent years, the world has witnessed remarkable progress in all areas of life, and education is one of those fields that have witnessed great development at various levels of sports as a result of what various sciences have provided in enriching the sports movement.(Karasievykh et al., 2021) (Christiani,2021) defines it as the executive steps of the planning process for a pre-designed plan and the time distribution required, methods of implementation and the possibilities of achieving plan.(Christiani et al., 2021)

As defined by (Vasileva, 2024) as a set of experiences stemming from the curriculum and prepared according to an organization that increases the possibility of implementation, and this requires that the approach includes in addition to the set of educational experiences expected and selected from the curriculum and everything related to its implementation of time, place, tools, teaching methods and the role of both the teacher and the student in its implementation.(Vasileva & Chumakov, 2024). Wafiq Mustafa (2007) emphasizes that knowledge, facts, concepts, scientific laws and skills related to the subject the content of the educational approach are prepared in the approachmatic teaching method prepared by the specialized approachmer.(Ramadhan et al., 2023) (Oliinyk, 2021) explains that there are some scientific foundations that contribute to building the educational approach can be referred to as suitability of the approach for the target sample. Taking into account the characteristics and number of the sample. To serve and develop the required expertise. Be in line with material, human and time potential.(Oliinyk et al., 2021)

While (Yang, 2022) confirms that the steps of building the approach are summarized as follows:

- 1- Determine the objectives for which the approach is prepared and the objectives must be clear, specific and detailed.
- 2- Determine the starting point in the approach.
- 3- Determine the scientific material that will be presented in the approach in light of the previously defined objectives.
- 4- Determine the system in which the skill will be displayed in the approach.
- 5- Write approach frames.
- 6- Experiment with the approach and modify it.(Yang et al., 2022)

Foundations of building the approach:

(Qutaiba, 2024) indicates that the foundations of building the approach are:

- 1- Taking into account the characteristics and growth of the age stage of learners.
- 2- Taking into account individual abilities and differences. Ease, versatility and simplicity of the approach.
- 3- Mechanisms of motivation of learners.
- 4- Distribute work in the appropriate amount (performance of activity and rest).
- 5- Provide the appropriate place and time for the application of the approach.
- 6- The content material fits into the approach's objective.
- 7- Taking into account security and safety factors.(Qutaiba Younus & Rashid, 2024)

The futsal game is one of the sports that need high-level skill and physical requirements because it requires the athlete to move and move around the field with ball control during performance at every moment of play, and for this it requires prior preparation and raising the level of physical and skill performance necessary for this game, and it is also one of the sports that occupied an advanced position in some countries of the world because of its wonderful combination of physical and technical performance.(McCalman et al., 2022) (Mendes, 2022) explain that the importance of futsal in the development of the game because of the responses and quick thinking and accurate handling, as well as it is an excellent educational track to improve speed and agility and the game provides excellent training for players who want in the future to move to regular football, because it develops skills significantly, and the big stars of the game such as (Pele, Zico, Socrates, Ronaldo, Pepto, Rivaldo and Romario) have all practiced this game and they condemn futsal in Developing their skills, they are exciting for children as well as adults, and that the futsal player must be fluent in playing in all areas of the stadium, and since the time of the match (40) minutes is divided into two halves, which require the player to make quick movements and multiple starts of (5-10) meters or more at frequent times, all of this is not achieved unless the player has high physical elements that enable him to perform the match to the fullest.(Mendes et al., 2022)

(Borges, 2022) asserts that the futsal player is no less important than the regular football player, but on the contrary may be better if what has been transferred to the open courts and there are many opinions that recognize the importance of playing futsal before playing regular football, and that futsal is very important, especially for young ages to develop different skills and absorb the concept of the game.(Borges et al., 2022)

A person is exposed to several accidents that result in physical or mental disability, including what is from birth or acquired or as a result of natural disasters, and therefore this will affect the person in completing his life with the normal effectively, and here came the

role of sports institutions in reducing the burden on these disabled people and making them feel that there is no significant shortage for them, and this comes through care and care for their abilities and physical, mental and skill capabilities to increase their participation and contributions to building society, each according to his abilities and abilities, The best way to reduce this burden is to return them to normal life by involving them in various activities and sports within the categories of disability similar to them, so that the disabled will find in himself the ability to integrate with society to practice normal life and feel fun and the ability to compete like normal.(Gumantan et al., 2021)

Recent years have witnessed great interest in the field of disability and the disabled, whether in terms of scientific study or technological progress, and this interest is due to the growing conviction in different societies that the disabled, like other members of society, have the right to life and growth to the maximum of their abilities and energies, and this interest is also due to changing the societal view of these individuals and shifting from considering them an economic burden on their societies to looking at them as part of human wealth, which necessitates the development of this wealth and benefit from it to As far as possible.(Daryanto & Effendi, 2023)

Osama Riad (2005) believes that disabled sport represents the best and best way to speed up the return of the disabled to his society and his harmony again and his success as a productive member of this society integrated into it and interacting with.(Ramsden et al., 2023) (Rum, 2021) assert that over time, the civilization of nations has become measured by the care it provides to these disabled people. Where they defined the disabled as individuals who have deficiencies as a result of an organic, sensory, mental or motor disease due to genetic or acquired reasons, which makes the individual unable to perform his basic requirements and that disability becomes chronic, whatever the degree of this disability.(Rum et al., 2021)

It is noted that the development of the physical and skill level in any game is linked to approachming and the correct planning of educational and training approachs and work to find the appropriate way to raise the physical and skill level through the correct combination of appropriate educational means and exercises with a positive impact to achieve the desired goals.(McCalman et al., 2022)

The researcher noted the lack of use of modern training methods when coaches that help develop the capabilities and skills of their players and benefit from them during the matches, and if used, they are random and irregular, and from here arises a basic problem related to the

lack of diversity of methods used and their reliance on one method, so the researcher wanted to know the impact of using a approach with various educational methods to learn some basic skills in futsal for the deaf and mute category and improve them according to modern and scientific approaches.

Materials and Methods

Study Participants.

The study participants were selected from players of the Paralympic Committee in Maysan Governorate specializing in futsal for the deaf and mute during the 2021–2022 season. The total research population consisted of 25 players. A deliberate random sampling method was used to select 20 players, who were then divided equally into two groups: an experimental group and a control group, with 10 players each. Several conditions were considered when selecting the participants, including being between 16 and 23 years of age, having a height and weight appropriate for their age, a hearing score of 91 dB (indicating profound hearing loss), being free from any diseases that could affect performance, a commitment to regular training without interruption, and obtaining official consent from the Paralympic Committee.

Table 1 presents the distribution of the research population and sample, and the results indicated that no players were excluded due to illness or absence. An analysis of the homogeneity of the sample using mean, standard deviation, median, and torsion coefficient revealed that the sample data were normally distributed, as all torsion coefficients fell within ± 3 . Additionally, Table 3 showed that there were no significant differences between the experimental and control groups in the pre-test measurements for all physical and skill variables, confirming the equivalence of the two groups before the intervention.

Study organization.

To organize the study, the researcher adopted an experimental method using two equivalent groups (control and experimental) subjected to both pre- and post-testing. Basic futsal skills were identified through a review of literature and consultations with experts, resulting in the selection of five fundamental skills: dribbling, kicking the ball with the inside of the foot, heading, ball control, and scoring. Each skill was matched with a specific standardized test, ensuring content validity by consulting experts in the field. An exploratory experiment was conducted with five players outside the main sample to validate the tests' procedures and stability.

Scientific coefficients for the tests were established through measures of honesty, stability, and objectivity. Self-honesty coefficients ranged from 85% to 95%, and test

reliability was confirmed using a test-retest method, showing strong Pearson correlation coefficients exceeding the critical value. Objectivity was also ensured through high inter-rater agreement among referees. Pre-tests were conducted at the Technological Institute Stadium in Maysan in December 2021, followed by the application of the educational program. After the intervention was completed, post-tests were conducted in February 2022 under identical conditions to the pre-tests.

Statistical analysis.

For statistical analysis, the researcher utilized the SPSS statistical software package. The data treatments included calculating the mean, standard deviation, median, Pearson correlation coefficient, and conducting t-tests for symmetric samples to determine differences between pre- and post-tests. In addition, relative importance and percentage values were calculated to further interpret the results. These statistical techniques ensured a thorough analysis of the data, allowing the researcher to accurately assess the impact of the educational approach on the development of basic futsal skills among the deaf and mute players.

Results

Table 1 shows the significance of the differences for the pre- and post-tests of the skill abilities of the control group:

Table 1.Shows the significance of the differences for the pre- and post-tests of the skill abilities of the control group

Variables	pre-tests Mean	pre-tests St.d	post-tests Mean	post- tests St.d	Calculated (T) value	Sig.
Dribbling	8.80	2.1	10.90	1.3	4.2	Insig.
Kicking the ball with inside of the foot	4.5	2.8	7.0	1.3	4.1	Insig.
Heading	18.10	3.6	22.0	2.5	4.3	Insig.
Ball control	10.40	3.10	11.00	2.54	0.72	Insig.
Scoring	10.20	2.30	10.60	1.51	0.71	Insig.

The results in Table 1 indicate that there were no significant differences between the pre- and post-tests in the control group for all measured skills.

Meanwhile, Table 2 presents the significance of the differences in the experimental group:

Table 2. Shows the significance of the differences for the pre- and post-tests of the skill abilities of the experimental group

Variables	pre-tests Mean	pre-tests St.d	post-tests Mean	post-tests St.d	Calculated value	(T)	Sig.
Dribbling	18.5	3.1	21.10	2.0	4.08		Insig.
Kicking the ball with inside of the foot	18.0	3.3	22.5	2.4	4.88		Insig.
Heading	5.80	1.03	8.30	1.89	4.12		Insig.
Ball control	13.00	3.09	18.00	3.65	3.67		Insig.
Scoring	11.10	3.48	16.70	3.75	5.16		Insig.

The findings from Table 2 suggest notable improvements in the experimental group across all skill abilities after the intervention.

In addition, Table 3 highlights the comparison between the control and experimental groups in terms of physical abilities:

Table 3. Shows the significance of the differences for the post-test of the physical abilities of the control and experimental groups

Physical Abilities	Control group Mean	Control group St.d	Experimental group Mean	Experimental group St.d	Calculated (T) value	Sig.
Vertical jump from stability	8.15	0.18	9.75	1.2	3.2	Sig.
Bend and stretch knees in (20s)	4.0	2.9	6.0	1.3	3.3	Sig.
Bending the torso from a long sitting	18.5	3.1	21.10	2.0	3.7	Sig.
Sitting from lying down with knees and arms bent in front of the chest	8.55	2.8	11.80	1.4	2.43	Sig.
Barrow Test	4.5	3.2	8.5	2.5	5.0	Sig.

Here, significant differences favoring the experimental group were observed across all physical abilities tested.

Finally, Table 4 shows the comparison between the groups for skill abilities after the intervention:

Table 4. Shows the significance of the differences for the post-test of the skill abilities of the control and experimental groups

Variables	Control group Mean	Control group St.d	Experimental group Mean	Experimental group St.d	Calculated (T) value	Sig.
Dribbling	24.12	1.9	26.22	1.26	2.81	Sig.
Kicking the ball with inside of the foot	24.13	1.80	26.55	1.48	3.40	Sig.
Heading	30.72	1.39	29.42	10.18	0.38	Insig.
Ball control	45.54	1.58	43.77	1.05	3.05	Sig.
Scoring	26.80	0.78	25.67	1.22	2.52	Sig.

The data reveal significant improvements in the experimental group compared to the control group for dribbling, kicking the ball with the inside of the foot, ball control, and scoring skills, while no significant difference was found for heading.

Discussion

The researcher attributes the lack of significant differences in Table 8 to the traditional approach followed by the coach in the control group, which emphasized team play while neglecting the principle of individualized skill development. As a result, the players did not adequately master or develop the fundamental skills needed in futsal. Effective skill acquisition in football requires continuous and focused technical training, as wrong techniques are difficult to correct later. Furthermore, physical attributes greatly influence a player’s technical and tactical efficiency during matches (Shareef, Q.B., 2019).

In contrast, the significant improvements observed in the experimental group (Table 9) are attributed to the scientifically structured training program applied during the intervention. This program emphasized accuracy, proper timing, and consistent repetition of skill execution under conditions similar to actual matches. The researcher's focus on these aspects during training contributed substantially to the development of the players' physical and skill abilities (Qutaiba Younus, 2021).

As shown in Table 10, the researcher explains the superiority of the experimental group in physical abilities by the use of well-designed exercises tailored to develop key skills essential for futsal. These exercises, applied in controlled settings with appropriate numbers of players, enhanced not only the players' skills but also their self-confidence and performance precision. Comprehensive preparation covering various aspects of the game is critical for improving overall player performance (Daryanto & Effendi, 2023).

Finally, the significant differences seen in Table 11 across most skill tests confirm the validity and effectiveness of the educational approach adopted for the experimental group. By employing a variety of scientifically based training methods, the researcher ensured better mastery of motor skills and enhanced players' motivation towards training. Emphasizing training under match-like conditions and developing relevant physical abilities contributed to more accurate skill execution (Ayuso-Moreno et al., 2021).

Conclusions.

The educational approach that utilized various methods had a positive impact on the process of teaching and developing several basic futsal skills for deaf and mute players. This was evident from the post-test results, which showed a clear advantage for the experimental group over the control group across all physical and skill-related variables. These findings underscore the effectiveness of employing diverse and scientifically structured training methods in enhancing the abilities of players with special needs.

Recommendations:

- 1) It is recommended that Paralympic committees take advantage of the findings of this research and incorporate the exercises used in this study into the training programs for young futsal players who are deaf and mute.
- 2) It is also suggested to utilize the educational approach developed by the researcher as a model for designing similar training programs aimed at improving the physical and skill abilities of deaf and mute futsal players. Furthermore, future studies are encouraged to explore the impact of other educational methods on learning and developing basic futsal skills for this population.

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Conflict of interest

Have no conflict of interest to declare.

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