Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

SOME COMPOUND SKILL TESTS IN DEVELOPING PERFORMANCE LEVELS IN FOOTBALL FOR AGES 10-12

Assistant Lecturer: IBRAHIM AHMED NAJM / Ministry of Education / Kirkuk Education Directorate
Teacher. *Dr. Ahmed Ali Abdullah Ahmed Al-Jubouri / Ministry of Education / Kirkuk Education Directorate
Assistant Lecturer. SALIM IBRAHIM ALI / Ministry of Education / Nineveh Education Directorate
*E-mail:dr.ahmed1973j@gmail.com

Abstract
To represent 50% of the research population, a sample of 28 young athletes from the North Oil Academy for the 2024 training year was specifically chosen. They were split into two equal groups of fourteen young athletes each at random. The findings showed a substantial difference in the experimental group's improvement rates compared to the control group in a few complex skill tests meant to raise football performance levels for kids aged 10 to 12.
The time and accuracy of compound motor performances—passing after receiving, dribbling the ball after receiving, and receiving after maneuvering before passing—were positively impacted by the suggested training regimen. When it came to cutting down on the overall time for certain complex skill tests meant to raise performance levels, the experimental group—which implemented the suggested training schedule—performed better than the control group, which employed the traditional training method (individual performances).
The participants' levels in the pre and post measurements were evaluated using five scientific metrics that were established. The experimental group fared better than the control group in several complex skill tests, with notable increases shown in both time and accuracy. These tests were designed to raise football performance levels in players aged 10 to 12.

Keywords: Compound Skill Tests, Performance Levels in Football

Introduction and Research Problem

The pursuit of scientific advancements in training methods is a global endeavor, with the purpose of equipping coaches with simplified knowledge and concepts to prepare and develop players to the highest levels. The performance levels of football teams around the world have improved noticeably, and to keep up with this progress, scientific training methods have had to be implemented.

To perform to the best of their abilities during games, football players need to be technically and fully trained according to modern football standards. A high degree of physical and skill efficiency is required for this preparation, allowing the player to execute strategic tasks effectively for the duration of the match (15:7). A player who does not master compound performance, according to Mohamed Ibrahim Sultan (2004), is more likely to concentrate on the ball and how to play it than on the strategic elements. The player's ability to effectively observe teammates' and opponents' actions on the field is compromised by their fixation on the ball, which has an adverse effect on the application of strategic principles (19:288).

According to Diyaa Naji Aboud (2003), the "key through which strategic duties, whether individual or collective, can be executed" is a basic understanding of football. Using these tactics effectively becomes exceedingly challenging if these skills are not performed at an elevated level of competency. Gaining

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

proficiency in these abilities enables the player to execute the task quickly and fluidly without getting caught up in its details (15:5).

Both Mohamed Shawky Kashk and Amr Allah El-Basaty (2000) concur that players are forced to use combined or integrated talents due to the unpredictable nature of football play. These integrated abilities create a structure made up of multiple interconnected abilities that are used in a sequential manner and have an impact on one another. The ability to execute specific skills (passing, receiving, and dribbling) in a way that fits the demands of game situations—such as receiving then sprinting, dribbling then passing, or receiving then shooting—is more important than possessing and perfecting these skills separately (23:77).

Maher & Alan E. (2002) point out that it is challenging for defenders to determine who will finish the play when an appropriate number of players are involved in attacks, and they are proficient in compound motor performances. The relationship between shooting and other training topics is weakened because many coaches only teach athletes shooting, often known as "final training," at the conclusion of a training session. In the bigger picture of football, finishing is not only a stand-alone talent; it is a part of the training session's structure (30:46).

Emad Zubair (2005) asserts that accurate passing necessitates a great deal of information, especially in small spaces. For a pass to be deemed accurate and correct, it must be precise, made at the appropriate time, and intended for the appropriate player (15:27).

The researcher discovered that many coaches place distinct emphasis on skill, strategy, and physical aspects through his employment as a teacher and his involvement in coaching several younger teams at the North Oil Club Academy. Junior football players' skill and physical performance may suffer if certain compound skill tests are prioritized to raise performance levels. At this point, juniors need to take several compound skill exams that could help them improve on certain physical and skill-related areas. It is possible to reduce the overall program duration and improve the training process by training on these tests in an organized way, with incremental difficulty and respect to sports training principles. Therefore, researching and testing various compound skill tests to raise football players' performance levels may aid coaches in creating all-encompassing training plans for junior players and raising their skill and physical standards.

Research Objective:

The research aims to:

- List some compound skill assessments for raising football players' performance levels between the ages of 10 and 12.
- Create a training program that identifies certain complex skill assessments for raising football players' performance levels between the ages of 10 and 12.
- Assess the training program's effect on the identification of certain complex skill tests for raising football players' performance levels between the ages of 10 and 12.

Research Hypotheses:

1. In certain complex skill assessments for improving football performance levels for ages 10–12, there are statistically significant variations between the pre and post measurements of the experimental group, favoring the post measurement.
2. In various compound skill assessments for developing football performance levels for ages 10–12, there are statistically significant variations between the pre and post measurements of the control group, favoring the post measurement.
3. In certain complex skill assessments for raising football performance levels for ages 10 to 12, there are statistically significant variations between the post measures of the experimental and control groups, favoring the post measurement of the experimental group.

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

4. There are variations in the rates of improvement between the experimental and control groups on a few complex skill assessments related to football performance development for ages 10–12. The experimental group scores better on these tests.

Research Fields:

- Human Field: North Oil Academy football players under the age of twelve during the 2024 training season.
- Time Field: December 6, 2024 – September 14, 2024.
- Location: Kirkuk Governorate's North Oil Club fields.

Research Method:

By measuring each group before and after, the researcher employed the experimental design for two groups: the experimental group and the control group.

Research Population:

Junior football players at North Oil Academy under the age of twelve were chosen as the research population for the 2023–2024 season.

Research Sample:

Carefully chosen, a sample of twenty-eight juniors comprised fifty percent of the research population. They were split into two equal groups, each with fourteen juniors, at random in the following ways:

1. Experimental Group: fourteen juniors trained in accordance with the prescribed curriculum made up this group.
2. Control Group: Made up of fourteen juniors, this group used the standard curriculum that the academy follows.

Homogeneity and Equality of the Research Sample:

1. **Homogeneity of the Research Sample:** Prior to implementing the program in the variables that could influence the research findings, the researcher conducted homogeneity among the sample participants, as indicated in the following table:

No.	Variables	Unit of measurement	Experimental Group				Control group			
			Arithmetic mean	Standard deviation	Mean	Torsion coefficient	Arithmetic mean	Standard deviation	Mean	Torsion coefficient
1	Height	CM	148.08	5.14	147	0.63	146.17	5.24	146	0.095
2	Weight	KG	40.67	5.33	38.5	1.22	40.42	4.80	38.5	1.2
3	Age	Year	11.43	0.14	11.42	0.30	11.51	0.23	11.54	-0.45
4	Training age	Year	1.51	0.196	1.5	0.11	1.43	0.20	1.42	0.21

Table No. (1) makes it evident that all the experimental group's skewness coefficient values fell between 0.11 and 1.22, while the control group's values varied between (0.095 and -0.45). The height, weight, age, and training age data for the experimental and control groups all fell between (+3), indicating that the research groups were homogeneous.

2- Equivalence of the Research Sample: Based on the pre-measurement results, the researcher conducted equivalency between the experimental and control research groups in the variables under study, as indicated in the following tables:

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

Table No. (2): Mean, Standard Deviation, and T-Value for the Average Time of Some Composite Skill Tests in Developing Performance Level in Football between Ages (10-12) Years Between the Experimental and Control Groups in the Pre-Measurement: N1+N2=28

Variables		Unit of measurement	Experimental Group		Control group		The difference between the two Means	Value of t
			M -	SD +	M -	SD +		
Receiving from the movement and then handling	Sprint time before receiving	SEC	2.692	0.047	2.678	0.047	0.014	0.693
	Receiving and scrolling performance time	SEC	0.962	0.074	0.978	0.085	0.016	0.465
	Total time	SEC	3.654	0.0637	3.656	0.691	0.002	0.061
Receiving from the movement with rotation, then running with the ball and then passing	Sprint time before receiving	SEC	2.805	0.079	2.792	0.076	0.013	0.422
	Receiving performance time with turning, running, then scrolling	SEC	4.568	0.160	4.554	0.162	0.014	0.203
	Total time	SEC	7.373	0.155	7.346	0.154	0.027	0.423
Receiving from the movement with rotation, then running Zigzag with the ball and then passing	Sprint time before receiving	SEC	2.788	0.083	2.819	0.075	0.031	0.983
	Receiving performance time with turning, then zigzag running, then scrolling	SEC	6.646	0.329	6.633	0.329	0.013	0.099

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

	Total time	**SEC**	**9.433**	**0.361**	**9.452**	**0.364**	**0.019**	**-0.124**
Receiving from the movement and then running Zigzag with the ball and then handling	**Sprint time before receiving**	**SEC**	**2.669**	**0.080**	**2.680**	**0.076**	**0.011**	**-0.339**
	The time of receiving the confrontation then running Zigzag and then passing	**SEC**	**6.223**	**0.517**	**6.209**	**0.517**	**0.014**	**0.63**
	Total time	**SEC**	**8.892**	**0.503**	**8.889**	**0.504**	**0.003**	**0.012**
Receiving from the movement, then deception, then handling	**Sprint time before receiving**	**SEC**	**2.681**	**0.075**	**2.688**	**0.078**	**0.007**	**-0.239**
	Time to perform receiving by confrontation, deception, then passing	**SEC**	**2.996**	**0.290**	**2.983**	**0.292**	**0.013**	**0.112**
	Total time	**SEC**	**5.677**	**0.324**	**5.671**	**0.331**	**0.006**	**0.044**

The tabulated T-value at the 0.05 significance level = 2.074

Table (2) demonstrates that there are no statistically significant differences between the experimental and control groups at a significance level of (0.05) in the average time spent completing various composite skill tests to develop football performance levels among 10- to 12-year-olds. This suggests equivalency between the research groups. The tabular (t) value is greater than the calculated (t) value.

Table (3) displays the mean, standard deviation, and the t-value for the average (accuracy - time and accuracy together) of some composite skill tests in developing performance levels in football among (10-12) year olds between the experimental and control groups in the pre-measurement: n1 + n2 = 28.

Variables	Unit of measurement	Experimental Group		Control group		The difference between the	Value of t
		M -	SD +	M -	SD +		

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

							two Means	
Accuracy	Receiving from the movement and then handling	DEG	1.750	0.622	1.667	0.651	0.083	-0.321
	Receiving from the movement and then running Zigzag with the ball and then handling	DEG	1.417	0.669	1.333	0.651	0.084	-0.309
	Receiving from the movement, then deception, then handling	DEG	1.333	0.492	1.25	0.452	0.083	-0.432
Time and accuracy together	Receiving from the movement and then handling	DEG	3.309	0.541	3.500	0.664	0.191	-0.770
	Receiving from the movement and then running Zigzag with the ball and then handling	DEG	2.667	0.020	3.833	0.929	1.166	-0.418
	Receiving from the movement, then deception, then handling	DEG	2.5	0.551	2.667	0.561	0.167	-0.734

The tabulated T-value at the 0.05 significance level = 2.047

Table (3) makes it clear that, in several composite skill assessments designed to raise football performance levels in kids aged 10 to 12, there are no statistically significant differences between the experimental and control groups in the variables of accuracy, time, and accuracy-time composite. At a significance level of 0.05, the tabular (t) value is bigger than the computed (t) value, suggesting equivalency between the two groups.

- Study Procedures:

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

1. Reference Survey: To help the researcher ascertain the following, a reference survey on studies, research, and scientific literature was carried out.

1- creating a few composite skill assessments to gauge football players' (10–12) developmental performance levels.

Table (4) shows the reliability coefficients of some composite skill tests in developing performance levels in football among (10-12) year olds, with n1 + n2 = 28.

Variables	Measurement Unit	Upper Half		Lower Half		Mean Difference	t-value
		M	SD	M	SD		
Receiving then Passing Movement	Seconds	2.57	0.0641	2.69	0.033	0.12	3.211
Receiving then Running with Ball then Passing	Seconds	0.89	0.0374	1.013	0.071	0.12	3.153
Total Time	Seconds	3.546	0.101	3.707	0.073	0.16	3.186
Receiving then Running with Ball then Passing with Dribble	Seconds	2.71	0.0438	2.82	0.059	0.11	2.945
Receiving then Running with Ball then Passing with Dribble	Seconds	4.34	0.0908	4.59	0.142	0.25	2.891
Total Time	Seconds	7.047	0.131	7.413	0.199	0.37	2.911
Receiving then Running with Ball then Passing with Shake	Seconds	2.72	0.055	2.84	0.029	0.12	3.236
Receiving then Running with Ball then Passing with Shake	Seconds	6.35	0.143	6.79	0.215	0.44	2.984
Total Time	Seconds	9.061	0.197	9.633	0.244	0.57	3.051
Receiving then Running with Shake then Passing	Seconds	2.55	0.0358	2.67	0.0596	0.12	2.967
Receiving then Running with Face-to-Face Shake then Passing	Seconds	5.75	0.37	6.50	0.174	0.75	3.231
Total Time	Seconds	8.01	0.294	8.935	0.203	0.93	3.239

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

Receiving then Deceiving then Passing	Seconds	2.57	0.0361	2.689	0.0565	0.12	3.03
Receiving then Face-to-Face Deceiving then Passing	Seconds	2.81	0.141	3.09	0.167	0.28	2.862
Total Time	Seconds	5.377	0.176	5.788	0.217	0.41	2.935

Table (4) and a tabular t-value of 2.074 at a significance level of 0.05 indicate that there are statistically significant variations between the upper and lower half in several composite skill assessments designed to develop football performance levels among 10- to 12-year-olds. These differences support the top half at a significance level of 0.05, indicating the validity of the tests.

Table (5) shows the reliability coefficients for the means of time durations of some composite skill tests in developing performance levels in football among (10-12) year olds, with n = 28.

Variables		Unit of measurement	First measurement		Second measurement		The difference between the two Means	Coefficient of stability
			M -	SD +	M -	SD +		
Receiving from the movement and then handling	Sprint time before receiving	SEC	2.633	0.085	2.623	0.086	0.01	0.899
	Receive and scroll performance time	SEC	0.955	0.079	0.954	0.066	0.001	0.93
	Total time	SEC	3.558	0.119	3.576	0.109	0.018	0.92
Receiving from the movement with rotation, then running with the ball and then passing	Sprint time before receiving	SEC	2.77	0.085	2.748	0.0898	0.022	0.914
	Receiving performance time with turning, running, then scrolling	SEC	4.480	0.2006	4.419	0.213	0.061	0.866
	Total time	SEC	7.248	0.215	7.166	0.233	0.082	0.89
Receiving from the movement with rotation, then running Zigzag with the	Sprint time before receiving	SEC	2.795	0.072	2.773	0.092	0.022	0.797
	Receiving performance time with turning, then	SEC	6.603	0.331	6.529	0.340	0.074	0.843

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

ball and then passing	zigzag running, then scrolling							
	Total time	SEC	9.398	0.354	9.303	0.357	0.095	0.86
Receiving from the movement and then running Zigzag with the ball and then handling	Sprint time before receiving	SEC	2.613	0.078	2.617	0.0902	0.004	0.796
	The time of receiving the confrontation then running Zigzag and then passing	SEC	6.163	0.498	6.195	0.532	0.032	0.870
	Total time	SEC	8.775	0.501	8.812	0.533	0.037	0.86
Receiving from the movement, then deception, then handling	Sprint time before receiving	SEC	2.638	0.084	2.617	0.072	0.021	0.876
	Time to perform receiving by confrontation, deception, then passing	SEC	2.979	0.246	2.847	0.25	0.132	0.814
	Total time	SEC	5.617	0.287	5.464	0.273	0.153	0.81

Table 5 makes clear that the composite skill tests' reliability coefficients for evaluating football players' performance levels (10–12 years old) in terms of performance time varied from (0.796 to 0.93), all of which have good reliability values.

Table (6) Validity coefficients (accuracy - time and accuracy together) for some composite skill tests in developing performance levels in football among (10-12) year olds: n1+n2=28

Variables		Unit of measurement	Upper Half		Lower Half		The difference between the two Means	Value of t
			M -	SD +	M -	SD +		
Accura	Receiving from the movement and then handling	DEG	1.667	0.492	3.25	0.622	1.583	3.087
	Receiving from the movement and then running Zigzag	DEG	1.083	0.289	2.167	0.389	1.084	3.121

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

cy	with the ball and then handling							
	Receiving from the movement, then deception, then handling	DEG	1.25	0.452	2.25	0.542	1	3.022
Time and accuracy together	Receiving from the movement and then handling	DEG	3.333	0.946	6.497	1.198	3.164	3.102
	Receiving from the movement and then running Zigzag with the ball and then handling	DEG	2.167	0.501	4.333	1.345	2.166	2.818
	Receiving from the movement, then deception, then handling	DEG	2.499	0.769	4.499	0.867	2	3.043

At a significant level of 0.05, the tabular t-value is 2.201. Table (6) makes clear that, for certain composite skill tests in developing football performance levels among 10- to 12-year-olds, there are statistically significant differences between the upper and lower halves in terms of accuracy and time, as well as accuracy combined, favoring the upper half at a significance level of 0.05. This suggests that the tests being investigated are valid.

Table (7) Reliability Coefficients for the Means of (Accuracy - Time and Accuracy Combined) for Some Composite Skill Tests in Developing Performance Levels in Football Among (10-12) Year Olds

Variables	Unit of measure	First measurement		Second Measurement		The difference between	Reliability Coefficient
		M -	SD +	M -	SD +		

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

		ment					the two Means	
Accuracy	Receiving from the movement and then handling	DEG	2.458	0.977	2.333	0.761	0.125	0.838
	Receiving from the movement and then running Zigzag with the ball and then handling	DEG	1.625	0.647	1.667	0.637	0.042	0.844
	Receiving from the movement, then deception, then handling	DEG	1.75	0.676	1.79	0.607	0.04	0.899
Time and accuracy together	Receiving from the movement and then handling	DEG	4.916	1.426	4.668	1.218	0.248	0.93
	Receiving from the movement and then running Zigzag with the ball and then handling	DEG	3.251	0.920	3.333	0.838	0.082	0.90
	Receiving from the movement, then deception, then handling	DEG	3.499	0.930	3.512	0.875	0.013	0.79

Table (7) makes clear that all three reliability coefficients—accuracy, time, and accuracy combined—ranged from 0.79 to 0.93, indicating strong reliability for the composite motor performance assessments.

Table (8) Average, Standard Deviation, and Calculated t-value between pre-test and post-test measurements for the experimental group in the average performance times of some composite skill tests in developing performance levels in football among (10-12) year olds, n=12.

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

Tests		Unit	Pre-measurement		Post-Measurement		Dif Between Means	T Value
			M -	SD +	M -	SD +		
Receiving from the movement and then handling	Sprint time before receiving	Sec	2.692	0.0467	2.525	0.077	0.176	6.090
	Receive and scroll performance time	Sec	0.962	0.074	0.844	0.082	0.118	4.802
	Total time	Sec	3.654	0.0637	3.369	0.0968	0.285	9.071
Receiving from the movement with rotation, then running with the ball and then passing	Sprint time before receiving	Sec	2.805	0.079	2.628	0.101	0.177	5.015
	Receiving performance time with turning, running, then scrolling	Sec	4.568	0.160	4.233	0.176	0.335	4.884
	Total time	Sec	7.373	0.155	6.862	0.150	0.511	7.142
Receiving from the movement with rotation, then running Zigzag with the ball and then passing	Sprint time before receiving	Sec	2.788	0.083	2.653	0.085	0.135	4.604
	Receiving performance time with turning, then zigzag running, then scrolling	Sec	6.646	0.329	6.115	0.239	0.531	4.183
	Total time	Sec	9.433	0.361	8.768	0.264	0.666	5.091
Receiving from the movement and then running Zigzag with the ball and then handling	Sprint time before receiving	Sec	2.669	0.080	2.528	0.106	0.141	3.703
	The time of receiving the confrontation then running Zigzag and then passing	Sec	6.223	0.517	5.487	0.417	0.736	3.131
	Total time	Sec	8.892	0.503	8.015	0.436	0.877	3.716
Receiving from the movement, then deception, then handling	Sprint time before receiving	Sec	2.681	0.075	2.472	0.109	0.209	5.006
	Time to perform receiving by confrontation, deception, then passing	Sec	2.996	0.290	2.676	0.166	0.032	3.924
	Total time	Sec	5.677	0.324	5.148	0.215	0.529	4.990

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

At the significance level of 0.05, 2.201 is the critical t-value. Table (8) presents statistically significant variations in the average performance times of the composite motor skills tests under study between the experimental group's pre- and post-test data. Given that the computed t-values are higher than the crucial t-value at the 0.05 significance level, this is consistent with the post-test observations.

Table (9): Mean, standard deviation, and calculated 't' value between pre and post measurements for the experimental group in the average scores of (accuracy - time and accuracy-time composite) in some composite skill tests in developing performance levels in football among (10-12) year olds: n=14.

Variables		Unit of measurement	Pre-measurement		Post-Measurement		The difference between the two Means	T-Value
			M -	SD +	M -	SD +		
Accuracy	Receiving from the movement and then handling	DEG	1.750	0.622	3.083	0.669	1.333	-7.091
	Receiving from the movement and then running Zigzag with the ball and then handling	DEG	1.417	0.669	2.833	0.718	1.416	-5.451
	Receiving from the movement, then deception, then handling	DEG	1.333	0.492	2.917	0.669	1.584	-6.917
Time and accuracy together	Receiving from the movement and then handling	DEG	3.500	0.664	6.167	1.128	2.667	-8.150
	Receiving from the movement and then running Zigzag with the ball and then handling	DEG	2.833	0.929	5.667	0.962	2.834	-6.140
	Receiving from the movement, then deception, then handling	DEG	2.667	0.561	5.833	0.921	3.166	-10.982

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

At the 0.05 level, the tabulated (t) value is equal to 2.201. For several skill assessments in developing football performance among (10–12) year olds, Table (9) shows statistically significant differences in mean accuracy, time, and accuracy-time composite variables between the pre-test and post-test measurements for the experimental group. Because the computed t-values are greater than the tabulated value at the 0.05 significance level, this is in support of the post-test measures.

Table (10) presents the mean, standard deviation, and calculated t-values between the pre-test and post-test measurements for the control group in average performance times of some composite skill tests in developing football performance among (10-12) year olds: n=14

Variables		Unit of measurement	Pre-measurement		Post-measurement		The difference between the two Means	T-Value
			M -	SD +	M -	SD +		
Receiving from the movement and then handling	Sprint time before receiving	SEC	2.678	0.047	2.622	0.052	0.056	2.439
	Receive and scroll performance time	SEC	0.978	0.085	0.919	0.065	0.059	2.267
	Total time	SEC	3.656	0.691	3.541	0.0854	0.115	3.469
Receiving from the movement with rotation, then running with the ball and then passing	Sprint time before receiving	SEC	2.792	0.076	2.718	0.088	0.074	2.295
	Receiving performance time with turning, running, then scrolling	SEC	4.554	0.162	4.426	0.159	0.128	2.218
	Total time	SEC	7.346	0.154	7.143	0.141	0.203	3.486
Receiving from the movement with rotation, then running Zigzag with the ball and then passing	Sprint time before receiving	SEC	2.819	0.075	2.749	0.099	0.07	2.234
	Receiving performance time with turning, then zigzag running, then scrolling	SEC	6.633	0.329	6.340	0.199	0.293	2.225
	Total time	SEC	9.452	0.364	9.089	0.217	0.363	2.642
Receiving from the movement	Sprint time before receiving	SEC	2.680	0.076	2.613	0.053	0.067	2.222

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

and then running Zigzag with the ball and then handling	The time of receiving the confrontation then running Zigzag and then passing	SEC	6.209	0.517	5.786	0.246	0.423	2.209
	Total time	SEC	8.889	0.504	8.398	0.232	0.491	2.599
Receiving from the movement, then deception, then handling	Sprint time before receiving	SEC	2.688	0.078	2.616	0.056	0.072	2.267
	Time to perform receiving by confrontation, deception, then passing	SEC	2.983	0.292	2.805	0.106	0.178	2.216
	Total time	SEC	5.671	0.331	5.421	0.141	0.25	2.482

At the 0.05 level, the tabulated (t) value is equal to 2.201. For all mean performance times of the composite motor skills under investigation, Table (10) shows statistically significant differences between the pre-test and post-test measurements for the control group. These differences favor the post-test measurements because the calculated t-values are greater than the tabulated value at the 0.05 significance level.

Table (11) presents the mean, standard deviation, and calculated t-values between the pre-test and post-test measurements for the control group in average scores of (accuracy-time and accuracy) for some composite skill tests in developing football performance among (10-12) year olds: n=14

Variables		Unit of measurement	Pre-measurement		Post-Measurement		The difference between the two Means	T-Value
			M -	SD +	M -	SD +		
Accuracy	Receiving from the movement and then handling	DEG	1.667	0.651	2.250	0.452	0.583	-2.548
	Receiving from the movement and then running Zigzag with the ball and then handling	DEG	1.333	0.651	1.917	0.289	0.584	-3.023
	Receiving from the movement, then	DEG	1.25	0.452	1.916	0.515	0.666	-2.966

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

	deception, then handling							
Time and accuracy together	Receiving from the movement and then handling	DEG	3.309	0.541	4.500	0.591	1.191	-5.207
	Receiving from the movement and then running Zigzag with the ball and then handling	DEG	2.667	1.020	3.833	0.345	1.166	-3.294
	Receiving from the movement, then deception, then handling	DEG	2.5	0.551	3.833	0.662	1.333	-6.683

At the 0.05 level, the tabulated (t) value is equal to 2.201. Table (11) shows statistically significant differences in all mean scores of accuracies, time, and accuracy-time composite variables for some composite skill tests in developing football performance among 10–12-year-olds between the pre-test and post-test measurements for the control group. These differences favor the post-test measurements because the calculated t-values exceed the tabulated value at the 0.05 significance level.

Table (12) presents the mean, standard deviation, and calculated t-values between the post-test measurements for both the experimental and control groups in average performance times of some composite skill tests in developing football performance among (10-12) year olds: n1+n2=28

Variables	Unit of measurement	Experimental Group		Control group		The difference between	Value of t
		M -	SD +	M -	SD +		

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

							the two Means	
Receiving from the movement and then handling	Sprint time before receiving	SEC	2.622	0.052	2.525	0.077	0.097	-3.610
	Receiving and scrolling performance time	SEC	0.919	0.065	0.844	0.082	0.075	-2.492
	Total time	SEC	3.541	0.0854	3.369	0.0968	0.172	-4.606
Receiving from the movement with rotation, then running with the ball and then passing	Sprint time before receiving	SEC	2.718	0.088	2.628	0.101	0.09	-2.288
	Receiving performance time with turning, running, then scrolling	SEC	4.426	0.159	4.233	0.176	0.193	-2.818
	Total time	SEC	7.143	0.141	6.862	0.150	0.281	-4.731
Receiving from the movement with rotation, then running Zigzag with the ball and then passing	Sprint time before receiving	SEC	2.749	0.099	2.653	0.085	0.096	-2.573
	Receiving performance time with turning, then zigzag running, then scrolling	SEC	6.340	0.199	6.115	0.239	0.225	-2.505
	Total time	SEC	9.089	0.217	8.768	0.264	0.321	-3.261
Receiving from the movement and then	Sprint time before receiving	SEC	2.613	0.053	2.528	0.106	0.085	-2.472

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

running Zigzag with the ball and then handling	The time of receiving the confrontation then running Zigzag and then passing	SEC	5.786	0.246	5.487	0.417	0.299	-2.140
	Total time	SEC	8.398	0.232	8.015	0.436	0.383	-2.690
Receiving from the movement, then deception, then handling	Sprint time before receiving	SEC	2.616	0.056	2.472	0.109	0.144	-4.057
	Time to perform receiving by confrontation, deception, then passing	SEC	2.805	0.106	2.676	0.166	0.129	-2.68
	Total time	SEC	5.421	0.141	5.148	0.215	0.273	-3.68

At the 0.05 level, the tabulated (t) value is 2.074. In developing football performance among 10- to 12-year-olds, Table (12) shows statistically significant differences between the experimental and control groups' post-test measurements in all average performance times of some composite skill tests. These differences favor the experimental group's post-test measurements because the calculated t-values are greater than the tabulated value at the 0.05 significance level.

Table (13) presents the mean, standard deviation, and calculated t-values between the post-test measurements for both the experimental and control groups in average scores of (accuracy-time and accuracy) for some composite skill tests in developing football performance among (10-12) year olds.

Variables		Unit of measurement	Experimental Group		Control group		The difference between the two Means	Value of t
			M -	SD +	M -	SD +		
Accuracy	Receiving from the movement and then handling	DEG	2.250	0.452	3.083	0.669	0.833	-3.576
	Receiving from the movement and then	DEG	1.917	0.289	2.833	0.718	0.916	-4.105

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

	running Zigzag with the ball and then handling							
	Receiving from the movement, then deception, then handling	DEG	1.916	0.515	2.917	0.669	1.001	-4.105
Time and accuracy together	Receiving from the movement and then handling	DEG	4.500	0.591	6.167	1.128	1.667	-4.535
	Receiving from the movement and then running Zigzag with the ball and then handling	DEG	3.833	0.345	5.667	0.962	1.834	-6.215
	Receiving from the movement, then deception, then handling	DEG	3.833	0.662	5.833	0.921	2	-6.111

At the 0.05 level, the tabulated (t) value is 2.074. In developing skill and technical performance in football among (10–12) year olds, Table (13) shows statistically significant differences between the experimental and control groups' post-test measurements in all average scores of accuracies, time, and accuracy-time composite variables. These differences favor the experimental group's post-test measurements, as the calculated t-values exceed the tabulated value at the 0.05 significance level.

Table (14) shows the percentage improvement between the average pre-test and post-test measurements for the experimental group in performance times of some composite skill tests in developing football performance among (10-12) year olds: n=14

Variables		Unit	Pre-measurement	Post-Measurement	Dif Between Means	Improve. %
			M -	M -		
Receiving from the movement and then handling	Sprint time before receiving	Sec	2.692	2.525	0.176	6.204
	Receive and scroll performance time	Sec	0.962	0.844	0.118	12.266
	Total time	Sec	3.654	3.369	0.285	7.799
Receiving from the movement with rotation, then running with the	Sprint time before receiving	Sec	2.805	2.628	0.177	6.310
	Receiving performance time with turning,	Sec	4.568	4.233	0.335	7.334

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

ball and then passing	running, then scrolling					
	Total time	Sec	7.373	6.862	0.511	6.931
Receiving from the movement with rotation, then running Zigzag with the ball and then passing	Sprint time before receiving	Sec	2.788	2.653	0.135	4.842
	Receiving performance time with turning, then zigzag running, then scrolling	Sec	6.646	6.115	0.531	7.989
	Total time	Sec	9.433	8.768	0.666	7.049
Receiving from the movement and then running Zigzag with the ball and then handling	Sprint time before receiving	Sec	2.669	2.528	0.141	5.283
	The time of receiving the confrontation then running Zigzag and then passing	Sec	6.223	5.487	0.736	11.827
	Total time	Sec	8.892	8.015	0.877	9.863
Receiving from the movement, then deception, then handling	Sprint time before receiving	Sec	2.681	2.472	0.209	7.796
	Time to perform receiving by confrontation, deception, then passing	Sec	2.996	2.676	0.032	10.681
	Total time	Sec	5.677	5.148	0.529	9.318

Variations in the rates of improvement between the pre-test and post-test averages for the experimental group are shown in Table (14) with a preference for the post-test assessment. The difference in improvement rates between the pre- and post-tests for time needed to complete specific composite skill tests to raise football performance levels among 10- to 12-year-olds ranged from 12.266% to 4.842%).

Table (15) shows the improvement percentage between the average scores of the pre-test and post-test for the experimental group in accuracy for certain composite skill tests in developing performance levels in football among (10-12) year olds, with n = 14 .

Variables		Unit	Pre-measurement	Post-measurement	Dif between Means	Improve %
			M-	M-		
Acc	Receiving from the movement and then handling	Deg	1.750	3.083	1.333	76.171

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

uracy	Receiving from the movement and then running Zigzag with the ball and then handling	Deg	1.417	2.833	1.416	99.93
	Receiving from the movement, then deception, then handling	Deg	1.333	2.917	1.584	118.830
Time and accuracy together	Receiving from the movement and then handling	Deg	3.500	6.167	2.667	76.02
	Receiving from the movement and then running Zigzag with the ball and then handling	Deg	2.833	5.667	2.834	100.040
	Receiving from the movement, then deception, then handling	Deg	2.667	5.833	3.166	118.710

Table (15) shows that the experimental group's pre-test and post-test averages differed in improvement percentages, with the post-test measurement showing more improvement. Football players aged 10 to 12 showed improvement percentages ranging from 118.830% to 76.171%) in accuracy averages for specific composite skill tests as their performance levels developed. Furthermore, for the experimental group, there are variations in the percentages of improvement between the pre- and post-tests, favoring the post-test measurement. These variations range from (118.710% - 76.02%) for the time and accuracy combined averages for specific composite skill tests in the development of football performance levels among 10- to 12-year-olds.

Table (16) illustrates the improvement percentages between the average scores of the pre-test and post-test for the control group in the timings of certain composite skill tests in developing performance levels in football among (10-12) year olds, with n = 14 .

Variables	Unit	Pre-Measurement	Post-Measurement	Dif between Means	Improve %
		M-	M-		

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

Receiving from the movement and then handling	Sprint time before receiving	Sec	2.678	2.622	0.056	2.091
	Receive and scroll performance time	Sec	0.978	0.919	0.059	6.033
	Total time	Sec	3.656	3.541	0.115	3.146
Receiving from the movement with rotation, then running with the ball and then passing	Sprint time before receiving	Sec	2.792	2.718	0.074	2.650
	Receiving performance time with turning, running, then scrolling	Sec	4.554	4.426	0.128	2.811
	Total time	Sec	7.346	7.143	0.203	2.763
Receiving from the movement with rotation, then running Zigzag with the ball and then passing	Sprint time before receiving	Sec	2.819	2.749	0.07	2.843
	Receiving performance time with turning, then zigzag running, then scrolling	Sec	6.633	6.340	0.293	4.417
	Total time	Sec	9.452	9.089	0.363	3.840
	Sprint time before receiving	Sec	2.680	2.613	0.067	2.5
	The time of receiving the confrontation then running Zigzag and then passing	Sec	6.209	5.786	0.423	6.813
	Total time	Sec	8.889	8.398	0.491	5.524
Receiving from the movement, then deception, then handling	Sprint time before receiving	Sec	2.688	2.616	0.072	2.679
	Time to perform receiving by confrontation, deception, then passing	Sec	2.983	2.805	0.178	5.967
	Total time	Sec	5.671	5.421	0.25	4.408

Table (16) shows that there were variations in the improvement rate for the control group between the pre and post measurements, with the improvement rate for the post measurement ranging from 6.813% to 2.091%) during the performance period of certain composite skill tests in the development of football performance levels among children aged 10 to 12.

Statistical Analysis: SPSS & EXELLE were the computer programs used to do statistical analysis. The researcher used the following statistical techniques to meet the study goals and evaluate the hypotheses:

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

- Mean calculation.
- Standard deviation calculation.
- Correlation coefficient.
- Coefficient of variation.
- t-test.
- Improvement ratio.

Discussion of Results:

1. Discussion of Significant Differences Between Pre-test and Post-test Measures for the Experimental Group in Some Composite Skill Tests in Developing Football Performance Levels Among (10-12) Year Olds:

The study's findings, which compare pre- and post-test measurements for the experimental group in Tables (8), (9), and (10), show statistically significant differences at the 0.05 level in a few composite skill tests meant to raise football performance levels in kids aged 10 to 12. Particularly, Tables (8) and (9) demonstrate statistically significant variations in mean test durations and performance accuracy in a few composite skill assessments, suggesting gains in favor of the post-test metrics. The researcher attributes these statistically significant differences in test times and combined accuracy and time to the proposed training program. This program contributed to enhancing the efficiency of the nervous system and increasing the coordination between sensory nerves—affected by stimuli within the program—and motor nerves, thereby continuously improving skill and technical levels. This finding is consistent with the results of studies by Abdul Basit Abdul Haleem (1998) and Suleiman Farouk Suleiman (1993), which similarly found that training programs have a positive impact on the development of complex motor skills.

2. Discussion of Significant Differences Between Pre-test and Post-test Measures for the Control Group in Some Composite Skill Tests in Developing Football Performance Levels Among (10-12) Year Olds:

Tables (11), (12), and (13) present the study findings, which compare pre-test and post-test measures for the control group. The results show statistically significant differences at the 0.05 level in all composite skill tests, including test times, performance accuracy, and combined accuracy and time, which are intended to develop football performance levels among 10- to 12-year-olds. These results show a substantial improvement in favor of the post-test measures. Improvements in performance time and accuracy are the reason the control group performed better on post-test measures than on pre-test measures in all composite skill tests designed to raise football performance levels among children aged 10 to 12. Any training program should increase the performance of motor skills, but the degree of progress determines how effective the program is. This finding is consistent with the second study hypothesis, which proposed that in some composite skill tests intended to improve football performance levels among 10- to 12-year-olds, there would be significant differences between pre-test and post-test measures for the control group in favor of the post-test measures.

3. Discussion of Significant Differences Between Post-test Measures of the Experimental and Control Groups in Some Composite Skill Tests in Developing Football Performance Levels Among (10-12) Year Olds:

In all composite skill tests designed to develop football performance levels among 10- to 12-year-olds, the study results in Tables (12), (13), and (14) comparing post-test measures of the experimental and control groups show statistically significant differences at the 0.05 level in favor of the post-test measures for the experimental group, specifically in terms of performance time, accuracy, and combined accuracy and time. The suggested training program, which had a more favorable effect on the experimental group than the conventional program applied to the control group, is credited by the researcher for this advancement. The suggested training program increased overall skill performance by including structured exercises for

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

composite skill tests targeted at raising football performance levels among 10–12-year-olds. This finding underscores the recommendation that comprehensive training programs benefit young athletes in their motor skill development.

Conclusions:

The researcher makes the following deductions considering the study's findings as well as its goals and hypotheses:

1. Among children aged 10 to 12, the suggested training program improved the completion time and accuracy of composite motor skills (receiving then passing, receiving then running with the ball then passing, and receiving then dribbling then passing).
2. In certain composite skill tests designed to raise football performance levels among 10- to 12-year-olds, the experimental group—which completed the suggested training program—performed better than the control group, which adhered to the traditional training program (individual performances), in terms of cutting down on overall performance time (reception then passing, reception then running with the ball then passing, reception then dribbling then passing).
3. The researcher created five composite skill tests—reception followed by passing, reception followed by running with the ball and passing, and reception followed by dribbling and passing—with the goal of raising football performance levels among children aged 10 to 12. She also established the tests' scientific parameters. The players' performance was evaluated using these tests for both pre- and post-test measurements.
4. The experimental group performed better on various composite skill tests designed to raise football performance levels among children aged 10 to 12. These increases were seen in both rate of improvement in times and accuracy.

Recommendations:

The researcher suggests the following considering the study's findings and conclusions:

1. Putting into practice the suggested training plan for a few composite skill assessments designed to raise kids' football performance levels (10–12 years old).
2. Putting the researcher's tests into practice to find out how skilled the participants were in the pre- and post-test measures.
3. Considering the age groups' features when working with young athletes to plan for the development of their physical, mental, motor, and social capacities.
4. Considering the weather and performance time when it comes to field applications and how appropriate they are for the various age groups.

Arabic References:

1. Abu Al-Ala, Mohamed Abdul Fattah. Sports Training and Physiological Foundations. Dar Al-Fikr Al-Arabi, Cairo, 1997.
2. Abu Al-Ala, Mohamed Abdul Fattah, Ibrahim Shaalan. Physiology of Training in Football. Dar Al-Fikr Al-Arabi, Cairo, 1994.
3. Osama Kamel Rateb. Motor Growth: An Integrated Approach to Child and Adolescent Growth. Dar Al-Fikr Al-Arabi, Cairo, 1999.
4. Amr Allah Ahmed Al-Basati. Analytical Study to Determine Components of Skill Performance Capacity in Football. Journal of Theories and Applications, Faculty of Boys' Physical Education, Alexandria University, 1998.
5. Gamal Ismail Matawa. Football Methodology. Unpublished Memoirs, 1st Edition, 1997.

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

6. Gamal Alaa Al-Din et al. Design of a Mechanical Ball Launcher Device as an Effective Means to Direct Biomechanical Indicators of Shooting Skills in Football. Scientific Conference in Cairo, Volume Five, 1984.
7. Hassan Sayed Abu Abdo. Modern Trends in Planning and Training in Football. Al-Iskandariyah Press, Alexandria, 2001.
8. Hanfi Mahmoud Mukhtar. Practical Application in Football Training. Dar Al-Fikr Al-Arabi, Cairo, 1995.
9. Hanfi Mahmoud Mukhtar. Scientific Foundations in Football Training. Dar Al-Fikr Al-Arabi, Cairo, 1994.
10. Hanfi Mahmoud Mukhtar, Mufti Ibrahim Hammad. Physical Preparation in Football. Zahran Publishing and Distribution House, Cairo, 1989.
11. Zakiyah Ibrahim Kamel, Nawal Ibrahim Shaltout, Mervat Ali Khafaga. Teaching Methods in Physical Education, Part One. Al-Ishaa Art Printing House, Alexandria, 2002.
12. Abdul Basit Abdul Halim. The Effect of a Training Program on Some Composite Skill Performances of Football Youth. Unpublished PhD Thesis, Faculty of Boys' Physical Education, Alexandria University, 1998.
13. Abdel Hamid Sharaf. Physical Education for Children. Al-Kutub Publishing Center, 1995.
14. Abdul Saleh Al-Wahsh, Mufti Ibrahim Hammad. Fundamentals of Football. Dar Al-Alam Al-Ma'arifa, 1995.
15. Emad Zubair. Technique and Tactics in Five-a-Side Football, 1st Edition, Baghdad, Al-Sindibad Printing Company, 2005.
16. Farat Jabbar. The Effect of Various Cognitive Training Methods on Cognitive, Skill, and Strategic Aspects in Football: PhD Thesis, University of Baghdad, College of Physical Education, 2001.
17. Kamal Abdel Hamid, Sobhi Hassanein. Measurement in Handball, 2nd Edition, Dar Al-Fikr Al-Arabi, Cairo, 1980.
18. Kamal Abdel Hamid, Sobhi Hassanein. Modern Handball Tactics, Part Three, Al-Kutub Publishing Center, Cairo, 2002.
19. Mohamed Ibrahim Sultan. Contribution Ratio of Integrated Basic Skills to Performance of Some Tactical Principles in Football. Journal of Theories and Applications, Faculty of Boys' Physical Education, Alexandria, Issue 53, 2004.
20. Mohamed Hassan Alawi. Sports Training Science. Dar Al-Ma'arif, Cairo, 1994.
21. Mohamed Hassan Alawi, Mohamed Nasr Al-Din Ridwan. Skill and Psychological Tests in Sports. Dar Al-Fikr Al-Arabi, Cairo, 1987.
22. Mohamed Hassan Alawi, Mohamed Nasr Al-Din Ridwan. Motor Performance Tests. Dar Al-Fikr Al-Arabi, Cairo, 1994.
23. Mohamed Shoukry Kashk, Amr Allah Ahmed Al-Basati. Principles of Skill and Tactical Preparation in Football, B, 2000.
24. Mohamed Abdul Salam Abu Riya. Design of Composite Skill Performance Tests for Football Players in the Arab Republic of Egypt. Unpublished PhD Thesis, Faculty of Physical Education, Tanta University, 1999.
25. Musaad Ali Mahmoud. Memoirs on Physical Fitness. Unpublished Memoirs, 2000.
26. Musaad Ali Mahmoud, Amr Allah Ahmed Al-Basati, Mohamed Shoukry Kashk. Lectures on Sports Training. Unpublished Memoirs, Faculty of Physical Education, Mansoura University, 2002.
27. Mufti Ibrahim Hammad. Planned Training Programs for Football Teams. Al-Kutub Publishing Center, Cairo, 1997.

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 9, September 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

28. Mufti Ibrahim Hammad. Offense in Football. Dar Al-Fikr Al-Arabi, Cairo, 1991.

Foreign References:

29. Carlos Castagna, Grant Abt. Activity Profile of Young Soccer Players During Actual Match Play. Journal of Strength and Conditioning Research, vol. 17, no. 4, pp. 775-780, 2003.
30. Maher & Alan E. Finishing up your practice. Coach and Athletic Director, vol. 11, no. 5, Dec 2001, p. 46.