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مجلة التربية الرياضية

مجلة علمية فصلية مُحكمة متخصصة

بعلوم الرياضة تصدر عن

كلية التربية البدنية وعلوم الرياضة

جامعة بغداد

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وزارة التعليم العالي والبحث العلمي
جامعة بغداد
كلية التربية البدنية وعلوم الرياضة

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المجلد السادس والثلاثون
العدد الثاني
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كلية العلوم الرياضة والنشاط البدني

جامعة السلطان قابوس عمان

bhaddabi@squ.edu.om

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جامعة بغداد – كلية التربية الرياضية

هاتف: 7705824580 964 + موبايل: 7723515546 964+

E - mail: jcope@cope.uobaghdad.edu.iq

الموقع الالكتروني: www.jcope.uobaghdad.edu.iq

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تصميم الغلاف: د. ياسر وجيه قدوري

تعليمات النشر في مجلة التربية الرياضية

أولاً: تعليمات عامة:

- مجلة علمية رياضية فصلية غير ربحية، متخصصة بنشر البحوث العلمية الخاصة بعلوم الرياضة، لأغراض النشر العلمي، تصدرها كلية التربية البدنية وعلوم الرياضة / جامعة بغداد.
- تعتمد المجلة سياسة التحكيم السري المزدوج والوصول الحر للبحوث دون قيد او شرط.
- يتم استخدام الأسماء وعناوين البريد الإلكتروني والهواتف في قاعدة بيانات المجلة للأغراض العلمية فقط الخاصة بالمجلة ولن تكون متاحة للجميع أو تستعمل لغرض آخر.
- تعتد مجلة التربية الرياضية الرخصة (CC BY 4.0)  (a Creative Commons Attribution 4.0 International license) وهي بذلك تحفظ حقوق الملكية الفكرية للباحثين الناشرين فيها، وفي الوقت نفسه تتيح للاخرين بتحميل ومشاركة وإعادة اسخدام وتوزيع البحث في نطاق واسع. للمزيد من المعلومات، انقر على الرابط ادناه: https://creativecommons.org/licenses/by/4.0/
- تتم إجراءات المراجعة الأولية للبحث المرسل من قبل هيئة التحرير واجراء الاستلال الاليكتوني، ويتم اعلام الباحث بأي مشكلة خلال الأسبوع الاول من استلام البحث.
- يتم إحالة البحث للتحكيم العلمي من قبل هيئة التحرير لمحكمين أثنين معتمدين من قبل المجلة وبشكل سري.
- تتم عملية التحكيم خلال مدة (3) اسابيع وفق تعليمات المجلة (ارشادات المحكمين).
- بالاعتماد على توصية المحكمين، يتم قبول البحث كما هو او قبولة بعد اجراء التعديلات او رفضه، ويتم اعلام الباحث بذلك.
- بعد الانتهاء من التحكيم، يتم طلب دفع رسوم النشر البالغة (120000) الف دينار عراقي. علماً إن المجلة غير ربحية والنفقات أعلاه لتغطية أجور التحكيم والنشر والترجمة فقط.
- يكون النشر للباحثين من خارج العراق مجاني وبشكل كامل ولحد نهاية سنة (2021).
- كل إجراءات تحكيم البحوث تكون الكترونياً اعتماداً على نظام المجلات المفتوحة (OJS).

ثانياً: شروط كتابة البحث:

تتبع مجلة التربية الرياضية (JOPE) طريقة (IMRAD) في كتابة البحوث وهي ترمز الى الحروف الأولى لكلمات: المقدمة (Introduction). الطريقة والأدوات (Materials and Methods). النتائج (Results) و (And). المناقشة (Discussion).

ورقة واجهة البحث: ويجب أن تتضمن الاتي:

- **عنوان البحث (Research Title):** يعد عنوان البحث الجزء المميز منه الذي يقرأه عدد كبير من الباحثين ويحتوي العنوان ايضا اسم الباحث (الباحثين) وعنواوينهم (طرائق التواصل معهم).
- **شروط عنوان البحث:**
  - ✓ يحوي على عدد قليل من الكلمات كلما امكن ذلك، و بما لا يزيد عن (12) كلمة.
  - ✓ يكون واضح وسهل الفهم ولا يحتوي على المختصرات.
  - ✓ يشرح محتويات البحث بدقة وبشكل محدد.
  - ✓ ان لا يكون بصيغة استفهامية كما في المقالات الصحفية.
  - ✓ يشير الى موضوع البحث وليس النتائج.
- **اسم المؤلف (المؤلفون)(Authors):** مؤلف البحث هو الشخص او الأشخاص الذين أسهموا بشكل فعلي في تخطيط وتنفيذ البحث. ويتم تثبيت أسماء المؤلفين بتسلسل منطقي نسبة الى أهمية مشاركتهم في البحث، اذ يُعد الاسم الأول بالبحث هو كبير معدي البحث وبكلام اخر المؤلف الأول (Senior Author) في حين يتم ترتيب باقي المؤلفين نسبة الى أهمية وقدر مشاركتهم في إتمام البحث. يكون طالب الدراسات العليا المؤلف الاول في اطروحته او رسالته يليه المشرف الرئيس بوصفه المؤلف الثاني وهكذا، علماً ان المجلة تعتمد تسلسل الباحثين حسب ما هو مثبت في البحث المرسل للمجلة. يجب ادراج هامش يشير الى المعلومات الخاصة عن المؤلفين كافة للاتصال بهم بهدف التعاون او الاستيضاح او اي شأن يخص البحث ومجال الاختصاص، ويجب ملاحظة ان يكتب الأسم الثلاثي واللقب للمؤلفين مع ذكر عنوان العمل و وسيله الاتصال (البريد الالكتروني– رقم الهاتف) وباللغتين العربية والانكليزية.
- **مستخلص البحث (Abstract):** ينقل الملخص معلومات البحث القائم فعلا مع مراعاة عدم استعمال عبارات الوعود (سوف يقدم، سوف يعرض.... وغيرها)، ويكون ملخص البحث بمعدل (150–250) كلمة ويكتب في فقرة واحدة باللغتين الإنكليزية والعربية. يبدأ الملخص بترتيب متسلسل بعرض الاهداف ثم توضيح الإجراءات المستعملة واهم النتائج المتضمنة حقائق جديدة

تتعلق بتحقيق الأهداف، وأخيرا الاستنتاجات الرئيسة ومستوى دلالتها (Sig). وتكتب افعال جمل عرض الأهداف والمقدمة ومناقشة النتائج والاستنتاجات في الزمن المضارع، في حين تكتب الإجراءات والأختبارات والنتائج في الزمن الماضي. يجب ان لا يحتوي ملخص البحث على الاتي:

- ✓ الاختصارات (الاحرف المختصرة) الا اذا كانت معيارية او معروفة مسبقا مثل (Vo2Max).
- ✓ الإشارة الى الجداول او الاشكال في متن البحث والاستشهاد بالمصادر.
- ✓ أي معلومات او استنتاج غير موجود في متن البحث والجمل العامة والجمل المطولة او المعقدة او الملتوية (المراوغة).
- ✓ تجنب ذكر البيانات الكمية بشكل مفصل وكذلك المعالجات الاحصائية والمصطلحات الطويلة جدا.
- ✓ ذكر المتوسط الحسابي والانحراف المعياري لاعمار وأوزان وأطوال عينة البحث. مثال: (متوسط الطول) متر (± الانحراف المعياري).

- **الكلمات المفتاحية (Key Words):** يجب ان يتضمن البحث كلمات مفتاحية بعدد لا يتجاوز (6) كلمات، ويجب ان تكون محددة بالدراسة وغير الكلمات الموجودة في عنوان البحث، وعلى ان تكتب في نهاية ملخص البحث بفقرة منفصلة وباللغتين الإنكليزية والعربية.
- **المقدمة (Introduction):** تكون مقدمة البحث الجيدة قصيرة نسبياً، تشرح أهمية الدراسة وتحديد اهدافها من خلال البحث في الادبيات ذات العلاقة من مراجع ودراسات، ويكون ذلك عن طريق استعراض مختصر لهذه الدراسات والتي تكون ذات علاقة بمشكلة البحث والتي يجب ان لا تقل عن خمسة دراسات حديثة ومناسبة لتعزيز البحث، كما ان المقدمة تُعَرِف بالمصطلحات الخاصة او المختصرات التي سيتضمنها متن البحث لاحقاً، ويفضل أن لا تتجاوز عدد الكلمات في مقدمة البحث عن (500) كلمة وأن لا تتضمن تكرار لعبارات او مفاهيم ذكرت في اي موقع من الملخص، مع مراعاة تجنب العبارات الانشائية والجمل التي لا تضيف للقارئ معلومة مثل إعادة الحقائق والحالات البديهية.
- **الطريقة والادوات (Materials and Methods):** ان الغرض من هذا القسم هو لعرض ما تم عمله، وكيف تم، وأين تم، وذلك بطريقة مباشرة وبسيطة فضلاً عن التعريف بكيفية جمع البيانات وعرضها وتحليلها. اذ يجب ان يوفر هذا القسم من البحث كل المعلومات الضرورية اللازمة للسماح للمؤلفين الآخرين للحكم على الدراسة والإفادة منها، ويجب مراعاة ترتيب

الاجراءات الميدانية زمنياً مع توفير كافة المعلومات الضـــرورية فقط، وعلى وفق ذلك يتطلب ان يتضمن هذا القسم من البحث على الآتي مع أهمية تسلل الفقرات:

- ✓ منهج البحث وتصميمه المستعمل.
- ✓ الوصف الدقيق لعينة البحث من حيث (الجنس والعمر والوزن.... وغيرها).
- ✓ تصـــميم التجربة مع عدد مرات اجراء الاختبار او القياس وإيجاز الإجراءات المســـتعملة لاخذ العينات (إجراءات الاختبارت).
- ✓ ذكر الأجهزة والادوات المستعملة مع مواصفاتها الفنية الدقيقة وعددها ومصدرها وطريقة العمل بها (الضرورية منها فقط غير شائعة الاستعمال). ويجب استعمال الأسماء العلمية للأجهزة بدلاً عن اسمائها التجارية مع ذكر أسماء الشركات المصنعة للجهاز واية معلومات تفيد القارئ.
- ✓ وصف التعديلات اذا ما تم اجراءها على القياسات الروتينية (الاختبارات)، اما إذا ما تم استعمال اجراء جديد (اختبار جديد) فيجب ذكره وشرحه بالتفصيل.
- ✓ توضـــيح طريقة اجراءات البحث من تجربة واختبارات ورقية، وعملية، وشـــفوية او على جهاز الحاسوب.
- ✓ الطريقة الإحصائية (او/و) الرياضية المستعملة لتحليل وتلخيص البيانات.
- ✓ يحق للمجلة ان تطلب من المؤلفين تفاصيل او معلومات إضافية عن أي جزء من أجزاء البحث.

وبشـــكل عام يجب ان يضـــع المؤلفين بعين الاعتبار الأمور الآتية عند كتابته لإجراءات البحث:

- ✓ لايجوز استعمال المختصرات (بأي لغة كانت) قبل تعريفها في ملخص البحث او مقدمته.
- ✓ تحديد نظام وحدات القياس الدولية المستخدم في البحث، مثل (المتر، كيلوغرام، الثانية ... الخ)
- ✓ توضـيح جميع المواد المسـتعملة في الدراسـة بحيث يمكن للقارئ اسـتعمالها في بحوث مشـابهة أخرى.
- ✓ وصـف اهداف واجراءات القياس لكل اختبار (اختبار قبلي – اختبار بعدي– اختبار احتفاظ ... وهكذا) .
- ✓ وصـف كل التقنيات والاختبارات المسـتعملة بذكر اسـمها فقط اذا كانت معروفة وقياسـية او ذكر التفاصيل في حالة كونها جديدة او تم اجراء تعديل عليها.
- ✓ لا يجوز اضافة معلومات لا تمت بصلة بالنتائج، والتي يمكن ان تربك القارئ.
- ✓ استخدام الافعال بصيغة الماضي في عرض اجراءات البحث.

- **النتائج (Results):** يُقدم هذا القسم من البحث المعلومات الجديدة التي توصل لها الباحث، لذا يعد على انه أساس (مركز) البحث. ويلاحظ ان مقدمة البحث والإجراءات صُممت للإجابة عن التساؤلات؛ لماذا وكيف وصل الباحث (الباحثين) لهذه النتائج والتي سيتم تفسيرها في قسم المناقشة، لذا فان قيمة البحث تكون بما يتضمنه من نتائج، ويجب ان يتم عرضها بطريقة واضحة جداً ومباشرة وباستعمال العدد الضروري من الكلمات دون اسهاب او اختصار، وعادة ما يكون عرض النتائج اسهل فهماً اذا ما تم ترتيب العرض على وفق تسلسل اهداف البحث التي تم ذكرها في مقدمة البحث.

إرشادات حول عرض نتائج البحث:

- ✓ أعرض نتائج البحث بشكل بسيط وواضح في جداول او اشكال وذلك لتسهيل فهمها ومقارنتها. ملاحظة ان الجداول تعرض أرقاما دقيقة في حين ان الاشكال تظهر الاتجاهات ذات الخصائص ولا يجوز عرض ارقام الجداول نفسها في الاشكال.
- ✓ لا يجوز اعادة النتائج كتابةً بعد عرضها في الجداول أو الاشكال التوضيحية، ويمكن فقط الإشارة الى اهم ما مؤشر في الجداول او الاشكال (أي عدم استعمال العرض الكتابي للجداول).
- ✓ وثق واعرض فقط البيانات الضرورية بدلاً من الاسهاب والتكرار في عرض البيانات ولا تعرض بيانات كثيرة واختصرها بالتحليل الاحصائي ولخصها لعرضها في جداول او اشكال وذلك لتسهيل فهمها ومقارنتها.
- ✓ ضمن نتائج البحث بالنتائج السلبية (ما لم يتحقق) إن كان ذلك مفيدا لتفسير النتائج.
- ✓ عند كتابة النتائج يتم الاشارة الى الجداول أو الاشكال بارقامها (الجدول1) (الشكل1).

المناقشة Discussion: في هذا القسم من البحث يفسر الباحث (الباحثون) مضمون النتائج ودلالاتها والاثار المترتبة عليها. وتُبين المناقشة أهمية وقيمة العمل المنجز كما انها تربط كل أجزاء البحث معا. ان مهارة الباحث (الباحثين) في تفسير النتائج الجديدة، على وفق الحقائق المعروفة باستخدام نتائج البحث هي دليل على التغيرات المبتكرة (الابداعية) للسلوك الملاحظ، ويجب ان تدفع حدود معرفة القارئ (توسع مداركه) وتثير حماسته. وعلى الباحث ان يلتزم بالاتي في مناقشته للنتائج:

- ✓ ناقش على ضوء معنوية النتائج.
- ✓ لا تكرر ما تم ذكره في الدراسات السابقة.

- ✓ تتضمن مناقشة النتائج تفسير اتفاقها او عدمه مع المعلومة او المعرفة في الدراسات المنشورة سابقاً.
- ✓ تدعيم النتائج التي توصلت اليها بأساس نظري علمي (ما هي الأسباب العلمية للنتائج المتحققة).
- ✓ اقترح بحوث مستقبلية مخطط لها اوبحوث بحاجة الى متابعة (دراسة).
- ✓ لا يجوز اضافة معلومات لم يتناولها البحث، وان يتم التعامل مع النتائج الموثقة في الدراسة الحالية فقط.
- ✓ تجنب التعميم والتخمين للنتائج والتي لم تؤكدها الدراسة.
- ✓ تكتب المناقشة بصيغة المضارع والماضي، اذ تكتب المعارف المتوافرة من الادبيات والأبحاث بصيغة المضارع، في حين تكتب مناقشة نتائج البحث الحالي بصيغة الماضي.

الاستنتاجات (Conclusions): الاستنتاجات ليست إعادة صياغة لنتائج البحث، انما هي مستنبطة منها. فالاستنتاجات تشير الى الخطوط العريضة للدراسات المستقبلية استناداً على نتائج الدراسة الحالية. ويمكن تخصص فقرة مستقلة للاستنتاجات.

الشكر والتقدير (Acknowledgments): تسمح المجلة بتضمين كلمات الشكر والتقدير في نهاية البحث ويخصص لشكر المؤسسات والافراد الذين قاموا بمساعدة حقيقية للباحث لاجراء بحثه اذ يُقدم الشكر للشركة، او المؤسسة التي قدمت الأموال لدعم البحث، او المختبرات التي زودت الباحث بالادوات والأجهزة، او الى الأشخاص الذين قدموا للباحث النصيحة والمساعدة في جميع البيانات، او التحليل او أي أمر اخر مهم. كما ان هذا القسم يعد مكاناً لذكر اصل البحث وبكلام اخر اذ كان البحث مستلاً من رسالة ماجستير او أطروحة دكتوراه.

المصادر (References): تتضمن قائمة المصادر كل الاستشهادات المعتمدة في متن البحث فقط وبطرقة (APA) الإصدار السادس حصراً وفق نظام (Microsoft Word 2010) صعوداً أو برنامج (Mendeley) أو (EndNote). ان الاستشهادات النصية في متن البحث يجب ان تتطابق تماما مع قائمة المصادر.

الملاحق (Appendix): يمكن ادراج أي معلومات تخص البحث المهمة منها حصراً ضمن الملاحق، إذ تحتوي الملاحق على تفاصيل المنهاج التدريبي او البيانات او الجداول الكبيرة (الجداول المعيارية) أو اداوات البحث مثل الاستبيانات وبرامج الحاسوب المستعملة او الأجهزة المصنعة والتي يجب عرضها وشرحها لاهميتها والتي لا يمكن ادراجها ضمن متن البحث بسبب كبر حجمها.

جدول توضيحي يلخص طريقة امراد (IMRAD)

ت	القسم	الغرض او الهدف
1	العنوان	عن ماذا البحث.
2	المؤلفون (الباحثون)	أسماء وانتماءات المؤلفين.
3	الكلمات المفتاحية	الكلمات غير الموجودة في العنوان والتي توصف البحث.
4	الملخص	شرح قصير عن ذلك البحث.
5	المقدمة	لماذا هذا البحث؟ والمشكلة وماهو غير المعلوم واهداف البحث؟
6	الأدوات والإجراءات	كيف تم اجراء البحث؟
7	النتائج	ماذا وجدت؟
8	المناقشة	ماذا يعني ذلك؟ وما التالي؟ وتفسير النتائج والتوجه المستقبلي.
9	الاستنتاجات	الاثار المحتمليه (الممكنة)
10	الشكر والتقدير	لمن ساعدوك وكيف؟ وماهو مصدر التمويل؟
11	المصادر	تفاصيل عن استشهادات البحث.
12	الملاحق	المواد التكميلة.

ثالثاً: شروط استلام البحث لغرض النشر في مجلة التربية الرياضية:

- ✓ أنّ لا تزيد عدد كلمات البحث عن (2500–3000) كلمة.
- ✓ أنّ يطبع البحث بنظام (Microsoft Word 2010) صعوداً بحجم خط (12) لمتن البحث و (14) غامق للعناوين الرئيسة وبنوع (Simplified Arabic) للغة العربية و (Times New Roman) للغة الإنكليزية بابعاد الصفحة القياسية (عمودي – 2.54×3.17 سم). وبمسافة منفردة بين الاسطر و (1) بين الفقرات.
- ✓ أنّ يثبت اسم الباحثين الكامل والصحيح باللغتين العربية والإنكليزي اسفل عنوان البحث، في حين تثبت ملعوماتهم (الشهادة، والقابهم العلمية ومكان عملهم ووسيلة الاتصال بهم البريد الاليكتروني ورقم الهاتف مع المفتاح الدولي) في هامش الصفحة الاولى.
- ✓ ترقم صفحات البحث الكترونياً أسفل ووسط الصفحة.
- ✓ تكون أبعاد الصور او الاشكال متناسقة وباسعمال الماسح الضوئي حصراً وبدقة عالية.

- ✓ يكتب رقم الجدول وعنوانه بشكل مختصر ووافي اعلى الجدول في حين يكتب رقم وعنوان الصورة او الشكل في الأسفل وبشكل ومختصر ووافي.
- ✓ ينشـر البحث باللغة الإنكليزية بعد ان يتم ترجمته من قبل المجلة يمكن ارسـال البحوث او يمكن ارساله باللغة الإنكليزية.
- ✓ تطبع الأرقام بالصيغة العربية حصراً (0 1 2 3 4)، وعند استعمال الاقواس لا يتم ترك مسافة بين الاقواس مثل: (2540)، وعدم ترك مسافة قبل علامات الترقيم مثل الفارزة، او النقطتين، او النقطة. مثال: التدريب الرياضي، التعلم الحركي، علم النفس الرياضي.
- ✓ لا يجوز اسـتعمال برامج الترجمة الفورية او مواقع الانترنت للترجمة للغة الانكليزية مثل (google translate) وغيرها.
- ✓ استعمال المصطلحات العلمية المعروفة والمتداولة، وعلى الباحثين المقديمن لبحثهم باللغة العربية ادراج المصطلحات العلمية باللغة الإنكليزية في متن البحث.
- ✓ الاسـتشـهاد بالمصـادر يكون وفق أسـلوب (APA) الإصـدار السـادس حصـراً وفق نظام (Microsoft Word 2010) صعوداً أو برنامج (Mendeley) أو (EndNote).
- ✓ يجب ان تتطابق الاستشهادات النصية في متن البحث تماماً مع قائمة المصادر.
- ✓ لا يقبل الاستشهاد من المواقع الاليكترونية العامة والضعيفة.
- ✓ يقبل الاستشهاد من المواقع العلمية الرصينة الرصينة بالاعتماد على البحوث المنشورة المجلات المُحكمة والكتب العلمية والرسائل والاطاريح الجامعية المحلية او الدولية.
- ✓ يجب أنّ لا تقل الاستشهادات بالمصادر العلمية عن (25) مصدر رصين وبواقع (50%) من البحوث العلمية كحد أدنى، و (50%) كحد أعلى من الكتب العلمية.
- ✓ يجب ان تكون المصادر حديثة (اخر خمس سنوات)، مع وجود بعض الاستثناءات الضرورية.

ثبت المحتويات

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Empowering leadership of directors of sports and school activity departments in Baghdad Governorate and its impact on organizational control from the point of view of its employees

Ali Abdulqader Ahmed[1]

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[1]General Directorate of Education of Baghdad Karkh

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Abstract

Leadership of organizations is one of the most important factors affecting their success and sustainability, which includes managers taking responsibility for directing and managing human and material resources, defining the vision and mission, and developing the necessary strategies to achieve their goals, and also includes organizing and motivating teams and making critical decisions, as well as supervising administrative processes and daily activities and ensuring their effective functioning Hence, the research aimed to determine the extent to which the directors of sports and school activity departments in Iraq apply Empowering Leadership, and determine the level of organizational control in the sports and school activity departments in Iraq from the point of view of their employees, as well as determine the nature of the relationship and the impact of the Empowering Leadership of the directors of sports and school activity departments in their organizational control, and the researcher used in order to collect data the descriptive approach in the survey method and the method of correlational relationships, and the research community has been identified by the employees of the sports and school activity departments in the directorates of Education in Baghdad Governorate, who number (245) employees, at the time they were all selected to form the main research sample, and then the researcher divided them into three subgroups: the survey sample and includes (15) employees, the statistical analysis sample includes (138) employees, and the final application sample includes (92) employees, and to obtain the required data, the researcher prepared two measurement tools, the first is the Empowering Leadership tool and the number of its paragraphs (14) paragraphs, and the second is the organizational control tool and the number of its paragraphs (12) paragraphs, and they are answered with five-way answer alternatives (applicable Often, applicable, somewhat applicable, not applicable, not much applicable), which carry weights (5-4-3-2-1) respectively, and after analyzing the data statistically, the following conclusions were reached:

[1] General Directorate of Education of Baghdad Karkh, aliabdulqaderahmed@gmail.com , orcid.org/ 0009-0009-9933-9832, 009647901195679.

- The directors of sports and school activity departments in Baghdad Governorate apply Empowering Leadership practices at an average level from the point of view of their employees.

- Sports and school activity departments in Baghdad province have an average level of organizational control from the point of view of their employees.

- The relationship between the empowerment leadership of the directors of the sports and school activity departments and the organizational control in these departments is positive, with the impact of Empowering Leadership on organizational control.

Keywords: Empowerment Leadership, Organizational Control, Sports and School Activity Sections

Introduction

Leadership of organizations is one of the most critical factors affecting their success and sustainability. It includes managers responsible for directing and managing human and material resources, defining the vision and mission, and developing the necessary strategies to achieve their goals. It also includes organizing and motivating teams, making critical decisions, supervising administrative processes and daily activities, and ensuring their influential functioning. Influential leaders possess strong communication skills, the ability to build good relationships with others, and the ability to think strategically, analyze data and make appropriate decisions. The leadership of organizations is effective when it is based on trust and transparency, encouraging participation and empowering teams to achieve their full potential.

In order to manage these departments in a way that ensures their success and development, people who adopt a leadership approach must be at the top to empower individuals and empower them to make decisions ،and develop their skills functional, as well as encouraging them to Transparency and effective communication Including, and provide support and guidance for the teams within these departments, as This approach involves motivating individuals and strengthening their belief in their abilities to achieve success, and their emphasis on strengthening A sense of belonging and responsibility, and take care of Collaboration and exchange of ideas among themselves, ensuring Building a work environment Constructive and healthy ،All these qualities possessed by the manager undoubtedly make him a representative of empowering Leadership that can be described as Effective strategy To leverage the diverse skills and talents of their employees, generating Innovative solutions and improved decision-making processes, as well as that this method of Leadership encourages open communication, Collaboration and trust, which are essential to fostering a cohesive, high-performing workforce, noting that (Kim & Beehr, 2020b, p. 7) to the concept of empowering Leadership as Leadership that encourages Managers to practice enabling behaviors that promote freedom and support development between staff, as well as Provide ongoing learning and development opportunities through mentoring leaders and modeling roles, and Supporting freedom by expressing trust in individuals within their organizations, Provide opportunities to participate in decision-making Share information, encourage initiative and focus on goals.

For the functioning of the sports and school activity departments in an orderly manner, they must intensify Operations and efforts that It is carried out To organize and coordinate activities and resources within it to achieve its goals effectively, as well as regulation its administrative structure, and internal processes IncludingEnable the organization to achieve its stability and successand to balance objectives, resources and activities, Define work policies and procedures necessary for its implementation, directing the distribution of powers and responsibilities, and ensuring coordination between different departments and units, all of these processes can be called organizational control, which Aims to achieve effectiveness and efficiency in the use of resources and direct activities towards achieving the objectives of These sections, This also includes managing change, adapting to new challenges and keeping abreast of developments in the external environment., mentions (Sihag & Rijsdijk, 2019, p. 93) Organizational control that A process by which you Departments To motivate and direct individuals to act in ways consistent with the goals of organization, and in accordance with the policies to which that organization is subject, and is used To motivate individuals to achieve the required performance, as well as comparing this performance to available resources effectively without the need to closely monitor the behavior of individuals.

Hence, the **problem of research** emerged in the growing challenges facing the work of the sports and school activity departments that may lead them to face some challenges when implementing their assigned roles, resulting from the rapid and significant changes in the work environment on the one hand, and in the requirements of the bodies associated with their work such as schools and educational authorities on the other hand, and this may be due to the culture of the organization, which may not support the empowerment of its members in receiving leadership skills, and the lack of grants. The powers to make decisions related to their work, which weakens the sense of responsibility and belonging to the team, as well as the cracking of the wall of trust and transparency in dealings and communications within the directorate, which generates an acute lack of training and support for individuals to develop their leadership skills, which leads to a loss of control over administrative processes, which affects the success of achieving goals; with the emergence of Difficulties in the processes of coordinating procedures between the various departments and units within them, the researcher believes that the research problem can be formulated in a set of questions, namely:

- Is there an application of Empowering leadership practices in the sports and school activity departments in Baghdad Governorate?

- Do the sports and school activity departments in Baghdad province have organizational control over their directorates?

- Is there an impact of Empowering leadership practices in sports and school activity departments on their organizational control?

Accordingly, the researcher has set a set of objectives for the research:

- Determine the extent to which the directors of sports and school activity departments in Baghdad Governorate apply empowerment leadership from the point of view of their employees.

- Determine the level of organizational control in the sports and school activity departments in Baghdad Governorate from the point of view of their employees.

- Determine the nature of the relationship and the impact of the empowering leadership of the directors of sports and school activity departments in their organizational control.

Research limits

- **Human limits:** employees of the sports and school activity departments of the directorates of education in Baghdad Governorate in Iraq for the academic year (2023-2024).

- **Time limits:** the period between (20/11/2023) and (20/1/2024)

- **Spatial boundaries:** buildings of sports and school activity departments of the directorates of education in Baghdad Governorate.

Research terms

- Empowering leadership

a type of leadership that aims to increase the freedom, responsibility, confidence and opportunities of employees by enabling them to make decisions, control their work and achieve their goals. and depends on providing a work environment that encourages creativity and innovation, enhances teamwork, motivates employees to achieve common goals, improves employee performance, increases their satisfaction with work and achieves institutional success. (Conides, 2019, p. 6)

- Organizational control

Mechanisms and methods used by institutions to ensure Line Behaviors and decisions with the objectives of the organization include organizational structures, policies, rules, measurement and remuneration systems, aims to achieve coordination, adaptation and ensure the achievement of institutional goals, as well as Control of relations between institutions. (Dekker et al., 2019, p. 5)

2- Method and procedures

Research Methodology

The approach used by the researcher in this research is the descriptive approach in the survey method and the method of correlation relationships to suit each of them to the nature of the study, answer its questions, and achieve its objectives.

Research community and samples

The research community was determined by the employees of the sports and school activity departments in the General Directorates of Education in Baghdad Governorate, which includes both the Directorate of Education of Baghdad Al-Karkh and the Directorate of Education of Baghdad Rusafa. Their preparation is contained in Table (1). The researcher has chosen all

members of the community to form the primary research sample in a comprehensive inventory method. Then, the researcher divided the prior sample of the research into three sub-samples; the first included members of the survey sample. In contrast, the second has members of the statistical analysis sample, and the third sample comprises individuals. The final application sample and Table (2) show the details of the primary research sample.

Table 1

The details of the research community

society	Number
Sports and school activity sections of the Karkh Education Directorates	140
Sports and school activity sections of the Rusafa Education Directorates	205
245	**Total**

Table (2)

The details of the main research sample

Sample	Number	Percentage
Reconnaissance	15	6.1%
Statistical analysis	138	56.4%
Final application	92	37.5%
Main Research Sample	245	100%

Research Tools

For the researcher to answer the research questions and achieve its objectives, he prepared two tools to measure the research variables. The first tool measures the level of empowering leadership among the directors of sports and school activity departments, and the second tool measures the level of organizational control in the sports and school activity departments. Both tools are according to the point of view of the employees of these departments in the General Directorates of Education in Baghdad Governorate. The preparation process was carried out by following the scientific procedures for preparing standards.

- Drafting paragraphs

The process of drafting paragraphs is one of the most critical steps in preparing measurement tools. After the researcher determined the goal of preparing the two measurement tools, he reviewed the scientific sources related to the two research variables contained in Table (3) to benefit from them in the formulation of paragraphs, as well as developing concepts and definitions for both the Empowering Leadership variable and the organizational control variable, and the researcher

formulated (15) paragraphs for each of the two tools, in addition to that, the researcher proposed alternatives to answer the paragraphs of the two tools according to the Likert five-point scale, and these alternatives are (Apply a lot, apply, apply somewhat, not apply, not apply much) which carries weights of (1-5) because all the paragraphs of the two tools were positive in their statements, and Table (4) shows the key to answering these paragraphs.

Table (3)

The scientific sources used in the formulation of the paragraphs of the two tools

Empowering Leadership	Organizational control
(Tian & Chae, 2023)	(Pianese et al., 2023)
(Al-Mansi ، 2022)	(Rauter et al., 2023)
(Ghareeb and Zaher, 2022)	(Moe et al., 2021)
(Marzouk et al., 2021)	(Norlander et al., 2021)
(Utami & Zakiy, 2020)	(Kim & Beehr, 2020)
(Vu, 2020)	(Sihag & Rijsdijk, 2019)
(Conides, 2019)	(Verburg et al., 2018)

Table (4)

The answer key for the two research tools

Alternative	Apply a lot	Apply	Somewhat applicable	Not applicable	Not apply much
Weight for positive paragraph	5	4	3	2	1

- Virtual validity of the two research tools

The researcher went on to extract the apparent honesty of both the Empowering Leadership tool for the directors of sports and school activity departments and the organizational control tool in the sports and school activity sections by presenting it to a group of specialists in the field of sports management, who numbered (7) experts, to obtain their opinions on its suitability to represent the tool for which it was developed, as well as bringing their views on the validity of the answer alternatives proposed by the researcher, and after retrieving the answers of specialists and analyzing them statistically, the percentages were extracted Percentile paragraphs, Table (5) shows the results of apparent honesty.

Table (5)

The apparent validity of the two research tools

Empowering Leadership				Organizational control			
Paragraph	acceptable	un acceptable	Validity Percentage	Paragraph	acceptable	un acceptable	Validity Percentage
1	7	-	100%	**1**	6	1	85%
2	3	4	42%	**2**	6	1	85%

Empowering Leadership				Organizational control			
Paragraph	**acceptable**	**un acceptable**	**Validity Percentage**	**Paragraph**	**acceptable**	**un acceptable**	**Validity Percentage**
3	6	1	85%	**3**	7	-	100%
4	6	1	85%	**4**	7	-	100%
5	7	-	100%	**5**	7	-	100%
6	6	1	85%	**6**	4	3	57%
7	7	-	100%	**7**	6	1	85%
8	7	-	100%	**8**	6	1	85%
9	7	-	100%	**9**	3	4	42%
10	7	-	100%	**10**	7	-	100%
11	6	1	85%	**11**	4	3	57%
12	6	1	85%	**12**	7	-	100%
13	6	1	85%	**13**	7	-	100%
14	7	-	100%	**14**	7	-	100%
15	7	-	100%	**15**	7	-	100%

Table (5) shows that paragraphs (1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15) of the Empowering Leadership tool were ostensibly valid to measure the variable for which they were developed, because they obtained percentages of (100%, 85%, 85%, 100%, 85%, 100%, 100%,100%, 85%, 85%, 85%, 100%), 100%) of the agreement of specialists, except for paragraph (2), which obtained an agreement rate of (42%) so it was excluded to keep the number of paragraphs of the tool (14) paragraphs, as the same table shows that paragraphs (1, 2, 3, 4, 5, 7, 8, 10, 12, 13, 14, 15) of the organizational control tool have obtained acceptable agreement percentages from the opinions of specialists amounting to (85%, 85%, 100%, 100%, 100%, 85%, 85%, 85%, 100%, 100%, 100%, 100%, while paragraphs (6, 9, 11) have obtained low rates of agreement from the opinions of specialists and amounted to (57%, 42%, 57%) respectively, to be deleted from the tool to keep the number of paragraphs (12) paragraphs, as for the alternatives to the proposed answer, they obtained an agreement rate of (100%) of the approval of specialists, so the researcher adopted them.

- Exploratory study of the two research tools

To ensure the clarity of the paragraphs of the two research tools and their suitability for the research samples, as well as to identify the challenges that may face the application processes and to reveal the time spent answering, the researcher applied both the Empowering Leadership tool and the organizational control tool to a small sample of the research community randomly selected (15) employees from the sports and school activity departments in Baghdad Governorate on (15/12/2023).

- Application of the two tools on the sample of statistical analysis

The researcher applied both the Empowering Leadership tool and the organizational control tool in their initial form to a randomly selected group of members of the primary research sample, who number (138) employees representing (56.4%) of this sample, and the process of applying the two tools took place during the period between (26-28/12/2023). The researcher obtained the answers

from (128) employees, while (10) employees were absent from the application process. Then, the researcher analyzed the results statistically by using a set of statistical means to extract both truthfulness and stability for the two tools.

- Internal consistency of the two research tools

The researcher extracted the sincerity of the internal consistency of both the Empowering Leadership tool and the organizational control tool to ensure the consistency of the paragraphs and their suitability with the tool to which they belong by extracting the coefficient of consistency of each section of the two tools with the total degree of the tool to which it belongs through the use of the simple correlation coefficient between the degree of the paragraph and the total degree of the tool, and Table (6) shows the internal consistency coefficients of the paragraphs of each of the two research tools.

Table (6)

The internal consistency of the two research tools

Empowering Leadership Tool			Organizational Control Tool		
Paragraph	**Correlation degree**	**Significance level**	**Paragraph**	**Correlation degree**	**Significance level**
1	0.757	0.000	1	0.488	0.000
2	0.775	0.000	2	0.552	0.000
3	0.698	0.000	3	0.514	0.000
4	0.781	0.000	4	0.526	0.000
5	0.745	0.000	5	0.449	0.000
6	0.749	0.000	6	0.518	0.000
7	0.701	0.000	7	0.599	0.000
8	0.700	0.000	8	0.409	0.000
9	0.747	0.000	9	0.519	0.000
10	0.603	0.000	10	0.481	0.000
11	0.650	0.000	11	0.439	0.000
12	0.786	0.000	12	0.574	0.000
13	0.708	0.000			
14	0.655	0.000			

Table (6) shows that all paragraphs of the Empowering Leadership tool among the directors of sports and school activity departments in Baghdad Governorate were internally consistent with the total degree of the tool with correlation coefficients amounting to (0.757, 0.775, 0.698, 0.781, 0.745, 0.749, 0.701, 0.700, 0.747, 0.603, 0.650.0.786, 0.708, 0.655) for its (14) paragraphs respectively, at a significance level of (0.000) for all of them. The same table also shows that all 12 paragraphs of the organizational control tool were internally split with the total score of the instrument with correlation coefficients amounting to (0.488, 0.552, 0.514, 0.526, 0.449, 0.518, 0.599, 0.409, 0.519, 0.481, 0.439, 0.5744) respectively with a significance level of (0.000) for all of them.

- Stability coefficients for the two research tools

To extract the degree of stability of both the Empowering Leadership tool among the directors of sports and school activity departments in Baghdad Governorate and the organizational control tool in it, the researcher used the half-segmentation method between the paragraphs of each of the two tools, as the researcher divided the paragraphs of the two tools, which are (14) for the Empowering Leadership tool, and (12) paragraphs for the organizational control tool For the answers of the members of the construction sample to two halves, as the first half includes their odd paragraphs. In contrast, the second half comprises even paragraphs, and then the correlation coefficients between the two halves of the two tools were extracted. Thus, half of the stability of the two tools was extracted. Then, the researcher removed the total stability of each of the two tools by processing the results with the Spearman-Brown equation, and Table (7) shows the stability coefficients of the two tools.

Table (7)

The stability of the two research tools

Empowering Leadership Tool		Organizational Control Tool	
Correlation coefficient between the two halves of the scale	Coefficient of stability (Spearman-Brown)	Correlation coefficient between the two halves of the scale	Coefficient of stability (Spearman-Brown)
0.961	0.980	0.715	0.834

- The two research tools in their final form

The researcher reached the final image of both the Empowering Leadership tool for the directors of sports and school activity departments, and the organizational control tool in it, both from the point of view of its employees, by following scientific procedures in their preparation of sincerity and stability, as the final form on which the Empowering Leadership tool settled became consisting of (14) paragraphs, and thus the highest degree that can be obtained when answering the paragraphs of the tool (70) degrees and the lowest degree (14), while the organizational control tool settled in its final form on (12) paragraph, so the highest score obtained from answering the paragraphs of the tool is (60) degrees, and the lowest score is (12), and both tools are answered through five-answer alternatives are (apply a lot, apply, apply somewhat, do not apply, do not apply much) which carries weights (5-4-3-2-1) respectively.

Apply the two research tools to the final application sample

After reaching the final picture of both the Empowering Leadership tool for the directors of the sports and school activity departments, and the organization control tool in it, the researcher, during the period from (10-11/1/2024), applied them to the members of the final application sample consisting of (92) employees from the sports and school activity departments, who represent the rest of the main research sample, and after completing the collection of forms, it was possible to obtain (87) forms, while (5) employees did not attend the application process, and then

the researcher processed this data Statistically to obtain the results of the application process and extract the levels of the paragraphs of the two research tools.

Means used in statistics

Through the statistical bag (SPSS), the researcher used a set of statistical methods to process the results of the final application of the two research tools, and these means are: percentage, arithmetic mean, standard deviation, simple correlation coefficient (Pearson), Spearman-Brown equation, simple linear regression equation.

3. Presentation and discussion of results

Before presenting and discussing the results of the objectives, the researcher has developed levels for the paragraphs of the two research tools by extracting the length of the category, and Table (8) shows the levels of the two measurement tools and their paragraphs.

Table (8)

The levels of paragraphs of the two research tools

Category length	Level
1.00-1.80	Very low
1.81-2.60	low
2.61-3.40	medium
3.41-4.20	High
4.21-5.00	Very high

Table (9)

The levels of the Empowering Leadership tool paragraphs

Par	Content	Arithmetic mean	Standard deviation	Level
1	The manager encourages employees to make independent decisions regarding their work to achieve the desired goals	3.09	0.916	medium
2	Provides employees with development and learning opportunities within the Directorate	3.23	0.870	medium
3	Recognizes individual staff contributions to the accomplishment of functional tasks	3.08	0.807	medium
4	Acts as a collaborating partner with employees to guide and guide them towards improving the work	3.02	0.771	medium

Par	Content	Arithmetic mean	Standard deviation	Level
5	Encourages employees to communicate effectively and build a climate of trust and cooperation within the departments of the Directorate	3.13	0.935	medium
6	Motivates employees to think creatively in planning and organizing events and activities related to the work of the Directorate	3.02	0.890	medium
7	Provides opportunities to develop employees' leadership skills	3.04	0.990	medium
8	Builds an environment that encourages effective participation and appreciation of staff opinions in improving the work of the Directorate	3.11	0.942	medium
9	Provides the necessary support and resources to ensure that employees work and achieve their aspirations at work	3.25	0.915	medium
10	Seeks to spread transparency and integrity among employees to make the right decisions at work	3.00	0.849	medium
11	Empowering employees and giving them sufficient authority to achieve success to develop their job skills	2.98	0.859	medium
12	Builds effective partnerships with stakeholders in the school sports field, such as sports federations, to provide appropriate opportunities for success	3.13	0.950	medium
13	Uses the latest technologies and tools in analyzing the work of employees and the Directorate to improve technical performance at work	2.95	0.815	medium
14	Demonstrates the ability to direct financial and human allocations in line with the goals of developing sports activity	2.93	1.037	medium
Empowering Leadership Tool		**3.06**	**0.913**	**medium**

Table (9) shows that all paragraphs of the Empowering Leadership tool obtained average levels with arithmetic means of (3.09, 3.23, 3.08, 3.02, 3.13, 3.02, 3.04, 3.11, 3.25, 3.00, 2.98, 3.13, 2.95, 2.93). Standard deviations of (0.916, 0.870, 0.807, 0.771, 0.935, 0.890, 0.990, 0.942, 0.915, 0.849, 0.859, 0.950, 0.815, 1.037) respectively, and the instrument in its overall form obtained an average level with an arithmetic mean (3.06) and a standard deviation (0.913).

The average result of the Empowering Leadership tool that appeared in Table (9) can be attributed by the researcher to some extent to the hasty decisions that employees may sometimes take when performing their job duties as a result of the decline in cases of spreading the culture of transparency and integrity within the departments that managers are supposed to call for, and not giving employees what supports them in developing their job skills and achieving achievements and successes by empowering them and giving them the necessary powers to achieve this, which increased the tool's access to this result. Moderation is the inaccurate guidance of managers to the human and financial capabilities possessed by departments,(Fadel & Kadem, 2021) as well as the lack of motivation that managers must provide to their employees to urge them to think creatively

that leads to planning and organizing sports events and activities at a high level of effectiveness, and this will certainly be a contributing factor in limiting the opportunities for the development required for the leadership skills of employees to be the nucleus of the future leadership of these departments, and employees ignore the importance of building cooperative partnerships with their employees to provide them with the experiences they possess, and follow up on their work.(Salman et al., 2022) By analyzing their results and achievements by harnessing the latest follow-up technologies to ensure the improvement of the performance of these departments .(Ahmed Fadhil Farhan Mohammed Jawad Kadhim, 2016)

recalling (Vu, 2020) that Empowering leadership helps boost employee performance، and improve their satisfaction، and maintain their stability at work, it encourages Employees to participate in decision-making، and take responsibility، Enhances trust between staff and management, and gives them the necessary expertise, and urges them to cooperate among themselves, as it Helps foster creativity and innovation, and provides staff The right to information, knowledge, power and rewards to motivate them to improve their performance, as well as Provide training and development opportunities to increase the efficiency of employees and their ability to deal with difficult tasks, with the development of effective strategies in control and administrative follow-up.

Table (10)

The levels of the organizational control tool paragraphs

Par	Content	Arithmetic mean	Standard deviation	Level
1	The Directorate clearly defines its goals and objectives and communicates them to all its employees	2.63	1.308	medium
2	The Directorate shall establish appropriate procedures to direct administrative processes in accordance with organizational standards	2.75	1.763	medium
3	Management provides guidance and support to employees to implement organizational control procedures	2.98	1.155	medium
4	Management fosters a culture of commitment and accountability among employees	2.65	1.505	medium
5	The Directorate shall establish clear and precise systems to guide the behavior of employees in order to achieve objectives efficiently	2.52	1.395	low
6	The Directorate distributes powers and responsibilities among its employees within the Directorate fairly.	3.00	1.178	medium
7	The Directorate shall provide the necessary human and financial resources to carry out the activities involved in its work	2.49	0.900	low
8	The Department conducts periodic evaluation of the performance of the directorate's departments and employees	3.12	1.718	medium

Par	Content	Arithmetic mean	Standard deviation	Level
9	The Directorate encourages its employees to innovate and develop sustainable organizational	2.60	1.562	low
10	The Directorate provides preventive measures to combat cases of fraud and corruption	3.91	1.359	High
11	The Directorate verifies the extent to which employees adhere to the legal mechanisms in place to avoid cases of abuse at work	3.06	1.578	medium
12	The Directorate analyzes the integration of information systems to ensure the accuracy and reliability of data used in decision-making processes.	3.57	1.037	High
Organizational Control Tool		**2.94**	**1.075**	**medium**

Table (10) shows that the paragraphs of the organizational control tool obtained levels close to (low, medium, high), paragraphs (1, 2, 3, 4, 6, 8, 11) obtained average levels with arithmetic means amounting to (2.63, 2.75, 2.98, 2.65, 3.00, 3.12, 3.06), and standard deviations (1.308, 1.763, 1.155, 1.505, 1.178, 1.718, 1.578), while paragraphs (5, 7, 9) obtained low levels with arithmetic means (2.52, 2.49, 2.60) with standard deviations (1.178, 0.900, 1.562), while paragraphs (10, 12) obtained two high levels with arithmetic means (3.91, 3.57) and standard deviations (1.359, 1.037).), the complete organizational control tool received an average level with an arithmetic mean (2.94) and a standard deviation (1.075).

Table (10) shows us that the organizational control in the sports and school activity departments in Baghdad Governorate was the average level, and the researcher believes that this result may be due to a set of reasons, including the lack of clarity of the regulations and policies that prevail in the work of the departments, which affects the behaviors of their members in one way or another, and the efficiency of determining their desired goals and ensuring their access to employees, as well as the human and material deficit suffered by these departments,(jawad kadhim, M., & Mahmood, 2023) and the failure of the departments of these departments to provide them to ensure the implementation of their activities. This result was compounded by the troubled procedures followed by the directorate's management to organize its work, which somewhat lack the correct organizational standards, with a lack of organizational control based on support and guidance, as well as the weak encouragement of these employees to apply functional practices that call for promoting a culture of professional commitment based on accountability, aimed at organizational development and sustainability.(Easa et al., 2022)

Notes (Verburg et al., 2018) to organizational control as including The processes and mechanisms used by the organization to ensure the achievement of its objectives and ensure the effectiveness of its performanceandIncludes That Define standards and guidelines, monitor performance, assess compliance with policies and procedures, and deliver Support For Employees, enhance trust between staff and the organization, and provide Guidance and guidance for employeesforEnsure

regular implementation of policies and procedures, enhancing Coordination and communication within and between teams To achieve Common goals.

Table (11)
The impact of Empowering Leadership on organizational control

Research variables		Correlation degree	Contribution Percentage (Impact)	Significance level
Empowering Leadership	Organizational control	0.370	0.136	0.000

Table (11) shows that the relationship between the Empowering Leadership of the directors of the sports and school activity departments and the organizational control in them was positive positive, with a degree of correlation of (0.370), and that this relationship was accompanied by a contribution rate (impact) of Empowering Leadership in organizational control amounting to (0.136) at a significance level of (0.000), and this indicates that approximately (14%) of the variation in the organizational control of the sports and school activity sections is due to the Empowering Leadership practices of their managers, and the rest is due to other variables.

As shown in Table (11), the empowering leadership of the directors of sports and school activity departments plays an influential role in improving organizational control within these departments, and here the researcher believes that this may be due to the confidence that managers must possess in themselves and their employees, by granting these employees the powers to make fateful decisions related to the work of the departments and assume their responsibility,(Kadhim, M. J., Shihab, G. M., & Zaqair, 2021) and encourage them to innovate and creativity in the design and implementation of their various activities.(Kadhim, 2023a) Activating individual abilities and skills, stimulating effective engagement in job tasks, enhancing their sense of belonging to these departments, as well as the active role of spreading the culture of integrity and transparency, empowering managers for their employees and giving them independence at work, all of this must be based on an encouraging environment for innovation and creativity through which managers push their employees to propose new ideas, and activate creative ideas to improve organizational processes., by spreading the principles of cooperation and teamwork among employees, which contributes to enhancing organizational control and achieving common goals more effectively.(Kadhim, 2023b)

4. Conclusions and recommendations

Conclusions

- The directors of sports and school activity departments in Baghdad Governorate apply Empowering Leadership practices at an average level from the point of view of their employees.

- Sports and school activity departments in Baghdad province have an average level of organizational control from the point of view of their employees.

- The relationship between the empowerment leadership of the directors of the sports and school activity departments and the organizational control in these departments is positive, with the impact of Empowering Leadership on organizational control.

Recommendations

- The researcher recommends that the various educational institutions benefit from the two tools prepared by him to measure the levels of empowering leadership of their managers, while measuring the levels of organizational control over them.

- The researcher recommends the directors of sports and school activity departments to work to form a clear vision for their teams and employees, with the need to communicate this vision to them effectively, leading to the creation of an enthusiastic and cohesive team characterized by effective communication and encourages open dialogue, allowing employees to express their ideas, interests and suggestions freely, and these managers must embody the qualities they want to see in their employees by publishing Professionalism, integrity and dedication among them, working to identify individual strengths and areas of improvement among their employees, providing training and development opportunities, and enabling them to occupy various management and leadership positions in the future.

- The researcher recommends the departments of sports and school activity departments of the importance of assessing the current status of organizational control processes, by identifying their strengths and weaknesses, evaluating the opportunities and challenges they face, working to conduct a review and improve the structure of their directorates to ensure greater effectiveness to achieve the goals efficiently, and linking the divisions of the directorate to an effective communication system that ensures a smooth and comprehensive flow of information, with the importance of distributing The roles and responsibilities of each employee in the department, and the need to develop systems to measure and follow up organizational performance to ensure the achievement of goals and requirements.

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Modifying and setting standard levels to test the accuracy of the diagonal and straight smash skill according to the body position of Premier League volleyball players

Khalil Sattar Muhammad[1]

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[1] University of Baghdad, College of Physical Education and sport sciences

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Abstract:

The research aims Modifying the accuracy test for the diagonal and straight high smash skill from center (4) according to the body position of the Premier League volleyball players and extracting the grades and standard levels. To achieve the two objectives of the research: the descriptive approach with the survey method was adopted, because it agrees in solving the research problem. As for the research sample, it consisted Of the players in the Premier League for volleyball clubs for the 2023-2024 season, the researcher chose central players (4)(2) because their skill abilities are compatible with the skill of hitting the diagonal and straight smashes, and they numbered (90) players (6 players from each team), and then the researcher divided the selected sample. To a reconnaissance consisting of (6) players, and to modify the test, (84) players were selected, as well as to find the scientific foundations, grades, and standard levels. After that, he determined the high crushing test from the center (4) of the straight and the natural, and made adjustments related to the body position, as well as calculating the score, and then they conducted The two exploratory and main experiments, and then extracting the appropriate statistics and obtaining results through which the researcher drew several conclusions, including: The final modified form of the high crushing test was reached from position (4) according to the body position of the men's volleyball Premier League players. The largest percentage of results appear within the good level, which indicates that the level of modification exists well in the sample.

Keywords: accuracy, crushing strike, body position

[1] College of Physical Education and Sports Sciences - University of Baghdad / Iraq.
Khaleel.Mohammed@cope.uobaghdad.edu.iq

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introduction

There are many requirements for a player's success in performance, including physical, motor, skill, tactical, and psychological. In order to recognize the importance of each individual requirement, we must engage in several experiments, and one of these experiments is modifying the tests to be compatible with the developments that occur in games on an ongoing basis. Testing and measurement represent important means. In determining the level of performance, as it is an evaluation tool through which the individual's degree of progress can be determined in the field of the game he is playing, as well as issuing a judgment on the effectiveness of the training curriculum" ,modifying tests is one of the important scientific methods through which positive results can be reached in determining the best accuracy" ".Skill performance ")Muhammad, 2023, p. 540). Perhaps the game of volleyball needs a change at the level of training programs by creating or modifying tests that take into account the skill aspect under various influences and different playing movements, and because assessing the body's position is very important for the striking player because it gives him the There are many options for passing the blocking walls, (Sakran & Shehab, 2023) so there must be a performance that is appropriate to the body position and the extent of the player's ability to change the direction of the ball to the opposing team's court, other than the body position (Adnan et al., 2024)

The skill of smashing volleyball is one of the most important skills that the team relies on to score points. Perhaps the developments that other skills have reached may reduce the effect of one skill over the other. Therefore, as the researcher is a specialist in the field of volleyball, we must pay attention to all skills, especially smashing. Blocking walls have developed a lot, especially in recent times. Therefore, the changes that the striking player adopts, especially in the position of the body, are essential for performing the skill, as they are a surprise to the blocking wall. Therefore,(HalahAtiyah et al., 2024) whenever the body position changes, the player must realize that the straight and diagonal direction of the ball depends on this change, meaning that the player if If the direction of his body is towards the opposite court,(Salman et al., 2022) this is considered a straight hit. If he hits the ball with the same body position in the straight direction of the court, it is considered a diagonal hit according to the position of his body. Thus, from the above, the researcher sees the importance of modifying the test in order to give objective results to the coach so that he can address the weak points and strengthen Strength: Among the previous studies that dealt with the process of modifying and determining standard levels for tests, especially in volleyball, (HalahAtiyah et al., 2024) there are many of them: Study (Mohammed, 2022) This research aims to build and standardize a test for the skill of serving from above in volleyball for third-year students in the College of Physical Education and Sports Sciences at the University of... Baghdad and determining the grades and standard levels. The grades and standard levels were extracted on the main experiment sample of 73 students, after extracting their grades of discriminatory power and skewness coefficient according to test standardization procedures. After that, the researchers were able to reach the following conclusions: Establish and determine the standard levels. (Mohsen et al., 2024) The recommendations were to adopt the test prepared to evaluate the accuracy of the female students 'transmission skill to identify the level of accuracy and conduct other tests on the technical level of skills that were not included in

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the study, with an emphasis on creating a state of competition among the students in a way that ensures Developing their level of accuracy and conducting periodic tests to determine the level to develop students 'accuracy and know the impact of the approved plan. The study (Mohamed Kh., 2019) aimed to: determine the simple, general structure of the physical measurements of advanced volleyball players for the 2018-2019 seasons and define a set of brief measures representing the extracted factors, to be indicators of the physical measurements of advanced volleyball players. Learn about the contribution of these measurements to endurance. Skillful performance of volleyball players according to their specialty .(Ahmed Amer Abdul Hussein, 2020)Among the conclusions reached by the researcher :There is a difference in the contribution of physical measurements extracted from factor analysis to the skill performance of advanced players, each according to his specialty. It is necessary to use the measurements extracted in this study in choosing specializations for volleyball players. Taking into account the factors extracted from the physical measurements of advanced players in building training programs .As for a study (Kadhim, 2023)It aims to determine grades and standard levels for some mental skills by researchers, which is considered of great importance, especially if it matches the targeted research sample, as conclusions were obtained, the most important of which are: The standard levels of mental skills reached the results of the sample studied within the level limited to (very good, good, average, and acceptable). And weak).(Salih, I. H., Yaseen, A. M., Naseer, K. J., Attieh, A., & Kadhim, 2024) The number of players at the (average) level was greater than the number of players at the other levels according to the results of the research scale. Then the researchers recommended: working on using training programs accompanied by psychological programs that would develop the psychological, physical, skillful and tactical aspects side by side. It is necessary to conduct other studies on similar samples using axes of mental skills different from the axes of this research. As for the study (Ali et al., 2023)(Fadil, 2022), it aimed to design and apply a test to measure the accuracy of receiving a volleyball using a forearm pass for female students. Study participants for the 2018/2019 academic year. The number of female students who were recruited reached 73. Based on the results of this study, the researcher concluded that the accuracy of receiving in volleyball and the use of the forearm pass for the female students who were analyzed was below average, as most of them showed below average performance. The researcher recommends adopting the test prepared in this study. (Easa et al., 2022)The aim of this study is to evaluate the students 'level of accuracy, in order to determine the degree to which they enjoy development. The researcher also recommends paying attention to developing accuracy among students by giving them more time to train on accuracy during volleyball lessons.

From the above review of previous studies, the researcher finds the importance of the process of modifying and determining standard levels that would determine the levels of players and determine their skill level with the development of testing and performance of the diagonal and straight smash skill for advanced players.

The research aims: Modifying the accuracy test of the high diagonal and straight smash skill from position (4) according to the body position of the Premier League volleyball players and extracting the scores and standard levels.

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Method and tools:

The method is" the sound scientific path that the researcher adopts to reach his desired goal that he determined at the beginning of his research)". Amer, 2012, p. 12 (**And within that**The descriptive survey method was adopted, because it agrees in solving the research problem, while the research sample consisted of Players in the Premier League for volleyball clubs for the 2023-2024 season, numbering (180) players (15) teams (South Gas, Al-Bahri, Al-Masafi, Peshmerga, Al-Samoud, Haditha, Erbil, Al-Habbaniya, Al-Daghara, Al-Ahwar, Al-Sina'a, Nineveh, Al-Muqdadiya, Abu Risha, Al-Numaniyah) The researcher chose central players (4)(2) because their skill abilities are compatible with the skill of hitting the Qatari and straight smashes, and they numbered (90) players (6 players from each team), and then the researcher divided the selected sample into a poll consisting of (6) Players. To modify the test, (84) players were selected, as well as to find scientific foundations, grades, and standard levels. Table (1) shows the division of the sample.

Table (1) Details of sample distribution

T	Club name	the number	Sample exploratory experiment	Modification sample	Excluded players
1	Peshmerga	12		6	6
2	Modern	12		6	6
3	Southern gas	12		6	6
4	Marine	12		6	6
5	Industry	12	6		6
6	Habbaniyah	12		6	6
7	Resilience	12		6	6
8	Nineveh	12		6	6
9	Abu Risha	12		6	6
10	Erbil	12		6	6
11	Al-Muqdadiya	12		6	6
12	Numaniyah	12		6	6
13	Marshes	12		6	6
14	Refineries	12		6	6
15	Daghara	12		6	6
the total		180	6	84	90
Percentage		%100	%3.33	%46.66	%50

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Define the search variable:

The tests for the high smashing skill from Center (4) and their various scientific sources take the direction of the court by determining the smashing and straight hitting, and through the researcher's experience as a player, coach, and volleyball specialist, as well as the opinions of experts and specialists in the field of testing, measurement, and volleyball.**attached (1 (**He found that there is a difference in the position of the body when hitting a smash, so he decided to conduct an experiment on the players 'abilities to direct the ball to the opposite court based on the position of the body during the smash. Here are my agencies:

.1If the player's body direction is in the diagonal direction of the court, as in the previous tests, i.e. towards center (5) and he hits the ball in this direction, then this smash is considered straight based on the direction of the body. However, if he hits the prepared ball in the opposite direction of the body position, i.e. in center (1) It is a diagonal smash.

.**2**If the player's body direction is in the straight direction of the court, as in previous tests, i.e. in a central direction (1), and he hits the ball in this direction, this smash is considered a straight hit based on the direction of the body. However, if he hits the prepared ball in the opposite direction of the body's position, i.e. in the center (5), it is considered a hit. A diagonal crusher.

After that, the researcher chose the high overwhelming multiplication test in the center (4) diagonal and straight**attached (2(**The aforementioned modifications were made to it, and the test was presented to experts and specialists **attached (1)**To demonstrate its validity for measurement, the validity of the skills test was determined according to two indicators: the coefficient of difficulty and ease of the test and the discriminatory ability of the test.

Exploratory experience:

To ensure the suitability of the test to the level of the sample, as well as to determine the time required for application, as well as to know the obstacles that may be encountered in the main experiment of the test, the exploratory experiment was conducted on a sample of (6) players representing the Industry Club in the closed volleyball hall of the club, and through it the Arriving at an appropriate test for the sample, as well as knowing the difficulties and requirements that the researcher needs.

Main experience:

The test was applied to the research sample, which numbered (84) players, for a period of (20) days, during the gatherings conducted by the teams, and the results were recorded for statistical treatments for the purpose of adjustment. The scientific basis for the sample's scores was extracted, after which the researcher extracted the scores and standard levels.

Scientific parameters for the test:

Validity of the test:

For the purpose of extracting the validity of the test in question, the researcher extracted the validity of the test in two ways.

Firstly: Content veracity:

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After the questionnaire for the test in question was distributed to experts and specialists **attached (1 (**In the field of tests, measurement, and the game of volleyball, the researcher used the validity of the content to explore their opinions on the ability of the test to measure what it was designed for, as the test becomes valid if the experts or specialists in the field of testing agree, and measurement is that it measures what it was designed for, as most of them agreed that it Saleh, with some modifications being made, as these modifications were taken into consideration due to the researcher's belief in their sobriety and scientific value, which improves the test. In addition to that, (one of the most important elements of honesty is one of the most important standards of the quality of the test or measurement, as it refers to the truth or accuracy with which the measuring instrument measures the thing. Or the phenomenon that it was designed to measure) (Al-Mashhadani, 2015, page 69)

Ease and difficulty level:

The researcher presented the statistical description of the modified test in question, as the arithmetic mean, standard deviation, and skewness coefficient were extracted. It was shown through Table (2) that the values of the skewness coefficient were less than (1.(□This indicates that the modified skills test is distributed moderately" ,as the test is considered appropriate if its distribution is normal, provided that the tests do not constitute a severe skewness (Allam, 2000, p. 78.(

Table (2) Values of the means, standard deviations, and skewness coefficient for the candidate tests

Torsion coefficient	standard deviation	Mediator	In the middle of a calculation	Statistical treatments	T
056.-	2.74533	64.0000	63.7024	**Overwhelming multiplication test**	**1**

Discriminating ability:

After the data for the skill test subject of the research was collected and transcribed, the researcher arranged the raw scores for each test in ascending order from" the lowest score to the highest score ",from which (27%) of the highest scores and the same number of lower scores were selected in order to identify the test's ability to discriminate. Between the high-level group and the low-level group) "Al-Kubaisi, 2010, p. 276.(

Table (3) shows the discriminatory ability of the high smashing skill accuracy test from center (4) according to body position

Calculated t value		Low level		High level		measruing unit	Test name	T
Significance values	T	±A	s	±A	s			
0.000	**23.308**	**1.112**	**60.3478**	**.7977**	**67.000**	**degree**	**A1**	**1**

Significant < 0.05 degrees of freedom (44)

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Stability:

"Test reliability means the extent of the test's accuracy in measurement and the consistency of its results when applied multiple times to the same individuals))".Al-Yasiri, 2010, p. 75) To know the stability and balance of the test, the researcher tested a group of the sample numbering (20) and retested the same sample after (7) days had passed from the first trial of the test and by observing the significance values that are less than the significance level (0.05), which indicates a significant correlation, as shown in Table (4.(

Objectivity:

It was calculated by (correlation between the scores of two arbitrators(*) They set scores for one group of individuals at the same time, as the results showed high reliability coefficients by noting the significance values, which are less than the significance level (0.05), which indicates the significance of the correlation, as shown in Table (4.(

Table (4) shows the reliability and objectivity coefficient for the high crushing hit test from center (4) according to body position

Indicative value	Objectivity	Indicative value	Consistency	measruing unit	Test name	T
0000.	0.953	0170.	0.671	degree	**Overwhelming multiplication test**	1

Statistical methods:

The researcher used the statistical package (SPSS. .(

- Arithmetic mean.
- standard deviation.
- Mediator.
- Torsion coefficient.
- Correlation coefficient (Pearson(
- Standard score (Z.(
- Modified standard score (T.(

Results and discussion:

Standards:

Standards mean a set of scores derived through statistical methods from raw scores and are used to compare the level of an individual's performance with the level of performance of the group to which he belongs. They are created by collecting the scores of a group of individuals who are similar in age and gender, in addition to some characteristics related to the subject in which we use the standards, and then analyzing the data with statistical methods. To obtain the levels (Velkumar, 2014, p. 1-3), as shown in Table (5.(

Table (5): Standard score (modified) for the accuracy test of transmission from below

Modified standard score	**Z degree**	**Duplicates**	**Raw grade**	**T**
32.87	1.71286-	7	59	**1**
36.51	1.34861-	5	60	٢
40.16	0.98435-	7	61	٣

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43.8	0.6201-	13	62	**4**
47.44	0.25585-	8	63	**5**
51.08	0.10841	11	64	**6**
54.73	0.47266	6	65	**7**
58.37	0.83692	10	66	**8**
62.01	1.20117	9	67	**9**
65.65	1.56543	8	68	**10**

Standard levels of testing:

The researcher chose (5) levels to measure his test, and when the standard scores were distributed among the approved levels, the standard levels appeared, as shown in Table (6.(

Table (6): Levels and their specific percentage in the normal distribution and raw and standard scores

)Za and T), the number of practices and the percentage of the test

Accuracy of performing diagonal and straight smashes from center (4) according to body position.

The ratio	Sample number	Limits of the standard score T	z-score limits	Raw grade	The proportion determined in a normal distribution
Zero	-	-	-	-	%2.14very good
20.23	17	(65.65) -(62.01)	– (1.20117) (1.56543)	-(67) (68)	%13.59good
65.47	55	– (40.16) (58.37)	-) (0.83692) (0.98435	- (61) (66)	Average 68,27%
14.28	12	– (32.87) (36.51)	-) (1.71286-) (1.34861	- (59) (60)	%13,59popular
-	-	-	-	-	%2.14weak

Table 6 shows that the percentages of standard levels shown by the sample in the test under

investigation are as follows:

The sample showed varying percentages compared to the percentages determined at the first standard level (very good). The sample achieved a percentage of (zero), which is a percentage lower than that determined for it in a normal distribution. At the second standard level (good), the sample achieved a percentage of (20.23) which is a higher percentage than determined in a normal distribution, and at the third standard level (average), the sample achieved a percentage of)65.47) This is a percentage lower than that determined for it in a normal distribution, and at the fourth standard level (acceptable), the sample achieved a percentage of14.28) It is a percentage higher than what was determined for it in the normal distribution. At the fifth standard level (weak), the sample achieved a percentage of (zero), which is a percentage lower

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than what was determined for it in the normal distribution. We notice from the above that the test results for the sample were confined between the levels (good and acceptable.(

This is evidence that the sample underwent organized training and good supervision by those in charge of the players, as well as the sample's involvement in an effective and continuous league, despite the presence of disparity in these levels, and this is due to the principle of individual differences. Therefore, the sample's achievement of zero percentages in the level (very good) is due to the fact that The test showed, in one way or another, the high level at which the players should appear, because the process of hitting other than directing the body requires high skills, and this is what the researcher wanted, which is to reveal the weak and strong points. Also, future repetitions, which will naturally increase the accuracy of performance, because repeated practice of the skill leads to Achieving the correct performance of the skill with consistency, harmony, and control, and without stiffness or tension(Mahmood et al., 2023) . (Ali Al-Attar & Jari, 2023)"Repetition and training give the skill greater mastery, competition, and more precise motor brilliance) "(Kadhim, M. J., Shihab, G. M., & Zaqair, 2021)

The skill of smashing is a skill that has many variables, including those related to the opposing team, including those related to the prepared ball and the player himself. All of these variables are obstacles in front of him that affect the accuracy of the skill.(Abdulhussein et al., 2024) Therefore, the player's reaching a good level in the modified test is evidence that Premier League players need special training that will Creating a change in hitting inside the court or in a linear manner, and this is through changing the position of the body in the air, depending on surprising the player standing against the blocking wall. (Yassin et al., 2016)(Yasir & Sikhe, 2020) confirms" ,Skill is the art of performing one of the movements that the player performs in different playing conditions ".Which is closely linked to the physical aspect of the player ,and the researcher sees experience as an important role in this" .The accumulated experience of the coach and player as a result of performing skills and training them over a long period has made it possible to diagnose the strengths and weaknesses of this skill, but despite the presence of this experience, some problems may arise as a result of the development of movements.(Ahmed Fadhil Farhan Mohammed Jawad Kadhim, 2016) "Volleyball and its complexity, which made it difficult to find all the strengths and weaknesses at the same time, as it is difficult to diagnose quick and complex skills with the naked eye(Al-fatlawi et al., 2023)" due to the fact that the human eye is incapable of analyzing incidents that appear in less than approximately a quarter of a second ,1995 ,;) "p. 48). (Ali and Muhammad, 2022) (Ahmed Fadhil Farhan Mohammed Jawad Kadhim, 2016) also confirm that employing a set of sequential exercises in terms of accuracy, speed, ease, and difficulty also has a role in achieving teams, as well as continuing training in this manner, and not interrupting, which helped improve the players 'abilities in continuous and correct thinking, and this led to an increase in their ability to The player must choose the right action at the right time.(Hammood et al., 2024)

The researcher also agrees with (Mousa, A. M., & Kadhim, 2023)that the role of field tests is as a contributing tool for evaluation in the sports field. Therefore, attention must be given to reevaluating the sets of tests used in an objective manner based on the use of testing and measurement tools.(Abdulhussein et al., 2024)

Conclusions:

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1. The final modified form of the high smash test was reached from position (4) according to the body position of the men's volleyball Premier League players.
2. The largest percentage of results appear within the good level, which indicates that the level of modification exists well in the sample.
3. It is necessary to make adjustments to skill tests to be consistent with the levels of players and the level of developments occurring in the game.
4. Adopting the modified test and the criteria reached when evaluating players, as well as adopting them when developing training programs for the smashing skill.
5. Making adjustments to all technical skills tests in volleyball and the necessity of using different samples.

Appendices

Appendix (1) Names of experts and specialists

Workplace	Jurisdiction	Name of expert And the scientific title	T
University of Baghdad/ College of Physical Education and Sports Sciences	tests and measurement/ basketball	Prof. Dr. Thaer Daoud Salman	1
University of Baghdad/ College of Physical Education and Sports Sciences	Volleyball training	Prof. Dr. Muhammad Saleh Falih	2
University of Baghdad/ College of Physical Education and Sports Sciences	Bio volleyball mechanics	Prof. Dr. Ahmed Saba Attia	3
University of Diyala/ College of Physical Education	tests and measurement/ volleyball	a. Dr. Muhammad Walid	4
University of Baghdad/ College of Physical Education and Sports Sciences	tests and measurement/ volleyball	Professor Asmaa Hikmat	5

Appendix (2) Original test and modification

Linear and radial crushing accuracy)Al-Moneim, 1997, p. 208(

-**Purpose of the test** :Measuring the accuracy of crushing hits in the linear (straight) and diagonal directions.

-Used tools (30) : volleyball, a volleyball court, and two mattresses placed as shown in Figure (1) 5 cm away from the side lines.

Figure (1) Linear and radial crushing accuracy test

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-Performance specifications Multiplication from center (4). The preparation is done by the coach from position 3. The tester must perform 15 crushing blows towards the diagonal direction, i.e. the position in center 5, and another 15 crushing blows towards the straight direction. The rank in the center (1.(

Register:

- 4points for each smash in which the ball lands on the mattress.
- 3points for each smash in which the ball lands in the marked area.
- Two points for each correct hit in which the ball lands in areas (A) and (B.(
- Zero when performing anything that violates all of the above.

Test after modification

Test name: straight and diagonal crushing multiplication center (4) according to the position of the body

-**Purpose of the test**Measuring the accuracy of straight and diagonal smashes according to the body position.

-Used tools (20) :volleyballs, a volleyball court, and two mattresses placed as shown in Figure (2) 5 cm away from the side lines.

Figure (1) Linear and radial crushing accuracy test

-Performance specifications Hitting from position (4) - preparation is done by the (coach) from position (3), and the tester must perform (5) attempts towards position (5 ,(specifically the position in the same position and the direction of the player's body towards it, and then (5) attempts towards the existing position. In position (1) and his body is directed towards center (5). After giving him a rest, the experimenter returns to performing (5) attempts towards center (1), specifically the mattress in the same position and the player's body is directed towards it, and then (5) attempts towards the mattress located in center (5).) and his body in the straight direction, i.e. towards the center (1(

Register:

- 4points for each smash in which the ball lands on the mattress.
- 3points for each smash in which the ball lands in the marked area.
- Two points for each correct hit in which the ball lands in areas (A) and (B.(
- Zero when performing anything that violates all of the above.

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The effect of functional strength training according to gradually increasing load in developing some physical abilities and achievement for men's 100-meter competition runners

Fahim Abdel Wahed Issa[1], Saleh Mahdi Mohaif[2], ghadah muayad shihab[3], Mohammad Jawad Kadhim[4]

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[1,2,3,4]College of Physical Education and Sports Sciences - University of Baghdad / Iraq

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Abstract:

Functional strength is one of the most important elements of physical preparation and an important physical characteristic in our daily life in general and sports training in particular, as it is the most influential characteristic in all sporting events, which the athlete must possess in order to reach the highest levels and achieve the best results. The research aimed to prepare functional strength training exercises According to the gradual increase in load in the development of some physical abilities and achievement for men's 100 meter competition runners , And to identify the effect of functional strength training according to the gradual increase in load in developing some physical abilities and achievement for men's 100-meter competition runners. **,** Hence the importance of research is evident: preparing functional strength training exercises according to the gradual increase in load by providing successful solutions in an economical manner in terms of time and effort and knowing their positive impact in bringing about the required development and improving the level of players in a better way. The problem of the research is that the achievement of the players in this event does not rise to acceptable levels, as a result of the weakness of some of their physical abilities. It has become impossible for them to develop except through training according to a coordinated training curriculum, The researchers used the experimental method with pre- and post-testing for the experimental and control groups. The research population was identified as players in the 100-meter competition for men for the open category for ages over 20 years in the 2021 sports season, and they numbered (10 players). The sample was divided into two groups: the experimental group and the control group, with (5 players) for each. Group, the researchers concluded that functional strength training according to the gradual increase in load has a positive effect on developing some physical abilities and achievement for men's 100-meter runners. **,** The researchers recommended Interest in functional strength according to the gradual increase in load has a positive impact on developing some physical abilities and achievement for men's 100 meter competition runners. **,** Conduct similar studies and research on different age groups.

keywords: Functional strength training, physical abilities, 100-meter competition

[1] University of Baghdad, College of Physical Education and Sports Sciences, Fahim.abdulwahid@cope.uobaghdad.edu.iq
[2] University of Baghdad, College of Physical Education and Sports Sciences, Saleh.Mahdi@cope.uobaghdad.edu.iq
[3] University of Baghdad, College of Physical Education and Sports Sciences, dr.ghada@cope.uobaghdad.edu.iq
[4] University of Baghdad, College of Physical Education and Sports Sciences, dr.muhamed.juad@cope.uobaghdad.edu.iq

Introduction

Sports training constitutes a basic pillar and an important necessity in the training process, so raising the sports level must be based on sound scientific foundations.(F. A. W. Easa et al., 2022) Therefore, those in charge of the training process must develop training plans and curricula based on scientific foundations to improve the training process, and develop the elements of sports training, which are elements Interconnected and integrated,(Mahmood et al., 2023) as the athlete cannot reach advanced positions if there is no integration of physical abilities. Hence, it can be said or indicated that we focus on the elements of sports training through physical preparation,(HalahAtiyah et al., 2024) which is a key stage for reaching the highest levels. (Sakran & Shehab, 2023) Functional strength is one of the most important elements. Physical preparation is one of the important physical qualities in our daily lives in general and sports training in particular, as it is the most influential characteristic in all sporting events, which the athlete must possess in order to reach the highest levels and achieve the best results. Athletics is one of those sports in which the activities vary from Throwing, running,(Mousa, A. M., & Kadhim, 2023) and jumping, each of which has special functional requirements, which have a direct impact on the functional aspect according to the specificity of its performance, distance, time, and energy systems. Among the short running competitions is the 100-meter running competition,(Ahmed Fadhil Farhan Mohammed Jawad Kadhim, 2016) where each running distance has its own training requirements from both the physical and functional aspects and the training methods that suit the nature of the race. Its performance and timing and the physical capabilities used in training to suit the intensity of their performance and rationing the periods of rest between exercises according to the goal of the training and the amount and direction of the load to suit the nature of the training. Age group: These exercises aim to prepare a standardized training program and identify the effect of gradual exercises to increase the load according to functional strength in developing some physical abilities and achievement for men's 100-meter competition runners.(Salih, I. H., Yaseen, A. M., Naseer, K. J., Attieh, A., & Kadhim, 2024)

Many studies have been discussed, including the study (Ahmed Fadel Muhammad, 2021), which aimed to prepare functional strength training exercises with relative weights, while preparing metered doses of creatine added to the athlete's body, aiming to develop special abilities and achieve the effectiveness of running 400 meters for men, as well as identifying the effect of strength training.(Kadhim, M. J., Shihab, G. M., & Zaqair, 2021) Functional exercises with relative weights and doses of creatine in developing special abilities and achieving the effectiveness of running 400 meters for men. The experimental method was used to achieve the objectives of the study.(Salman et al., 2022) The researcher chose his sample in an intentional manner from elite athletes who effectively ran 400 meters in Iraq and for the category of men (open ages over 20 years), after that The researcher divided them into two equal groups, each group containing 4 athletes. As for the study, the study aimed to prepare Functional strength exercises in developing some of the capabilities of the muscles working in the sport of artistic gymnastics for young players, and identifying the effect of functional strength exercises in developing some of the capabilities of the muscles working in the sport of artistic gymnastics for young players, (Kadhim, 2024b) and the experimental method was used to achieve the research objectives, and the research sample included six

players from the national team National Gymnastics.(Mahmood et al., 2023) and (Kazim, M. J., Zughair, A. L. A. A., & Shihab, 2019)

The importance of the research lies in preparing graded exercises to increase the load according to functional strength in developing some of the physical abilities and achievement of men's 100-meter competition runners by providing successful solutions in an economical manner in terms of time and effort and knowing their positive impact in bringing about the required development and improving the level of players in a better way.(Eisa & Qasim, 2024)

Method and tools

The researchers used the experimental approach with an experimental design with a pre- and post-test for two equal groups (experimental and control) to suit the nature of the research. The research population was identified as players in the men's 100-meter competition for ages over 20 years old for the 2023 sports season, and they numbered (10 players), and the sample was divided into two groups. Experimental and control group (5 players) for each group **,** The researchers homogenized the sample As shown in Table (1).

Table (1) Homogeneity of the research sample members

Torsion coefficient	standard deviation	Mediator	Arithmetic mean	measruing unit	Variables
0.222	**1.675**	**170.000**	**172.110**	**Meter**	**height**
0.153	**1.376**	**74.000**	**74.264**	**kg**	**Bloc**
0.349	**1.654**	**26.000**	**26.138**	**year**	**the age**

The value of the skewness coefficient is limited to ± 3, which indicates a moderate distribution of the population

The researchers also extracted parity between the two groups, as shown in Table (2).

Statistical significance	Error level	Calculated t value	Control group		Experimental group		Variables
			A	s	A	s	
Not a sign	0.891	0.783	0.284	6.432	0.174	6.210	**Maximum speed: 50 metres**
Not a sign	0.662	0.982	1.455	2.532	2.458	2.604	**The explosive power of the two men He jumped from stability with both legs**
Not a sign	0.345	1.453	2.863	19.001	1.897	18.011	**Withstand strength Run and jump 100 metres**
Not a sign	0.786	1.934	3.562	18.854	2.567	18.143	**Endurance speed Run 150 meters standing**

Not a sign	0.434	0.459	2.457	11.654	6.339	11.001	**Achievement 100 metres**

Significant below a significance level ≤ 0.05 and below 8 degrees of freedom

For the study variables, a group of specialized professors and coaches in athletics were consulted, and the physical capabilities for the 100-meter event were determined as follows:

- Maximum speed: 50 metres.
- The explosive power of the legs, jumping from a standstill with both legs together.
- Endurance, running, jumping, 100 metres.
- Speed endurance, running 150 meters from standing.
- Achievement: 100 meter sprint.

These tests were carried out for two consecutive days corresponding to 15-16/7/2023 at the stadium of the Specialized School for Talent Care in the Ministry of Youth and Sports / Baghdad Governorate

The sample began implementing training on 7/19/2023 until 8/20/2023. ●

Duration of the training program: (8) weeks. ●

Number of total training units: (24) training units. ●

Number of weekly training units: (3) units. ●

Weekly training days: (Saturday - Monday - Wednesday). ●

The training method used: high-intensity interval training. And iterative ●

Training intensity used: (80 - 100%). ●

After implementing the training program The researchers conducted post-tests for two consecutive days on August 23-24, 2023, in the stadium of the Specialized School for Talent Care in the Ministry of Youth and Sports / Baghdad Governorate.

Statistical methods used in the research: The researchers used the statistical package (SPSS) to find appropriate statistical treatments.

Results

Presenting and analyzing the results of the differences between the two research groups (experimental and control) for the variables under study

Table (3)

It shows the results of the pre- and post-tests of the experimental group on the research variables Analyze and discuss it

Physical variables	measuring unit	Pretest		Posttest		A F	Calculated t value	Error level	Statistical significance
		s	A	s	A				
Maximum speed: 50 metres	**Sa**	6.210	0.238	6.051	0.668	0.334	8.554	0.001	Dal
Explosive force He jumped from stability with both legs	**right**	2.604	0.675	2.751	0.456	0.654	5.897	0.004	Dal
Withstand strength Run and jump 100 metres	**Sa**	18.011	0.433	17.022	1.567	1.876	3.875	0.002	Dal
Endurance speed Run 150 meters standing	**Sa**	18.143	1.892	17.432	2.870	2.567	4.789	0.001	Dal
Achievement 100 metres	**Sa**	11.001	4.667	10.901	0.432	0.784	8.445	0.003	Dal

Significant below a significance level ≤ 0.05 and below 4 degrees of freedom

Presenting, analyzing and discussing the results of the pre- and post-tests of the research variables in the control group

Table (4)

It shows the results of the pre- and post-tests for the control group on the research variables

Physical variables	measuring unit	Pretest		Posttest		A F	Calculated t value	Error level	Statistical significance
		s	A	s	A				
Maximum speed: 50 metres	**Sa**	6.432	0.2341	6.203	0.657	0.556	7.078	0.001	Dal
The explosive power of the legs, a jump from stability with both legs together	**right**	2.532	0.765	2.672	0.887	0.562	5.667	0.000	Dal
Withstand strength Run and jump 100 metres	**Sa**	19.001	1.349	18.022	0.326	1.934	4.871	0.003	Dal
Endurance speed Run 150 meters standing	**Sa**	18.854	2.238	18.001	1.764	1.576	7.321	0.002	Dal
Achievement 5000 metres	**Sa**	11.654	0.334	11.301	0.443	0.235	8.789	0.000	Dal

Significant below a significance level ≤ 0.05 and below 4 degrees of freedom

Presentation, analysis and discussion of the results of the post-tests on the research variables for the control and experimental groups

Table (5)

It shows the results of the post-tests on the research variables for the control and experimental groups

Physical variables	measuring unit	Experimental group		Control group		Calculated t value	Error level	Statistical significance
		s	A	s	A			
Top speed enemy 50 meters	**Sa**	5.901	0.1356	6.052	0.236	7.675	0.001	Dal
The explosive power of the legs, a jump from stability with both legs together	**right**	2.954	0.5677	2.802	0.765	4.876	0.002	Dal
Withstand strength Run and jump 100 metres	**Sa**	16.031	1.654	17.076	0.348	3.786	0.001	Dal
Endurance speed Run 150 meters standing	**Sa**	16.011	0.812	17.210	1.876	6.321	0.003	Dal
Achievement 100 metres	**Sa**	10.753	0.1237	11.012	0.653	8.432	0.000	Dal

Significant below a significance level ≤ 0.05 and below 8 degrees of freedom

Discussion of results:

Tables of pre- and post-tests show the results of the variables investigated for the research sample. The results showed that there were significant differences in the post-test in favor of the two groups. **,** The researchers attribute that functional strength training according to the gradual increase in load in developing some physical abilities and achievement for men's 100-meter runners, the importance of regulating the training load used so that it suits the level of the athletes first and the goal of the training second (Hamdy Abdel Moneim and Mohamed Abdel Mughni. 1999), as it was done Relying on

the principles of training in forming the training units used (Hussein, R. 2016), the intensity that was used was high, and ranged from (80-100%) with the training load that took (8) weeks, and it was sufficient to produce these effects, and the intensity The high level is proportional to the nature of the 100-meter running performance (Gajes. 2010). Correct planning, choosing the appropriate intensity,(L. D. F. A. W. Easa, 2021) and taking into account the principle of gradualism to develop the level of players (Kadhim, 2023b) because intensity is one of the basic components on which the training process is based, especially for events whose performance is characterized by intensity.,(Kadhim, 2023a) so the training load is considered the basis and foundation of the training, and in the maximum speed variable in the post-tests it indicates the extent The effectiveness of the exercises used in the training program in developing special physical abilities, which contributed to the development of special strength in the experimental group,(Mondher, H. A., & Khalaf, 2023) which affected the development of speed ability, given that strength is the main reason for the development of speed, and this is due to the effect of the exercises used and their diversity in the exercises used, (Al et al., 2022) and (Kadhim, 2024a) which led to the development of speed (Abdulhussein et al., 2024). Noticeably, by giving the runners a set of exercises that lead to developing speed ability, and these exercises focused on the muscles of the feet, legs, and thighs, the main muscles responsible for a runner's speed (Gambetta.2009), (Abdulhussein et al., 2024) to the exercises used that had a high correlation with the endurance of specific speed, which was linked to developing the target speed, (Yasir et al., 2020) as the exercises included various distances from the race distance and were performed in succession according to the intensity that changed with the change in distance and speed (Macardle, 2008), and the reason for Development is diversification and change in the method and style of training (Aljorani, A. 2023) , (Ali et al., 2020)

Conclusions

The results showed a noticeable superiority between the pre- and post-measurements of functional strength training according to the gradual increase in load in developing some physical abilities of the experimental group and in favor of the post-measurement.

The results showed a significant difference between the pre- and post-measurements For functional strength training according to the gradual increase in load to develop the 100-meter achievement for the experimental group and for the benefit of the post-measurement.

Paying attention to functional strength training according to the gradual increase in load in developing some physical abilities and achievement for men's 100 meter competition runners.

Conduct similar studies and research on different age groups.

The training model used

Week: First training unit: (1-2-3)
Intensity of training units: (80 - 100%) Training methods used (repetitive + high interval)

Training unit	Exercise vocabulary	Severity %	Duplicates	Totals	Rest in between		Repetition time	Exercise time	Total time
					Repetition	Totals			
Saturday	- Starting from sitting, running 30 metres	100 %	3	2	1 d	2d	4 Sa	8.24 d	28.64 d
	- Run 40 meters from the jumper position	100 %	3	2	1 d	2 d	5 sec	8.30 d	
	- Jumping in pairs on 3 boxes of different heights, the first box is 30cm, the second is 50cm, and the third is 70cm, and the distance between the boxes is 1m.	90 %	5	2	45 sec	90 sec	10 sec	12.10 d	
Monday	- Run 150 meters standing	80 %	5	2	90 sec	2 d	19 Sa	22.10 d	36.1 d
	- Double jumping over 8 hurdles with a height of 80 cm	90 %	5	2	1 d	2 d	12 sec	14 d	
Wednesday	- Run 200 meters standing	80 %	4	2	2 d	3 d	25 sec	25.20 d	34.6 d
	- Run by jumping 100 metres	80 %	3	2	1 d	2 d	17 Sa	9.40 d	

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Designing an Electronic System for Visual Stimuli and Its Impact on the Accuracy of Setting and Spiking Skills in Volleyball Players

Sajad Abdul Wahed Abdul Khaliq[1], Ali Qasim Ali Hussein[2], Badr Nabeel Rajab[3]

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[1,2] University of Baghdad, College of Physical Education and Sports Science.

[3] Ministry of Education.

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Abstract:

The research aimed to enhance the accuracy of setting and spiking skills among the players of the University of Baghdad's volleyball team for the academic year (2022-2023) through a visual stimuli system designed by the researcher. The system works to develop the accuracy of two skills simultaneously during the operation of the system, through the accuracy of setting on an electronic board that contains numbers. Based on this, the setter prepares for the required position according to the number displayed on the board. The system also works to enhance the accuracy of spikes through lights that operate simultaneously with the numbers and within the opponent's area. Based on the location of the light that illuminates the area, the player performs a spike (either straight or diagonal) onto the illuminated area, according to the type of stimulus. This integrated approach not only improves the precision of spiking skills but also provides realistic game scenarios, enhancing training effectiveness. The researcher intentionally employed the experimental method for a single group with both pre-test and post-test. The research population and sample comprised players from the university volleyball team for the 2022/2023 season, who were students of the College of Physical Education and Sports Sciences, totaling 18 players. The research sample was intentionally selected, excluding the libero players,

[1] University of Baghdad, College of Physical Education and Sports Science, sajjad.a@cope.uobaghdad.edu.iq

[2] Bachelor's degree, University of Baghdad, College of Physical Education and Sports Science, ali.hussein1902@cope.uobaghdad.edu.iq

[3] Ministry of Education, Moonbadr26@gmail.com

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of whom there were 2. In addition to excluding the two players involved in the pilot experiment, the sample size was thus (14) players, representing (77.778%) of this population. Following the procedural steps, statistical analyses, and verification of scientific principles and parameters, the researcher arrived at the final form of the study. The statistical analysis was conducted using the SPSS system to derive conclusions and applications aimed at improving the spatial accuracy of both researched skills based on their correlation with enhancing performance and motor control in the specific parts of each skill. The educational tool helped to define this free activity within the parameters of correct performance through the lighting controlled by the coach to direct the players' tasks and increase their attention in each part of the performance. This approach also catered to the detailed nuances required to showcase them along with proper skillful performance. Thus, the role of visual stimuli exercises is to facilitate the precise direction of the ball to the designated location through control and manipulation, by accelerating cognitive processes for players and enhancing their effectiveness. On the one hand, they support the motor pathway of the required skillful behavior and guide it, while also accelerating cognitive processes, or more precisely, increasing their effectiveness in organized training without exaggeration in the training environment. The researcher concluded that exercises involving visual stimuli within an innovative electronic system aid in enhancing the accuracy of the setting skill and improving the accuracy of the spiking skill in volleyball among the players of the University of Baghdad team.

Keywords: Visual Stimuli, Electronic System, Accuracy, Setting, Spiking.

Introduction

Volleyball is considered one of the significant team sports practiced widely. It holds a prominent position as an engaging game, with its players characterized by various physical, technical, tactical, mental, psychological, and social abilities, which play a crucial role in achieving optimal performance in various basic skills throughout the match, enabling superior performance and excellence in competitions. This necessitates the integration of these abilities in different playing situations, as the training process encompasses several aspects, including physical, motor, and visual components. If the visual aspect does not function properly, it will impact the performance of the physical and motor aspects. The alternation of study periods from physical, skillful, and mental perspectives leads to better results for the enhancement of skill level (Al-Rabadi, 2001).

Attention stability is one of the fundamental mental components that enables volleyball players to accurately perceive stimuli, thereby making them more capable of responding and evenly distributing effort, culminating in the optimal performance of skills in play and competition. Additionally, it plays a significant and crucial role in performing the skills of setting and spiking because the setter can maintain their focus on the opponent's blocking wall and set the ball for

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the teammate to strike in the open area. Similarly, in spiking, accuracy and visual stimuli are important for scoring points on the first attempt. Precision is a crucial motor skill for volleyball players, especially when their skill levels are evenly matched. The game is characterized by the small size of the court and rapid, unexpected movements, requiring players to exhibit a high degree of accuracy in setting and spiking skills at the maximum possible speed, particularly against opponent blocks and defenses. This is essential for outperforming the opponent in all skillful and tactical aspects of the game.

Al-Jabouri emphasizes that precision plays a prominent role in the game of volleyball, as the player is legally required not to hold onto the ball, as this increases the difficulty of performance and often necessitates quick and sudden actions. Therefore, it requires the player to possess high reaction speed, whether in defensive tactics in following the balls or in offensive tactics when participating in different play movements. Additionally, it necessitates making decisions in motor execution (Al-Jabouri,1999). The system works to develop the accuracy of two skills simultaneously during the operation of the system. This is achieved by enhancing the accuracy of setting on an electronic board that contains numbers. Consequently, the setter prepares for the required position according to the number displayed on the board. Furthermore, the system also enhances the accuracy of spiking by utilizing lights synchronized with the numbers and positioned in the opponent's area. Depending on the location of the illuminated area, the player performs either a straight or diagonal spike to the illuminated region based on the type of stimulus.(Mousa, A. M., & Kadhim, 2023)

Previous Studies

A study by Hussam Hussein Daham (2019) titled: The Effect of Special Exercises Using a Device Designed for Visual Stimulus on the Accuracy and Response to the High Setting Skill in Volleyball.

The study aimed to develop specialized exercises using a designed visual stimuli device to enhance the accuracy and response of the high-setting skill near the net for young volleyball players. Additionally, the study sought to investigate the effect of these specialized exercises using the designed visual stimuli device on the development of accuracy and response among young volleyball players in the skill of high setting near the net. The researcher used an experimental method using the single-group pretest-posttest design, chosen for its suitability to the nature and objectives of the study. The research population comprised players from the National Center for Athletic Talent Care in Iraq, totaling 36 players. The research sample was selected purposively, consisting of 6 players specializing in the setting skill from the youth category in Baghdad (Daham, 2019).

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A study by Faiz Imad Hassan Al-Taie (2018) titled: The Impact of Exercises with the (Verti Max) Device on Explosive Power, Response Speed, and Skillful Flowing Behavior in the Accuracy of Spiking and Blocking in Volleyball.

The study aimed to: Develop exercises using the Verti Max device to enhance explosive power, response speed, and skillful flowing behavior for the skills of spiking and blocking in youth volleyball. Additionally, it sought to understand the impact of these exercises with the Verti Max device on explosive power, response speed, skillful flowing behavior, and the accuracy of spiking and blocking among young volleyball players. The researcher also used the experimental method with a design for both control and experimental groups. The research population was defined as the volleyball players from clubs in Karbala (Al-Hindiya, Husseiniya, Imam Al-Muttaqin, Al Rawdatain), totaling (48) players. The research sample consisted of players from the Al-Rawdatin club, totaling (12) players. It was divided into two groups: the first was the control group and the second the experimental group, with five players in each group after excluding the setters and the liberos, if present, due to their role in performing the setting tasks. Exercises were prepared using the (Verti Max) device. (Al-Taie, 2018)

A study by Jalila Jawir Abdullah (2016) titled: The Impact of Special Exercises According to Visual Stimuli on Developing Visual Concentration Power and the Accuracy of Setting Skill for Female Volleyball Players.

The study aimed to prepare special exercises according to visual stimuli to develop visual concentration power and the accuracy of the setting skill for female volleyball players. Additionally, the research aimed to identify the impact of these special exercises according to visual stimuli on developing visual concentration power and the accuracy of the setting skill for female volleyball players. The research sample consisted of players from the Al-Shabab Sports Club for the 2015-2016 sports season, totaling (15) players. The research test was conducted using a deliberate method, and the training methodology was implemented with a single group design involving both pre-test and post-test to align the nature of the research. (Abdullah, 2016).

A study by Jassim Mohammed Rasheed (2015) titled: The Impact of the Educational Curriculum Using a Ball Launching Device on the Accuracy of Performance for the Spiking Skill in Volleyball for Beginners.

The study aimed to: Identify the impact of the educational curriculum using a ball-launching device on the performance accuracy for the spiking skill in volleyball for beginners.

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The researcher employed the experimental method as it was suitable for the study sample. The research population consisted of second-year students at the College of Physical Education / University of Baghdad for the academic year (2014-2015), totaling (212) students distributed across seven academic sections. The research sample was selected randomly through a lottery process, consisting of (two sections) of male students divided into experimental and control groups, with (16) students in each group. Thus, the total number of students in the research sample was (32) students. (Rasheed, 2015) and (Sakran & Shehab, 2023)

A study by Dina Abdul Hussein Badn (2015) titled: Visual Perception and Its Relationship with the Accuracy of Performance in Diagonal and Straight High Spiking in Youth Volleyball.

The study aimed to identify the relationship between visual perception and the accuracy of performance in diagonal and straight high spiking in volleyball. The researcher utilized a descriptive method with a correlational approach, and the research population was purposively selected, consisting of youth club players in Baghdad for the season (2014-2015). The research sample was selected through purposive sampling, consisting of players from Baghdad clubs (Al-Shorta and Al-Sina'ah), totaling (24) players aged between 16 to 18 years. Two setters and two libero players were excluded, constituting 14% and 28%, respectively, of the original population. (Badn, 2015).

Method and Tools

Research Methodology: Based on the current research problem, the experimental method was adopted, which is defined as the objective observation of a specific phenomenon occurring in a situation characterized by strict control and involves one or more varied variables, while other variables are controlled. (Alawi and Rateb, 2017) The researcher opted to use the experimental method for a single group with both pre-test and post-test.

Research Population and Sample: The scope of the research population is represented by the university volleyball team players for the season (2022/2023) from the students of the College of Physical Education and Sports Sciences, totaling (18) players. As for the research sample, they were selected purposively, after excluding the libero players, numbering (2), in addition to excluding the players involved in the pilot study, also numbering (2). Consequently, the sample size comprises (14) players, constituting 77.778% of this population. Details of the sample are provided in the following table:

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Table (1) illustrates the homogeneity of the research sample players in some internal variables. The coefficient of skewness for normal distribution is specified between (+1).

Variables and Their Measurement Units	Number	Arithmetic Mean	Standard Deviation	Skewness Coefficient
Chronological Age (months)	14	263.93	2.433	-0.315
Body Height (cm)	14	186.14	10.068	0.073
Body and Arm Length with Arms Extended Upwards (cm)	14	220.21	9.258	0.316
Weight - Mass (kg)	14	77.57	3.345	0.135

The tools used:

- Arabic and foreign sources and references.
- A questionnaire form.
- Tests and measurements.
- An assistant work team.

Research Variables Identification: Variables were identified via a paper questionnaire distributed to volleyball instructors at the College of Physical Education and Sports Sciences. Visual stimuli (accuracy) were selected due to their significant importance in volleyball and appropriateness for the study's context as well as compatibility with the device designed to enhance the targeted skill.

Tests Used: Selecting tests for the research was a carefully considered process, ensuring that chosen methods accurately measure the desired precision within the study's scope. Therefore, the researcher created a questionnaire to select the most suitable tests for measuring accuracy. Two tests were selected out of a total of (9) tests. The questionnaire was presented to volleyball specialists at the College of Physical Education and Sports Science, University of Baghdad, where experts from the volleyball professors were all consulted.

The tools and equipment used: -

- Official volleyball court
- Regulation volleyball (20 balls, MIKASA brand)
- Colored adhesive tape and office supplies
- Measuring tape (2)
- Fox 40 whistles (2)
- Visual stimuli device with remote control (2) and board (1)
- Camera (1)

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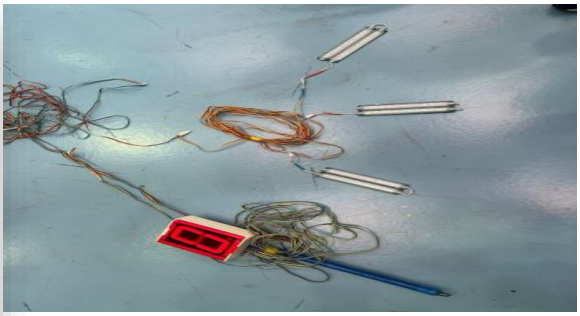
Design of the Electronic System for Setting and Spiking Skills.

- An electronic board measuring 15cm x 20cm, consisting of a digital display that randomly shows numbers representing the volleyball court's net lines
- (2, 3, 4).
- Three green LED lights measuring (20 cm length) x (6 cm width) x (0.8 cm height) mounted on the backline numbers of the volleyball court (1, 6, 5).
- Electrical wires are connected between the number board and the lights.
- A remote-control unit for the lights and numbers.



The visual stimuli system, its accessories, and modifications made by experts (Appendix 1).

The operation method of the system

The coach passes the ball to the setter. Then, one of the numbers (2-3-4) appears, and simultaneously, a light illuminates one of the opponent's court areas (1,6,5). The setter then prepares the ball for the player positioned at the indicated number, who spikes the ball towards the lit area. After the spike is executed, the lights on the court and the numbers on the board turn off, and the attempts are repeated according to the coach's instructions.

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The exercises available on the system and applied to the research sample are as follows:

- The number displayed on the setter's board is (2), and the light for the spiker is (1). Therefore, the execution involves a diagonal spike.
- The number displayed on the setter's board is (2), and the light for the spiker is (5). Therefore, the execution involves a straight spike.
- The number displayed on the setter's board is (4), and the light for the spiker is (5). Therefore, the execution involves a diagonal spike.
- The number displayed on the setter's board is (4), and the light for the spiker is (1). Therefore, the execution involves a straight spike.
- The number displayed on the setter's board is (3), and the light for the backline spiker is (6). Therefore, the execution involves a straight quick spike.
- The difficulty of the exercises was progressively increased by adding a blocking wall to all the exercises available on the electronic system.

Identifying the tests used in the research:

The selection process for the tests used to measure skills related to the phenomenon being studied in the research areas must be appropriate for measuring each skill among the (9) tests. The study included (5) tests for the skill of setting accuracy in volleyball and (4) tests for spiking skill. The researcher created a questionnaire to select the most suitable tests for measuring each skill. This questionnaire was presented to a group of professors and specialists in volleyball from the College of Physical Education and Sports Science at the University of Baghdad, totaling (13) experts.

After analyzing the questionnaire responses and calculating the percentage, the tests that received the most frequent selection were nominated as follows:

- A test for accuracy in high-setting.
- Tests for accuracy in straight and diagonal spiking.

Firstly, the high-setting accuracy test: (Al-Tarfi, 2014, p. 94)

- The purpose of the test: To measure the accuracy of setting close to the net.
- The tools used: A volleyball court, a net with a height of (243 cm), and (10) balls, along with a basketball hoop stand with a ring diameter of (60 cm) and raised above the upper edge of the net by (70 cm).

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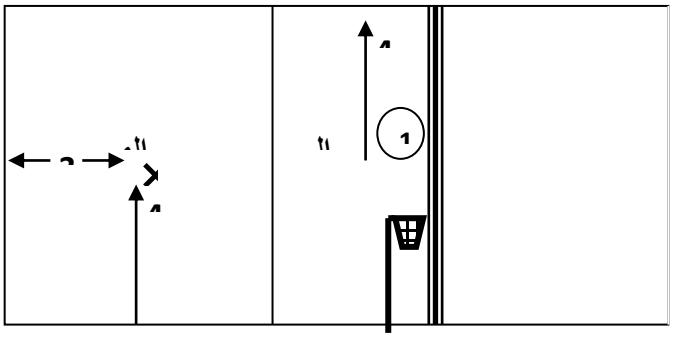
A circle with a diameter of 1 meter is drawn, its boundary touching the midline, with its center 4.5 meters away from the sideline, designated for the tester's position. The stand is placed on the



side, 30 cm from the net, as illustrated in Figure 3, where a mark (×) is indicated 2 meters from the end line and 4.5 meters from the sideline (this mark is designated for the coach's standing position).

Performance Specifications:

The coach throws the ball in an arc upwards towards the player standing in the circle, aiming to get the ball through the hoop. Each tester has (10) attempts to set the ball into the hoop from within the circle using both hands.

- 3 points for each attempt that successfully enters the hoop without touching the rim.
- 2 points when the ball enters the hoop and touches the rim.
- 1 point when the ball touches the rim without entering the hoop.
- 0 points for any attempt that does not meet the above criteria. The maximum score for the test is (30) points.

Secondly, the Test of Straight and Diagonal Spiking Accuracy: (Al-Tarfi, 2014)

- The purpose of the test: To measure the accuracy of spiking in linear (straight) and diagonal directions.
- The tools used: (30) volleyball balls, a volleyball court, and two mattresses placed as shown in Figure (4), positioned 5 cm away from the sideline markings.

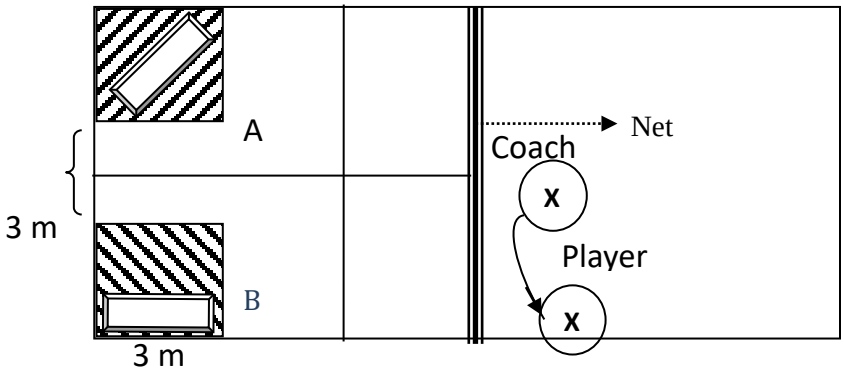


Figure (4) Straight and Diagonal Spiking Accuracy Test

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Performance Specifications: Spiking is performed from position (4). Preparation is done by the coach from position (3). Testers are required to execute (15) diagonal spikes towards the mattress located at position (5) and another (15) straight spikes towards the mattress at position (1).

Scoring:

- 4 points for each spike that lands the ball on the mattress.
- 3 points for each spike where the ball lands in the designated area.
- 2 points for each correct spike that lands the ball in areas (A) and (B).
- 0 points for any action that does not meet the above criteria. The maximum score for the test is (60) points.

Field Research Procedures

Pre-tests: Following a pilot study on the pilot study sample to verify the validity of the tests and the electronic system on Sunday (19/2/2023), pre-tests for the research sample were conducted on Tuesday (21/2/2023) in the volleyball and basketball courts at the College of Physical Education and Sports Science, University of Baghdad.

Main Experiment: The visual stimuli exercise with the electronic system were implemented on Wednesday (22/2/2023). The experiment continued on the research sample for three consecutive weeks, with an average of (4) units per training week according to their specialized training program for participation in the Iraqi Universities Championship. The specialized exercises were applied with a total of 12 training units.

Post-tests: Following the main experiment, the research sample underwent post-tests on Monday 13/03/2023, in the volleyball court hall and the basketball court hall at the College of Physical Education and Sports Science, University of Baghdad.

Results and Discussion: Following completing the experiment, the results were processed automatically using the SPSS system, including the extraction of percentage values, arithmetic mean, standard deviation, skewness, and the t-test for related samples, as shown in the table below.

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Table (2) illustrates the results of the pre-tests and post-tests.

Tests and Measurement Units	Skill	comparison	Arithmetic mean	Standard deviation	Mean difference	Deviation of differences	(t)	(Sig)	Significance of the Difference
Skill Accuracy (Score)	Setting	Pre-test	20.43	2.344	4.571	2.243	7.624	0.000	Significant
		Post-test	25	1.24					
	Spike	Pre-test	27.43	1.989	5	2.602	7.191	0.000	Significant
		Post-test	32.43	1.016					

N= (14), Sig (Significance) ≥ (0.05) at a significance level of (0.05) and degrees of freedom (n)-(1).

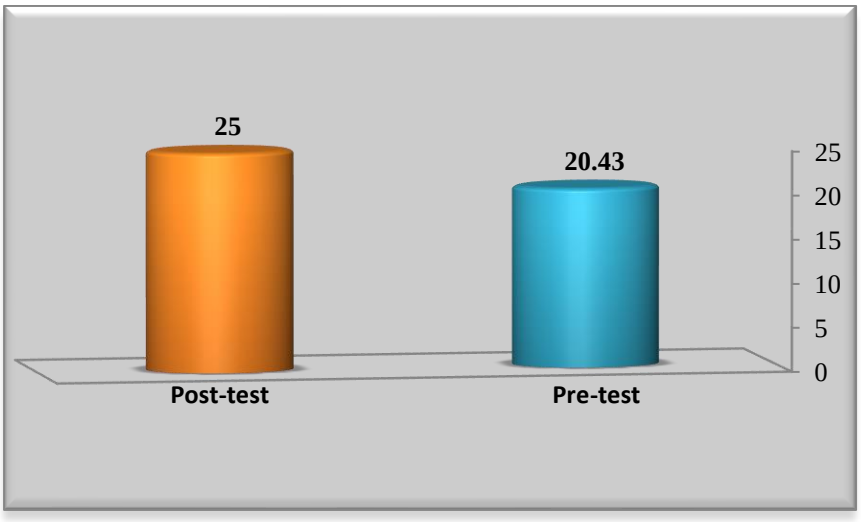

Figure (5) illustrates the pre-test and post-test arithmetic means for setting accuracy.

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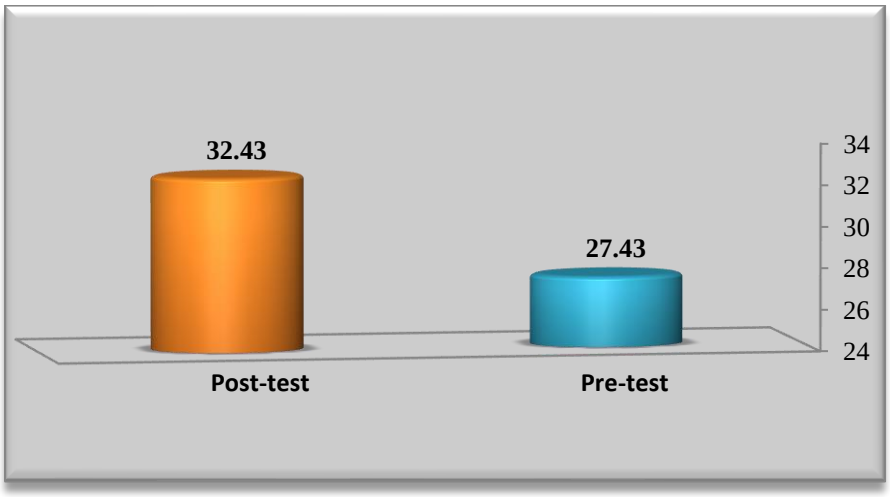

Figure (6) illustrates the pre-test and post-test arithmetic means for spiking accuracy.

The results in Table (2) show an improvement in spatial accuracy for both investigated skills, correlating this enhancement with performance and motor control improvements in each skill's components. The educational tool, through controlled lighting by the coach, effectively guided the players' tasks and heightened their focus in every performance section, thereby identifying this free activity within the correct performance parameters. Attention is the primary cognitive process in enhancing spatial accuracy, followed by concentration on specific skill details to develop a cognitive framework within the player. By recognizing crucial elements of the ball direction using controlled lighting and defining the ball's trajectory according to the designated play area, this method assists in creating an appropriate motor program. This program aligns with the spatial accuracy model for each skill, incorporating the necessary fine details for correct skill execution. Thus, visual stimuli exercises are essential for accurately directing the ball to targeted locations by enhancing control and cognitive speed, thereby improving players' effectiveness. These exercises not only support and guide the motor execution of required skills but also boost cognitive efficiency in structured training environments, optimizing the training impact without overstating effects.

Mohammed Al-Arabi Shamoun mentions that "It is necessary to increase the ability to focus and concentrate on relevant stimuli so that the player can effectively deal with challenging situations" (Shamoun, 2017).

Furthermore, "Attention directs awareness towards relevant stimuli, making them perceptible to the senses... It is the reciprocal relationship between the learner and the environment, and attention is closely linked to thinking and observation" (Rateb, 2000).

The researcher attributes the emergence of this result to the organized light stimuli contained in the designed tool, which achieved multiple purposes in a single action. This includes defining the

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motor pathway and providing the players with continuous feedback during performance and final feedback on accuracy. Thus, it serves a reinforcing function to solidify correct responses, as reinforcement plays a significant role in establishing connections between stimulus and response.

Indeed, "the player must realize that technology is a friendly tool for them in a productive and active environment. The crucial aspect is its proper use and selecting suitable situations for its utilization to benefit the player, achieve training objectives, and facilitate innovative work in sports activities" (Ubaid, 2010) and (Easa et al., 2022)

Additionally, "feedback has benefits in refining and developing performance, providing the learner with movement-specific information, and guiding their response towards the motor goal during educational situations. Feedback also serves the function of providing us with information about the movement (informational function). It can be used as a reward when the information is encouraging about nearing the goal (motivational function), and it can become a strong incentive for learning (incentive function)" (Wajeeh, 2001) and (Salih, I. H., Yaseen, A. M., Naseer, K. J., Attieh, A., & Kadhim, 2024)

Furthermore, "Through exercise repetition, the connection between the brain and muscles is strengthened, and repetition helps to disregard external stimuli in movement performance. This sequence serves in subjecting the body to changes in improvement in strength and athletic skill in the end" (Lerner & Brenda, 2017) and (Salman et al., 2022)

"Accuracy is a process involving all the senses of an individual and relies on various types of training with specific units aimed at developing different pathways in movement, strength, distance, and time through diverse paths of motor tools in all presented skills. This highlights the significance of training in achieving the highest level of precise performance" (Al-Shathli and Bou Abbas, 2010) and (Kadhim, 2023a)

Furthermore, "An athlete who trains toward a specific goal will have an incentive in his work, and working without a goal is futile and negligent. Therefore, the sports coach should assist the athlete in setting a suitable goal that he can achieve to give value to the training. This helps the athlete understand his progress through the postures and movements performed by the body or some parts of the body, which are practised or performed according to scientific principles and educational principles aimed at building the body to achieve the best possible performance in various specialized games, activities, and events" (Al-Dulaimi, 2011) and (Ahmed Fadhil Farhan Mohammed Jawad Kadhim, 2016)

Moreover, the skill of spiking also relies on the setter, who prepares the ball at various heights and directions to match the attacking player's capabilities. The attacker is characterized by their height, quick decision-making,(Falah & Khaleq, 2023) explosive power in jumping and hitting, and precision in performance. Additionally, they need proper landing techniques and readiness to defend their position. Not all players can perform this skill due to differences in their body

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composition, physical abilities, and motor skills. Achieving proficiency in spiking requires coordination, adjustment, and balance. Moreover, the player should demonstrate intelligence and quick reactions.(Mahmood et al., 2023)

In addition to considering the changes in terms of the distance and proximity of the teammate setter and the net, working on harmony and timing during the precise execution of skills is essential. The attacking player, while executing offensive duties, should observe the movements of teammates and the ball's direction as it crosses into the field, receiving and directing it towards the setter. This moment marks the beginning of the attacking player's readiness to execute the offensive duty assigned. (Badn, 2015) and (Kadhim, 2023b)

Conclusion and Recommendations:

1- Visual stimuli exercises through an innovative electronic system help improve the accuracy of setting skills among the players of the University of Baghdad's volleyball team.
2- Visual stimuli exercises with an innovative electronic system contribute to improving the spiking accuracy in volleyball among players of the University of Baghdad team.
3- It is essential to work on developing response speed for a number reflector; for instance, if number (1) appears, the hitter hits the ball to position number (5).
4- It is essential to work on developing both response speed and accuracy by using a board for the hitter that displays the number of the area they should target.
5- It is necessary to work on developing an electronic system with colour reflection by using two colours, red and green. If the green colour appears in area number (1), the hitter hits the ball in the area (1). However, if the red colour appears in a certain area, the hitter hits the ball in the opposite direction of that colour, meaning in area number (5).
6- It is essential to implement visual stimuli exercises using an electronic system for students in colleges, volleyball players, and all age categories.

Appendix (1) Operation of the Visual Stimuli Device and Its Accessories:

- Two boards (2) are each hung on a pole supporting the net.
- We have six green lamps distributed across the playing areas, which operate in conjunction with the board.
- In the straight spiking skill; for example, if number (6) appears on the board, the green light in area number (6) activates. The setter, seeing the number on the board, prepares the ball for the spiker in position (2). The spiker, observing the green light in the opponent's area number (6), proceeds to hit the ball straight into the area (6), as shown in the figure below.
- As for, the diagonal spiking skill, if, for example, number (1) appears on the board, the green light in area number (1) activates. The setter, noticing the number, prepares the ball for the spiker in position (3). The spiker, seeing the green light in the opponent's area number (1), then hits the ball diagonally into the area (1), as shown in the figure below.

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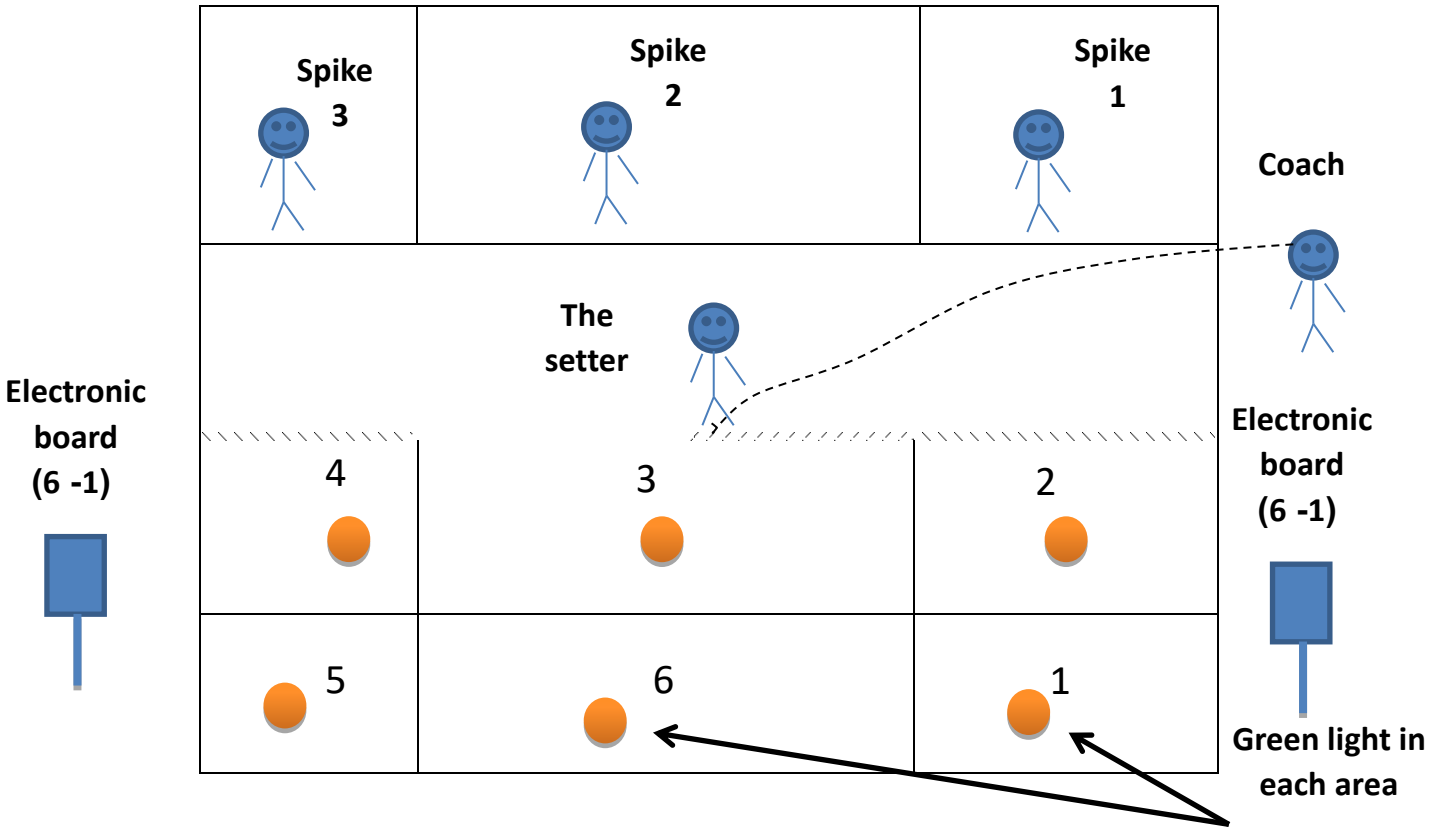
- In the case of deceptive spiking; if, for example, number (2) appears on the board and the green light in area number (2) lights up, the setter, observing the number, prepares the ball near the net for the spiker in position (1). The spiker, seeing the green light in area number (2) of the opponent's zone, performs a deceptive spike in area (2), as depicted in the figure below.



The modification that occurred in the operation method of the device, according to the recommendations of the expert committee.

- A board (number 1) is hung on the net's supporting pole, positioned on the players' left side who execute the spike.
- We have three green lamps distributed across playing areas numbered (1, 6, 5) which operate in conjunction with the board.
- The setter is positioned in area (1), and the setting is determined by the numbers (2-3-4) displayed on the setter's board.
- In the case of deceptive spiking, the committee's recommendations resulted in the elimination of this paragraph.

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Increasing the distance of attentional focus improves free throw accuracy in male basketball players

Aiman Sarhan [1]

[1]Department of Sport Science, Faculty of Education, Umm Al-Qura University, Makkah, Saudi Arabia

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Abstract

Basketball requires a distinctive blend of physical strength and technical skill, where exceptional players are set apart by their precision, accuracy, and ability to handle the ball. The objective of this study is to examine how various external focus instructions affect the accuracy of shooting free throws for inexperienced male basketball players. The objective is to offer valuable knowledge to coaches and players in order to enhance methods of training to improve free throw accuracy.**Methods** the study involved 40 male participants aged 18-25 assigned to Distal External Focus, Proximal External Focus, Internal Focus and Control Group. Participants performed a pretest block followed by 5 acquisition blocks with specific focus instructions. Each block consisted of 5 throws. Shooting accuracy was measured using the registration system of (VaezMosavi and Rostami, 2009). Statistical analysis was done using SPSS version 20, which included a mixed Paired T-Test and One-Way Anova to compare the group performances. **Results** the group of participants with a distal external focus (M = 8.68) consistently obtained the highest scores, followed by the group with a proximal external focus (M = 6.46), while the internal focus (M = 4.84) and control groups (M = 4.88) had the lowest scores.**Conclusion** the study demonstrates that using distal

[1] Department of Sport Science, Faculty of Education, Umm Al-Qura University, Makkah, Saudi Arabia, aaasarhan@uqu.edu.sa , https://orcid.org/0009-0009-9492-0767 .

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external focus instructions improves free throw shooting accuracy considerably when compared to instructions of proximal external focus, internal focus or no specific focus instruction. These discoveries offer valuable perspectives for maximizing motor abilities and improving free throw shooting precision in basketball.

Keywords: External Focus Distance, Proximal Focus Distance, Motor Skills, Basketball Free throw, Saudi Arabia

Introduction

In recent decades, significant research has focused on identifying the elements that influence skill performance and learning (Wulf, Shea, & Lewthwaite, 2010). One of these variables is referred to as the focus of attention. Wulf, Hoss, and Prinz (1998) were the first to investigate the impacts of various instruction methods on skill acquisition. The authors contrasted the impacts of various instructions, either focusing on body movements (internal emphasis) or on the repercussions of these motions on the environment (external focus). Their findings demonstrated that learning was more effective with an external focus of attention (EF) than with an internal focus of attention (IF). Subsequent studies consistently confirmed the results of the initial study, demonstrating improved motor performance and learning with the use of external focus instructions or feedback statements (Lohse, Wulf, & Lewthwaite, 2012; Wulf, 2013; Wulf & Prinz, 2001).

The "constrained action hypothesis" frequently explains the performance enhancements associated with EF (McNevin, Shea, & Wulf, 2003; Wulf, McNevin, & Shea, 2001). This concept suggests that an inhibitory function (IF) involves a higher level of conscious control that disrupts automatic control processes and limits the motor system. The hypothesis suggests that an interruption factor (IF) actively intervenes in automatic control processes and disrupts coordinated motor output. Conversely, an external focus appears to encourage more automatic control mechanisms, leading to improved performance (Wulf, 2013). Studies have shown that evidence of enhanced neuromuscular strategy and improved brain activation efficiency in people with an EF supports the constrained action hypothesis.

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While the performance-enhancing benefits of EF instructions have been well proven, there is limited study on whether these findings have been applied practically. Research in track and field by Porter, Wu, & Partridge (2010) indicates that coaches and players commonly utilize sentences with an "IF" despite scientific evidence favoring the use of an "EF." Running, a repetitive sport with few external cues, limits coaches' ability to deliver instructions about movement outcomes. The lack of reference points may be the reason why nearly 85% of the instructions led to an incorrect response in track and field. One could argue that motor tasks with a distinct environmental objective increase the likelihood of providing executive function instructions. A study by van der Graaff, Hoozemans, Pasteuning, Veeger, & Beek (2018) found that 31% of utterances related to baseball throwing involved an EF. Disciplines focused on external objectives and environmental aims may be more effective in promoting executive function.

Proficiency level is a crucial factor to take into account, as research indicates that focus statements might impact low-skilled and high-skilled players differently. Emphasizing a movement effect that is distant from the body typically results in more efficient motor performance compared to focusing on a movement effect that is proximal to the body. The ideal distance of the external focus depends on the ability level, with less skilled participants benefiting from a closer external focus, while highly competent athletes gain more from a more distant external focus (Singh & Wulf, 2020). Furthermore, there is conflicting research about the performance-enhancing impact of an EF on elite athletes. Some research has demonstrated improved performance in elite athletes using an external focus (EF) (Ille, Selin, Do, & Thon, 2013; Wulf & Su, 2007), while other studies have failed to reproduce these results (Keller, Kuhn, Luthy, & Taube, 2018; Winkelman, Clark, & Ryan, 2017; Wulf, 2008). The athletes' competence level could influence the appropriate attention used. This study aimed to investigate the effects of attentional focus on learning free throw shooting in basketball. We compared between internal focus and two distances of external focus (proximal and distal external focus).

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Methods

Participants

40 young adults all males aged 18-24 were recruited from Umm Alqura University undergraduate students, who had never played nor had basketball training. All participants were healthy without any recent injuries, especially upper extremities and head injuries. All participants signed the Research Informed Consent Form before the investigation. The participants had no previous knowledge of the hypothesis being tested. The participants, then, were divided into 4 focus groups Internal Focus (IF), proximal External Focus (pEF), distal External Focus (dEF) and a control group (CG). The study required two separate visits to the research site (the basketball court at Umm Alqura University).

Task and Apparatus

At the beginning of the first visit, a simple video was shown to the participants to explain the skill of shooting a free throw in basketball, which described how to hold the ball and stand behind the free throw line, and then how to aim and shoot the ball. The participants were given enough time to ask questions about the task. Then, 5 shots as a pretest were given to each participant from the free throw line (the basket is 4.57 m away from the free throw line, 0.45 m in diameter, and 3.05 m above the ground). An additional 25 shots were divided into 5 acquisition blocks with 5 shots in each block. The participants were given a two-minute resting period between blocks. During the pretest, the participants performed without any attentional focus instructions. However, during the acquisition blocks, each subject was given a specific instruction according to their respective group. The verbal cues were as follows:

• The internal focus cue was "Look at the basket and focus on the movement of your wrist and push the ball out using your fingers"

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• The proximal external focus cue was "Look at the basket and focus on the trajectory of the ball"

• The distal external focus cue was "Look at the basket and focus on the near edge of the basket ring"

• The control group were not given any specific instructions regarding the focus of attention. Their cue was "Look at the basket and shoot."

The present study repeated the registration system of (VaezMosavi and Rostami, 2009) to measure the accuracy of the free throw more accurately. The scoring system was giving 3 points to the ball entering the basket without touching the edge or the backboard, 2 points to the ball touching the edge of the backboard before entering the basket, 1 point to the ball touching the edge of the backboard without entering the basket, and 0 points for not recording a basket, or touching the edge or the backboard. All points were recorded in a data collection sheet for each participant in the study.

Finally, a second visit was administered after 48 hours, in which the participants were asked to shoot one more block as a retention test. In this block, there was no instruction given to the participants.

Statistical Analysis

The study employed SPSS Version-20 to evaluate the influence of internal and external focus cues on free throw accuracy in basketball. A mixed Paired T-test was conducted involving a Four Group x Five Trials design. Two separate one-way ANOVAs were conducted, one for the pretest trials and the other for the retention trials, to specifically investigate any learning effects within each group. The significance level for all statistical tests was set at $p < .05$, specifying the threshold for statistical significance. These analyses provided a thorough evaluation of how internal and external focus signals affect basketball free throw accuracy, taking into account both current performance and potential long-term learning effects.

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Results

Pretest

A separate one-way ANOVA on the pretest block found no significant differences between groups in free throw scores (F=0.168, *p*=0.917) (*p*<.05) (Table 1).

Table 1. One-way ANOVA on Pretest

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.700	3	.567	.168	.917
Within Groups	121.400	36	3.372		
Total	123.100	39			

Acquisition

The free throw scores analysis reveals significant differences in performance between the focus conditions for five out of six pairs. The dEF group consistently achieved the highest scores (M = 8.68 and Std = 2.123), followed by the pPE group (M = 6.46 and Std = 1.693); whereas, the pair of IF and CG was the only pair with no significant difference with both groups achieving the lowest scores of (M = 4.84 and Std = 1.530) (M = 4.88 and Std = 1.612) respectively with p < 0.05 (Table 2 and 3). The findings of the study provide strong evidence that a Distant external focus is associated with superior and better basketball free throw performance.

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Table 2. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	IF	4.84	50	1.530	.216
	pEF	6.46	50	1.693	.239
Pair 2	IF	4.84	50	1.530	.216
	dEF	8.68	50	2.123	.300
Pair 3	IF	4.84	50	1.530	.216
	CG	4.88	50	1.612	.228
Pair 4	pEF	6.46	50	1.693	.239
	dEF	8.68	50	2.123	.300
Pair 5	pEF	6.46	50	1.693	.239
	CG	4.88	50	1.612	.228
Pair 6	dEF	8.68	50	2.123	.300
	CG	4.88	50	1.612	.228

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Table 3. Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	IF - pEF	-1.620	2.108	.298	-2.219	-1.021	-5.434	49	.000
Pair 2	IF - dEF	-3.840	2.652	.375	-4.594	-3.086	-10.237	49	.000
Pair 3	IF - CG	-.040	1.177	.167	-.375	.295	-.240	49	.811
Pair 4	pEF - dEF	-2.220	2.652	.375	-2.974	-1.466	-5.920	49	.000
Pair 5	pEF - CG	1.580	2.269	.321	.935	2.225	4.925	49	.000
Pair 6	dEF - CG	3.800	2.579	.365	3.067	4.533	10.417	49	.000

Retention

A separated one-way ANOVA analyzed retention and found a main effect of groups on free throw scores, F= 13.855, p=0.000 (p<.05). Duncan's MRT on retention showed a significant difference in free throw scores between dEF (M=9.2) and all the other groups; IF group (M=5.5) pEF group (M=6.3) and the CG (M=5.1) with p < .05 (Table 4).

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Table 4. One-way ANOVA on Retention

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	102.875	3	34.292	13.855	.000
Within Groups	89.100	36	2.475		
Total	191.975	39			

Discussion

This study aimed to investigate how various attentional focus impacts learning basketball free throws. We assessed the efficacy of three different types of attention (internal, proximal external, and distal external) on the execution of a difficult motor task that involves coordinating various degrees of movement. The present study's findings indicate that distal external focus enhances free throw accuracy, as compared to both a proximal external focus, internal focus and a control group. The results of the present study, which emphasize the advantages of a distant external focus in improving basketball free-throwing precision, align with previous research undertaken in many disciplines. Previous studies have demonstrated that in stable environmental settings, skilled and novice athletes tend to perform better in short-duration, discrete tasks and serial activities when they focus their attention farther away from the movement. Skilled individuals demonstrated superior performance by employing a distal external focus during tasks such as the standing long jump (Porter et al., 2012) and hitting golf balls (Bell and Hardy, 2009). Furthermore, research has shown that distal concentration cues can improve performance even in sequential activities, such as playing a succession of alternating notes on a piano (Duke et al., 2011).

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In a study by Singh et al. (2022), it was found that a distal exterior focus led to considerably greater accuracy ratings compared to proximal external focus and internal focus conditions. The current investigation on basketball free throw and a separate study conducted by McKay and Wulf on dart throwing both examined the impact of distal versus proximal external attentional focuses. (Salman et al., 2022) Both experiments illustrate the efficacy of a distal external focus in enhancing motor function. The study highlights the benefits of focusing one's attention on a distant target or goal, emphasizing the importance of an external focus that is far away in order to enhance motor abilities and performance (McKay and Wulf, 2012). Additional support for the efficacy of a distal external focus is presented in Wulf's investigation on skilled kayakers, and the results align with the findings of the present study conducted by Banks et al. (2020). Both research highlight the benefits of focusing one's attention on a movement effect that is located at a greater distance from the body (Banks et al., 2020). The kayaking study found that adopting a distal external focus led to considerably faster sprint times compared to both a proximal external focus and a control group (Banks et al., 2020).Philip E. Kearney conducted a study to investigate the most effective area of concentration for beginner golfers while doing a putting task (Kearney, 2015). The research findings indicate that novices' putting ability was enhanced to a greater extent by employing a distal external focus, as compared to utilizing a proximal external focus or an internal focus (Kearney, 2015). In addition, a study conducted by Sarhan on beginner soccer players reported significant improvement in shooting accuracy when the players directed their focus on the target rather than the ball (Sarhan, 2024). Although there are differences between golf and soccer shooting, both studies emphasize the importance of considering the nature of the job when determining where to focus attention. In specific settings of skill learning, it has been found that focusing on external factors that are farther away can be useful. (Kearney, 2015; Sarhan, 2024).

The results of our current study indicate that the positive benefits of distal external focus might be attributable to several causes, as indicated by McNevin et al. (2003) and Shea and Wulf (1999). The immediate impacts are frequently linked with

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the body's moves, rendering it more challenging for the performers to exert exact control and make adjustments to their movements. On the other hand, distal impacts, which are more noticeable, enable more precise evaluations (Shea and Wulf, 1999). The superior free throw accuracy seen in the distal external focus in the present study can be attributed to the combination of spatial distinctiveness and holistic action planning .

Conclusion

The study shows that directing attention to a distant target greatly enhances accuracy in basketball free throws, as compared to focusing on a nearby target or on the body movement itself. The findings confirm the efficacy of a remote target concentration, offering vital knowledge for optimizing motor abilities and improving shooting precision and performance.

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The effect of using a feedback device in teaching a skill such as standing on the hands and switching a half turn outward on the parallel bar

boubakre nouiri [1], Nada Ibrahim Al-Saedeey [2], Ayad Saleh Salman [3], Jamal sakran hamza [4]

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1 University of Mesila, Algeria.
2 Tikrit University / College of Physical Education and Sports Sciences
3,4 College of Physical Education and Sports Sciences - University of Baghdad / Iraq

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Abstract:
Two general trainers in the sports field do not disagree about finding and using a special aid in teaching skills, as each sports skill has a specificity in learning it, and the game of artistic gymnastics for men is one of the individual games and has physical, movement and coordination requirements. **The aim of the research** is to know the effect of using The feedback device in teaching the skill of standing on the hands, alternating a half-turn outward on the parallel apparatus. **The research hypothesis** is that the use of an instantaneous feedback device has an effect in teaching the skill of standing on the hands, alternating a half-turn outward on the parallel apparatus. **The researcher used the experimental method** with a sample design. One because it suits the research problem, **as the research population** is limited to (7) emerging players who train in Baghdad, Al-Amana Sports Club for Gymnastics, and their ages range between (9-13) years. As for the research sample, they are (6) players, and the research sample constituted (90%). **As for the most important conclusions**, the assistive device added to the sample a second and enjoyable training method that had a clear impact on learning the skill of standing on the hands, switching half a turn to the outside. Through the educational units and repetitions for the players on the device, it becomes clear that it has a good design and can withstand their weights and repetitions. **The researcher suggests** that During the course of working on some skills similar to the skill under

[1] University of Mesila, Algeria, boubakre.nouiri@univ-msila.dz
[2] Tikrit University / College of Physical Education and Sports Sciences, n.ib.sport@tu.edu.iq
[3] University of Baghdad, College of Physical Education and sport sciences, ayad.hameed@cope.uobaghdad.edu.iq
[4] University of Baghdad, College of Physical Education and sport sciences, Jomal.hamza@cope.uobaghdad.edu.iq

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research, conducting studies on the use of an assistive device in learning them, in which the handstand skill enters the elementary part, such as the skill of hilly and switching half a turn inwards, which have greater difficulties in learning.
Keywords: auxiliary device, parallel, switching skill

Introduction

There is no difference between coaches in the sports field in finding and using a special aid in teaching skills, as each sports skill has a specificity in learning it in some sports, as its skills are played with the feet, others are played with the hands, and others use the body in general. The successful coach is the one who uses all available capabilities in the learning process and conveys the method of performance easily and with all its technical requirements.

Men's artistic gymnastics is an individual game that requires physical, motor and coordination skills, and its general skills must have a strong foundation based on learning its basic skills, as these skills are classified according to difficulty from difficulty (A) to difficulty (T), and it is difficult for the player to perform a higher difficulty without mastering the lower difficulty on all six gymnastics devices.

The parallel bars device according to the competition classification is the fifth sequence, and the player relies mainly on the arms and the strength of the hand grip. In all his skills, no part of the player's body may touch the parallel bars or the body of the parallel bars. Feedback in learning the skills of the parallel bars plays a major role in this process. (Ahmed Fadhil Farhan Mohammed Jawad Kadhim, 2016) Learning in transitions is instantaneous and changing direction is essential in performance, so the player must use the entire length of the apparatus and cannot complete ten skills in one direction. The problem of the research lies in the process of moving from one beam to another and changing direction. The player's balance is very unstable, which leads to falling in the transition process, especially in the process of standing on the hands, as other than this position, the player cannot change the direction of his body. (Kadhim, 2023) The simplest process of changing direction from one direction to another is standing on the hands, changing direction. There is a process of changing direction with highly difficult skills, the simplest of which is standing on the hands. The importance of the study lies in using the instantaneous feedback device in teaching the skill of standing on the hands, changing direction in gymnastics on the parallel bars in artistic gymnastics. Many studies have addressed the topic of assistive devices and feedback in solving many problems, including the study (Sabah et al., 2016), where the researcher concluded that it is necessary for the teacher to use (feedback) when teaching any motor skill, as it helps expand the learner's awareness, which facilitates the learner's learning process and develops his motor performance. (Easa et al., 2022) As for the study

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(Shawkat, 2021), the researcher concluded that the experimental group achieved better positive learning of the front jump skill on the jumping table than the control group. As for the study (Al-Samri et al., 2015) and the study (Karim et al., 2022), the researchers concluded that using the learning cycle method according to the timing of feedback had a positive impact on learning the gymnastics skills under study and that the effectiveness of the learning cycle method according to immediate feedback in learning the skills of open front roll and standing on hands and maintaining them. (jawad kadhim, M., & Mahmood, 2023) As for the study (Mohsen and Majeed 2020), the researchers concluded that the proposed instant feedback device is useful in teaching the skill of aerial backflips, as the experimental group outperformed the control group.

Research objective:

To know the effect of using the innovative feedback device in teaching the skill of standing on the hands and turning half a turn outward on the parallel

Research hypothesis:

Does using the innovative feedback device have an effect in teaching the skill of standing on the hands and turning half a turn outward on the parallel

Method and tools:

The researcher used the experimental method with a single sample design to suit the research problem, where the research community was determined by (7) young players training at the Baghdad Al-Amanah Sports Club for Gymnastics, and their ages ranged between (9-13) years, while the research sample amounted to (6) players, and the research sample constituted (90%).

Table (1)

shows the percentages of the sample distribution

T	the society	the number	Percentage
1	research community	7	100%
2	The research sample	6	85%

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3	**Exploratory sample**	**1**	**14%**

The researcher used research methods (Arabic sources and references, observation and analysis, tests and measurement, the Internet), and the researcher also used tools and devices including a timing device, a camera, low legal scales, an assistant device, and foam mats.

How to design the device:

After studying the problem and what causes imbalance and the center of gravity of the body outside the performance area by relying on the crossbars while standing on the hands and to give the player a warning of this with feedback, it was necessary to design a device that keeps the player stable on the crossbars while standing on the hands without falling and returning again to the device. The researcher began by consulting gymnastics experts and coaches* (see Appendix 1) by placing an alert device when the legs go out of the skill's line of action to restore it and correct the body position before switching and falling from the device. Accordingly, the device was designed and its components are:

Components and specifications of the proposed device:

A- Main part

1- Base:

A- The base consists of iron in the shape of (rectangle) with a length of 1.5 meters, a height of 5 cm, a width of 50 cm, and a height of 5 cm. The researchers chose these measurements for the strength, durability, and balance of the device on the ground.

B- Iron supports, number (4), with a height of (30) cm to fix the parallel bars on the main base.

C- Two hollow iron rods (2) each 1 m long and (30) cm in diameter, representing the iron rod of the parallelogram

2- Side arms:

Consists of two square iron arms each 1.80 cm long, 4 cm wide and 4 cm high, one end of which is fixed to the base from below with a piece of iron fixed to the body of the base from below and the other end is free from above

3- Circular iron body:

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Consists of a piece of iron in the shape of a circle 2 m long, 4 cm wide and 2 cm high fixed from above to the other free end of the side arms horizontally to the base and directly above the parallelogram rods, and consists of a variable height according to the educational program for young players

4- Electronic device:

It is a simple electrical circuit consisting of a 12-volt battery and an audible alarm device that connects the electronic device to the player's abdomen with a rubber belt and the wires from the device are fixed to the upper part of the body. (Kadhim, 2023) The player's feet when the iron body is touched by the feet, the wires direct the electronic circuit, which gives an alert that generates an audio signal that the body has gone out of the skill's line of action or its path, which serves the player to correct his

position on the device directly, (Mahmood et al., 2023) as shown in the following figure.

Figure(1)

shows the work on the device

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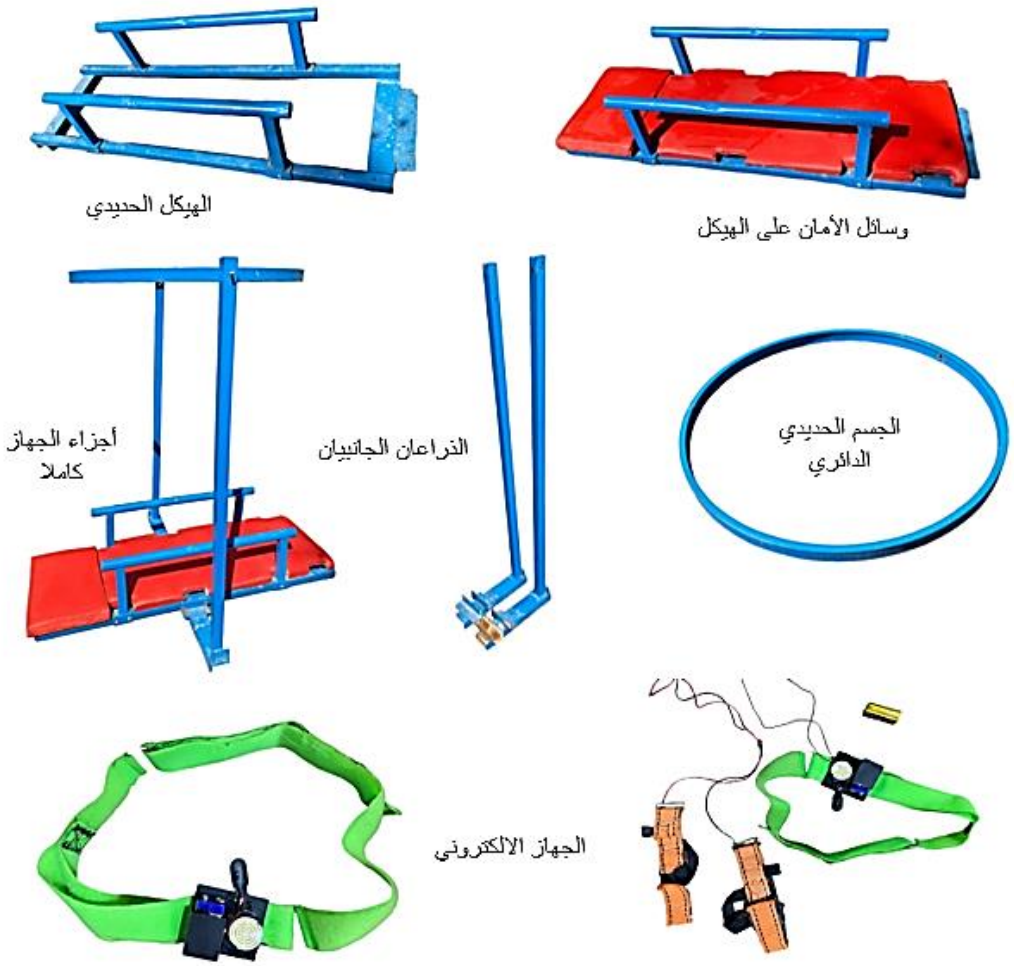

Figure(2)

Shows the complete parts of the device

The researcher, with the help of the assistant work team (see Appendix 2), conducted a pilot experiment to determine the efficiency of the device. The pilot experiment was conducted in the Rusafa side of the Amanat Club Hall on one player from outside the research sample in order to initially test the operation of the device on the players and also to find out whether the device was suitable for implementing the curriculum on it and its design and parts had not changed.

Pre-test for the skill of standing on the hands and switching half a turn to the outside on the parallel

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Field research procedures:

1-4-2Skill tests

-1Test objective: measuring the ability to perform and knowing the final score that the player obtains for performing the skill of standing on the hands and switching half a turn (180) degrees

Test tools: low-height parallel, sponge mat with a height of (10) cm, watch.

Test evaluation: The test is evaluated according to the technical performance, as the highest score that the player obtains on the device is (10) degrees.

Testing procedures: The tester assumes a ready position, climbs onto the apparatus, stands on his hands and remains still for (2) seconds, then performs the switching skill by leaving the crossbar with the right arm and leaning on the second crossbar with the left arm, i.e. he turns at an angle of (90) degrees, then pushes with the left arm and turns at another angle of (90) degrees to lean on it with extended arms and remains still after the performance is completed. For recording: The evaluation is done directly by four judges (see Appendix 3) and according to a special evaluation agreed upon by the judges, and the average of the two scores is taken and divided by (2) for the purpose of extracting the final score for the player, (Al-Ali & Abdulzahra, 2024)and the performance evaluation is out of (10) scores as shown in the following figure.

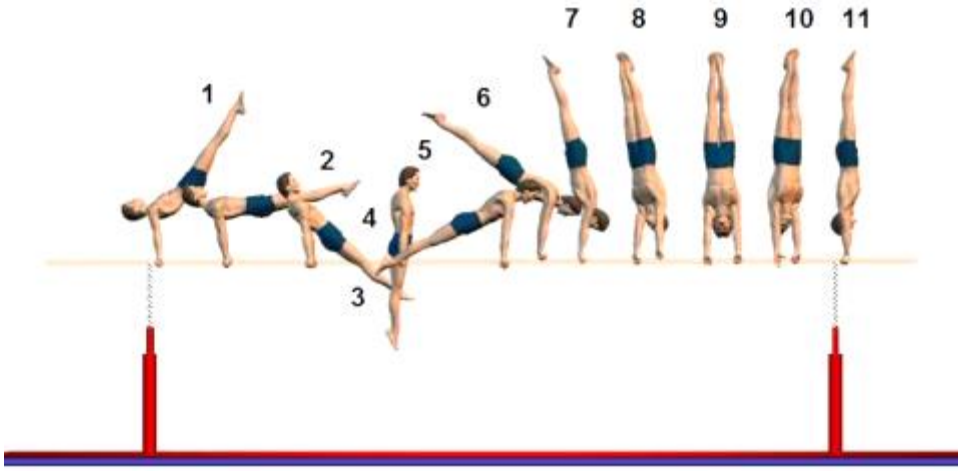

Figure (3) shows the skill performance

The researcher relied on the curriculum and vocabulary set by the trainers. As for the educational curriculum prepared by the researcher, he set it himself based on the consultation and experience of the game experts from the trainers (see Appendix No. 4). He did not change the specified vocabulary, and used the auxiliary device in the curriculum set for the sample. The experiment lasted for (6) weeks and included (12) educational units at a rate of (2) units per week. The total unit time was (145) minutes

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of the device time from the main part of the unit with a time period of (35) minutes for the parallel device. He also applied the principle of (repetitions) in each educational unit, and he was keen that the educational curriculum that he and the trainer set was in accordance with scientific foundations and principles.

Table (2)

shows the experimental design of the research group

Posttest	Pilot program	Pretest	the group
Testing the skill of performing a handstand, exchanging a half turn to the outside	Using the device	Testing the skill of performing a handstand, exchanging a half turn to the outside	Research group

After completing the components of the curriculum to apply the skill of standing on hands and switching half a turn outward on parallel bars, (Salih, I. H., Yaseen, A. M., Naseer, K. J., Attieh, A., & Kadhim, 2024) the post-test was conducted at the same time and in the same manner as the pre-test procedures, as the researcher prepared the atmosphere and conditions in which the pre-tests were conducted, and as shown in the skill test to evaluate the players,(Sakran & Shehab, 2023) they were evaluated directly by the judges (Appendix 3) approved by the Central Gymnastics Federation, and the evaluation score was based on a range of (10) skill points, and the researchers adopted the arithmetic mean of the judges' average scores, and divided it into two parts to extract the final score for the player.

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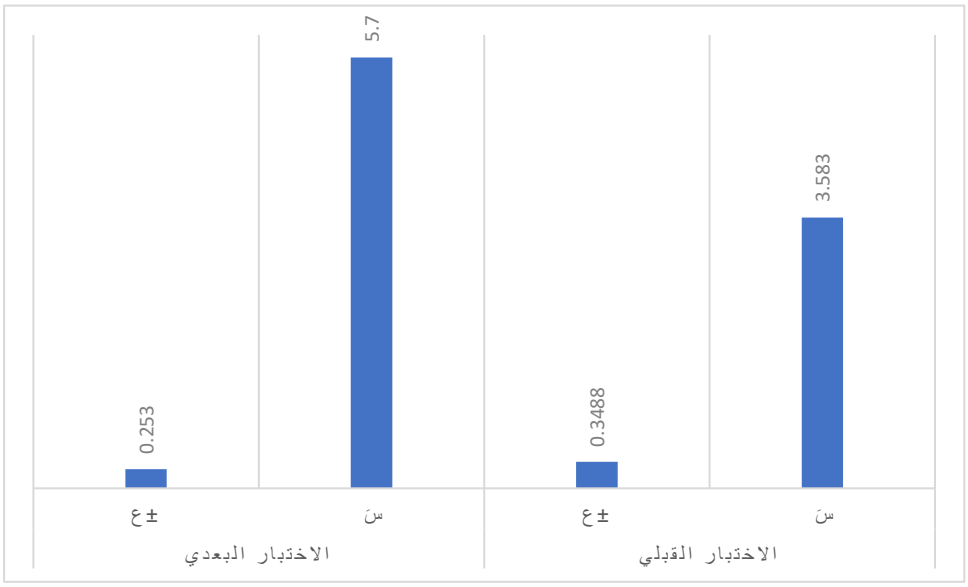
Results

Table(3)

shows the arithmetic mean, standard deviation, calculated (t) value, error level, significance, differences in arithmetic means, and deviation of differences in the pre- and post-tests of the two skills in the research sample

	N	Measurement	Pretest		Post-test		F	A F	T value Calculated	themselves	Type of significance
			s	ع±	s	ع±					
Switch skill	**6**	**degree**	**3.583**	**.3488**	**5.700**	**.2530**	**2.116**	**.3656**	**14.181**	**.000**	**Dal**

* Significant at the confidence level (0.05) if the error rate ≤ (0.05). And the degree of freedom of n-1 = 5



(4) Figure

.shows the histogram of means and standard deviations in the pre- and post-t**ests**

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Discussion The results shown in Table (3) and Figure (4) for the two skills showed significant differences between the two tests in favor of the post-test. The researcher attributed this to the use of the (assistant) device that proved effective in teaching the skill of standing on hands and changing half a turn outward, by keeping the center of gravity of the body above one line of action with the shoulder and wrist joints, so that there is one line of action while moving from one crossbar to another, (HalahAtiyah et al., 2024) in addition to keeping the legs above the parallel crossbar, which gives the player good balance while turning and moving from one crossbar to another. As for the role of the electronic device that contributed to giving an alert when the body touches the circular iron ring and immediate feedback to quickly correct the body position, the results showed a development between the pre- and post-tests in favor of the post-test by developing the arithmetic averages of the two tests. (Jawad Kadhim & Mousa, 2024)This indicates the contribution of the device (assistant) designed for the teaching process effectively and the extent to which the coach and players benefited from the proposed device, which contributed well to teaching players through performance free of errors associated with learning. Also, (Salih, I. H., Yaseen, A. M., Naseer, K. J., Attieh, A., & Kadhim, 2024)“feedback is corrective information that reaches the brain and its goal is to correct errors and refine performance to achieve full implementation of the motor duty. It comes from different sources, some of which are external, such as the correction process by the coach or teacher or others, and some of which are internal and include information coming from organs in the human body, such as the Golgi and Catenius bodies, etc., which send sensations to the brain during motor performance” (Sameer, Ahmed, 2007, p. 113). This was also confirmed (Abdulhussein et al., 2024)that devices and tools help in transferring knowledge, information and various and multiple skills and increase the ability of players to acquire skills through different senses and thus work to positively influence the speed of developing basic skills and improving the specifications of tactical and skill performance. (Al-Karimi, 2019, p. 20) indicates that "assistive tools and devices play a major role in improving and developing technical performance and helping the player understand the movement path that the player goes through, (Salih et al., 2024) in addition to providing the necessary strength to complete the main part of the movement, in addition to being a good safety measure, (Mohsen et al., 2024)but there are some skills in which it is difficult to provide manual assistance due to the multiplicity of movement axes and the player's position in which it is difficult to give additional strength by the coach ".(Abdalah & SalehRadhiAmesh, 2024)

(Jassim et al., 2012, Volume 12, p. 39) indicates that feedback plays an effective role in learning motor skills and is one of the strongest variables controlling performance as performance cannot be improved without using it, and feedback has a comprehensive concept,(MANDOOBMAKKIATI & ABED, 2024) which is knowing the results and

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using this knowledge to improve performance. The device also added a second method for players.

The proposed device also contributed to developing the spirit of competition and excitement among young players through it and reaching the goal of teaching the skill under study, which is what it was developed for.
In addition, the repetitions used on the proposed device, the scientific method, the variety of exercises, and the number of educational units, which amounted to (2) units per week, these factors greatly helped in attracting players and attracting them towards learning and increasing their motivation,(Hammood et al., 2024) which contributed to developing the experimental group.

Conclusions

1- The auxiliary device added to the sample a second and enjoyable training method that clearly affected the learning of the skill of standing on hands and turning half a turn to the outside

2- Through the educational units and the players' repetitions on the device, it is clear that it has a good design and can bear their weights and repetitions,

3- The researcher suggests, through the work paths of some skills similar to the skill under study, conducting studies using the auxiliary device in learning them, where the skill of standing on hands is included in the initial part, such as the skill of hill and turning half a turn to the inside, which is more difficult to learn

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Appendix (1)

Gymnastics experts and coaches

T	the name	Specialization	Workplace
1	Prof. Dr. Jamal Sukran	History, gymnastics	University of Baghdad/College of Physical Education and Sports Sciences
2	M. M. Ali Saadi Mohsen	Education, gymnastics	University of Baghdad/College of Physical Education and Sports Sciences
3	M.M. Samer Raad Jassim	Training, gymnastics	Al-Farahidi College, Physical Education and Sports Sciences
4	M.M. Abdullah Jamal is drunk	Education, gymnastics	Eagles University/Physical Education and Sports Sciences

Appendix (2)
Assistant work team

T	the name	Adjective
1	Muhammad Gamal Tawfiq	Student/College of Physical Education and Sports Sciences
2	Abdul Khaleq Saeed	Student/College of Physical Education and Sports Sciences
3	Aws Reda Ahmed	Student/College of Physical Education and Sports Sciences

Appendix (3)
Names of arbitrators

T	the name	Arbitration certificate	Workplace
1	Mahmoud Saleh	First instance judge	Central Federation of Gymnastics
2	Hamed Awaid	First instance judge	Central Federation of Gymnastics
3	Samer Raad	First instance judge	Central Federation of Gymnastics
4	Good luck	First instance judge	Central Federation of Gymnastics

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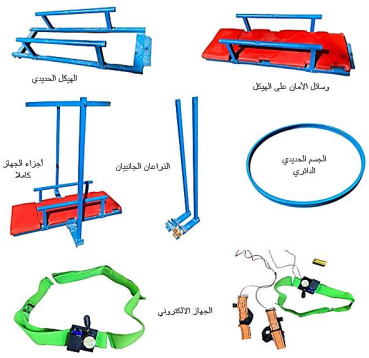
(4) Appendix
Model of the educational unit

Research group Unit time: (150) minutes
(6) :Objective: Teaching the stages of technical performance of the skill Number of group members
Location: Training hall, Al-Amanah Club

:Preparatory section: (30 minutes) divided into two parts
(10 minutes) General warm-up + (20 minutes) Special warm-up
Main section: (105 minutes)
Main section for parallel bars (35 minutes)
Final section: (15 minutes) includes cool-down

the week	Unit	the time		Differentials	the shape
The first week	The first Saturday	parallel	35 M	The first unit defines the performance of the switching skill completely and the most important points that positively and negatively affect the skill, with a detailed explanation of the assistive device used in the process of teaching the skill and each part of the device to serve the paths of the skill and its auxiliary parts, as well as the method of wearing the electronic device and an explanation of its operation.	
	Second Tuesday	parallel	35 M	Without wearing the electronic part, he stands on his hands inside the device, and the player begins by letting go of holding the bar, raising his hands, and re-holding the bar while opening his legs from the top and leaning on the circular iron hoop. The player repeats the exercise (5) times, then performs a handstand (2) seconds and descends from the device	

Repetitions are not allowed by the time of the educational unit*

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The effects of high-intensity physical exercise on the achievement of a 1,500-meter man running competition, maximal heart rate, and the development of personal tolerance

Samiha Amara [1], Fahem Abdul Wahid Easa [2]

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[1] Physical Education and Sport Sciences Department, College of Education. Sultan Qaboos University, Oman.
2 College of Physical Education and Sports Sciences, University of Baghdad.
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Abstract:

Creating high-density workouts and determining how they affect the development of specific tolerance, maximum heart rate, and success in the 1,500-meter man run competition are the goals of the research. Therefore, the development of high-density physical exercises that arise during the run-off as a consequence of ongoing training and the utilization of exercise quality that satisfies the requirements of the 1,500-meter run-off competition are the primary goals of the research. Research is beset by a shortcoming in the competition's ability to achieve its unique tolerance and accomplishment skills, The 1,500-meter race amongst the elite men of the Iraqi Union of Forces for the Open Ages over 20 years of the 2023 sports season has been designated for the research community. The sample was split up by the 12 players into the six players, the command group, and the two pilot groups. The researchers came to the conclusion that men's 1,500-meter run competition achievement, maximum heart rate, and the development of special tolerance were all positively impacted by high-density physical training. In order to establish a unique tolerance for other competitions, the researchers advised high-density physical training. They also suggested conducting similar experiments and research in various age groups.

Keywords: High-density drills, your tolerance, 1,500 meters contest.

[1] Physical Education and Sport Sciences Department, College of Education. Sultan Qaboos University, s.makaouer@squ.edu.om
[2] College of Physical Education and Sports Sciences, University of Baghdad, Fahim.abdulwahid@cope.uobaghdad.edu.iq

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Introduction

A significant amount of work is put in by training personnel to prepare athletes for all sports and sporting events and to achieve sports results. (Muwafaqobayeskhudhair, 2024) To obtain, recruit, and translate the vast quantity of theoretical knowledge in the field of training and other allied sciences into sports training fields, tremendous efforts must be made. A lot of thought goes into increasing the quantitative level of training loads during the planning phase of the training process, (NaseemJoudah, 2024) so that training takes up a significant amount of daily time. The goal of training pregnancy is to control the amount of activity, (ZidaneHmmood et al., 2024)whether it is in terms of frequency, duration, or intensity. Athletes' physical modifications brought about by further training and the application of high-quality workouts that meet the demands of force games activities and cover all of the components and roles of the hostile body,(MANDOOBMAKKIATI & ABED, 2024) Trainers must cultivate a unique tolerance and modify the maximum heart rate of hostility when working in a pulse, specifically for the 1,500-meter competition with unique physical features (170 p. 180 p.d.), The issue with research is that there is a weakness in the achievement of exceptional tolerance and achievement in this competition, despite the fact that achievement is one of the primary goals of the training process, (Hammood et al., 2024) to which both the player and the trainer are entitled. In order to develop the components of achievement, the researchers believed that contemporary training methods based on real experiments should be implemented. These workouts are designed to provide a high training density and to determine how the exercises affect the development of specific tolerance, maximum heart rate, and the ability to complete a 1,500-meter man-running competition.(Kadhim, 2024) and (Ahmed Fadhil Farhan Mohammed Jawad Kadhim, 2016)

A study conducted by Hamza Mohamed in 2004 was one of several that looked at the development of a training curriculum utilizing iron exercises and three intensity levels in the development of special tolerance, tolerance, and some aromatic variables. It also sought to determine the effects of this curriculum on the development of special tolerance, (Abdulhussein et al., 2024)tolerance, and some aromatic variables. The research community deliberately opted to be unfriendly (1500 m) to the 12 candidates who represented the community of origin as a whole in order to accomplish the study's goals while utilizing the pilot methodology. The study conducted by Zainab Johnny Cootie (2008) sought to determine the effects of these exercises on the rate of recovery on the pulse marker of the special speed tolerance as well as the completion of a 1,500-meter run. It also prepared the delivery of tranquilizers in accordance with the rigors of the curriculum.(Y. F. Mohsen et al., 2024)

Representing the 8-year-old Power Toys Federation training facility, the research community stands in for two adversaries of the 14-year-old group.
As a result, the value of research is illustrated by the creation of hostile high-density physical activities as a result of further training and the use of a high-quality exercise appropriate for a 1,500-meter running competition.

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Method and tools

To best fit the needs of the study, the researchers employed an experimental pilot design with two equal groups: experience and officer. In the 2023 sports season, the research community was determined to be the elite men's 1,500-meter competitor over 20 years of age in the Iraqi Federation of Open Ages Power Games. A command group, two pilot groups, and six participants per group were assigned to the sample. As indicated by Table 1, the investigators homogenized the specimen. (Salih et al., 2024)

Table (1) homogeneity of the individual research sample

Contamination coefficient	Standard deviation	Mediator	The math center.	Unit of measure	Variables
0.214	**1.654**	**172.000**	**174.211**	Meter	Longitude
0.123	**1.334**	**74.000**	**74.245**	**kg**	**Mass**
0.339	**1.489**	**26.000**	**26.112**	**year**	Age

The convalescence coefficient has a maximum value of ± three, signifying a moderate social distribution.

The researchers also extracted the parity between the two groups, as shown in table 2.

Variables	pilot squad		The commanding group.		The calculated value of t	The degree of error	Statistical significance
	S	**A**	**S**	**A**			
The force carried a 200-metre jump.	38.123	1.865	39.001	2.863	1.453	0.345	Non-D
Run 1,000 meters at that velocity.	2.33.54	2.634	2.34.65	3.562	1.934	0.786	Non-D
Run 1,000 meters at that velocity.	177.32	2.721	178.32	2.741	2.432	1.876	Non-D
1,500 meters.	3.55.01	6.334	3.56.00	2.457	0.459	0.434	Non-D

D below sign level 0.05 and below 10 degrees of freedom

For study variables, a group of professional teachers and coaches at the Power Games have been consulted and the special tolerance tests for the 1,500-meter competition have been identified as follows:

- The force carried a 200-metre jump.2023 Rana FM Al-Dulaimi, Faheem Abdul Wahid Easa

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- Take the velocity 1,000 meters running, Ali, A. N., Easa, F. A. W., & AbdulRida, B. K. (2020)

The heart rate of Easa, F. A. W., Shihab, G. M., & Kadhim, M. J. (2022).
Achievement 1500 meter Fahem Abdul Wahid Easa. (2021))

These examinations were conducted on Saturday, July 10, 2023, at the Ministry of Youth and Sports' dedicated school stadium for talent in the governorate of Baghdad.(A. S. Mohsen et al., 2024)

• The sample began training on Tuesday 10/10/2023 through 9/12/2023.
• Duration of the training programme: 8 weeks.
.Number of total training modules: (24) Training modules.

. • Number of weekly training modules: (3)

. • Weekly training days: Sunday, Tuesday, Thursday.

• Training method used: high-stress oral training. And the redemption.
. • Training intensity used: (80 100%)

These examinations were conducted on Saturday, July 10, 2023, at the Ministry of Youth and Sports' dedicated school stadium for talent in the governorate of Baghdad.

Research-related statistical instruments: The statistical bag (SPSS) was utilized by the investigators to identify relevant statistical treatments.

Results

Presentation and analysis of the findings pertaining to the variations in the factors under examination between the two research groups (pilots and officers)

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Table (3)

presents the findings of the pilot group's tribal and remote testing in study factors and analyzes and discusses them.

Physical variables	The tribal test.		The dimensional test.		A F	The calculated value of t	The degree of error	Statistical significance
	S	A	S	A				
Hold the power. He ran about 200 meters.	38.123	0.498	37.144	1.545	1.878	3.822	0.002	D
Accept the speed. completed a 1,000-meter run.	2.33.54	1.867	2.32.11	2.872	2.534	4.734	0.001	D
Heart rate.	177.32	2.443	176.21	3.532	3.543	4.187	0.001	D
supplying 1,500 meters.	3.55.01	4.623	3.54.00	0.467	0.791	8.465	0.004	D

D below a sign level of 0.05 and below a degree of freedom of 5

Results of tribal and remote tests of variables are presented, analyzed, and discussed in the commanding group.

Table (4)

The search variables display the outcomes of the controlled group's tribal and remote tests.

Statistical significance	The degree of error	The calculated value of t	A F	The dimensional test.		The tribal test.		Physical variables
				A	S	A	S	
D	0.004	4.889	1.984	0.387	38.021	1.390	39.001	The force carried a 200-metre
دال	0.001	7.367	1.593	1.743	2.33.11	2.256	2.34.65	Take the speed. ran 1,000 meters.
دال	0.002	6.719	2.464	4.387	177.12	3.862	178.32	Heart rate.
دال	0.000	8.776	0.291	0.482	3.55.11	0.383	3.56.00	**Achievement 1500 meters**

D below a sign level of 0.05 and below a degree of freedom of 5

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The findings of dimensional tests in the research variables of the control and experimental groups are presented, analyzed, and discussed.

Table (5)
Shows the results of the dimensional tests in the search variables of the control and experimental groups.

Statistical significance	Level of error	The calculated value of t	The commanding group.		Pilot group		Physical variables
			A	**S**	**A**	**S**	
D	0.001	3.723	0.379	37.022	1.698	36.112	Hold the power, ran about 200 meters.
D	0.002	6.356	1.822	2.32.10	0.815	2.30.12	Take the speed, ran 1,000 meters.
D	0.004	7.873	2.498	176.00	1.576	174.11	Heart rate.
D	0.002	8.481	0.621	3.54.04	0.187	3.53.11	**Achievement 1500 meters**

D is below 10 degrees of freedom and below sign level 0.05.

Discussion of the outcome:

The findings of the research-sampling variables' tribal and remote tests are displayed in Tables 5, 4-3. The results indicate that there are moral variations in both groups' interests and the dimensional test. The training approach, which is focused on high-density physical training in the development of specific tolerance, is attributed by the researchers as the cause of these variations, (Abdalah & SalehRadhiAmesh, 2024) The importance of codifying the training load used to match the level of the players indicates the evolution of the performance of this group in the muscle combinations that have been subject to the two men's jumping exercises,(Al-Bakri & YasirWajeehQaddoori, 2024) which have been reflected in the performance of the maximum force and for the shortest possible period of time (Mohamed, A). F. ., & Al-Shabaab, H. F. (2021), the more efficient the muscles are, the less time they can be, the more power these muscles can be, the more the members of this group regularly train the force that has had a significant direct impact on the muscles of the two men (Hamid Saleh, 2008), and the researchers believe that the means of training that carry the force of the experimental group have increased the level of achievement of my enemy by 1,500 meters, According to Wilmore J.H. and Costfl D. (1994), the low rate of pulse during rest is the outcome of specific load training. A strong mid-pulse competitor needs unique physical attributes. (Bdulkarim, 2024) Based on this, the training throughout the preparatory phase will concentrate on specific tolerance exercises while keeping the heart rate adjusted to support optimal performance. Ease, F. A. (2022)

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- Conclusions

-The findings have demonstrated a clear benefit between the tribal and distant measurement of high-density physical training in relation to the steady rise in pregnancy in terms of the experimental group's development of a unique tolerance and telemetry's interest.

-The findings demonstrated a clear benefit between the tribal and the telemetry of high-density physical exercise based on the progressive increase in pregnancy to establish the attainment of 1,500 meters for both the telemetry and the experimental group.
- Focus on high-intensity physical training in line with the rise in pregnancy with the purpose of developing individual tolerance and achieving the 1,500-meter competition participant

-Similar investigations and studies should be carried out across age ranges.

Utilized training module

Run drills first, then force drills.	Totals	Minute break at pulse rate.	Repetition	Stress %	Distance	Module for training	Week	N.
completed a 100-meter run.	2	The pulse has returned to its usual level. 120 N.D	5	80	150M	1	First	1
	2		4	80	300M	2		
			3	85	500	3		
ten times jumping off ten barricades	2	The pulse has returned to its usual level. 120 N.D	4	85	400M	1	Second	2
	1		4	85	1200M	2		
	2		3	80	600M	3		
covered 200 meters in run by jumping	2	The pulse has returned to its usual level. 120 N.D	4	85	150M	1	Third	3
	1		4	80	1500M	2		
	2		5	90	300M	3		

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The effect of complex training using the intermittent method in developing the special strength ability and achievement of young shot-put player U 20

Shaimaa Hasaneen Abd Elmenem Hasaneen [1],Hayder Faeq Al-Shammaa [2], Abeer Saadi Mahdi [3], maryam abd alrahman Hashim [4]

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Abstract

Complex training, which is of great importance in the development of physical capabilities through change in the motor path and diversity of exercises for the same muscle groups working during the motor performance, which depends on the ability of the muscular and nervous systems in the process of compatibility, and work to apply it in the intermittent training method that works on the continuous change in the degree of difficulty of exercise (intensity of training) coordinated with rest periods and designed to develop the ability of special forces for archers to push weight and achievement, and

The aim of the study is to prepare complex exercises in the intermittent method over a period of 6 weeks (12) training units during the special preparation stage, on a sample of young people under 20 years of age (5) elite athletes effectively push the weight, the study variables measured two variables for maximum strength of the arms and chest, explosive force of the two men, rapid force of the arms and achievement by pushing the weight.

Through pre and posttests, the researchers concluded the effectiveness of combined training, which is regulated by intermittent training, in the development and improvement of the special ability of the weightlifting archers (the explosive power of the two men, the maximum strength and the rapid strength of the shoulders and arms) and the exercises have made a clear progress in the achievement of weight propulsion for young people under 20 years.

Keywords :compound training, intermittent training, special ability of the company, achievement by pushing the weight.

[1] Tanta University Faculty of Physical Education / Department of Track and Field Competitions, shimaa.hassanin@phed.tanta.ed
2 University of Baghdad, College of Physical Education and sport sciences, haidar.muhsin@cope.uobaghdad.edu.iq
3 Ministry of Education / First Karkh Directorate, abeeralshmry98@gmail.com
4 Department of Internal Affairs / University of Baghdad, maryam.a@uobaghdad.edu.iq

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Introduction

Muscular ability means the ability to exert as much force as possible and as quickly as possible, which is one of the most important requirements for the effectiveness of pushing the weight, as it needs maximum force and speed of movement in the limbs of the body involved in the performance.(Matrood & Alshamma, 2019) Capacity is the speed at which force is affected and an increase in force, or an increase in the speed of contraction, or both, directly contribute to the increase in muscle capacity.

The effectiveness of weightlifting is related to the power of the force and its components, which can be described as the special forces of this activity, (HalahAtiyah et al., 2024) and the development of these capabilities depends on the type of training applied according to the technical and skill performance of the activity. that is why a lot of research and studies have been conducted on the training of these abilities to reach the athlete to the highest physical and technical level to achieve the best achievement. (Jawad Kadhim, 2016)

The different training methods to develop these capabilities are due to the level of trainers and their experience in the field of training, which requires them to study and investigate the results of new research and studies dealing with this aspect in order to enhance their training information and conduct more modern exercises to bring about the change and development required in the capabilities of their athletes. (AlJaf & Al-Shamaa, 2021)

Hence, the researchers went to conduct a study linking the complex training, which is of great importance in the development of physical capabilities through change in the motor path and diversity of exercises for the same muscle groups working during motor performance, which depends on the ability of the muscular and nervous systems to the process of compatibility in order to achieve a high level of achievement, and work to apply it in the intermittent training method that works on the continuous change in the degree of difficulty of exercise (intensity of training) and coordination with rest periods, and confirms (Talha Hossam, 1993, p.381) however, (Alshammaa, 2014) the training must be through the specialized aspect and rely on exercises with the same form of muscular performance for these sports effectiveness. (Jawad Kadhim, 2016)

There is a very high correlation between the ability of special forces and the achievement of effective weightlifting, where (Abu al-Ala Ahmed and Ahmed Nasreddin , 2000, p.133) indicates that the greater the degree of muscle strength, the higher the degree of compatibility between muscle fibers in the muscles and then the level of skill performance and achievement, therefore, muscle strength training methods should be diversified, taking into account the possibility of using body weight exercises or using resistors. (Hameed et al., 2024)

Therefore, the researchers went on to prepare various complex exercises using or without training tools aimed at developing the ability of special forces (maximum force, explosive force, relative strength, and rapid force) for weight-pushing shooters, and work on building the training load and codifying it in the method of intermittent training where

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mentioned so that the bowler steps up the intensity of the training for one exercise and then steps down the intensity and repeats the exercise for many times. (Hassan et al., 2022)

The importance of the study is in

1. Preparation of composite exercises through the change in the motor path of the working muscles during the exercise with or without tools that are aimed at developing the special strength of the weightlifting shooters.
2. These exercises are rationalized in the technique of intermittent training by the rise and fall strongly of a single exercise during repetitions.
3. Work to guide trainers and workers in the field of sports training to the use of composite exercises and metered with training load in the intermittent method in the development of the special strength capacity of athletes and to weightlifting shooters.
4. The researchers believe that training with these exercises and style will be somewhat useful in developing achievement by pushing the weight.

The problem

Through the vision of researchers and their work in the field of sports training and athletics and their coexistence of trainers and their training methods for athletes of national teams and high-level clubs, and his observation to face a problem in foreign championships as the achievement requires very high physical capabilities and in particular in the strength of the heavyweights, which reflects its impact on the digital achievement of this effectiveness.

Through the continuous studies of researchers in the field of studies and research, the new means of training and the most effective methods , devices and tools, so it was the tendency to conduct a different study that helps in the development of special strength and delivery to the highest grades in athletes to push the weight and hold it for shorter periods, to work on guiding the trainers to work out and use the composite training that works on the diversity of exercises and the same muscle groups working and use in the intermittent method up and down the intensity of training during the one exercise, which reflects the occurrence of high development and achieve the goal sought by researchers and trainers

In this study, the researchers wanted to answer the following questions:

1. Do combined exercises have a positive effect on the development of the special strength of the weightlifters.
2. Is intermittent training load programming effective in influencing special forces?
3. Does intermittent combined exercise have a positive effect on improving achievement for heavy-duty motivation?
4. Does a variety of combined exercises that work on diversity by working for the same muscle group have a greater impact on special strength and achievement?

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Objectives

1. Prepare complex exercises and diversity for the working muscle groups during the effectiveness of pushing the weight, and then work on rationing the training load in a intermittent manner to develop the special strength of the weight motive.
2. Recognize the impact of intermittent combined exercises in the development of the special force of the shooters by pushing the weight.
3. Recognize the impact of intermittent combined exercises in the development of achievement effectively pushing the weight of youth under 20 years.

My homework

1. A statistical indication between the averages of the results of the tribal and remote tests in the special strength of weight-pushing shooters for young people under 20 years old.
2. There are statistical differences between the results of distance-of-achievement tests effectively pushing the tribal and dimensional weight of young people under the age of 20.

Justification and importance

The importance of this study came to the great and important role that must be given importance in the exercises of the effectiveness of pushing the weight, namely, the development of the special force according to the different rates of contribution to the achievement, for both the explosive power, the rapid force, and the maximum force, the relative forces of the arms, which requires the selection of the best methods and methods for their development as one of the most important special demands of this effectiveness, to increase the ability of the special force of the archers to push the weight somewhat high during training and championships and related mainly to improving the level of achievement, this study provides the preparation of proposed composite exercises using the method of intermittent training, this could have an impact on the development of the special force capacity, as this is crucial for upgrading the level of delivery.

Areas of research

Conducting the study a sample of youth under 20 years of age (5) elite athletes effectively pushing the weight, for the year (2024), within the period from (6/1/2024) until (17/2/2024), at the stadium of the Faculty of physical Education and Sports Sciences Arena and the external field University of Baghdad.

Research methodology and selection

The researchers used the experimental approach to design a single group with a tribal and remote test, and the research community consisted of young athletes participating in the championship of clubs and institutions of Iraq effectively push the weight in early November of 2023, which was established by the Iraqi Federation of Athletics.

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(5) athletes were selected from the research community from those in the province of Baghdad to represent the research sample and in the intentional way so as to be able to control them in the implementation of exercises.

Devices, Tools, and Media for Information :

International Information Network Internet, Team of Trainers for exercise execution , gravity drive circuit, weight number (6) weight 6.000 kg, length tape measure (25) meters, lawn yard for complex exercise execution, number of medical ball and different weights, iron 20 kg number 2 with different iron weights, dongplings of different weights, flat number 2, cords for various rubber force colors.

Variables of study

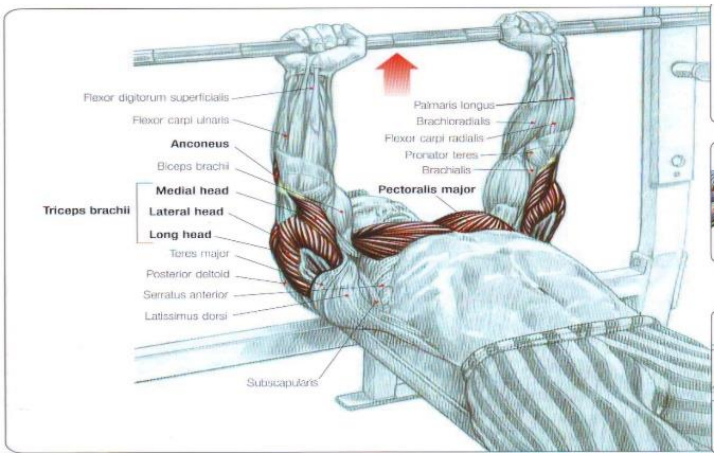
The researchers determined the physical abilities that can be included within the special strength of the shooters to push the weight based on their personal experience in addition to consulting a number of experts and trainers specialized in the activities of throwing, as they agreed with them on the most important in the participation of the achievement with the determination of a special test to each of these abilities. which are:

1. The maximum power
2. Relative forces
3. Explosive forces
4. The rapid forces

I. Measurement of maximum strength (Walid Ezzedine et al., 2024, pp. 814-816)

1- Test to push the bar with the arms from the lying position on the slab

(The goal is to measure the maximum muscle capacity of the pectoral muscle major and triceps muscle Pushdowns, with a gradual weight gain of 2.5 kg)



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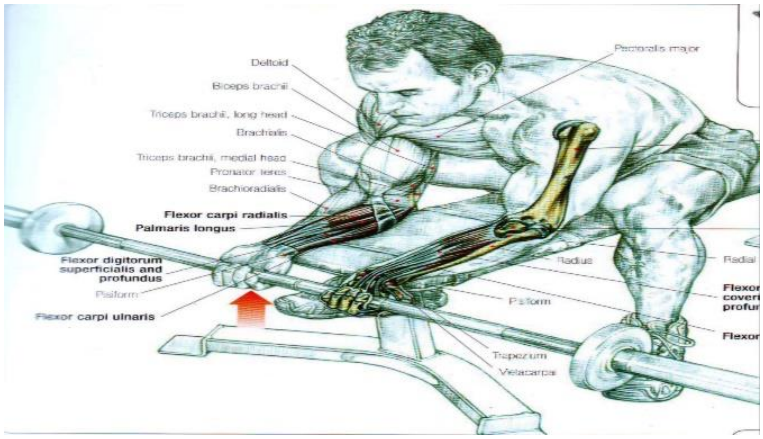
2- Test pulling the bar with arms to the chest from sitting on the slab and flexing the elbow
(The goal is to measure the maximum muscle capacity of the Curls bar bell biceps, with a gradual weight gain of 2.5 kg)



II. Measurement of explosive power of the muscles of the forearms (Nagham Abdullah et al., 2022, p. 141)
Test measuring explosive strength of leg muscles using foot Scan) *
III. measuring the rapid strength of the arm muscles (Ahmad Fadel and Haidar al-Shama, 2021, p.11)
Test bend and stretch the arms from the 10-second sloping position.
IV. measuring achievement by thrust of 6.000 kg (Mohammed Nahed and Haider al-Shama, 2019, p. 232)
Test of distance achieved by weighting in accordance with the international law of effectiveness.

Pre- and post-test

The tribal test was carried out on (6/1/2024) by conducting the four special force capability tests, in addition to the test of achievement on the experimental search set, in the same sequence mentioned above with a rest period of an amount (10 minutes) between each test and another.

* This electronic rectangular platform, measuring 40 cm by 60 cm, measures the power dynamics on which it is built and the pressure areas of the foot as it comes into touch with it. It also has high frequency digital sensors. In addition to providing a variety of macro power options strapped from the foot on the platform with multiple feeds to the mass of each player, the device provides a set of critical mechanical variables, including the power tied to the platform (Newton) for each component of the foot. The test for the Foot Scan scanner is this.

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The next test was conducted on 17/2/2024 under the same conditions and location as the previous test.

Combined exercise and intermittent training method

The researchers, based on their training experience, prepared complex and varied exercises for the same muscle groups working for the arms or for the two men more closely related to the motor performance of the effectiveness of the weight push, which depends on the ability of the muscular and nervous systems and aims to develop the special strength ability of the weightlifting shooters. the researchers used in some exercises tools and training tools and various bounce exercises using the amount of movement of his body as a resistance against which the muscles work in receiving and stopping movement, as he confirms (Abu al-Ala Ahmed, 1999, p.19) that training using body weight as resistance achieve a remarkable improvement in ability.

3 consecutive exercises for the rapid force of the arms, the second for the explosive force of the two men and the three for the maximum forces of the arms were installed in one exercise. this complex exercise has been refined and programmed, as several maximum tests were conducted for the exercises individually and then combined with the combined training to reach the maximum performance time of 25 seconds for all exercises. the principles of training science were taken into account during the special preparation phase in order to achieve a high level of achievement.

The training load has been codified in the method of intermittent training and using the method of repeated training with intensity training ranging from 90% to 105%, so that the target is graded to increase the intensity of the training for one exercise and then graduated to the intensity and repeated the exercise many times, and the training was intensity (90%, 100%, 90%), (95%, 95%, 95%), (100%, 105%, 100%), while the ascending of intensity is two consecutive training units and then the descending one.

As for the number of repetitions per exercise (3) repetitions of different intensities and rest periods ranging from 1:3 to 1:6 of the repetition time, and the number of totals was (2) and with a rest period of 2 minutes, and between exercises when moving from one to another the rest period was 4 minutes.

There are several types of intermittent training (long, medium, short and short) (Radwan Khaldi, 2016, p.38), of which the researchers used short intermittent training, being the best for building the special strength of the weightlifting shooters.

The implementation of composite exercises on the experimental research sample was started on (8/1/2024) by applying (2) training modules per week for (6) weeks, in addition to (2) training units to conduct tribal and post tests and (2) training units to determine the maximum intensity of exercises used during the compound exercise for a total of (16) units were implemented during the course of our research, the units were implemented during the main section of the training unit. The appendix (1) the training modules that were implemented during our research, and confirms (Heydar Faiq, 2015, p. 89) that the preparation of exercises associated with the programmed and scientifically

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prepared training load has a clear role in raising physical capabilities and developing them toward achievement.

Statistical treatments

Researchers used the prepared Statistical Bag (SPSS) to process the data and the results obtained.

Research results and discussion

The researchers tried to combine the results of the data obtained in the tables presented below. Tables (1) and (2) show the results of the statistical instruments of the study data for the special force variables of the weightlifting shooters that have been agreed upon.

Table (1)

Shows the arithmetic mean and standard deviations of special force variables

The next		The tribe		Unit of measurement	The variables
+ p.	C. S.	+ and p.	C. S.		
12.13	106	8.12	96	Kilogram	Push the lip from lying on the slab (maximum force)
3.56	39.5	3.98	32.5	Kilogram	Pull the lip from sitting on the slab (maximum strength)
31.98	361.50	25.88	346.33	Net worth	Foot Scanner (explosive force)
12.5	12.33	0.68	11	Several	Front-leaning (fast force)

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The Table (2)
Shows the calculated, moral, and level of significance of special force variables

The variables	F. and F.	United States of America	T Accounted	sig	Significance
Push the lip from lying on the slab (maximum force)	**10**	**2.85**	**7.75**	**0.005**	**Moral**
Pull the lip from sitting on the slab (maximum strength)	**7**	**2.04**	**7.69**	**0.005**	**Moral**
Foot Scanner (explosive force)	**15.17**	**4.78**	**7.08**	**0.006**	**Moral**
Front-leaning (fast force)	**1.5**	**0.33**	**10**	**0.000**	**Moral**

Referring to tables (1) and (2) it is shown that the results of the shooters of the research sample who were trained in high intensity combined exercises improved the special strength capacity values of the arms in maximum force and rapid force and of the men in explosive force. it is very clear in increasing their abilities in the distance tests than those results in the tribal tests, and the researchers attribute the appearance of these results to the effect of the combined exercise with the training load in the intermittent system,(Salman et al., 2022) which works to change the intensity of the training with the same exercise during the iterations to develop special strength. researchers have been keen to harmonize the course of physical movements and the technical performance of the effectiveness of pushing the weight taking into account the principle of gradient and crowning in the physical load and easy to difficult, to be this application in order to get the highest productivity of the special muscle strength, here, (HalahAtiyah et al., 2024) the role of exchange in the work of muscle groups as one of the principles of modern sports training has a positive effect to avoid objective fatigue and avoid sports injuries and boredom. especially that the resistance to the development of the force capacity component was by the weight of the body and the use of training tools to invest force push as indicated, which was calculated according to the principle of experimentation to suit its repetitions and the level of resistance and the muscle extension to the extent that precedes the force of the main contraction of the movement in each exercise, in addition, the researchers focused on avoiding the negative impact of poor performance to protect players from possible sports injury, which is confirmed by the commitment to the scientific fact of not straining neurons when working on the principle of compound training, that is, the neurons were not tired the better the technical skill factor for the effectiveness of pushing the weight. this is what the researcher was keen on in this matter, which was helped by the culmination in these exercises and the rise and fall in the intensity of training to relieve the muscles of the stress that may be left by special exercises and to get out of the restrictions according to the determinants of not harming the condition of the player.

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"Pregnancy gradient means adding new requirements over time periods that allow adaptations to occur and develop." (AJ, 2003, p. 99)

It also "must emphasize the principle of resistance gradient on muscles for the goals of increasing muscle strength and development." (Ihab and Abdul Basir, 2004)
Also , " in the explosive force and force training characteristic of speed, the trainers work to reach the muscles to the maximum elongability in accordance with the law of (Stenkalk) physical meaning (Palmace and Force Generation) which is its applications that the longer the muscle after its shortening, the more it is able to produce greater muscle capacity." (36 Al-Nusri, 2009) and (Abed et al., 2022)

"Factors affecting the production of muscle capacity are determined by the number of muscle fibers aroused, the cross-section of the muscle or muscle involved in performance, the composition of muscle fibers, the angle of production of muscle strength, the length and relaxation of the muscle or muscle before contraction, the length of time taken to contract muscle and the degree of compatibility of the muscles involved in performance, the emotional state of the player before and during the production of muscle strength, age, sex, and warming up" (Abedin, 2008) and (Khlaif & Shnawa, 2022)
"Several studies have also indicated that resistance training strengthens muscles, increases muscle size and strength, improves circulation and heart work, increases the vital capacity of lungs, and strengthens strings, joints and coronary tissues, as well as increases bone mass and density."Arabi and Omara, 2015), (Karam Salam Ismaeil & Kadhim, 2023)

Lastly, we can state that the research sample of archers with effective weight drive showed a discernible improvement in their maximum chest muscle strength, their legs' explosive strength, and their arms' rapid strength. This was due to the application of composite training during one exercise with the intermittent method of varying the frequency of the same exercise, confirming (Saleh, 2019) that "neural system training will be successful before the growth boom occurs, while muscle-based training and composite training will be successful following the growth boom."

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Table 3 shows the results of statistical means of study data for the variables of achievement that effectively weigh the weight of young people.

Table (3)
Shows computational circles and standard deviations of special power variables.

Changes	Unit of measure	before		after		F. and F.	هـ ف	T Accounted	Sig	indication
		C. S.	+ and p.	C. S.	+ p.					
Fulfilment by weight	meter	13.90	2.65	14.78	3.81	0.88	0.29	6.76	0.008	Moral

The results of the pilot shooters ' effective payment of the weight from young people trained in the complex exercises with high-resolution intermittent training listed in table 3 showed that they had improved achievement values for effective weight payment (6.000 kg) by a good increase in the delivery of remote testing than in the tribal tests, and the researcher attributed these results to the positive combined training effect that helped to develop both the explosive capacity of the two men, As much as possible, motor economy, the principle of mutuality, and diversity in the work of muscle groups must be taken into consideration, along with pain in muscular neurological work, in order to prevent fatigue in the high degree of training upwards during the single rehearsal disease that has affected neurosis and muscle contractions. The exercise's goal is to focus on the proper neuronal frequency required for heavy-duty shooters to produce specialized power while also varying the training concentration.(Abdulhussein et al., 2024)

Experimental research that gives us incontrovertible evidence is when using statistical means appropriate to the results of dimensional tests between the totals used in research.

"All the activities of the physical player lead to numerous physical changes, but when those activities are on the body according to regular scientific rules, they then lead to improved achievement." (Clears throat, 2010)

"The development of explosive capability must be taken into account in sports competitions, given the close relationship between them and the technical and tactical aspects, so as to allow the individual to achieve achievements." (Makki, 2010)

Also, "special power development exercises make the player better able to deal with the requirements of a specialized game." (Patience, 2010)

The above findings in this study point to the realization of the hypotheses imposed by researchers above average the results of the dimensional tests of the research group on the special capacity of the archers effectively to push the weight, which have been shown in the evolution of the explosive capacity of the two men and the improvement of the

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maximum force and the rapid strength of the shoulders and arms, which have effectively evolved the achievement of the weight of the research sample by young people.
The findings of the above-mentioned researchers indicate that the research objectives expected for the results of this research, which in the second objective were to develop the special force of the shooters by paying weight, and the third goal was to effectively develop the delivery of the weight to young people under 20 years of age, all using intermittently installed exercises.(Sakran & Shehab, 2023)

Conclusions and recommendations:
The development and enhancement of heavy-duty shooters' unique capacity (exploding capacity of the two men, maximal strength, and rapid strength of shoulders and arms) can be achieved through the practice of intermittent training in combination with combined training. (Kadhim, 2024b)
The archers in the research sample have a definite and favorable relationship with the composite training and how its activities are conducted. The accomplishment of the weighing of youth under 20 has clearly improved as a result of intermittent training.
The research sample's performance and achievement are clearly impacted by the intermittent training approach and the shifting training emphasis.(Kadhim, 2024a)

It was the researchers' recommendation.

:: Mentoring trainers and specialists in the training of shooters in the overall force games and the payment of weight, especially using composite training to develop the special power capacity of their players.
:: The use of cross-training in the development of delivery in the case of heavy-duty shooters.
:: Use complex training in all types of sport for its overall physical development.
:: The use of intermittently installed training in skills development and the dynamic performance of its process of diversification and proximity to performance itself.

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Appendix (1) / Selected models of training units

Training unit/first

The goal is to develop the special strength of heavy throwers. Sample number: 5 players

T.T.	Practice name	Repetition	Stress.	Time of repetition	Rest between repetitions	Time of repetition and rest.	groups	Rest between groups	Total time for practice.	Rest between exercises.
1	He pushed a 2-kg medical ball with the arm on the wall three times, and then he jumped the two guys on the spot three times, and then he leaned on the wall three times at 45.	**1**	**90 %**	28 Th.	**1 : 3**	**112 Th**	**2**	**2 minutes**	**670 second**	**4 minutes**
		2	**95 %**	**27 ثا**	**1 : 4**	**135 Th**				
		3	**90 %**	28 Th.	**1 : 3**	**28Th**				
2	Pull a fixed rubber rope from above the head with arms three times, log 2 successive logs on the right man and then on the left man, lip the weight of 20 kg from above the head up with arms three times.	**1**	**90 %**	28 Th.	**1 : 3**	**112Th**	**2**	**2 minutes**	**670 second**	**4 minutes**
		2	**95 %**	**27Th**	**1 : 4**	**135 Th**				
		3	**90 %**	28 Th.	**1 : 3**	**28Th**				
3	He began by lying on the moisturizer and used his arms to push his lips upward three times. Next, he leaped with his feet together to ascend to a height of 60 cm on the moisturizer three times. Finally, he sat on the moisturizer and used his arms bent outward to bring his 20 kg lip to his chest three times.	**1**	**90 %**	28 Th.	**1 : 3**	**112 Th**	**2**	**2 minutes**	**670 seconds**	
		2	**95 %**	**27 Th**	**1 : 4**	**135 Th**				
		3	**90 %**	28 Th.	**1 : 3**	**28 Th**				
The maximum time for performing exercises is 25 seconds.		Total training module time						41 minutes and 30 seconds.		

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Training module / IV

Target/developed by the Special Power for Heavy Thunder balls/sampling number/sampling number/sampling number/samples

T. T.	Practice name	Repetition	stress	Time of repetition	Rest between repetitions	Time of repetition and rest.	groups	Rest between totals	Total time for practice.	Rest between exercises.
4	After the knees were raised sequentially from the nine-second stand and the weight of 5 kg was pushed by the motor performance from the three-time stationary position, the 8-kg drums were dragged three times by each arm from both sides to the chest while the subject was lying on the barge.	1	95%	27 Th	1 : 4	135 Th	2	2.5 minutes	774 seconds	4 minuts
		2	100 %	25Th	1 : 5	150Th				
		3	95%	27 TH	1 : 4	27Th				
5	Klin uses a 40 kg lip balm three times, then moves up and down on a 30 cm by 9 tampon with the two males, and finally sits on a 30 kg lip balm from behind the head three times.	1	95%	27 Th	1 : 4	135 Th	2	2.5 minutes	774 seconds	4 minutes
		2	100 %	25 Th	1 : 5	150 Th				
		3	95%	27 Th	1 : 4	27 Th				
6	The motor performance was used to push the 5 kg weight from the three-time stationary	1	95%	27 Th	1 : 4	135 Th	2	2,5 minutes	774 seconds	
		2	100 %	25 Th	1 : 5	150 Th				

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	position. Next, the knees were raised consecutively from the nine-second stand, and finally, while lying on the barge, the 8 kg drums were dragged three times by each arm from both sides to the chest.	**3**	**95%**	**27 Th**	**1 : 4**	**27 Th**				
The maximum time for performing exercises is 25 seconds.		Total training module time						**46 minutes و 42 seconds**		

Training module / VII

Target/developed by the Special Power for Heavy Thunder balls/sampling number/sampling number/sampling number/samples

T. T.	**Practice name**	Repetition	**stress**	**Time of repetition**	Rest between repetitions	Time of repetition and rest.	**groups**	Rest between groups	total time for practice.	Rest between exercises.
1	After pushing a 2-kg medical ball three times against the wall with his arm, he jumped the two men three times on the spot and then three times at 45 degrees he leaned on the wall.	**1**	**100%**	**25 Th**	**1 : 4**	**125 Th**	**2**	**3 minutes**	**768 seconds**	**4 minutes**
		2	**105%**	**24 Th**	**1 : 5**	**144 Th**				
		3	**100%**	**25 Th**	**1 : 4**	**25 Th**				

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2	Pull a fixed rubber rope from above the head with arms three times, log 2 successive logs on the right man and then on the left man, lip the weight of 20 kg from above the head up with arms three times.	**1**	**100%**	**25 Th**	**1 : 4**	**125 Th**	**2**	**3 minutes**	**768 seconds**	**4 minutes**
		2	**105%**	**24 TH**	**1 : 5**	**144 Th**				
		3	**100%**	**25 Th**	**1 : 4**	**25 Th**				
3	After lying on the moisturizer, he pushed his lips up three times with his arms, hopped with both feet to reach a 60-cm-high moisturizer three times, and then sat on the moisturizer while folding his arms from the facilities and pulling his lips, weighing twenty kilograms, to his chest three times.	**1**	**100%**	**25 Th**	**1 : 4**	**125 Th**	**2**	**3 minutes**	**768 second**	
		2	**105%**	**24 Th**	**1 : 5**	**144 Th**				
		3	**100%**	**25 Th**	**1 : 4**	**25 Th**				
The maximum time for performing exercises is 25 seconds.		Total training module time						**46 minute و 24 second**		

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The effect of using a two-way assistive balance device on some motor abilities and improving the performance of the handstand skill in artistic gymnastics for men

muroj Abdulaziz Muhsen [1], Tamadher Abdulaziz Muhsen[2] ,tariq nazar majeed [3],jamal sakran hamza[4]

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[1] Global Alliance Solution foundation, United community family services. Walden University.
[2,3,4] Baghdad University, College of Physical Education and Sports Sciences
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Abstract

Advanced methods in training and sports are considered one of the most important ways to succeed and reach high levels of performance in sports skills. Auxiliary devices and tools are considered training methods, as well as special exercises used with assistive devices and tools.

Research objective to know the effect of using a two-way assistive balance device on some motor abilities and improving the performance of the handstand skill ,**But the assumption** Research shows that the use of a two-way auxiliary balance device has a positive effect in improving the performance of the handstand skill in artistic gymnastics for men .**Researchers' experimental method**) With a single group design with pre- and post-tests) to suit the nature of the problem to be solved. As for the research population, it represents (10) players affiliated with the training centers of Baghdad Governorate, Al-Karkh/Al-Rusafa for Gymnastics, and their ages range between (9 - 13) years. As for the research sample, it represented (5) players next to Al-Rusafa who train in the (Al-Amana) hall, and it was determined by (50%). The researchers used (2) players from the Al-Karkh Center for the exploratory experiment **The researcher concluded** the use of the two-way auxiliary balance device has clearly affected some motor abilities and improved the performance of the handstand skill in artistic gymnastics for men. The two-way balance device is of good design .**Researchers recommended** Conducting other studies using the device in artistic gymnastics for women and on its four devices.

Keywords: Assistive device, handstand, artistic gymnastics.

1 Global Alliance Solution foundation, United community family services. Walden University.,Muroj.muhsen@waldenu.edu
2 Baghdad University, College of Physical Education and Sports Sciences, tomader.muhsin@cope.uobaghdad.edu.iq
3 Baghdad University, College of Physical Education and Sports Sciences, tareq.majeed@cope.uobaghdad.edu.iq
4 Baghdad University, College of Physical Education and Sports Sciences, Jomal.hamza@cope.uobaghdad.edu.iq

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Introduction

Advanced methods in training and sports today are considered one of the most important ways of success and reaching high levels of performance in sports skills. Auxiliary devices and tools are considered important and even necessary training methods in training halls and arenas, as well as special exercises used with auxiliary devices and tools are also among the most important. The training methods followed by the training staff. Physical and motor abilities are also considered among the reasons for the success of the skill. Trainers work to use devices and tools that affect the work and course of the specific skill performance. .(Saharuddin et al., 2018)

The game of artistic gymnastics is one of the sports games that is specific to the performance of sports skills. Some of its skills require very high balance. Rather, the player is required to be stable (2) seconds in some apparatus skills such as the throat, floor, and parallel apparatus, since if the player is not stable during the performance time, the skill is canceled, which This causes a deduction from the technical performance score of (10) points and thus his loss and failure to win. (MANDOOBMAKKIATI & ABED, 2024) & (Bdulkarim, 2024)

The skill of standing on the hands is considered one of the most important skills in the game of artistic gymnastics, which requires the player to hold for (2) seconds on the floor movement apparatus, the parallel apparatus, and the throat apparatus. It is performed on the pull-up apparatus and the handles, and it must be achieved in performing some of its skills and passing through it with the jumping platform apparatus, due to the importance of this skill. And performing it with all devices, (HalahAtiyah et al., 2024) and due to the importance of the skill of standing on the hands and the difficulty of performing it on the devices that the player must hold on to, (Mahmood et al., 2023) and the difference between standing on the hands on the ground movement mat and on the parallelepiped and ring device, and because each device differs in support with the palms, which affects the balance of the body and its remaining in one line of action, in the mat of movements On the floor, (Muhsen & Mohsin, 2020) the handstand is based on the hands, while standing on the parallelepiped apparatus is held with the palms and is more anxious. As for the throat apparatus, it is one of the most difficult because the player needs high balance since the apparatus is mobile and unstable. Hence lies the importance of the research, (Hammood et al., 2024) as the researchers decided to design and manufacture An auxiliary device that takes into account the skill performance of the handstand skill on some artistic gymnastics devices in an attempt to accelerate the improvement of the skill performance faster and better. From this standpoint, the researchers turned to the idea of designing and manufacturing a training device as well as preparing special exercises using the device that may contribute to the development of some motor abilities. Special and technical performance of the skill, (Abdulhussein et al., 2024)as a new method that serves the above-mentioned training

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purpose more efficiently, as the work of the trainer at the present time is no longer dependent on preparing and applying different educational or training curricula only, as emphasis has also been placed on using training devices and means that help him in training the skill(Mousa, A. M., & Kadhim, 2023) ,,**As for the search problem** It manifests itself in overcoming the process of teaching the performance of a skill under research and overcoming the difficulty of performance through the use of training tools in special exercises. .(Kadhim, 2024b) Much scientific research has addressed the importance of using assistive devices and tools, and the two researchers agree with many studies, including one**) Mohsen and Majed, 2022 (**The researchers concluded that the proposed instantaneous feeding device is useful in teaching the skill of the pneumatic posterior curls, as the experimental group outperformed the control group (Abdulhussein et al., 2024) .As for studying**) Abdul Wahid et al., 2019 (**The researchers concluded that using a flexibility development device helps in improving and teaching the cartwheel and back arch skills on the floor movements in artistic gymnastics for women, and a study**) Drunk and Shihab, 2023 (**The most important conclusions were that using the assistive device has a positive effect in teaching the spindle skill on the pommel horse device. As for the study**) Shehayeb et al., 2022 (**The researchers concluded that the assistive device had a clear impact on learning the skill and that the device had good specifications and could withstand the players 'performance. As for the study (ZidaneHmmood et al., 2024))Jihad et al., 2023 (**The researchers concluded that assistive devices and tools have a major role in developing the performance of the skills under research on the throat apparatus for applicants (Kadhim, 2024a)

Research objective It is to know the effect of using a two-way assistive balance device on some motor abilities and improving the performance of the handstand skill in artistic gymnastics for men

Force the search The use of an auxiliary two-way balance device has a positive effect on some motor abilities and improving the performance of the handstand skill in artistic gymnastics for men.

Method and tools :

The researcher used the experimental method with a single sample design to suit the research problem, as the research population was defined as (10) players belonging to the training centers of the Baghdad Governorate, Al-Karkh/Al-Rusafa Gymnastics, and affiliated with the Central Iraqi Gymnastics Federation, and their ages range between (9 - 13) years, and they are the junior category (Muwafaqobayeskhudhair, 2024). As for the research sample, it is (5) Players in Baghdad, Al-Rusafa, for the training center in the (Al-Amana) gymnastics hall. The researcher chose the center on the side of Al-Rusafa due to its proximity to his place of

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residence and the use of time and transportation to the hall to follow the course of the curriculum prepared by him in using the auxiliary device. (AbdulsalamWaheeb et al., 2024) and (Kadhim, 2023b) The research sample was chosen intentionally for the purpose of controlling extraneous variables. All of them (the hall, the coach, the training time, and the equipment) were as much as possible, (Adnan et al., 2024) while the exploratory sample consisted of (2) players from the training center in Baghdad/Al-Karkh, and the research sample constituted (50%) of the research community. and exploratory (20%) (Salih, I. H., Yaseen, A. M., Naseer, K. J., Attieh, A., & Kadhim, 2024)

Table (1)

Shows the experimental design of the research group

the group	Pretest	Pilot program	Posttest
Research group	Test performance of the skill on a 1-device floor mat 2- Parallel 3- The throat	The program was prepared by a researcher For auxiliary two-way balance device	Test performance of the skill on a 1-device floor mat 2- Parallel 3- The throat

Table (2)

Shows the sample size and percentages

T	the society	the number	Percentage
1	research community	10	100%
2	The research sample	5	50%
3	Exploratory sample	2	20%

.The researcher used research methods (Arabic sources and references, observation and analysis, tests and measurement, the Internet), as well as (tools and devices, including a stopwatch, a

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photographic camera, a legal parallel device, a legal throat device, a ground movement mat, and an auxiliary two-way balance device.

Assistive device (assistive bidirectional balance device)

The safest way to learn, develop, improve, develop and train any sports skill is to provide devices and tools that serve the correct performance and placement of the skill, as well as providing appropriate conditions for the skill. (Salih et al., 2024) If these conditions are appropriate, the results from the training and educational process will be faster and more secure. For this reason, the researcher assisted and consulted. The supervisor, after presenting the idea to him, developed an idea to design a device in a new manner that would address the problem of training the skill (handstand) on gymnastics equipment(Ali et al., 2023).

The idea of the research will address the design and manufacture of a new, innovative assistive device that helps players develop and improve their level and skill performance on artistic gymnastics equipment by performing the handstand skill with high balance, by correcting the special conditions of stability for them to reach the ideal position, as well as developing motor abilities such as (flexibility - agility - Compatibility - balance.((NaseemJoudah, 2024)

After completing the idea for the researcher and supervisor about the device's working mechanism and its purpose, the device was designed in a preliminary three-dimensional form and the appropriate measurements were set in accordance with the physical measurements of the target sample. The device was drawn and the parts that would be used were determined, and accordingly the device was designed as shown in the following figure.(Al-Ali & Abdulzahra, 2024)

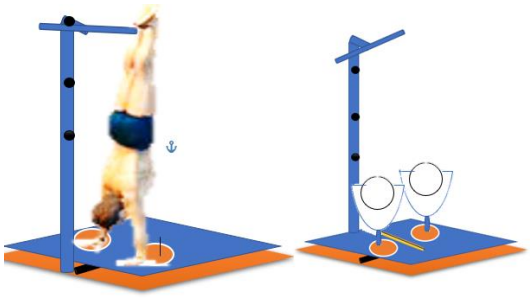

Figure (1)

Explains the theoretical design of the device

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Device components:

Bidirectional balance device

How to design the device :

After studying the problem and its importance, initial solutions were developed through a preliminary design of a device that solves the problem through a model with measurements that suit all players in terms of weight, height, and age. It was designed with good durability to bear high weights and moving parts, not fixed ones, to suit all ages, (Abdulkareem et al., 2024) in addition to paying attention to safety by adding and packaging iron parts. With wood, sponge and leather cloth

Components of the device Bidirectional balance

-1Fixed iron base:

It consists of iron with a height of 4 cm, a width of 8 cm, and a length of 1 square meter. It is square in shape and free of any additions inside the square, in order to allow freedom of movement for the other upper piece of iron and not to hinder its movement. A piece of iron with a height of 4 cm, a width of 8 cm, and a length of 25 cm is added to it from one of its sides in the middle, to increase its stability on the surface. The ground and to install the support piece for the player on the device, as shown in the following figure

Figure (2)

Shows the fixed base

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2 - Movable iron base

It is a base with the same specifications as the fixed base and with the same measurements, but with a piece of iron added from the inside, fixed in the form of + from the middle of each side of the movable base.

An iron crossbow with a diameter of 15 cm and a length of 1 meter is attached to it from the inside, and two fixing holes are added to it from the top on each side. These holes are for fixing the movable ring and a movable circular base. As shown in the following figure

Figure (3)

Shows the moving base

3 - The wooden base

It is a wooden base with a height of 2 cm and a width of 1 square meter. It is fixed over the movable iron base and contains four slots above each of the four slots, so that its size does not hinder the work of the device installed on it from above for both the throat and the circular base in addition to the movable parallelepiped.(Al-Bakri & YasirWajeehQaddoori, 2024)

A piece of sponge, 5 cm high and 1 square meter wide, is placed over the wooden piece with a leather cloth attached to it to absorb shocks and provide protection from injury to the player, as shown in the following figure .(Kadhim, 2023a) and .(HalahAtiyah et al., 2024)

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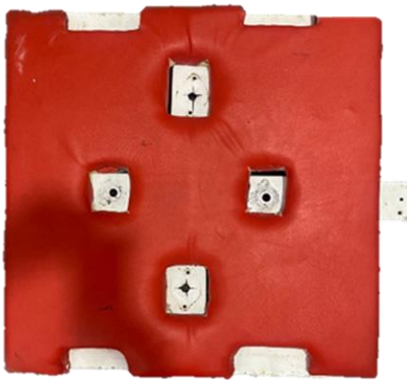

Figure (4)

Shows the wooden base

4 -The supporting column

It is a piece of iron, 8 cm wide, 4 cm high, and 2 meters long. It is fixed on one side to the side piece fixed to the fixed base, and on the other side, a piece of iron is fixed to it at an angle of 90 degrees. The same measurements, but with a length of 25 cm.

Player body stabilization column

It is a piece of iron fixed transversely to the end of the supporting column, with a width of 8 cm, a height of 4 cm, and a length of 50 cm.

Moving mullet

It is a mullet with a diameter of 10 cm and a length of 20 cm, at the end of which is a mullet attached to it from the middle by 15 cm. It is fixed from the middle of the mounting column with an artistic clamp so that it is not fixed, but rather has a simple, tender movement.

As shown in the following figure

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Figure (5)

Shows the supporting column and the body stabilizing column

5 -The moving circular base

This piece consists of

A - An iron plate with a width of 12 cm square, to which a piece of steel with a diameter of 3 cm and a length of 5 cm is fixed in the middle.

B- A circular piece of wood, 2 cm thick and 60 cm in diameter, fixed over the iron pallet and covered with leather cloth, as shown in the following figure.

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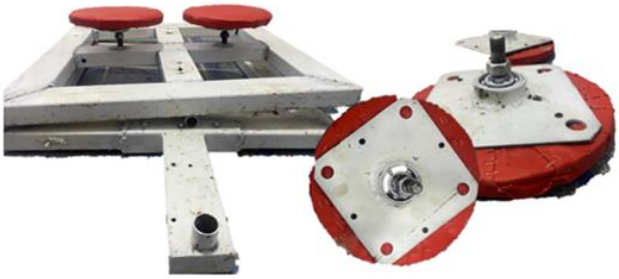

Figure (6)

Shows the moving circular base

6 - Iron parallel bars

Two pieces of iron bars with a diameter of 10 cm and a length of 1 meter, installed in an artistic manner that does not hinder installation on the movable base at a height of 20 cm, as shown in the following figure.

Figure (7)

Shows the iron parallel bars

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7 - The moving throat

It consists of two pieces of semicircular iron, one half of which is fixed inside the second half in an artistic way. The first half of the circle is fixed from the middle on a free-moving ball bearing, so the movement is so that the half is 360 degrees to the side, while the second half is fixed to two ends of the first half in a free manner, so that its movement is 360 degrees to the top by half. The diameter is less than the first, as shown in the following figure.

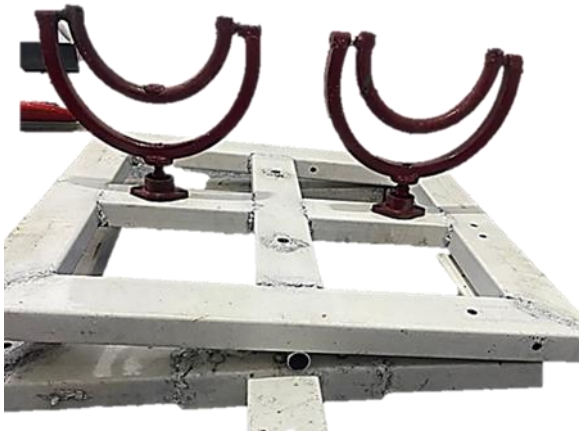

Figure (8)

Shows the moving throat

8 -Electronic part

This part consists of a 6V battery connected to two wires at the ends of which there are two sensors mounted on the fixed iron base in the middle of each side. If they are pressed, they give an alert by emitting a sound from the loudspeaker mounted on the supporting column mounted on the fixed iron base, as in the following figure.

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Figure (9)

Shows the electronic part

How the device works:

The device was designed to simulate some artistic gymnastics devices for men in learning, developing and improving the skill of standing on the hands and good balance on the device. When using the device using 1- the circular wooden piece, the player places the palms on the circular piece and leans well, so the player is asked not to touch the two sides of the device. The fixed iron piece maintains a safe distance for balance so that there is no alert from the electronic device through the loudspeaker. Each of the three pieces used, the circular wooden piece, the parallelepiped piece, and the ring, all have two movements in balance, either to the sides or in front of the back, and this is done through the mullet fixed to the middle of the base from the bottom. This is done by changing its direction, either forward or backward, and also trying to attach the legs to the upper piece of the device.

Determining motor abilities:

The researcher prepared a form that would determine the motor capabilities of the skill (handstand) on some artistic gymnastics equipment for men and presented it to the experts (Appendix 1), based on sources and studies related to artistic gymnastics for men and motor

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learning and personal interviews with the supervisor and the experts. Jurisdiction and in light of their opinions, the movement was determined.

Table (3)

Shows the motor abilities selected by castration

T	Capacity	Test name	Number of approvers	Non-consent	The ratio	It works or it doesn't fit
1	Agility	Spiral running test	2	4	%33.3	Does not fit
		Test of running zigzag between the signs.	1	5	%16.6	Does not fit
		Standing prone prone test (Bureby test)	Zero	6	zero%	Does not fit
		.Shuttle running.	2	4	%33.3	Does not fit
2	Motor compatibility	Numbered circuit test	Zero	6	hawk%	Does not fit
		Running and rolling with the ball between (4) monuments	1	5	%16.6	Does not fit
		Throwing the ball up and receiving it with the other hand	Zero	6	zero%	Does not fit
		Pass the rope from the bottom of the feet 5 times	3	3	%50	Does not fit

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3	Balance	Walking on a balance beam	5	1	%83	Repair
		Stand with your foot on the ball	2	4	%33.3	Does not fit
		Balance by holding the stick and standing on one foot on the balance beam	2	4	%33.3	Does not fit
		Standing test on the instep	6	0	%100	Repair
		Standing holding the stick (shoulder flexibility)	2	4	33.3	Does not fit

In light of the above table, it was agreed on the tests that will achieve an agreement rate of **(%87.5**)Above, the tests are:

Motor ability tests

First: moving balance test

Test name : Walking on a balance beam. (Sports Library(

Purpose of the test : Measuring balance through movement

Tools needed :A balance beam, 10 cm wide, 4 m long, and 3-5 cm thick, flat ground, stop watch.

Performance Description : Upon hearing the signal to start, the experimenter walks on the balance beam to the end, then turns around and returns again to the starting point at maximum speed, without any part of the body touching the ground outside the beam.

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Calculating grades : The time spent walking on the crossbar is calculated to less than (1/10) of a second. When any part of the body touches the ground outside the crossbar, a second is added to the time spent.

Figure (10)

Shows the moving balance test

Second: Static balance test

Test name : Standing test on the instep **(Hassanin, 1982)**

Purpose of the test : Measurement of static balance, when the tester stands on the ground with the instep of the foot.

Tools needed : Stop Watch.

Performance Description : The tester takes a standing position on one foot, preferably the foot of the rising leg, then places the foot of the other (free) leg on the inner side of the knee of the leg on which he is standing. He also places the hands in the middle. When the signal is given, the tester raises his heel off the ground and keeps By balancing for as long as possible without moving the tips of his feet from their position or touching an obstacle on the ground.

Calculating grades : The best time is calculated for two attempts, which is the time that begins from the moment the heel is lifted off the ground until some performance errors are committed and balance is lost.

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Figure (11)

Shows static balance test

Exploratory experiment

The researcher conducted a reconnaissance experiment with the help of the assistant work team to determine the effectiveness of the exercises using the assistive device. The exploratory experiment was conducted in the gymnastics hall of the Al-Amana Sports Club in Baghdad on a sample of (2) players from outside the research sample, and its goal was to test the validity of using the special exercises. In its initial form on the players, in addition to knowing whether the assistive device used is suitable for training and developing the skill under research. It became clear after taking into account the opinions of the trainers present in the hall that the exercises on the device achieve the purpose of the study.

Pre-test of handstand skill

Field research procedures:

Skill tests

-1The purpose of the test :Measuring performance ability and knowing the final score that the player obtains for performing a handstand on the parallel bar

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Test tools : Low-height legal parallel device, foam mat with a height of (20) cm,

Test evaluation The test is evaluated according to the technical performance according to what the teachers agreed upon by calculating the player's errors, as the highest score he obtains on the device is (10) degrees.

Test procedures The tested player takes the prepared position, climbs onto the device, and leans on the two bars. From the correct swing position, he is asked to perform three swings, and then he performs the skill with its correct movement paths. Stabilization (2)s

To register : The evaluation is carried out by four referees and according to an internal evaluation of the referees. The average of the two scores is taken and divided by (2) for the purpose of extracting the player's final score. The performance evaluation is made up of (10) scores according to agreement and as shown in the following figure.

Skill tests

-2The purpose of the test :Measuring the ability to perform and knowing the final score that the player obtains for performing the handstand on the throat apparatus

Testing tools: a low-profile legal ring device, distance from the rings to the ground (20) cm, a sponge mat with a height of (20) cm,

Test evaluation The test is evaluated according to the technical performance according to what the arbitrators agreed upon by calculating the player's errors, as the highest score he obtains on the device is (10) degrees.

Test procedures: The tested athlete takes the prepared position, climbs onto the device with the help of the trainer, holds the rings from the anchor position, and then performs the skill with its correct movement paths. Stability (2) seconds

To register : The evaluation is done by four referees and according to an internal evaluation of the referees. The average of the two scores is taken and divided by (2) for the purpose of extracting the player's final score. The performance evaluation is made up of (10) scores according to agreement and as shown in the following figure.

Skill tests

-3The purpose of the test Measuring performance ability and knowing the final score that the athlete obtains for performing a handstand on a floor movement mat

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Test tools: Floor movement mat device

Test evaluation The test is evaluated according to the technical performance according to what the teachers agreed upon by calculating the player's errors, as the highest score he obtains on the device is (10) degrees.

Test procedures The tested player takes the prepared position, standing and raising the arms high, and then performs the skill with its correct movement paths. Stability (2) seconds

To register The evaluation is carried out by four referees and according to an internal evaluation of the referees. The average of the two scores is taken and divided by (2) for the purpose of extracting the player's final score. The performance evaluation is made up of (10) scores according to agreement.

The researcher relied on the vocabulary prescribed and developed by the trainer, while the training curriculum was developed on his own and based on the opinions of the supervisor of the specialty. (Kadhim, M. J., Shihab, G. M., & Zaqair, 2021) He did not change the vocabulary developed, and used exercises for using the device in the curriculum developed for the sample. The experiment lasted for a period of (two months) and included (24) A training unit of (3) units per week, and the time of the total unit was (150) minutes, the time of the device from the main part of the unit, with a time period of (35) minutes for the parallel device. The researchers also relied on the principle of (repetitions), and were keen that the curriculum Which was developed by him and the coach and in accordance with scientific foundations and principles. (jawad kadhim, M., & Mahmood, 2023)

After completing the application of the vocabulary of the training curriculum for the handstand skill ,**The posttest was conducted** In the same manner as was done in the pre-test, the researcher created the atmosphere and conditions in which the pre-tests were conducted. Then the two research skills were photographed, and the evaluation was done directly by (see Appendix 3) of the (specialization) referees for gymnastics, and the evaluation score was approved as a range of (10) degrees for the skill .The referees adopted the technical law of the game by excluding the highest score and the lowest score and adopting the arithmetic mean of the two middle scores from the referees 'scores. Divide it by two to extract the student's final score on the skills test (Jawad Kadhim, M., & Salman Ahmed, 2016)

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Results

Table (5)

It shows the values of the arithmetic means and standard deviations for the pre- and post-group variables in the research variables

Statistical features / Search variables		measruing unit	Pretest		Posttest	
			Q	±s	Q	±s
mahari	Standing on the mat of movements	degree	6.98	192.	8.18	216.
	Stand on a parallel bar	degree	5.86	251.	6.82	130.
	Stand on the throat device	degree	5.16	541.	6.56	517.
Kinetic	Static balance test	Th	9.73	4.30	12.3	3.27
	Moving balance test	Th	6.98	881.	7.86	433.

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Table (6)

It shows the differences between the pre- and post-tests, the T-test value, and the significance of the group in the research variables

Statistical features Search variables	measruing unit	F	A F	value (T(Calculated	The real moral	Type of significance
Standing on the mat of movements	degree	1.20	.255	10.5	000.	spiritual
Stand on a parallel bar	degree	.960	.230	9.324	001.	spiritual
Stand on the throat device	degree	1.40	.764	4.093	015.	spiritual
Static balance test	Th	2.61	1.56	3.73	020.	spiritual
Moving balance test	Th	1.22	.983	2.77	050.	spiritual

*Significant at the confidence level (0.05) if the error rate ≤ (0.05).

Discussion

The results presented in Table (6) and Figure (7) for the skills of standing on the hands on the movement mat, parallel bars,. (Salman et al., 2022) and the throat apparatus showed that there were significant differences between the pre- and post-tests of the research group. (Khlaif & Shnawa, 2022) The researcher attributes the reason for the development of the skill to the innovative assistive device used as a training method, as it is added to the program. (Ahmed Amer Abdul Hussein, 2020) Training for the coach, as the device mainly targets balance. (Nizar, et al., 2014) indicates that the reason for the weakness in the performance of these skills is that most of the teams 'training is conducted on legal devices without serious assistance from educational and training assistance devices. (Karam Salam Ismaeil & Kadhim, 2023) Abdel Wahed also indicates, et al., 2019, p. 27) noted that sports witnessed a significant development in the competitive level of skill performance in individual games, which made coaches search for

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the best ways to innovate in the correct learning methods to raise the level of competitive technical performance. (Abdalah & SalehRadhiAmesh, 2024) Assistive devices also have a major role in learning sports skills, which require many repetitions to reach the mechanism in performance, as assistive devices achieve a good result and reduce the number of repetitions. (Mahmood et al., 2023) They also achieve the correct paths for performing any skill, as they make work in magazines correct in all situations from elementary school. . (Ahmed Fadhil Farhan Mohammed Jawad Kadhim, 2016) And the main thing until the final. It also adds to the player a new educational method outside the routine of the educational units and adds a good psychological factor to continue the training. This is what is confirmed by (Shehaib et al. 2021, p. 92) and the researchers agree with him that the game of artistic gymnastics for men is one of the games that needs many psychological factors. Why this game (Y. F. Mohsen et al., 2024) The game consists of a special motor performance for its skill on multiple gymnastics equipment“ .Also, reaching the skill performance to the highest level is considered an achievement for the coach, and this is what is confirmed by (Yas et al., 2022) that skill performance in the sport of gymnastics is the basic factor on which the achievement is based ”. (Kazim, M. J., Zughair, A. L. A. A., & Shihab, 2019)The researcher agrees. What was indicated by (Jamal and Shehab, 2023, p. 414) is that the artistic gymnastics game is one of the important individual games and for which coaches must provide many assistive devices in the training hall, in addition to the necessity of innovating tools Assistance to all gymnastics equipment, which facilitates the learning process ”.As for In addition to what was mentioned in the same table and the same figure regarding the arithmetic means and standard deviations, (Abed et al., 2022) it is noted that the static equilibrium developed more than the moving equilibrium. The static equilibrium in relation to the media, the time of performance for time increased with a higher time for equilibrium, but with the moving equilibrium, (Y. F. Mohsen et al., 2024)

the time in relation to time decreased by an acceptable percentage, and this confirms that the auxiliary device It may have an impact on some motor characteristics, as (Shehayeb et al., 2022) and (Hammood et al., 2024) and (Abdulhussein et al., 2024) pointed out that auxiliary devices and tools are an important means of advancing the development of the player’s movement through movement paths that lead to the success of performing the skill with high fluidity and with less effort and time, in addition to the development and adaptation of motor and physical abilities in accordance with the performance process. (Mousa, A. M., & Kadhim, 2023)“ . The trainer must stimulate the work of the muscles working in skill performance through some exercises on some tools and aids, as well as the correct paths of performance through neuromuscular work, that is, the correct compatibility of the performance process. (Abdul Reda, et al., 2022) and (Sakran & Shehab, 2023)

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Conclusions and recommendations

-1 The two-way auxiliary balance device has clearly affected some motor abilities and improved the handstand skill on some artistic gymnastics equipment for men.

-2 The assistive device is carefully designed and meets the paths of performing the handstand skill, as well as the durability of its materials

-3 The researchers suggest using the device in artistic gymnastics for women, especially on the balance beam

Appendices

Attachment (1)

Names of experts for selecting motor abilities

Workplace	Specialization	Name of expert	T
University of Baghdad/ College of Physical Education and Sports Sciences	Gymnastics - Biomechanics	Prof. Ismail Ibrahim	1
University of Baghdad/College of Physical Education and Sports Sciences	Gymnastics - Learn to move	Prof. Dr. Tariq Nizar	2
University of Baghdad/ College of Physical Education and Sports Sciences	Gymnastics - tests and measurement	Prof. Dr. Zahra Shehab	3
University of Baghdad/ College of Physical Education and Sports Sciences	Gymnastics - learn to move	A. M. Dali Abdel Wahed	5
University of Baghdad/ College of Physical Education and Sports Sciences	Airplane - test and measurement	Prof. Dr. Khalil Sattar	6

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Attachment (2)

Names of residents

Workplace	Arbitration certificate	the name	T
Al-Nisour College /Physical education and sports sciences	Third degree ruling	Abdullah Jamal	1
Baghdad University /College of Physical Education and Sports Sciences	Third degree ruling	M. M. Ali Saadi	2
Central Federation of Gymnastics	Third degree ruling	M. M. Samer Raad	3
Central Federation of Gymnastics	First instance judge	He is not mighty	4

Attachment (3)

Weekly training unit

Group: Research Unit time: (150) minutes

Objective: Developing the technical performance of the skill (Handstand) Number of group members: 5

Location: Training hall (Al Amana Club(

the week	Unit	the time	Differentials	the shape
The first	**The first is Saturday**		**Explaining the skill and everything related to performance requirements, clarifying the work of the assistive device, and everything**	

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week		floor	35 D	related to the correct performance of the skill according to the position of the body and the importance of motor abilities in performance, with an emphasis on the correct support of the palms.	
	the second Mon day	parallel	35 D	Lean forward on the auxiliary parallel device, stabilize the feet with the upper stabilization pads, emphasize the tension of the back and hip muscles, and emphasize the straightness of the arms.	
	Three Wednesday	throat	35 D	Properly relying on the two rings, stabilizing the feet, and emphasizing the correct direction of the palms outwards by relying on the two rings.	

***Repetitions as permitted by the time of the educational unit**

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the week	Unit	the time	Differentials	the shape
The first week	The first is Saturday		Explaining the skill and everything related to performance requirements, clarifying the work of the assistive device, and everything related to the correct performance of the skill according to the position of the body and the importance of motor abilities in performance, with an emphasis on the correct support of the palms.	
		floor 35 m		
	the second Monday		Lean forward on the auxiliary parallel device, stabilize the feet with the upper stabilization pads, emphasize the tension of the back and hip	

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				muscles, and emphasize the straightness of the arms.	
		par allel	35 D		
	Three Wednesday			Properly relying on the two rings, stabilizing the feet, and emphasizing the correct direction of the palms outwards by relying on the two rings.	
		thro at	35 m		

*Repetitions as permitted by the time of the educational unit

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The concept of the physical self and its relationship to social fears among female students at the College of Sports Sciences and Physical Activity at King Saud University

Atheer Fahad Ali almedihesh [1], Mohamed Yousef Haggag [2]

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[1] Global Alliance Solution foundation, United community family services. Walden University.
[2] Professor of Sports Psychology, King Saud University, College of Sports and Physical Activity Sciences., Associate, Professor of Sports Psychology, Helwan University, Faculty of Sports Education.

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Abstract

The study aimed to identify the concept of the physical self and the level of social fears among female students of the College of Sports Sciences and Physical Activity, and the relationship between the physical self and social fears, and to find out the extent of the influence of the physical self and its connection to social fears on female students of the College of Sports Sciences and Physical Activity .The study used the descriptive approach, and the study sample consisted of female students from the College of Sports Sciences and Physical Activity at King Saud University. The sample included (425) female students, who were selected by a simple random method. The study tools included a physical self-esteem scale, a social fears scale, and a data inventory form for female students .The results showed that the level of physical self-concept among the study sample was high, and the level of the degree of social fears was moderate, and it became clear that there was a statistically significant inverse correlation between the total degree of physical self-concept and social fears and their dimensions. This indicates that the higher the level of physical self-concept among female students at the College of Science Sports and physical activity The level of social fears decreased, and it was found that there were no differences according to the demographic variables (specialization - level) for the two scales: physical self-concept and social fears.

Keywords: the physical self, social fears ,Sports science.

[1] Postgraduate student (Master's), King Saud University, College of Sports and Physical Activity Sciences , ather-3321@hotmail.com
[2] Professor of Sports Psychology, King Saud University, College of Sports and Physical Activity Sciences., Associate , Professor of Sports Psychology, Helwan University, Faculty of Sports Education , mhaggag@ksu.edu.sa

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Introduction

The present age is witnessing a marked increase in the prevalence of idealism and the codification of the concepts of physical self-esteem, which have been triggered by technological diffusion in various aspects of life; physical objects are becoming gender-sensitive, and our Arab culture is showing new ideas, which until recently have not been regarded as an important part of our cultural heritage, especially with regard to consent to physical self-esteem, and which manifests itself in trying to achieve the best image in the eyes of others, and which have a concern, social fears and high ideal criteria, especially for girls; women are in general more interested in their appearance and concern than men; In most cultures, attention to the shape and appearance of the body and the evaluation of others are so important to women's physical well-being and preoccupation with it, that some believe that the perception and assessment of others depends so much on the external form (Statement 2017).

Physicals are among the most important subjects that have occupied psychologists and psychoanalyses in particular, and they have been directed to many and varied fields to reveal the relationship between them and other subjects and the mutual influences between them (Hashashi, 2011).

The body is a set of ideas and beliefs that an individual has about himself and his abilities, and it is an important indicator of an individual ' s mental health. It also represents an important aspect of the concept of the individual, which is one of the most important elements of human personality and the source of all his behavior.(Kadhim, 2023b) It is the result of the individual ' s experience gained through attitudes in his or her daily life and constant interaction with his or her environment. The body plays an important role in his or her life and in his or her relationship with himself and with others. It is a means of achieving emotional and emotional balance for the individual.

As Ghazels, 2017, states that we have emotional and emotional sources that are an essential component of our understanding of ourselves, a mental and mental image that an individual has of his or her body, whether in his or her external appearance, internal components or various organs, and his or her ability to employ and prove his or her competence, and the corresponding positive or negative feelings and attitudes that may be associated with that mental image of the body, and students are more concerned with their bodies, their manifestations and their families, as they are the cornerstones of their lives and futures, (Kadhim, 2023a) Since the individual ' s self-perception is based on the views and views of others about the individual, this is where the student ' s body plays a major role in identifying his or her social concerns, which affect his or her personality and the direction and future.(Abdulhussein et al., 2024)

Social concerns are one of the most prominent psychological disorders that have been classified as a social anxiety disorder, as they are rapidly spreading psychological disorders; they are chronic and disruptive with many symptoms to reach depression; these concerns occur in a variety of situations of social interaction, and these social concerns are manifested through abandonment resulting from an individual ' s presence in a particular social or public situation;

The most important of these is the fear of negative assessment, which is one of the most important reasons for social fears, so that individuals affected by them are highly sensitive and

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afraid to deal with others; they seem to be being watched and surrounded by people ' s eyes (Hashashi, 2011).

Where social concerns hinder one ' s social interaction with others, those affected by those fears fear being assessed by others in social attitudes, as well as being afraid of their inferior view when engaging in certain activities in front of people, such as speaking in front of others, eating or drinking in front of them; which is causing them anxiety, confusion and distress, which is an automatic response to pressures such as dryness of the mouth, tremors and increased heartbeat, avoiding fearful attitudes, and social fears are among the most significant problems of a large group of society. Social concerns have received the attention of scientists and researchers, they have called them a number of labels, such as social anxiety, social fear and social fear, but all of these labels have the same meaning.(Salih, I. H., Yaseen, A. M., Naseer, K. J., Attieh, A., & Kadhim, 2024) One of the most significant definitions of social concerns is: "Unsatisfactory emotions that an individual experience as a result of fear of social assessment, causing frequent social interaction to be avoided, resulting in low social effectiveness and activities, little speech and low self-discovery" (Athra, 2017).

Many research has shown that there are close relationships between the concept of physical self-esteem, depression, social anxiety, and satisfaction with life, and the results have indicated differences in body self, depending on both cultural and age variables. (Tomlinson,2005).

Given the paucity of research on the concept of physical self and its relationship to many psychological variables among university students, this research will focus on revealing the concept of physical self and its relationship to the social concerns of female students at the Faculty of Sports Science and Physical Activity - King Saud University.

Second, the importance of the study.
The importance of the study is as follows:
Theoretical importance:

1. It is one of the recent studies that has linked the variable of the concept of physicality to social fears.
2. The study makes an important contribution to reducing social concerns, which address an important and qualitative segment of society represented by female students of the Faculty of Sports Sciences and Physical Activity, and which will be the future of Saudi sports society, which gives particular importance and holds cultural and social value.

3. Enrichment of the Arabic Library, where current study variables are fundamental concepts in mathematical psychology.

Practical significance:
1- This study may be useful in adding a social cultural dimension in relation to the correlation between the concept of physical assets and social concerns.
2. The results of this study may be useful in changing and modifying the concept of physical

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assets of female students at the Faculty of Sports Science and Physical Activity, King Saud University.
3. To contribute to the construction of counselling and treatment programmers for the treatment of cases of social fear and the negative perception of the concept of physical assets.

III. Objectives of the study.

1. Identification of the level of physical qualities of female students at the Faculty of Sports Sciences and Physical Activity.
2. To identify the degree of social concerns of female students at the Faculty of Sports Sciences and Physical Activity.
3. Knowledge of the relationship between physical and social concerns among female students of the Faculty of Sports Sciences and Physical Activity
4. Identification of differences in body in the light of demographic variables among female students of the Faculty of Sports Sciences and Physical Activity: (specialization-level).
5. To identify differences in social concerns in the light of demographic variables among female students of the Faculty of Sports Sciences and Physical Activity: (specialization-level).

Fourth: Questions of study.
1. What is the physical quality of female students at the Faculty of Sports and Physical Activity?
2. What is the degree of social concerns among female students of the Faculty of Sports Science and Physical Activity?
3. Is there a relationship between physical and social concerns among female students of the Faculty of Sports Science and Physical Activity?
4. Are there differences in body in the light of demographic variables among female students of the Faculty of Sports Sciences and Physical Activity: (specialization-level)?
5. Are there differences in social concerns in the light of demographic variables among female students of the Faculty of Sports Sciences and Physical Activity (specialization-level)?

Fifth: Study terminology.
- THE CONCEPT OF PERSONALS:
A person ' s assessment of everything about his or her physical appearance; it is based on the cognitive content, which is precisely the understanding of the body ' s size and weight, the content of his or her body, the content of his or her personal content, which is concerned with both his or her satisfaction and concern for his or her body ' s appearance, and the behavioral content, which is based on avoiding situations that lead to a sense of dissatisfaction with the body ' s appearance.) Nope, 2011.

- Social concerns:
You know it's a constant irrational fear, a compelling desire on the part of the individual to avoid situations where he thinks he's going to be criticized by others, as well as situations where he thinks he's going to be noticed by others, or where he's going to behave inappropriately, embarrassingly. Elizabeth, Olendick, 2004)

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Previous studies:

- First: studies of the concept of physical self-involvement:

The aim of the study (Ahmed, 2021) was to identify the level of psychological flexibility and its relationship with the body of a sample of students with higher basic education in Gersh governorate, Jordan. In order to achieve the objectives of the study, the study used a sample of 98 students with higher basic education (grades VIII, IX and X) with higher weight. The results of the study showed an average level of psychological flexibility in the study sample, a low level of body image, a correlation between most dimensions of psychological resilience and body image, and a lack of gender differences in psychological flexibility and body image in the study sample.

The study (Mahmoud et al., 2020) was aimed at: researching the relationship between body image and self-esteem, and the sense of depression among high school students. The study sample (200) consisted of students from the first secondary grade in Suez, Egypt. The results of the study showed that there was a correlation between body image, self-esteem and depression among first-grade secondary students, and differences between males and females in the study sample in body image, self-esteem and feeling depressed for males.

The aim of the study (Shams in, 2020) was to identify the level of psychological and social compatibility and body image of football-course students at a university based on variables (social, context, school year, place of residence), the correlation between the level of social and psychological compatibility and the body image of football-course students at a given university, the descriptive method was used, the study sample was made up of 144 students, the use of the 26-point psychological and social compatibility measure and the 30-point body image scale, The results of the study showed that the level of psychological and social compatibility and body image was moderate and that there were no statistically significant differences in the level of body image according to variables (gender, school year, distance, place of residence). The results also showed a correlation between psychological and social compatibility and body image.

A study (Ahmadi et al. 2020) aimed at identifying the degree of satisfaction with body image and its relationship to sports orientation through the exercise of physical and sports education. Researchers used the descriptive curriculum to verify the hypotheses of the study. The sample study consisted of 347 secondary school pupils. The analytical descriptive method was relied upon by building a specific definition of the subject of the study. The results of the study showed that the degree of satisfaction with the body image came at a high level. The results also showed a positive correlation between satisfaction with the body image and the mathematical orientation of the study sample members.

The aim of a study (Masauna, Salah, 2019) was to identify the body image level of female students enrolled in the gymnasium and the relationship between the body image and the social class of female students according to variables (monthly income of the family, place of residence, father ' s educational attainment and mother ' s educational attainment). The two researchers used the descriptive approach to suit the nature of the study, on a sample of 75 students, and the following statistical treatments were used: - Computation mediums, standard deviations, Pearson association coefficient. The results of the study found that the body image

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level of female students was average, that there was an exotic relationship (loneness and body image), that of an inverse relationship (weight and body image), that of an inverse relationship (age group and body image), that of an exotic relationship (monthly income of the family and body image), that of an exotic relationship (place of residence and body image) and that of an excretive relationship (scientific attainment of the father, educational attainment of the mother and body image). - Computation mediums, standard deviations, Pearson association coefficient. The results of the study found that the body image level of female students was average, that there was an exotic relationship (loneness and body image), that of an inverse relationship (weight and body image), that of an inverse relationship (age group and body image), that of an exotic relationship (monthly income of the family and body image), that of an exotic relationship (place of residence and body image) and that of an excretive relationship (scientific attainment of the father, educational attainment of the mother and body image). The researchers recommended further research on the image of the body, class and level of improvement in some gymnastics skills, as well as further studies on other sports, on gymnastics for students and on other variables.

A study (The Speech, 2018) aimed to identify the differences between heights and low body image satisfaction in both social anxiety and fears, and the extent to which satisfaction with body image is predicted by both social anxiety and its sub-dimensionalities and fears. The research sample consisted of 347 female students, from the Faculty of Education, Arts and Arts of the University of Hail, using the body image satisfaction measure, prepared by Samia Mohammed Abdel Nabi (2008), and the social anxiety measure, from the preparation of the building life and Ahmed Abdel Khalek.

The results showed significant differences between low and high body image satisfaction on the scale of social anxiety and its sub-dimensionality, and found a positive predictive relationship between body image satisfaction and social anxiety and its sub-dimensionality.

The aim of the study (Gazaly, 2017) was to identify the body image and self-esteem of university students, as well as the relationship between body image and self-assessment of the same sample of university students (male and female), as well as the differences between physical, sports and non-body-image practitioners and the estimation of excretion. The study sample consisted of 240 students and students from Hasiba Ben-Buali University, based on the application of two body image measures designed by Mohamed Hassan Alawi to measure the concept and the distinctive way in which the body is perceived. It can also be used to compare realistic physical and ideal physical qualities and includes 15 attributes. In contrast, the individual answers the phrases to the extent to which the character is applicable, according to the instructions of the scale on the seven-step scale, and the "Rosenberg head" scale to estimate the 10 items. The results showed that there was a positive correlation between the body image and the evaluation of the atoms. The results showed that there were no gender differences in the body image level, and gender differences in the level of self-evaluation in favors of females.

The aim of the study (Hammond, 2015) was to identify the differences between the heights and the hypotheses of the body ' s image in: the effectiveness of the body and social anxiety, and to identify the extent to which satisfaction with the body ' s image is predicted by both the efficacy of the body and the social anxiety and its sub-dimensional dimensions. The research sample consisted of 150 female students from the Faculty of Education of Al-Qasim University, aged

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from 19 to 27 years, using the body image disorder measure of the glories of the al-Dowse, the measure of the effectiveness of the public qualities of the Shima Yusuf al-Mahmoud, and the social anxiety measure of the preparation of researchers. The results showed significant differences between lows and highs of satisfaction with body image on the measure of anemic efficacy in the direction of body satisfaction heights, significant differences between lows and highs of satisfaction with body image on the scale of social anxiety and its sub-Dimensional's in the direction of non-satisfactory image of the body, and a positive predictive relationship between body image satisfaction and anemic efficacy, and a negative relationship between body image satisfaction and social anxiety and sub-dimensionality.

II. Social concerns studies:

A study (Abdul Hamid, 2017) aimed at identifying the relationship between self-esteem and social concerns of kindergarten children, the differences between males and females in the study variable (social fears), and the differences between males and females in the study variable (salvation).The study sample consisted of 50 kindergarten children at the secondary and tertiary levels, a mental age (4-6 years), who received 75 or more from the kindergarten child ' s social concerns measure, and the two researchers prepared the following research tools: the kindergarten child ' s social concerns measure: the two researchers ' preparation, and the kindergarten child ' s self-assessment measure: the two researchers ' preparation. The results of the current research have concluded that there is a statistically significant negative correlation at the level of 0.05 between social concerns and self-assessment of kindergarten children, statistically significant differences between the average grades of the male and female group on the measure of social concerns in favors of females, and no statistically significant differences between the averages of the male and female group on the measure of self-assessment.

A study (Abu Sen; others 2016) aimed at: developing, preparing and legalizing a measure of social concerns; to be usable and applied in the Egyptian environment in the Demit governorate. To achieve this goal, the researcher developed this measure and applied it to a sample of 50 female high school students aged between 16 and 18 years, with an average age of 0,3,17 and a standard deviation. (0.81). The measure consisted of 37 words distributed in three dimensions, and the accuracy of the measure was calculated in its three dimensions in two ways: the sincerity of the arbitrators, the constructive honesty and the truth associated with the test; and the consistency of the measure in its three dimensions was calculated in two ways: internal consistency and the Alpha-Cronbach coefficient. The results of the codification of the measure have shown that it is characterized by a high level of stability and sincerity, indicating the validity of the measure for use and application in other new studies associated with the social concerns of female students at secondary level in the Egyptian environment. The aim of the study (Shama, 2015) was to identify the relationship between social anxiety and self-esteem among students of the first cycle of basic learning in Hom's city, and to assess the gender difference in their performance on both the social anxiety measure and the self-assessment measure. In order to achieve the objectives of the study, a sample of 426 pupils and pupils from the first cycle of basic learning was applied. The Social Statistical Analysis Package (Spas) was used to create mathematical parameters and correlation factors and to test (t-test) the differences between the means. A number of results were obtained. Most notably: there was a

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statistically significant relationship between social anxiety and self-esteem among students from the first cycle of basic education. The study also found that there were no statistically significant differences between the averages of male and female students from the first cycle of basic education on the scale of social concern.

The aim of the study (Kim et al. 2012) was to identify the most prominent concerns of students at the Faculty of Education in Practice and to identify statistically significant differences between them according to two variables (sex and scientific specialization), with a research community of 642 students. A random class sample of 249 students was selected, representing 38.785 per cent of the size of this community, with 44 students, 205 of whom 90 were students in scientific departments and 159 in humanities, depending on the changing scientific specialization of students. Researchers have developed a tool to measure the concerns of applied students, which was finalized from 92 paragraphs divided into seven dimensions (areas), which represent the main dimensions of the process of practical application as a whole. The results have been: (5) there are prominent major concerns in the minds of students at the College of Education in Practice, and there is no statistically significant difference in (the fears) attributed to the student ' s gender variable, or to the variable in scientific specialization.

A study (Abd al-Majid, 2010) aimed at identifying the relationship between social concerns and social skills of children in their age group. (10:14). The study was applied to a total sample of 320 primary and lower secondary school students aged 10-14, and the social concerns measure (preparation/faiza Yousef Abdel Majid) was used. There was a statistically significant correlation between social concerns and social skills (positive) between concerns about: social, social and school attitudes, emotional skills, concerns about friends, affirmative and emotional skills, and (negative) concerns about the lack of social skills and proven skills and self-control. The aim of the study (Süleyman, 2009) was to: attempt to distinguish between the concepts of social shame and fear at the theoretical and practical levels, through another concept of importance; the concept of social skills. The study was conducted on 200 university students aged 18-23 years, 100 males on average (20, 47), a standard deviation (1, 35) and 100 females on average (20, 25) and a standard deviation (1, 175) from English, Arabic, meeting and philosophy from the Faculty of Arts of the four divisions. The following tests and measures have been applied: the measure of shame, the test of social fears, and the test of social skills. Statistical findings and analyses have shown significant differences between social shame and fear in some aspects and dimensions of social skills, and there have been significant differences between males and females in social shame and fear.

The aim of the study (Masala, 2007) was to identify the incidence of social fear among Jordanian university students. It also aimed to identify the correlation of social fear with the estimation of the ancestry and the relationship of these variables to the variables of sex, age, college, university year and residential area. The sample study was composed of 944 students and students selected randomly, distributed between 352 students and 577 students. The identification was used as a study tool through two measures: the social fear of the Youth and the Guide to Estimation of the Deeds. The results of the study found that the prevalence of social fear among Jordanian university students was 3.9%, and the prevalence of social fear among female students was higher than among male students. The results also confirmed that there was a relationship between social fear and the housing area. The results also found that there was a

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relationship between social fear and the school year; it was higher among first- and second-year students than among third- and fourth-year students. Finally, the results confirmed that there was a correlation between social fear and self-esteem, which was higher for males than for females.

Comment on previous studies:

Through the presentation of previous studies, it appears to have been concerned with the concept of self, body or social concerns, as follows:

The results indicated that there were no statistically significant differences in the concept of academic skills - age, statistically significant differences in the dimensions of moral, personal and social qualities for the benefit of the players, that the ranking of the dimensions of the concept of self-esteem was as follows: behavior, self-absorbing, identity, physical, moral, social, self-critic, personal and family, and that the level of the concept of self-esteem was medium-high among the sample members.

The results of the studies indicated that girls were more likely to have a negative image than boys, that the body had an impact on social relationships, and that there was a relationship between body mass and the concept of self-esteem, and that those who suffered from overweight tended to have low self-esteem. The existence of mental differences in body image (physical exquisites) between males and females, the positive correlation between body image and self-confidence, the existence of negative correlations and statistical function between body image and both: depression and social anxiety, as well as positive correlations between body image and both (consent, life and self-esteem), the relationship between self-assessment and physical and sports activity, the relationship between body image and self-evaluation among university students, the absence of differences in the level of self-evaluation and body image among students exercising physical, sports and non-practice activity, the existence of significant differences between low and high satisfaction with body image on the scale of social anxiety and its sub-dimensional dimensions, the existence of a positive predictive relationship between satisfaction with body image, social anxiety and its sub-dimensional dimensions. In general, the researchers have benefited from previous studies in enriching the conceptual framework through a deep understanding of the problem of the study, through the results of studies on the concept of body or body image, as well as other studies on social concerns and their relationship to certain relevant variables, the identification of the appropriate curriculum that can be used in the study, as well as access to and use of the various measures that have dealt with the satisfaction with body or social fears or psychological trends and social anxiety in relation to the present study, as well as the fact that these studies are recent references that support and enrich the problem of the study.

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Search procedure:

I. Curriculum.
The researchers used the associated descriptive approach to suit the nature and objectives of the research, which is the type of search method by which it can determine whether there is a relationship between two or more variables, and then the degree of that relationship.
II. Society and sample of study.
All 609 students at the Faculty of Sports Science and Physical Activity, King Saud University, registered at the time of school application. The sample has reached 425 students.

- Description of the sample:
1. Specialization:

Table No. (1)
Repetition and percentage description of the sample of the study according to (specialization) variables (N= 425).

%	T	Specialized
41.6	177	Sports training
19.3	82	Sports and recreation department
37.9	161	Physical fitness
1.2	5	Not identified
100	425	Total

Table 1 shows that female college students (sports sciences and physical activity) in the sample study are from training in sports by 6.41 per cent, followed by fitness by 9.37 per cent, and finally from sports and recreational management by 3.19 per cent, while female students who did not specify specialization by 2.1 per cent.

:Level -1

Table No. (2)
Repetition and percentage of the sample profile according to (level) variables (N= 425).

%	T	Level
16.5	70	I
9.4	40	II
10.8	46	IV
9.9	42	V
13.2	56	VI
12.9	55	VII
27.3	116	VIII
100	425	Total

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According to Table 2, the research sample of female college students (majoring in sport science and physical activity) has a teaching level of 8 for 27.3% of the students. The next most common teaching level is 2, which is seen in 16.5% of the students. The third most common teaching level is 6, observed in 13.2% of the students. Following that, 12.9% of the students have a teaching level of 7. Finally, 10.8% and 9.4% of the students have teaching levels IV and III, respectively.

IV. Research instruments.

To accomplish the study's aims, the researcher implemented two specific measures: The initial metric is the quantification of the notion of the physical self.

a. Scale description:

The purpose of this test (NOB 2011) is to assess both normal and physically challenged individuals. The terms of the measure are presented in a specialized manner and need a response in the form of an expert phrase. The measure includes five dimensions: approval of faulty body parts, general consistency of body parts, psychological perspective of body form, social perspective of body form, and intellectual content of body form. The scales are categorized as follows: consent, consent, neutral, severely disagree, and disagree. The set of positive expressions (1, 2, 3, 4, 5) has a maximum degree of measure of 150 and a minimum degree of measure of 150. (1)

b. Adjusting the scale: The scale was modified to suit the local environment by making changes to paragraphs that contained terms that could confuse the study sample. Additionally, the complex language in other paragraphs was simplified. The scale was also altered to have only two positive items, in line with the study's objective. Furthermore, efforts were made to reduce the number of similar items in order to avoid making the scale lengthy and tedious. Consequently, some paragraphs were deleted. The cellular length was measured on the five-year Lacerate scale.

Microscopic characteristics of the scale:

1. Accuracy of measuring the idea of tangible entities:

The researchers evaluated the reliability of the scale measuring the idea of the physical self by examining its internal consistency and design.

Table No. (3)

Pearson's coefficient value for the internal consistency of the meter of the concept of physicals between the dimension and the scale as a whole.

Scale	Dimensions
**0.87	Accept defective body parts
**0.57	General harmonization of body parts
**0.89	Psychiatric perception of body shape
**0.82	Social perspective of body form
**0.89	The intellectual content of the shape of the body.

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Table 3 shows that the value of Pierson coefficients ranges from 0, 57, 0, 89, all of which are statistically significant at the level of 0.01, which is a high correlation between dimensions and the scale (the concept of physical self), indicating that the internal consistency of the scale is high.

Table No. (4)

Pearson's coefficient value for the internal consistency of the meter of the concept of physical egos between the term and the dimension and the scale as a whole.

Psychiatric perception of body shape			General harmonization of body parts			Accept defective body parts		
Scale	Dimension	The phrase..	Scale	Dimension	The phrase	Scale	Dimension	The phrase.
**0.50	**0.62	3	**0.43	**0.50	2	**0.59	**0.72	1
**0.51	**0.64	8	**0.58	**0.45	7	**0.58	**0.61	6
**0.52	**0.52	13	**0.51	**0.47	12	**0.73	**0.76	11
**0.66	**0.74	18	**0.31	**0.49	17	**0.68	**0.75	16
**0.74	**0.79	23	**0.57	**0.57	22	**0.45	**0.62	21
**0.67	**0.75	28	**0.39	**0.49	27	**0.43	**0.49	26
	**0.89	Total		**0.57	Total	-	**0.87	Total

The intellectual content of the shape of the body.			Social perspective of body form		
Scale	Dimension	The phrase.	Scale	Dimension	The phrase.
**0.72	**0.74	5	**0.36	**0.53	4
**0.72	**0.83	10	**0.53	**0.66	9
**0.71	**0.78	15	**0.44	**0.64	14
**0.76	**0.84	20	**0.50	**0.65	19
**0.31	**0.25	25	**0.54	**0.65	24
**0.52	**0.53	30	**0.63	**0.62	29
	**0.89	Total		**0.82	Total

Statistically, at a level. (0.01).

Table 2 indicates that among the female college students in the research sample who are studying sport science and physical activity, the majority (27.3%) are at level 8. This is followed by 16.5% at level 2, 13.2% at level 6, 12.9% at level 7, and lastly, 10.8% and 9.4% at levels IV and III, respectively.

IV. Research instruments.

To accomplish the study's aims, the researcher implemented two measures:

The initial metric is the quantification of the notion of the physical self.

a. Scale description:

The purpose of this test, conducted in November 2011, is to cater to both those with normal

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physical abilities and those with disabilities. The terms of the measure are presented in a specialized manner and need a response in the form of an expert statement. The measure comprises five dimensions: approval of faulty body parts, general consistency of body parts, psychological perspective of body form, social perspective of body form, and intellectual content of body form. The scales are categorized as follows: The set of positive expressions (1, 2, 3, 4, 5) has a maximum degree of measure of 150 and a minimum degree of measure of 150. The user's text is empty.

b. Adjusting the scale: The scale was modified to suit the specific environment, resulting in the modification of certain paragraphs that contained terms that could confuse the study sample. Additionally, the language of other paragraphs that were deemed complex was simplified. The scale was designed with only two positive items and, in line with the study's objective, was converted to focus on the reduction of similar items. Consequently, some paragraphs were deleted to prevent the scale from The cellular length was measured on the five-year Lacerate scale.

Microscopic characteristics of the scale:

1. Assessment of the accuracy of measuring the notion of physical objects:

The researchers evaluated the credibility of the scale (which measures the idea of the physical self) by examining its internal consistency and structure.

Table No. (5)
Alpha Cronbach coefficient value to prove the study tool is a physical self-measurability measure.

The value of the alvaronbach coefficient	Dimensions
0.72	Accept defective body parts
0.66	General harmonization of body parts
0.76	Psychiatric perception of body shape
0.68	Social perspective of body form
0.73	The intellectual content of the shape of the body.
0.89	Total

Table 5 displays the Alakronbach coefficient values, which range from 0.66 to 0.76. These values indicate a favorable level of dimension stability in human studies. Additionally, the full-scale Alakronbach value of 0.89 is high, suggesting that the measure exhibits strong stability in human studies.

Second metric: metric of societal considerations.
The user did not provide any text. Explanation of the scale:
The concept of "social concerns" refers to the emotional, cognitive, and behavioral reactions that occur when individuals perceive a social situation as threatening their personal enjoyment and fear negative judgements from others. These reactions can manifest as anxiety and distress and may even result in social withdrawal, loss of self-control, and discontinuation of social

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interactions (Catani, 2004).
The study conducted by Geffrey in 2013 specifically targeted female university students. The measure used in the study was carefully prepared, and the questions were formulated by experts. Participants were required to react to the questions in a certain manner. The measure includes five response options: strongly agree, agree, neutral, disagree, and strongly disagree. It comprises four dimensions, namely: continuation in social attitudes, fear of negative evaluation from others, and avoidance of initiative in speaking with others. The scales of the measure are further divided as follows: The set (1, 2, 3, 4) represents positive phrases.

Table No. (6)
Explains the dimensions of the scale, and the numbers of the items in each dimension.

Number of paragraphs	Poverty figures and trends	Dimension
8	29-25-21-17-13-9-5-1	Communication in social attitudes
10	36-33-30-26-22-18-14-10-6-2	Fear of negative evaluation of others.
11	39-37-34-31-27-23-19-15-11-7-3	Avoidance and withdrawal
10	38-35-32-28-24-20-16-12-8-4	Avoid initiative in talking to others
39	Total number of paragraphs	

Table 6 shows that social concerns consist of (4) dimensions, and in each dimension they range from 8 to 11 items or paragraphs.

- Symmetrical features of the scale:
1. Validity of the measure of social concerns: The researcher assessed the credibility of the scale of social concerns in her current study by using the credibility of internal consistency or the sincerity of the internal construction of the scale:

Table No. (7)
The value of Pearson's coefficient to see the internal consistency of the scale of social concerns between the dimension and the scale as a whole.

Scale (t)	Dimensions
**0.92	Communication in social attitudes
**0.94	Fear of negative evaluation of others.
**0.94	Avoidance and withdrawal
**0.95	Avoid initiative in talking to others

** Statistically at a level (0.01).

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Table 7 shows the value of the Pearson coefficient; it ranges from 0.92 to 0.95, all of which are statistically significant at 0.01, which is a high correlation between dimensions and the measure of social concerns, indicating that the internal consistency of the scale is high.

Table No. (8)
Pearson's coefficient value for the internal consistency of the scale of social concerns between the phrase and the dimension and the scale as a whole.

Avoidance and withdrawal			Fear of negative evaluation of others.			Communication in social attitudes		
Scale	Dimension	**The phrase**	**Scale**	Dimension	**phrase**	**Scale**	Dimension	***phrase***
**0.55	**0.58	3	**0.58	**0.61	2	**0.59	**0.66	1
**0.43	**0.44	7	**0.69	**0.72	6	**0.70	**0.71	5
**0.69	**0.66	11	**0.68	**0.68	10	**0.54	**0.57	9
**0.73	**0.72	15	**0.42	**0.47	14	**0.74	**0.76	13
**0.69	**0.64	19	**0.75	**0.78	18	**0.41	**0.43	17
**0.42	**0.50	23	**0.72	**0.73	22	**0.34	**0.42	21
**0.61	**0.62	27	0.03	0.07	26	**0.79	**0.79	25
**0.60	**0.68	31	**0.61	**0.64	30	**0.67	**0.65	29
**0.59	**0.66	34	**0.63	**0.68	33			
**0.44	**0.55	37	**0.54	**0.62	36		**0.92	Total
**0.53	**0.59	39		**0.94	Total			
	**0.94	Total						

	The initiative to talk to others.					
	Scale	Dimension	The phrase	Scale	Dimension	The phrase
	**0.68	**0.69	24	**0.74	**0.76	4
	**0.48	**0.52	28	**0.60	**0.62	8
	**.0.72	**0.73	32	**0.67	**0.70	12
	**0.32	**0.31	35	**0.74	**0.77	16
	**0.53	**0.48	38	**0.39	**0.44	20
		**0.95	Total			

** Statistically at 0.01.

1. Persistence of the measure of social concerns:

To verify the social concerns scale calculated in the Alpha Kronbach method, the statistical results are as follows:

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Table No. (9)
Alpha Cronbach coefficient value to prove the study tool "Measure Social Fears"

Alpha Cronbach coefficient value	Specialized
0.75	Communication in social attitudes
0.80	Fear of negative evaluation of others.
0.82	Avoidance and withdrawal
0.83	Avoid initiative in talking to others
0.95	Total

Table 9 shows the value of the Alakronbach coefficient, ranging from 0.75 to 0.83, which is a high level of stability in human studies, while the value of Alpha Cronbach to the full scale (0.95), which is very high, indicating that the scale has a high persistence in human studies.
Presentation and discussion of the results of the study:
- The results of the first question, which states: What is the degree of the concept of physical self of female students of the Faculty of Sports Science and Physical Activity?
To answer the question, which states, "What is the level of the concept of self-inflicted female gymnasium and physical activity?" I used the arithmetical medium searcher, the standard deviation and table 10 explains this.

Table No. (10)
The mathematical medium and the standard deviation of the level of the concept of physical self. I have college students (sport science and physical activity) (N= 425)

Level	**A**	**M**	Dimensions
FIRST	0.65	3.93	Accept defective body parts
second	0.67	3.77	Psychiatric perception of body shape
Third	0.64	3.66	The intellectual content of the shape of the body.
Forth	0.67	3.64	Social perspective of body form
Fifth	0.55	3.16	General harmonization of body parts
High	0.52	3.63	General average

The study reveals that the number of arousal levels for the "return to the original state" is higher than the "return to the original state" and "return to the original state" levels, indicating that the arousal levels for the "return to the original state" are higher than the arousal levels for the "return to the original state".
According to the researchers, female students at King Saud University's Faculty of Sports Science and Physical Activity exhibit a significant degree of physical self-empowerment. This can be attributed to their surroundings, which include a prevalent societal emphasis on physical self-worth, as well as the influence of their families and peers. This finding aligns with the results of a study conducted by Achmadiya et al. (2020), which found that most students in their

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study had a strong positive regard for their physical self-esteem. In contrast, a study by Judges (2022) revealed that female students enrolled in gymnasiums at state universities had a moderate level of physical self-esteem. These findings contradict the results of a study by Ahmad (2021) and another study by Suleiman (2022), both of which reported a significant decrease in students' physical self-esteem.

Results on the second question, which states: What is the degree of social concerns among female students of the Faculty of Sports Science and Physical Activity?
To answer the question, which states: "What is the level of social concerns of college students (sport science and physical activity)?" The average researcher used the standard deviation and table 11 explains this.

Table No. (11)
Calculus and the normative deviation of the level of social concerns
Female students at the Faculty of Sports Science and Physical Activity (N= 425)

Level	**A**	**M**	Specialization
First	0.73	2.76	Fear of negative evaluation of others.
Second	0.76	2.69	The initiative to talk to others.
Third	0.72	2.65	Communication in social attitudes
forth	0.72	2.57	Avoidance and withdrawal
middle	0.67	2.67	General average

Table 11 displays the median values for various dimensions of social concerns among female college students, specifically in the fields of sport science and physical activity. The dimension with the highest average score (2.76) was "afraid of negative assessment of others," followed by "initiative to talk with others" with a median score of 2.69. The dimension of "interfacing with social attitudes" ranked third with a median score of 2.65, and "avoidance and withdrawal" had the lowest median score: The dimensions of social concerns among female college students in the fields of sports sciences and physical activity are measured at the median level. The average general calculation of their social concern level is 2.67, which indicates an intermediate level. Therefore, female college students in the fields of sports sciences and physical activity have an intermediate level of social concerns.
The researchers attribute this outcome to the fact that female students enrolled in the Faculty of Sports Science and Physical Activity at King Saud University exhibit a moderate degree of social anxiety, which might potentially be linked to:
1. Limited social engagement in individuals with behavioral problems
2. Inadequate evaluation of student performance or compromised physical well-being
Genetic agent
4. Environmental Factors
Each of these factors has a substantial influence on the individual, and the findings of this study

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align with the research conducted by Dra Gama (2018). The degree of social worry among students has been shown to be moderate.
The user did not provide any text. The third question investigates the correlation between the idea of physicality and social concerns among female college students in the fields of sport science and physical exercise.
To investigate the correlation between the physical and social anxiety experienced by female students in the Faculty of Sports Science and Physical Activity at King Saud University in Saudi Arabia, Pearson's correlation coefficients were employed. The findings are displayed in the subsequent table:

Table 12 Value of the Pearson coefficient to determine the relationship between the concept of physical delicacy
and "social concerns" for female college students (sport science and physical activity) (N= 425)

Social concerns	Start talking to others.	Avoidance and withdrawal	Fear of negative evaluation of others.	Communication in social attitudes	Dimension
**0.29-	**0.24	**0.33-	**0.29-	**0.24-	Accept defective body parts
0.06	0.05	0.08	0.03	0.08	General harmonization of body parts
**0.36-	**0.29-	**0.37-	**0.36-	**0.32-	Psychiatric perception of body shape
**0.35-	**0.30-	**0.41-	**0.31-	**0.30-	Social perspective of body form
**0.25-	**0.21-	**0.26-	**0.24-	**0.22-	The intellectual content of the shape of the body.
**0.30-	**0.25-	**0.33-	**0.30-	**0.26-	The concept of physical self.

** Statistically at a level (0.01).

Table 12 shows that the value of PERSON coefficients was 0.30 to determine the relationship between the concept of physical self and the social fears of female college students (sport science and physical activity), a statistical function at the level of significance (0.01), which indicates that the relationship between the concept of physical self and social fears is less

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inverse than the average (vulnerable), and that the value of PERSON coefficients is between 0.33- (0.25-), all statistically at the level of significance (0.01), to determine the relationship between the scale of the concept of physical self and the dimensions of the scale of social concerns, the inverse relationship is less than the average of all variables, and the value of PERSON coefficients is between 0.36-0.36-0. (-0,25), Table 11 displays the median values for various dimensions of social concerns among female college students, specifically in the fields of sport science and physical activity. The dimension with the highest average score (2.76) was "afraid of negative assessment of others," followed by "initiative to talk with others" with a median score of 2.69. The dimension of "interfacing with social attitudes" ranked third with a median score of 2.65, and "avoidance and withdrawal" had the lowest median score: The dimensions of social concerns among female college students in the fields of sports sciences and physical activity are measured at the median level. The average general calculation of their social concern level is 2.67, which indicates an intermediate level. Therefore, female college students in the fields of sports sciences and physical activity have an intermediate level of social concerns.

The researchers attribute this outcome to the fact that female students enrolled in the Faculty of Sports Science and Physical Activity at King Saud University exhibit a moderate degree of social anxiety, which might potentially be linked to:

1. Limited social engagement in individuals with behavioral problems

2. Inadequate evaluation of student performance or compromised physical well-being Genetic agent

3. Environmental Factors

Each of these factors has a substantial influence on the individual, and the findings of this study align with the research conducted by Dragomen (2018). The degree of social worry among students has been shown to be moderate.
The user did not provide any text. The third question investigates the correlation between the idea of physicality and social concerns among female college students in the fields of sport science and physical exercise.

To investigate the correlation between the physical and social anxiety experienced by female students in the Faculty of Sports Science and Physical Activity at King Saud University in Saudi Arabia, Pearson's correlation coefficients were employed. The findings are displayed in the subsequent table:
Presentation and discussion of results related to the fourth question, which states: Are there differences in the concept of physicality's in the light of demographic variables among female students of the Faculty of Sports Sciences and Physical Activity (specialization and level)?
To answer the question, which states: "Is there any difference in the concept of physical egos in the light of demographic variables among female students of the Faculty of Sports Sciences and

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Physical Activity (specialization - level)?" The researcher used the single variance analysis test to identify differences, and table 13 explains that.

Table No. (13)
Testing of single-directional variation analysis to determine differences in the concept of physical self-perception according to variable (specialization) (N= 425)

Significance level	Value F	Moderate squares	Degree of freedom	Total squares	
0.38	0.96	0.26	2	0.53	Among groups
		0.27	417	114.36	Within groups
			419	114.86	**Total**

Table 13 shows that there are no statistically significant differences at the level (0.05) of the concept of physical self, depending on the variable (specialization) of female college students (sports sciences, activity and physical sciences); it was F (0.96), which indicates that there are no differences between the disciplines in the concept (physical).

Table No. (14)
Testing of single-directional variation analysis
To see the differences in the concept of physical self-according to the variable (school level) (N= 425)

Significance level	**Value F**	Moderate squares	Degree of freedom	Total squares	
0.75	0.57	0.15	6	0.93	Among groups
		0.27	418	114.10	Within groups
			424	115.03	**Total**

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Table 14 shows that there are no statistically significant differences at the level (0.05) of the concept of physical excreta according to the variable (school level) of female students at the Faculty of Sports, Activity and Physical Sciences, where the value (F, 0.57), indicates that there are no differences at the school level in the concept of physical self-esteem. With a view to achieving more accurate results, we will present a table for all specializations:
Table 15. Calculus and standard deviation of the level of the concept of physical aerobics Female college students (sport science and physical activity) according to specialty (N= 425)

Physical fitness		Division of Athletics		Sports training		
A	M	A	M	A	M	Dimensions
0.65	3.98	0.71	3.95	0.62	3.88	Accept defective body parts
0.55	3.16	0.65	3.24	0.51	3.12	General harmonization of body parts
0.65	3.80	0.77	3.77	0.65	3.74	Psychiatric perception of body shape
0.69	3.64	0.70	3.72	0.65	3.60	Social perspective of body form
0.63	3.67	0.71	3.71	0.63	3.62	The intellectual content of the shape of the body.
0.52	3.65	0.57	3.68	0.50	3.59	General average

With a view to achieving more accurate results, we will present a table for all levels:
Table No. (16)
The mathematical medium and the standard deviation of the level of the concept of physical self. Female students at the Faculty of Sports Science and Physical Activity according to the school level (N= 425)

General average		The intellectual content of the shape of the body.		Social perspective of body form		Psychiatric perception of body shape		General harmonization of body parts		Accept defective body parts		**Level**
A	M	A	M	A	M	A	M	A	M	A	M	
0.45	3.60	0.57	3.63	0.62	3.62	0.57	3.66	0.54	3.19	0.56	3.91	**Second**
0.61	3.58	0.81	3.60	0.72	3.52	0.79	3.72	0.54	3.28	0.77	3.77	**Third**
0.57	3.72	0.63	3.61	0.79	3.52	0.70	3.78	0.67	3.16	0.66	3.89	**forth**
0.55	3.72	0.72	3.70	0.73	3.75	0.70	3.92	0.51	3.22	0.60	4.01	**fifth**
0.42	3.70	0.51	3.81	0.51	3.63	0.59	3.87	0.55	3.10	0.57	4.09	**sixth**
0.53	3.64	0.67	3.66	0.78	3.67	0.65	3.81	0.52	3.09	0.64	3.96	**Seventh**
0.53	3.61	0.64	3.62	0.63	3.68	0.70	3.71	0.54	3.15	0.69	3.89	**Eight**
0.52	3.63	0.64	3.66	0.67	3.64	0.67	3.77	0.55	3.16	0.65	3.93	General average

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Table 16 shows that the general average value of the dimensions of the concept of "physically" ranges from 3,16.393 according to specialization; the dimension of "accepting defective body parts" first comes from the highest mathematical average and ranges from 3,93 for all levels of education; the sixth level was the highest mathematical average (4,09), the lowest mathematical average of the third level (3,77), followed by the second dimension of "psychological perspective of the shape of the body" from 3,77 for all, and the fifth level was the highest mathematical average (3,92) and the lowest mathematical average of the second level (3,61), Thus, the third dimension of the "intellectual content of the body form" is mathematically medium (3.66), the sixth level was mathematically higher (3.81) and the third level (3.60) and the fourth level of the "social perspective of the body" was mathematically medium (3.64), the fifth level was mathematically higher (3.75) and the fourth level was mathematically lower (3.52). The level of dimensions of the concept of "physically" was high, while the "general consistency of body parts" was finally mathematically medium (3.16) was at the median level of all levels of education, and the third level was mathematically higher. (3,28) The lowest mathematical average for the seventh level (3.09) indicates that the measure of the concept of physical self-perception for all levels of education was high, the highest mathematical average was for the fourth and fifth level (3.72), the third level was for the calculation medium (3.58), and generally the level of the concept of physical self-perception was high.(Kadhim, 2024a)

Results on the fifth question, which states: Are there differences in social concerns in the light of demographic changes among female students of the Faculty of Sports Science and Physical Activity: (specialization - level)?

To answer the question, "Are there differences in social concerns in the light of demographic variables among female students of the Faculty of Sports Science and Physical Activity (specialization - level)?" The researcher used the one-way differential analysis test to identify differences, and table 17 illustrates this:

Table No. (17)

Testing one-way variance analysis for variances

Social concerns according to variable (specialization) (N = 425)

Significance level	**Value f**	Moderate squares	Degree of freedom	Total squares	
0.56	0.57	0.27	2	0.54	Among groups
		0.47	417	197.36	Within groups
			419	197.90	**Total**

Table 17 shows that there are no statistically significant differences at the level (0.05) of social concerns according to the variable (school level) of female students at the Faculty of Sports, Activity and Physical Sciences, where the value was F (0.57), indicating that there are no differences between the specializations in social concerns.

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Table No. (18)
Testing one-way differential analysis to identify differences in social concerns
Depending on the variable (school level) (N= 425)

Significance level	Value F	Moderate squares	Degree of freedom	Total squares	
0.25	1.31	0.62	6	3.71	Among groups
		0.47	418	197.31	Within groups
			424	201.02	**Total**

Table 18 shows that there are no statistically significant differences at the level of 0.05 social concerns according to the variable (school level) of female students at the Faculty of Sports, Activity and Physical Sciences, where the value was F (1.31), indicating that there are no differences at the school level in social concerns.

With a view to achieving more accurate results, we will present a table for all specializations:

Table No. (19)
Calculus and the normative deviation of the level of social concerns
Female students at the Faculty of Sports Science and Physical Activity according to specialty (N= 425)

Physical fitness		Department of Sports		Sports training		
A	**M**	**A**	**M**	**A**	**M**	Dimensions
0.72	2.66	0.81	2.72	0.68	2.59	Communication in social attitudes
0.72	2.70	0.77	2.82	0.72	2.77	Fear of negative evaluation of others.
0.71	2.54	0.77	2.66	0.71	2.54	Avoidance and withdrawal
0.75	2.68	0.79	2.73	0.74	2.65	The initiative to talk to others.
0.67	2.65	0.74	2.74	0.67	2.64	General average

Table 19 shows that the value of the general average calculation of social concerns according to specialization ranges from (2.64 □ 2,74); the dimension of "afraid of negative assessment from others" was first, to the highest, and ranged from (2.82 - 2.70) to all specializations, physical fitness was lower, (270) and sports management was the highest mathematical average (2.82), followed by "Initiative to talk with others" with an average of between (2.73 - 2,65) for all specializations, and sports training was the lowest mathematical average (2.65), and sports management was the highest mathematical average (2.73), Thus, the third dimension of "connectivity in social attitudes" is mathematically medium (2.59 x 2,72). Sports training was less mathematically intermediate (2,59), sports management was higher mathematical average (2,72), and finally, "avoid and withdrawal" was mathematically medium ranging from (2,66 x 2,54) to all specializations, and sports training and fitness were less mathematically intermediate (2,54) and sports management.

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The highest mathematical average (2.66) indicates that the measure of social fears was medium for all specializations, the specialization was first the management of sports (2.74), physical fitness (2.65) and finally the training of sports (2.64), and generally the level of social concerns is medium. (Kadhim, 2024b)

With a view to achieving more accurate results, we will present a table for all levels:

Table No. (20)
Statistical average and standard deviation of the level of social concerns of female students of the Faculty of Sports and Physical Activity according to the school level (N= 425)

General average		The initiative to talk to others.		Avoidance and withdrawal		Fear of negative evaluation of others.		Communication in social attitudes		**Level**
A	M	A	M	A	M	A	M	A	M	
0.61	2.72	0.70	2.74	0.62	2.64	0.67	2.85	0.64	2.65	**Second**
0.75	2.75	0.83	2.78	0.73	2.70	0.80	2.75	0.78	2.78	**Third**
0.78	2.84	0.83	2.88	0.76	2.74	0.88	2.96	0.86	2.76	**Forth**
0.67	2.55	0.72	2.54	0.68	2.37	0.72	2.65	0.69	2.63	**Five**
0.60	2.69	0.65	2.74	0.59	2.57	0.65	2.78	0.70	2.67	**Six**
0.76	2.68	0.83	2.71	0.87	2.64	0.77	2.72	0.77	2.65	**Seven**
0.67	2.56	0.75	2.56	0.72	2.44	0.70	2.68	0.70	2.56	**Eight**
0.67	2.67	0.76	2.69	0.72	2.57	0.73	2.76	0.72	2.65	General average

Table 20 shows that the general average value of social concerns ranged from (2.57 - 2.76) depending on specialization; the "risk of negative assessment from others" was first the highest and ranged from (2.76) to all academic levels; the fourth level was the highest mathematical average (2.96) and the lowest mathematical average of the fifth level (2.65), followed by the second dimension "Initiative to talk with others" with an arithmetic average of (2.69) for all, and the fourth level was the highest mathematical average (2.88) and the lowest mathematical average of the fifth level. (2,54), (Salman et al., 2022) Thus, the third dimension of "reconnection in social attitudes" is mathematically medium (2.65), and finally the second dimension of "disruption and withdrawal" is mathematically medium (2.57), the fourth level was mathematically higher (2.74) and the least mathematical average of the fifth level (2.37). All dimensions were average level of social concerns other than "disruption and withdrawal" were weak, the highest level of calculation was fourth level (2.84) and the fifth and eighth level was mathematically lower (2.55, 2.56). The weak, and generally the level of social concerns is average.

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Conclusions:

Based on the study's aims, questions, methodologies, results, and discussions, the following conclusions have been drawn:

The level of physical self-esteem among female students in the Faculty of Sports Science and Physical Activity at King Saud University has reached a significant degree.

The degree of social concern among female students in the Faculty of Sports Science and Physical Activity at King Saud University was modest.

The user did not provide any text. The correlation between the size of the physical self-perception concept and the dimensions of the social fears measure was less negative compared to the average of all variables, except for the dimension of "general harmony of body parts." There was no correlation between this dimension and the measure of social concerns.

The user did not provide any text. There are no variations in the idea of physical self-esteem among female students based on their specialization.

There are no disparities among female pupils in their understanding of physical attributes based on the demographic factor of school level.

There is no variation among female students in their social concerns based on their specialization.

The user did not provide any text. There are no variations among female pupils in terms of their worries based on the demographic variable of school level.

The dimension of social concerns related to the fear of negative evaluation by others is calculated as the average score of female students at Levels II, IV, V, VI, VII, and VIII. On the other hand, the dimension of social attitudes and reconnection has the highest statistical average among female students at Level III. Overall, the level of social issues at all levels is moderate.

The factor of social concerns related to the fear of negative evaluation by others is shown to be highest among female sports management students and lowest among those with a mathematical background in physical fitness. Overall, the number of social issues in all specializations is moderate.

The dimension involved assessing the presence of faulty bodily components in relation to the highest mathematical average of sixth-level students and the lowest mathematical average of third-level pupils. Overall, there is a high degree of self-empowerment across all levels.

The dimension involved incorporating imperfect physical attributes into self-assessment, comparing them to the greatest mathematical average among female students and the lowest mathematical average among sports trainees. Overall, the degree of self-concept is excellent across all disciplines.

Recommendations:

conducting the study on diverse cohorts of female students from various colleges and contrasting them with female students from the Faculty of Sports Sciences and Physical Activity.

Addressing social problems by organizing seminars and promoting more social contact among female students in the Faculty of Sports Science and Physical Activity at King Saud University.

Additional study is needed to explore the process of physical self-change and its correlation with other psychological factors, as this topic has a profound influence on an individual's life.

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Additional study and studies are needed to examine the variable of social concerns and its correlation with other psychological factors, as this topic has a substantial influence on an individual's life. Utilize the findings of the study to enhance the understanding of female students at Saudi and Arab institutions about the notion of physical self-improvement and societal issues, with the aim of mitigating these concerns.

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Effectiveness of Kinetic Games and Their Impact on Learning Some Basic Basketball Skills for Middle School Students

Ahmed Amer Abdulhussein [1], Zahraa Amer Al-juboori [2]

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[1] University of Baghdad / College of Physical Education and Sports Sciences
[2] De Montfort University / School of Pharmacy.

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Abstract

This study aims to identify the effectiveness of kinetic games and their impact on learning some basic basketball skills for middle school students. The hypotheses of this study suggest that there are statistically significant differences between the experimental and control groups in the post-tests, favoring the experimental group. The research problem was identified through monitoring and reviewing the teaching methods used in middle school physical education classes. It was found that most lessons lack variety in teaching methods and rely on traditional approaches, which do not cater to the individual differences among learners. Consequently, the learning outcomes among students vary, and mastery of skills is not achieved. This issue must be addressed, and solutions must be found.

After thorough research and review, it was concluded that kinetic games are the best approach to solve this problem, as they are engaging and stimulating for learning skills. The experimental method was used for the experimental and control groups with pre-tests and post-tests, suitable for the sample and the research problem. The research population consisted of second-grade students at Al-Waseela Boys School, totaling 127 students divided into three sections (A, B, C). Section B was intentionally chosen (by lottery), comprising 42 students, from which 25 students were selected to form the experimental group, with 17 students excluded for statistical reasons. Section A represented the control group with 41 students, from which 25 were selected similarly. A pilot study sample consisted of 10 students from the research population but outside the main sample.

After conducting the pilot study, the pre-tests were carried out, followed by the main experiment, which involved applying kinetic games to the experimental group for two

[1] University of Baghdad / College of Physical Education and Sports Sciences, Ahmed.a@cope.uobaghdad.edu.iq

[2] De Montfort University / School of Pharmacy, P1412711x@myemail.dmu.ac.uk

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months, with two educational units per week (Monday and Wednesday), totaling 16 units. After the main experiment, post-tests were analyzed statistically using SPSS software. The conclusion was that kinetic games play an effective role in learning some basic basketball skills for middle school students. Using kinetic games in skill learning is necessary due to their stimulating and engaging nature for learners

Keywords : Kinetic Games, Basketball, Middle School Students.

Introduction

Play is a manifestation of human activity a natural phenomenon and a basic need that drives an individual to work, move, and be active. It is an internal or external orientation that satisfies an inner desire to utilize mental and physical energy in an integrated activity consisting of a series of actions (Abdul Sahib et al., 2022). Many researchers have addressed the topic of play, with some defining it, and all definitions share characteristics focused on activity and motivation. Defined play as a natural exercise for the various powers of man and a means to develop these powers comprehensively and balanced (Khalifab & Jabbar, 2023). (Adnan et al., 2024).It is not limited to children and youth but also includes adults of both genders. Hence, play has become one of the essential and pressing factors in modern life, with its fundamental value lying in the vitality and enjoyment it adds to human life. Defined play as the key to the treasure of knowledge and its social, mental, moral, physical, and emotional growth, and the guidance of a child's motor performance (Mahmood et al., 2023) (Salman et al., 2022)

The research problem is that most curricula have received attention from specialists in the Ministry of Education, who are constantly working on their development. However, the physical education class has remained unchanged, with no efforts to develop or pay attention to it, especially in the primary and middle stages, which are considered the foundation for the sports talents and raw materials needed by sports clubs in the future. This depends on the methods and approaches, the way of selecting specific exercises for sports, and how they are performed and taught (Mohammed Khalid Awad, Khulood Juma Qasim, 2024). Therefore, it is required to gradually transition from easy to difficult according to a well-studied scientific plan so that the transition is not sudden, which would nullify the benefit and reduce the students' enthusiasm for playing. (Yasir & Sikhe, 2020)

As is known, the physical education class, in its traditional and monotonous way, lacks a lot of enthusiasm and excitement for the students, neglecting individual differences, leading to ineffective performance and a lack of response to the lesson's content (Al-Ibraheemi et al., 2019). Hence, the researcher chose an alternative to the routine physical exercises in the lesson, aiming to increase the learning process among the students, making

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a humble effort in the service of science and education (Abdul-Gani et al., 2024). Thus, the importance of the research lies in identifying the significance of kinetic games at this age stage by preparing a program of kinetic games aimed at learning some basic basketball skills (Matar & Faeq, 2020).

Methods

The researcher used the experimental method to solve the problem, defined as the deliberate and controlled alteration of certain conditions of a specific phenomenon, followed by the observation and interpretation of the resulting changes in the phenomenon (Muttib et al., 2024). The design of two equivalent groups (experimental and control) with pre- and post-tests was chosen to suit the nature and objectives of the research.

Table (1)

Shows the design of the experimental and control group with pre-test and post-test

Groups		Number of sample members	Steps				
			The first	The second	Third	Fourth	Fifth
sample	Experimental group	25	Pretest	kinetic games	Posttest	The difference between pre-test and post-test	The difference between the two groups in the posttests
	Control group	25	Pretest	The approach followed	Posttest	The difference between pre-test and post-test	

Research Population and Sample:

The research population consisted of second-grade students at Al-Waseela Boys School, totaling 127 students divided into three sections (A, B, C). Section B was intentionally selected (by lottery), comprising 42 students, from which 25 students were chosen to form the experimental group, with 17 students excluded statistically. Section A represented the control group with 41 students, from which 25 students were similarly selected. A pilot study sample consisted of 10 students from the research population outside the Main sample (Mahmood et al., 2023).

Table (2)

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The research community and its sample

Population and sample	Total number	Percentage
Origin community	127	%100
Research sample	60	%47
Experimental sample	25	%19.68
Control sample	25	%19.68
Exploratory sample	10	%7.87

Tools Used:

Arabic and foreign references and sources

Result recording form

10 basketballs

Whistle

Stopwatch

Stationery

Test Used in the Research:

One-Hand Overhead Pass Test (Long) (Abdulhussein et al., 2024):

Purpose: To measure the accuracy of the one-hand overhead pass at a target.

Equipment: Basketball, a wall with three concentric circles (different centers) with radii of 45 cm, 98 cm, and 50 cm respectively. The lower edge of the largest circle is 90 cm above the ground. A line is drawn on the ground 6 meters from the wall.

Performance: The tester stands behind the drawn line on the ground with the ball, performing passes to the circles using a one-hand overhead pass. Several practice attempts are allowed before the test. The tester has the right to perform ten passes.

Scoring:

One point for hitting the largest circle.

Two points for hitting the middle circle.

Three points for hitting the smallest circle.

The maximum score is 30 points.

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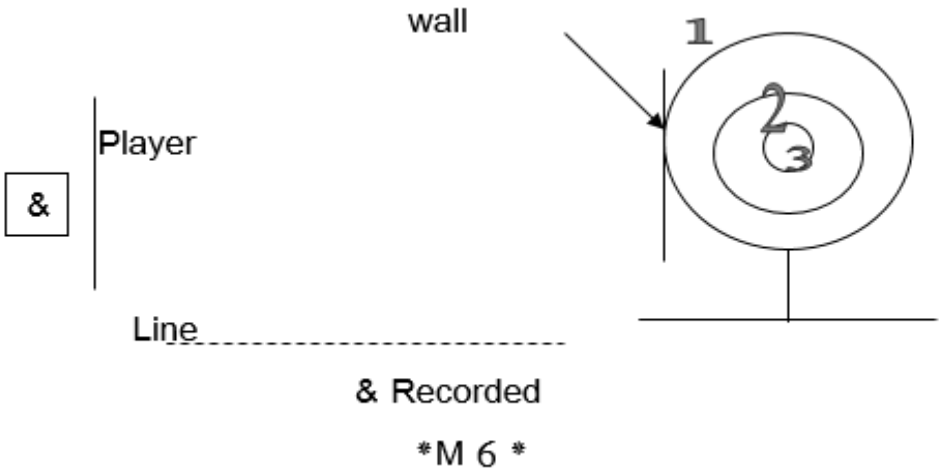

Chest Pass Test (Ahmed Amer Abdul Hussein, 2020)**:**

Purpose: To measure the speed of the chest pass and catch.

Equipment: Smooth wall, flat ground, measuring tape, two legal basketballs, electronic stopwatch, chalk, whistle for start and end signals.

Procedure:

Draw a line on the smooth wall 90 cm from the ground.

Draw a starting line parallel to the wall 2.70 meters away.

Performance Description:

The player stands directly behind the starting line holding the ball.

A start signal is given, and the player performs rapid chest passes to the smooth wall and catches the ball after it rebounds.

The player continues this performance for 10 consecutive passes.

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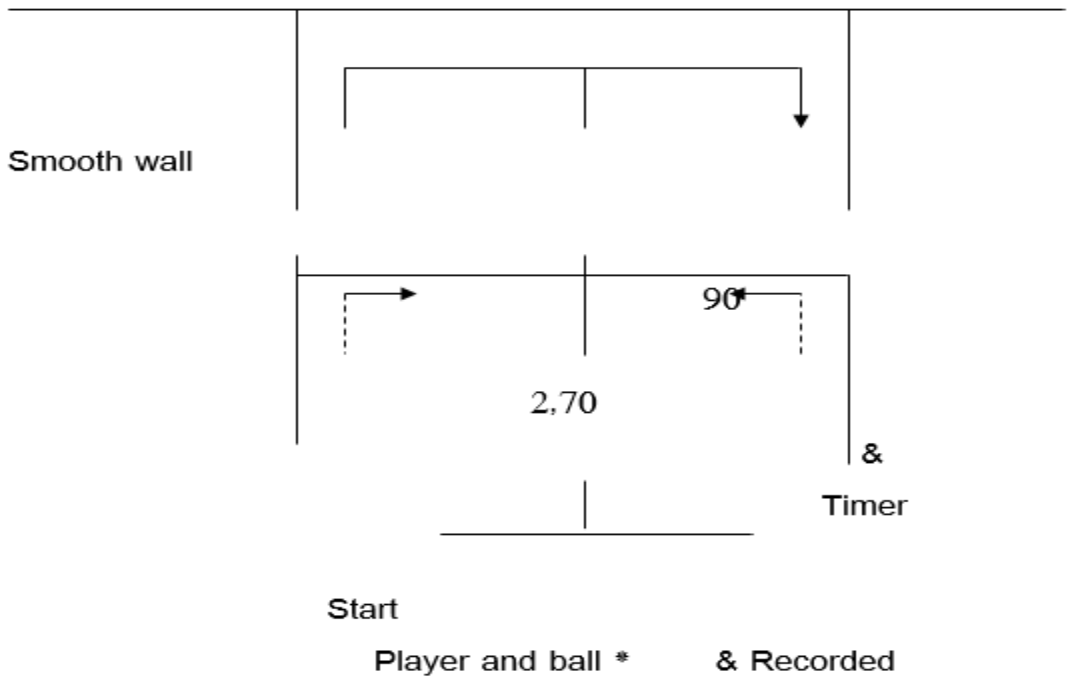

Instructions:

The player must not cross the designated line during the performance.

The ball must not touch the ground during the 10 passes.

If the ball falls, the player can retrieve it and continue the performance from behind the line, but only correct chest passes are counted.

It is allowed for the ball to touch the smooth wall above the drawn line.

The ball must be caught before making the next pass.

Each player gets only one attempt.

The score is announced to the player to ensure competitiveness.

Administration:

Recorder: Calls out names, observes the performance, and records results.

Timer: Gives start and end signals, timing, and counting.

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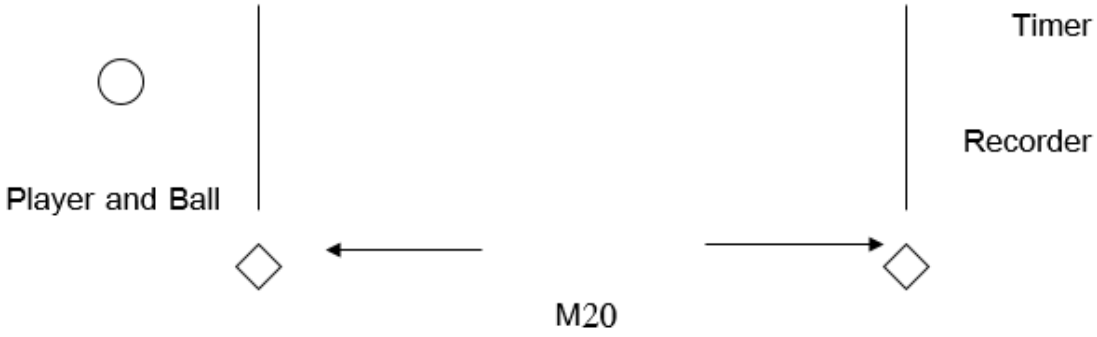
High Dribble Test: (Abdulkareem et al., 2024)

Purpose: To measure the speed of high dribble over 20 meters with the dominant hand.

Equipment: Basketball court, electronic stopwatch, basketball, measuring tape, whistle for start signal.

Attempts: Each player is given only one attempt.

Scoring: The player's score is the time to complete the test from the start signal to cover the full distance.



Exploratory experiment:

The Exploratory experiment was conducted on Monday, February 19, 2024, at 8:45 AM at the Al-Waseela Boys School playground. Its purpose was to identify the suitability of the kinetic games and the tests used in the research for the sample.

Pre-Test:

The pre-tests for the research sample were conducted on Monday, February 22, 2024, at 8:45 AM at the Al-Waseela Boys School playground. The tests related to the research topic were carried out, and the researcher ensured to stabilize all test-related conditions, such as time, place, equipment, and execution method, to create similar conditions during the post-test.

Main Experiment:

After reviewing scientific references, a set of exciting and engaging kinetic games was prepared. The main experiment started on Monday, February 26, 2024, and continued until Wednesday, April 17, 2024. The program included 16 educational units, two per week (Monday and Wednesday), with each unit lasting 40 minutes, the duration of a physical education class. The educational units were implemented by the school teacher under the

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researcher's supervision and guidance, applying the kinetic games program to teach basic basketball skills.

Post-Test:

The post-tests for the research sample were conducted on Monday, April 22, 2024, at 8:45 AM at the Al-Waseela Boys School playground. The researcher, with the help of the assisting team, ensured similar conditions to the pre-test to obtain highly reliable results.

Statistical Methods:

The statistical package (SPSS) was used to extract the results.

Results:

Presentation of the Results of the Experimental Group for the Pre- and Post-Tests:

Table 3:

shows the arithmetic means and standard deviations for the pre-and post-tests of the experimental group

	Variables	Measuring unit	Pretest		Posttest	
			α	μ	α	μ
1	Long handling	Degree	15,15	1,663	22,10	2,125
2	Pectoral handling	T	11,210	1,296	7,018	0,692
3	High plumpness	T	5,903	0,489	4,568	0,437

Table 4

The values of the differences of the arithmetic mean, their deviations, and the calculated t-value between the pre-and post-tests for the experimental group

Skills	f	df	h	t
Long handling	6,950	2,892	0,646	10,74
Pectoral handling	4,192	1,638	0,366	11,44
High plumpness	1,335	0,607	0,135	9,821

Displaying the results of the control group for the pre-and post-tests.

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Table 5

Shows the arithmetic means and standard deviations for the pre-and post-tests of the control group

	Variables	Measuring unit	Pretest		Posttest	
			α	μ	α	μ
1	Long handling	Degree	15,25	1,208	19,0	1,747
2	Pectoral handling	T	11,572	1,471	7,964	0,710
3	High plumpness	T	6,017	0,333	5,292	0,215

Table 6

The values of the differences of the arithmetic mean, their deviations, and the calculated t-value between the pre-and post-tests for the control group

Skills	f	df	h	t
Long handling	3,750	1,888	0,422	8,881
Pectoral handling	3,608	1,785	0,399	9,040
High plumpness	0,725	0,420	0,094	7,707

Displaying the results of the experimental and control groups in the post-tests of the research variables:

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Table 7

Shows the values of the arithmetic mean and standard deviations for the post-test and the T value calculated for the research tests for the experimental and control groups.

	Variables	Measuring unit	Pretest		Posttest		t	SE
			α	μ	α	μ		
1	Long handling	Degree	15,25	1,208	19,0	1,747	30,165	0.000
2	Pectoral handling	T	11,572	1,471	7,964	0,710	26,280	0.000
3	High plumpness	T	6,017	0,333	5,292	0,215	16,922	0.000

Discussion

The results indicated significant differences between the pre-test and post-test of the experimental group in the research variables. The researcher attributes this to the fact that this skill is simple and not complex in terms of motor performance, and the key role of the learner in demonstrating cooperation, interaction, and engagement during the lesson (Idrees et al., 2022). This led to skill mastery, (Kadhim, 2024) as the teacher followed the proper steps in teaching the skill. Natural phenomena of the learning process must result in learning progress as long as the teacher follows proper learning, teaching, and correct performance training steps, focusing on repeated attempts until performance is ingrained. Learning this skill through group cooperation increased its learning and development positively, as the spirit of cooperation, cohesion, peer assistance, and direct correction led to progress (Kadhim, 2023). The cooperative learning strategy increases learners' participation and reduces their fatigue, in addition to achieving greater benefits when they help each other rather than learning in isolation (Mohsen et al., 2024).

The educational curriculum's inclusion of organized educational units, the effective preparation of the learning environment, and the reliance on actual practice and repetition in the games included in the unit's motor phrases also played a significant role (Hammood et al., 2024). Kinetic games are considered one of the best methods for developing and raising the performance level in defensive and offensive skills, which is reflected in the skill performance level during the competition (Atiyah et al., 2024). Regarding the control

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group, the strategies and exercises followed by the specialized teacher affected the skill-learning progress (Yusri, 2020) and (Easa et al., 2022)

The significant differences observed between the experimental and control groups in the post-tests, favoring the experimental group, are attributed by the researcher to the effectiveness of kinetic games (Mohammed Khalid Awad, Khulood Juma Qasim, 2024). These games helped improve the research variables' performance and sense of time and movement. Students at this age enjoy playing in its various forms, which generates motivation and desire to learn and improve the research variables. Jameel (108) indicates that playing in its various forms is preferred and loved by primary school children, matching their inclinations and maintaining its place with them even into adulthood (Mandoob Makki Ati et al., 2024). Additionally, the kinetic games included various activities and movements performed in different forms, speeds, and repetitions, which were engaging, leading to students' desire to repeat most games, especially competitive ones (Zahraa Adnan, 2022). The role of repetition is fundamental to learning, and determining the number of repetitions of basic movement performance is important (Abdulkareem et al., 2024). It largely depends on the teacher's insight and experience in determining the optimal number of repetitions suitable for each age stage (Ali et al., 2023) (Ahmed Fadhil Farhan Mohammed Jawad Kadhim, 2016)

Conclusions

The results provided a comprehensive picture of the importance of kinetic games and their effective role in the training process, showing that they developed the experimental research sample excellently. This success is attributed to their scientific and proper design, as well as their engaging and progressive nature from easy to difficult, and their variety and combination of multiple skills. These factors led to significant differences in the students of the experimental group. These games are used to learn different sports skills for different age groups.

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