

The effect of group cohesion of work groups on learning among adolescent learners in individual activities in the lesson of physical education and sports.

تأثير التماسك الجماعي لمجموعات العمل على التعلم لدى المتعلمين المراهقين في الأنشطة الفردية في درس التربية البدنية والرياضية

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Abstract

In physical education and sports classes, group cohesion is often discussed in the context of team activities rather than individual ones. In this article, I aim to highlight the relationship between group cohesion in work teams (known as 'afwaj') and its impact on students' achievements and learning during their individual activities. Among the research findings, it was observed that group cohesion positively influences students' learning outcomes and enhances their performance in individual activities prescribed in physical education and sports classes. This is evident in the changes recorded between diagnostic and achievement assessments, given the role social relationships play in creating a healthy learning environment for students."

Keywords: group cohesion; learning; work teams; students; physical education and sports classes.

المخلص

غالبا ما نتكلم عن التماسك الاجتماعي في النشاطات الجماعية لا في النشاطات الفردية، من خلال هذا المقال أردت أن أبين العلاقة الموجودة بين تماسك جماعة أفواج العمل المشكلة في درس التربية البدنية و الرياضية، و تأثيره على مكتسباتهم و تعلماتهم أثناء مزاولة نشاطاتهم الفردية، و من بين نتائج البحث انه لتماسك جماعة العمل المشكلة في أفواج، الأثر الإيجابي في تحسين التعلم عند التلاميذ و في تحسين مستوى أدائهم في النشاطات الفردية المقررة في درس التربية البدنية و الرياضية و الذي يتجلى في التغير الحاصل في النتائج المسجلة بين التقويم التشخيصي و التحصيلي، نظرا لما تلعبه قوة العلاقة الاجتماعية بين التلاميذ في خلق بيئة صحية للتعلم لديهم. الكلمات المفتاحية : تماسك الجماعة؛ التعلم؛ أفواج العمل؛ المتمدرسين؛ درس التربية البدنية و الرياضية.

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Introduction:

Physical education is a crucial component of the educational system, promoting physical, social, emotional, and cognitive development among students. Regardless of students' age groups, physical education classes enable learners to improve and learn under the guidance of teachers who create conducive learning conditions based on predefined objectives. Adolescence is a critical period in human life, characterized by physiological, psychological, cognitive, and social changes. During this phase, teenagers seek self-realization among their peers, and group dynamics play a significant role in their interactions, learning, and recognition.

In physical education and sports classes, teachers rely on forming work regiments (referred to as “afwaj”) considering the diverse abilities of students. Whether in individual or team sports, teachers also consider students' inclinations toward one another based on social relationships built on attraction or repulsion. Organizing the class involves creating workshops and work regiments, distributing students according to their physical, technical, and aptitude levels.

It is essential to form work regiments with heterogeneous elements, starting from the initial assessment of the learning process (diagnostic evaluation). This distribution helps develop individual and collective management and organizational skills.

Within work regiments, social cohesion plays a crucial role for individuals, especially adolescents. Social relationships significantly impact the dynamics within workshops and regiments. Now, let's explore whether social cohesion affects learning among adolescent students in physical education classes and during individual activities.

2. General Hypothesis:

Social cohesion within work regiments, as formed by teachers, significantly impacts learning among adolescent students during individual activities in physical education and sports classes.

3. Importance of the Study:

This study aims to emphasize the importance of social cohesion in the teaching and learning process. By creating cohesive work regiments, we facilitate learning for students and streamline the teacher's role in education. Furthermore, it enhances students' abilities across various dimensions. The study also highlights the role of social

relationships in achieving desired cohesion and fostering camaraderie among students within the regiment.

4. Study Objectives:

1. Raise Awareness: Highlight the significance of social cohesion within regiments to facilitate student learning.

2. Identify Strategies: Explore effective scientific methods for forming regiments based on positive social relationships, creating a healthy interaction environment among students for learning and achievement.

3. Emphasize Collective Learning: Remind educators that teamwork exists even within individual activities. By organizing students into groups that interact, we can achieve the three dimensions of physical education and sports.

5. Study Terminology:

The social cohesion: reflects the degree of the relationships between the athletes and the degree of their love and adherence to each other, and it is clearly based on the attractiveness of the relationships between the individuals (Mohamed Azizou, 2022, p. 34).

A work group: is a group that the teacher forms during the lesson, where its members work collectively for the purpose of learning, where we find in it the collective work in learning among the students, and this is by the advice provided to each other and the criticism and mutual criticism and others.

Learning: is the process of receiving knowledge, values and skills through study or experience or education, which may lead to a permanent change in behavior, a measurable and selective change that redirects the human individual and reshapes the structure of his mental thinking.

Adolescence: is a transitional stage between childhood and maturity, and it is one of the sensitive and difficult stages in the life of the individual, and it is therefore a biological and organic process in its beginning and appearance, and social in its end (Mustafa Zidan, 1986, p. 95). And adolescence is one of the most important stages of sensitive development, in which the adolescent individual is surprised by rapid organic and psychological changes, which make him strongly inclined to rebel and tyrannize and violence and impulsiveness, so this stage is sometimes called the negative stage, especially from a psychological point of view (Fouad Baha El-Sayed, 1975, p. 275). Individual activities are the sports prescribed in the physical and sports education curriculum, represented in gymnastics, sprinting, shot put and long jump.

Physical Education and Sports Class: This class represents a crucial part of the overall school curriculum for physical education. It provides all the educational and pedagogical materials necessary to achieve the curriculum's objectives. Ideally, every student should benefit from this class at least once a week. Physical education teachers must consider various teaching methods, educational resources, and assessment techniques to effectively achieve these goals (Patrick Seners, 2002, p. 10).

6. Research Methodology and Field Procedures:

6.1 Research Approach: Descriptive Approach: In our study, we have chosen the descriptive approach, which involves studying prevailing facts related to a specific phenomenon or situation. The descriptive approach is defined as follows: “A set of research procedures that integrate data collection, classification, processing, and thorough analysis to extract meaning and arrive at conclusions” (Hussein Abdel Hamid Rashwan, 1990, p. 63).

6.2 Research Sample: In our study, we selected five out of 18 sections from the Karim Belkacem Secondary School in Yassar, Boumerdes, Algeria. The sample was a simple random sample, specifically a homogeneous sample where all individuals share certain characteristics. In this type of sample, every member of the statistical population has an equal chance of being selected (Saadi Shakir Hamoudi, 2009, p. 79).

6.3 Research Tools:

Social Cohesion Scale:

We chose a scale developed by Mohamed Hassan Alawi, consisting of 12 questions. Each individual within the selected group responds to these questions on a graded scale. Alawi standardized the scale for the Arabic context. Notably, this scale was originally designed for measuring team cohesion in sports. However, Dr. Majid Hamid Kamish adapted it for the school environment by modifying certain phrases to align with the concept of class (section) rather than a sports team (Majid Hamid Kamish, 2010, p. 45).

Scale Validity:

We assessed face validity by presenting the scale to a group of expert teachers. They confirmed that the modifications made to some words did not affect the overall concept, meaning, or purpose of the measurement. The scale effectively measures what it was designed for.

Scale Reliability:

The researcher used the apparent validity, where the scale was presented to a group of arbitrators, who confirmed that the scale after these changes in some words does not affect the concept, meaning and purpose of the measurement, and that the scale measures what was put for measurement. b. Stability of the scale: The researcher relied on the stability of the scale on the test and retest method on the same students and in two different opportunities after a week, on a sample of 34 students other than the research sample, and the stability coefficient reached 0.39, which confirms the stability and validity of the scale.

7. Presentation and analysis of the research results:

Table N 01: The value of (t) for the pre and post evaluation of the results of the students of Section 1 Experimental Sciences 1 in shot put.

	number	arithmetic 1mean	standard deviation1	arithmetic 2mean	standard deviation2	calculatedT- value	tabled t-value	degrees of freedom	statistical significance
Group1	6	7,58	1,21	8,09	1,25	3,64	2,75	5	Signif icant
Group2	5	5,68	1,62	6,11	1,50	4,30	2,77	4	Signif icant
Group3	5	7,03	1,64	7,52	1,63	3,50	2,77	4	Signif icant
Group4	4	5,03	0,39	5,15	0,40	2,00	3,18	3	not signifi cant
Group5	5	4,25	0,26	4,34	0,26	1,40	2,77	4	not signifi cant
Group6	5	4,55	0,50	5,09	0,28	4,90	2,77	4	Signif icant

Source: Author, 2023

Through table 01, we notice that the results of the students in all groups ranged between 5.68 m and 7.58 m, with a standard deviation between 1.21 and 1.64, in the diagnostic evaluation of the shot put sport for males, while in the achievement evaluation the results were between 6.11 m and 8.09 m with a standard deviation between 1.25 and 1.63, and the calculated (t) was between 3.50 and 4.30 and was greater than the tabulated (t) estimated at 2.77 at the degree of freedom 4 and 5 and at the significance level 0.05, and therefore there are statistically significant differences between the diagnostic evaluation and the achievement evaluation in groups 6, 3, 2 and 1 in the shot put sport. As for the fourth and fifth groups, the arithmetic mean of the diagnostic evaluation was between 4.25 m and 5.03 m with a standard deviation between 0.26 and 0.50, while in the achievement evaluation the results were between 4.69 m and 5.15 m with a standard deviation between 0.05 and 0.40, and the calculated (t) was between 2 and 4.90 at the degree of freedom 3 and 4 and at the significance level 0.05, and therefore there are statistically significant differences between the diagnostic evaluation and the achievement evaluation.

Table 02: The arithmetic mean of group cohesion for section 1 experimental sciences 1 in the shot put activity

Groups	Group1	Group2	Group3	Group4	Group5	Group6
Arithmetic mean	6.58	6.70	6.03	6.70	6.58	6.61

Source: Author, 2023

Through table 02, we notice that the average social cohesion of all groups ranges between (6.03 and 6.74), which constitutes a percentage ranging between (67% and 74.88%) and these are percentages that indicate that the cohesion within these groups is strong, and good in all cases, which indicates that the relationships between the students in the formed groups are good, and that the formation of the groups in general is consistent with the desires of the students to be with their peers so that they interact with them and share the feeling of success or failure in winning or losing and in resisting crises. And what indicates more the existence of trust and a suitable environment for most students is what we find as an answer to question 12, where most students express their opinion that there is a great cohesion in their group by giving from 1 to 3 points out of 9 points, which is a small amount, as an answer to the existence of a declared or undeclared desire of their colleagues in the group to change the group to another, which indicates a state of reassurance and confidence in dealing and working with each other under good social relations, and the same thing for the sense of belonging to the group and the extent of convergence and harmony within it, we find it very high among most students, which confirms the desire of most students to be within their work groups, which led to an increase in the degree of social cohesion, which makes the cohesion of the building good, which leads to the satisfaction of the students in their groups for the availability of mutual trust and security and stability with the colleagues they chose to work together, and therefore we see the building as solid and cohesive, which positively.

Table 03: The value of (t) for the pre and post evaluation of the results of students of section 1 experimental sciences 3 in the shot put.

	number	arithmetic 1mean	standard deviation1	arithmetic 2mean	standard deviation2	calculatedT- value	tabled t-value	degrees of freedom	statistical significance
Group1	5	6,24	0,66	1,42	0,66	6,34	2,77	5	Not signifi cant
Group2	6	6,43	1,06	3,41	1.08	7,01	2,57	4	Signif icant

Group3	6	6,45	0,93	3,70	0,93	7,08	2,57	4	Significant
Group4	6	4,81	0,43	3,13	0,26	5,28	2,57	3	significant
Group5	6	4,51	0,49	4,58	0,34	5,06	2,57	4	significant
Group6	6	4,06	0,98	2,89	0,64	4,61	2,57	4	Significant

Source: Author, 2023

Through table 03, we notice that the results of the students in all groups ranged between 6.24 m and 6.45 m, with a standard deviation between 0.66 and 1.06, in the diagnostic evaluation of the males in the shot put sport, while in the achievement evaluation the results were between 6.34 m and 7.08 m with a standard deviation between 0.66 and 1.08, and the calculated (t) was between 1.42 and 5.77 and was greater than the tabulated (t) estimated at 2.77 at the degree of freedom 4 and 5 and at the significance level 0.05, and therefore there are statistically significant differences between the diagnostic evaluation and the achievement evaluation of the males in the shot put sport, except in the first group where we find the calculated t value not statistically significant. As for the females, the arithmetic mean of the diagnostic evaluation was between 4.06 meters and 4.81 meters with a standard deviation between 0.43 and 0.98, while in the achievement evaluation the results were between 4.61 meters and 5.28 meters with a standard deviation between 0.26 and 0.64, and the calculated (t) was between 2.89 and 4.58 at the degree of freedom 5 and the significance level 0.05, and therefore there are statistically significant differences between the diagnostic evaluation and the achievement evaluation of the females in the shot put sport.

Table 04: The arithmetic mean of group cohesion for section 1 experimental sciences 3 in the shot put activity

Groups	Group1	Group2	Group3	Group4	Group5	Group6
Arithmetic mean	5.88	6.38	6.73	6.88	6.55	6.33

Source: The author, 2023

Through table 04, we notice that the average social cohesion of all groups ranges between (5.88 and 6.88), which constitutes a percentage ranging between (65.33% and 76.50%) and these are percentages that indicate that the cohesion within these groups is strong, and good in all cases, which indicates that the relationships between the students in the formed groups are good, and that the formation of the groups in general is consistent with the desires of the students to be with their peers so that they interact with them and share the feeling of success or failure in winning or losing and in resisting crises. And what indicates more the existence of trust and a suitable environment for most students is what we find as an answer to question 12, where most students express

their opinion that there is a great cohesion in their group by giving from 1 to 3 points out of 9 points, which is a small amount, as an answer to the existence of a declared or undeclared desire of their colleagues in the group to change the group to another, which indicates a state of reassurance and confidence in dealing and working with each other under good social relations, and the same thing for the sense of belonging to the group and the extent of convergence and harmony within it, we find it very high among most students, which confirms the desire of most students to be within their work groups, which led to an increase in the degree of social cohesion, which makes the cohesion of the building good, which leads to the satisfaction of the students in their groups for the availability of mutual trust and security and stability with the colleagues they chose to work together, and therefore we see the building as solid and cohesive, which positively affects the work between the students.

Table 05: The value of (t) for the pre and post evaluation of the student results in the long jump for section 3 experimental sciences 2.

	number	arithmetic 1mean	standard deviation1	arithmetic 2mean	standard deviation2	calculatedT- value	tabled t-value	degrees of freedom	statistical significance
Group1	7	4,35	0,46	4,49	0,32	1,00	2,44	6	Not signifi cant
Group2	7	4,52	0,55	4,91	0,27	3,54	2,44	6	Signif icant
Group3	5	2,68	0,15	3,10	0,68	4,20	2,77	4	Signif icant
Group4	6	2,73	0,18	3,16	0,11	7,16	2,57	5	signifi cant
Group5	6	2,80	0,17	3,28	0,16	6,00	2,57	5	signifi cant
Group6	5	2,60	0,14	3,14	0,16	9,00	2,77	4	signifi cant

Source: The author, 2023

Through table 05, we notice that the results of the students in all groups ranged between 4.35 meters and 4.52 meters, with a standard deviation between 0.46 and 0.55, in the diagnostic evaluation of the males in the long jump sport, while in the achievement evaluation the results were between 4.49 meters and 4.91 meters with a standard deviation between 0.21 and 0.32, and the calculated (t) was between 1 and 3.54 and was greater than the tabulated (t) estimated at 2.44 at the degree of freedom 6 and the significance level 0.05, and therefore there are statistically significant differences between the diagnostic evaluation and the achievement evaluation of the males in the long jump sport, except in the first group where there is no statistical significance in the

results. As for the females, the arithmetic mean of the diagnostic evaluation was between 2.60 meters and 2.80 meters with a standard deviation between 0.14 and 0.18, while in the achievement evaluation the results were between 3.10 meters and 3.28 meters with a standard deviation between 0.11 and 0.68, and the calculated (t) was between 4.20 and 9.00 at the degree of freedom 5 and 4 and the significance level 0.05, and therefore there are statistically significant differences between the diagnostic evaluation and the achievement evaluation of the females in the long jump sport.

Table 06: The arithmetic mean of group cohesion for section 3 experimental sciences 2 in the long jump activity.

Groups	Group1	Group2	Group3	Group4	Group5	Group6
Arithmetic mean	6.35	6.5	7.58	7.7	6.84	6.57

Source: The author, 2023

Through table 06, we notice that the average social cohesion of all groups ranges between (6.50 and 7.71), which constitutes a percentage ranging between (72.22% and 85.66%) and these are percentages that indicate that the cohesion within these groups is strong, and good in all cases, which indicates that the relationships between the students in the formed groups are good, and that the formation of the groups in general is consistent with the desires of the students to be with their peers so that they interact with them and share the feeling of success or failure in winning or losing and in resisting crises. And what indicates more the existence of trust and a suitable environment for most students is what we find as an answer to question 12, where most students express their opinion that there is a great cohesion in their group by giving from 1 to 3 points out of 9 points, which is a small amount, as an answer to the existence of a declared or undeclared desire of their colleagues in the group to change the group to another, which indicates a state of reassurance and confidence in dealing and working with each other under good social relations, and the same thing for the sense of belonging to the group and the extent of convergence and harmony within it, we find it very high among most students, which confirms the desire of most students to be within their work groups, which led to an increase in the degree of social cohesion, which makes the cohesion of the building good, which leads to the satisfaction of the students in their groups for the availability of mutual trust and security and stability with the colleagues they chose to work together, and therefore we see the building as solid and cohesive, which positively affects the work between the students.

Table 07: The value of (t) for the pre and post evaluation of the students' results in the long jump for section 2 literature and philosophy

	number	1mean arithmetic	standard deviation1	2mean arithmetic	standard deviation2	calculatedT- value	tabled t-value	degrees of freedom	statistical significance
Group1	6	4,75	0,20	5,18	0,09	6,48	2.57	5	signifi cant
Group2	6	4,61	0,28	5,10	0.15	5,44	2.57	5	signifi cant
Group3	5	2,82	0,20	2,93	0,17	1,00	2,77	4	Not signifi cant
Group4	5	2,92	0,14	3,30	0,14	9,50	,277	4	signifi cant
Group5	5	2,96	0,23	3,40	0,14	7,33	,277	4	signifi cant

Source: The author, 2023

Through table number 07, we notice that the results of the students in all groups ranged between 4.61 meters and 4.75 meters, with a standard deviation between 0.20 and 0.28, in the diagnostic evaluation of the long jump sport for males. As for the achievement evaluation, the results were between 5.10 meters and 5.18 meters, with a standard deviation between 0.09 and 0.15, and the calculated (t) was between 5.44 and 6.48 and was greater than the tabulated (t) estimated at 2.77 at 5 degrees of freedom and a significance level of 0.05, and therefore there are statistically significant differences between the diagnostic and achievement evaluation for males in the long jump sport. As for females, the arithmetic mean of the diagnostic evaluation was between 2.82 meters and 2.96 meters, with a standard deviation between 0.14 and 0.23, while in the achievement evaluation, the results were between 3.30 meters and 3.40 meters, with a standard deviation between 0.14 and 0.17, and the calculated (t) was between 7.33 and 9.50 at 4 degrees of freedom and a significance level of 0.05, and therefore there are statistically significant differences between the diagnostic and achievement evaluation for females in the long jump sport except in group 3 where we found the calculated (t) equal to one and therefore there are no statistically significant differences between the two evaluations in this group.

Table number 08: The arithmetic mean of the cohesion of the groups for section 2 literature and philosophy in the long jump activity.

Groups	Group1	Group2	Group3	Group4	Group5
Arithmetic mean	6.35	6.5	7.58	7.7	6.84

Source: The author, 2023

Through table number 08, we notice that the average social cohesion of all groups ranges between (6.38 and 7.43), which constitutes a percentage ranging between (70.88% and 82.55%) and these are percentages that indicate that the cohesion within these groups is strong, and good in all cases, which indicates that the relationships between the students in the formed groups are good, and that the formation of the groups in general is consistent with the desires of the students to be with their peers so that they interact with them and share the feeling of success or failure in winning or losing and in resisting crises. And what indicates more the existence of trust and a suitable environment for most students is what we find as an answer to question 12, where most students express their opinion that there is a great cohesion in their group by giving from 1 to 3 points out of 9 points, which is a small amount, as an answer to the existence of a declared or undeclared desire of their colleagues in the group to change the group to another, which indicates a state of reassurance and confidence in dealing and working with each other under good social relations, and the same thing for the sense of belonging to the group and the extent of convergence and harmony within it, we find it very high among most students, which confirms the desire of most students to be within their work groups, which led to an increase in the degree of social cohesion, which makes the cohesion of the building good, which leads to the satisfaction of the students in their groups for the availability of mutual trust and security and stability with the colleagues they chose to work together, and therefore we see the building as solid and cohesive, which positively affects the work between the students.

Table number 09: The value of (t) for the pre and post evaluation of the students' results for section 1 experimental sciences 4 in the sprint race

	number	arithmetic 1mean	standard deviation1	arithmetic 2mean	standard deviation2	calculatedT- value	tabled t-value	degrees of freedom	statistical significance
Group1	5	9,61	0,25	9,34	0,30	3,37	2,77	4	Signif icant
Group2	5	9,75	0,25	9,39	0.32	3,60	2,77	4	Signif icant

Group3	5	10,78	0,49	10,06	0,17	3,78	2,77	4	Signif icant
Group4	5	10,71	0,37	10,53	0,44	0,40	2,77	4	Not signifi cant
Group5	5	11,22	0,83	10,20	0,15	3,18	2,77	4	signifi cant
Group6	5	10,85	0,37	9,90	0,14	7,91	2,77	4	Signif icant

Source: The author, 2023

Through table number 09, we notice that the results of the students in all groups ranged between 9.61 seconds and 9.75 seconds, with a standard deviation between 0.25, in the diagnostic evaluation of the speed for males. As for the achievement evaluation, the results were between 9.34 seconds and 9.39 seconds, with a standard deviation between 0.30 and 0.32, and the calculated (t) was between 3.37 and 3.60 and was greater than the tabulated (t) estimated at 2.77 at 4 degrees of freedom and a significance level of 0.05, and therefore there are statistically significant differences between the diagnostic and achievement evaluation for males in the speed. As for females, the arithmetic mean of the diagnostic evaluation was between 10.71 seconds and 11.22 seconds, with a standard deviation between 0.37 and 0.83, while in the achievement evaluation, the results were between 9.90 seconds and 10.53 seconds, with a standard deviation between 0.14 and 0.40, and the calculated (t) was between 3.18 and 7.91 at 4 degrees of freedom and a significance level of 0.05, and therefore there are statistically significant differences between the diagnostic and achievement evaluation for females in the speed except in group 4 where we notice the absence of statistically significant differences between the two evaluations.

Table Number 10: The average cohesion for sections in Experimental Sciences 4, related to the speed activity

Groups	Group1	Group2	Group3	Group4	Group5	Group6
Arithmetic mean	6.51	6.71	6.47	6.38	6.51	6.68

Source: The author, 2023

Through table number 10, we notice that the average social cohesion of all groups ranges between (6.38 and 6.71), which constitutes a percentage ranging between (70.88% and 74.55%) and these are percentages that indicate that the cohesion within these groups is strong, and good in all cases, which indicates that the relationships between the students in the formed groups are good, and that the formation of the groups in general is consistent with the desires of the students to be with their peers so that they interact with them and share the feeling of success or failure in winning or losing and in resisting crises. And what indicates more the existence of trust and a suitable environment for most students is what we find as an answer to question 12, where most

students express their opinion that there is a great cohesion in their group by giving from 1 to 3 points out of 9 points, which is a small amount, as an answer to the existence of a declared or undeclared desire of their colleagues in the group to change the group to another, which indicates a state of reassurance and confidence in dealing and working with each other under good social relations, and the same thing for the sense of belonging to the group and the extent of convergence and harmony within it, we find it very high among most students, which confirms the desire of most students to be within the formed groups, which led to an increase in the degree of social cohesion, which makes the cohesion of the building good, which leads to the satisfaction of the students in their groups for the availability of mutual trust and security and stability with the colleagues they chose to work together, and therefore we see the building as solid and cohesive, which positively affects the work between the students.

8. Discussion of Research Results:

By presenting and analyzing the results, we observed that 79.31% of the work regiments (23 out of 29) achieved good results between the diagnostic and achievement assessments in individual activities (shot put, long jump, and speed). This percentage indicates strong and positive cohesion within these formed regiments. The relationships among students in these regiments are robust, and the overall composition of the regiments aligns with students' preferences for interacting with their peers. They share feelings of success or failure, as well as resilience during challenging times. This finding resonates with Dr. Mokhtari Yacine's perspective, emphasizing the importance of social measurement based on the strength of relationships among students and their desire to collaborate within the same learning environment. Forming work regiments in physical education and sports classes significantly contributes to learning improvement and overall achievement.

Furthermore, the most significant evidence of trust and a conducive environment for most students lies in the results of the social cohesion scale. Most students express their belief in strong cohesion within their groups, giving an average score ranging from 6.38 to 7.58 out of 9.00. This further confirms their confidence and trust in working together, supported by positive social relationships. The same holds true for the sense of belonging within the group and the level of alignment and harmony. These indicators are notably high among most students, emphasizing their preference for being part of the formed groups. Consequently, the overall cohesion is robust, contributing positively to collaboration among students.

Regarding the three groups that did not achieve statistically significant results, we notice that their social cohesion percentage is comparatively lower across all other groups. However, their cohesion scores still range from 5.88 to 6.37, which are acceptable and indicate cohesion among group members. As for the improvement in results, there is a slight progression observed between the pre-assessment and post-assessment, although this improvement is not statistically significant. It may be attributed to potential misunderstandings among students during collaborative work or to their prior knowledge and experiences.

The researcher agrees with Professor “Maddani Mohammed,” who emphasizes that reinforcing team cohesion through a sense of belonging and maximum effort – by participating to achieve success and feeling it – as well as strengthening cooperative relationships among team members leads to success. It makes the team members act as one cohesive and harmonious unit (Maddani Mohammed, 2014, p. 144).

We also concur with Dr. “Ahmed Amin Fawzi,” who asserts that higher levels of team cohesion positively impact their outcomes (Ahmed Amin Fawzi, 2001, p. 121).

Furthermore, we align with Professor “Mohamed Azizo,” who highlights that students’ good skill performance depends on strong cohesion among them during the learning process (Mohamed Azizo, 2022, p. 45).

Based on the above, we can conclude that the cohesion of work regiments within the section during physical education and sports classes significantly influences student learning, affirming the hypothesis.

9. Conclusion:

Through this research, we aimed to study the impact of group cohesion on learning among adolescent students in physical education classes, specifically focusing on individual specialties where group involvement is not commonly practiced. Working in cohesive work regiments significantly contributes to improving students’ skill levels or enhancing existing skills. When there is understanding and positive relationships among students, it opens channels for constructive dialogue, feedback, and guidance toward appropriate work. Conversely, poor relationships within the group can lead to division and conflicts, hindering constructive criticism and discouraging learning and participation. Therefore, social relationships are key to the type of social cohesion within the group, which, in turn, affects student learning through positive interactions and overall improvement. Based on this research, we propose the following recommendations:

Formation of Work Regiments: Teachers should focus on the quality of social relationships among students when forming work regiments during class. Encouraging students to choose their peers for collaboration increases interaction and enhances overall performance. Creating a healthy environment, free from conflicts, is essential for maintaining group cohesion.

Social Measurement: Teachers can rely on social measurement or sociometric tests to understand the various social relationships present in the class. This knowledge helps in forming homogeneous work regiments.

In summary, social cohesion plays a significant role in student learning, and fostering positive relationships within work regiments contributes to a successful learning environment.

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