

المجلة
الأوربية
للسنوراجيا
علوم الرياضة

عدد خاص

بمؤتمر الإبداع الرياضي نوفمبر ٢٠١٢

السنة الثالثة - العدد الثاني - ٢٠١٣



المجلة الأوربية علوم الرياضة

المجلة
الأوربية
علوم الرياضة

مجلة دولية دورية علمية رياضية محكمة

تصدرها الأكاديمية الدولية لتكنولوجيا الرياضة في السويد بعدة لغات
(العربية ، الانكليزية ، الروسية ، الفرنسية)

مجلس الإدارة

أكاديمي د. أ / ريسان خريبط	- مؤسسها ورئيس مجلس الإدارة
ا. د/ محمد صبحي حسانين	- رئيس التحرير
أكاديمي د. أ / سركيه الكسندر فح بليبيفسكي	- عضو (روسيا)
أكاديمي د. أ / رفسكى ترغيموفج	- عضو (أوكرانيا)
ا. د/ نزر مجيد الطالب	- عضو (العراق)
ا. د/ أبو العلا أحمد عبد الفتاح	- عضو (مصر)
ا. د/ عصام الهلالي	- عضو (مصر)
ا. د/ قدرى بكرى	- عضو (مصر)
ا. د/ مؤيد عبدالله جاسم	- عضو (العراق)
ا. د/ ساري حمدان	- عضو (الأردن)
ا. د/ هاشم الكيلاني	- عضو (الأردن)
ا. د/ هزاع بن محمد الهزاع	- عضو (السعودية)
ا. د/ صالح عمار العويب	- عضواً (ليبيا)
ا. د/ بو عجناق كمال	- عضواً (الجزائر)

هيئة تحرير المجلة

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ا. د/ صالح عمار العويب	- عضو (ليبيا)
ا. د/ بو عجناق كمال	- عضو (الجزائر)

ممتشاري المجلة

١. د/ داخل حسن جزيو @ رئيس جامعة سابق
- حائز على جائزة رواد الفكر العربي
- مهتم بالشؤون التربوية و التعليم العالي
- ومؤسس لعدد من المجالات العلمية المحكمة
- أكاديمي د. أ / اويكسي جيبوكين
- رئيس الجامعة الوطنية التربوية لجنوب اوكرانيا
- متخصص في علم النفس الرياضي
١. د/ خير الدين عويس
- كلية التربية الرياضية للبنين - جامعة حلوان (مصر)
١. د/ مصطفى كاظم
- كلية التربية الرياضية للبنين - جامعة حلوان (مصر)
١. د/ محمد الحماحمي
- كلية التربية الرياضية للبنين - جامعة حلوان (مصر)

الأمانة العامة للمجلة

- دكتور/ تيرس عونيشو
- الامين العام المساعد للدراسات و الابحاث
في الاكاديمية الدولية لتكنولوجيا الرياضة (السويد)

مطراتارية التحرير

- د / أحمد فاروق عبد القادر
د / محمود سيد هاشم
أ / نعمان عبد الغنى
أ / محمد كمال جعفر
- كلية التربية الرياضية للبنين - جامعة حلوان (مصر)
- كلية التربية الرياضية للبنين - جامعة حلوان (مصر)
- مدير مركز المعلومات والإعلام فى الأكاديمية (الجزائر)
- مدير مركز الكتاب للنشر (مصر)



المجلة الأوربية علوم الرياضة

المجلة
الأوربية
علوم الرياضة

أسلوب النشر و شروطه في كتابة الأبحاث

تنشر المجلة بالعربية و الانكليزية و الروسية و الفرنسية و الألمانية .

لغة النشر :

تحال جميع البحوث المقدمة للنشر على متخصصين لتحكيمها علمياً، ويقبل البحث بشكل نهائي بعد ان يجري الباحث التعديلات التي يطلبها المحكمون .

تحكيم البحث :

وتقع مسؤولية محتويات البحث على عاتق الباحث وحده والذي تعبر عن وجهة نظر كاتبها وليس عن وجهة نظر المجلة ولا تكون أسرة تحرير المجلة مسؤولة عنها .

أصحاب الدراسات و البحوث المنشورة في أعداد المجلة مسؤولون مسؤولية كاملة عن ما يرد في كتاباتهم ويتحملون منفردين جميع الحقوق القانونية المعلقة وغير المعلقة والتي قد تظهر في أى وقت حاضر أو لاحق لصالح الغير ، وليس للمجلة في ذلك أى مسؤولية من القريب أو البعيد في المصلحة أو غير المصلحة أدبياً أو معنوياً أو مادياً .

تطبيق الشروط التالية في نشر البحث :

شروط النشر :

- . ألا يكون البحث قد نشر مسبقاً، ويكتب الباحث تعهداً بذلك .
- . ألا يكون البحث قد قدم للنشر في مجلة أخرى .
- . ألا يكون البحث جزءاً من رسالة منشورة للدكتوراه أو الماجستير أو جزءاً من كتاب منشور .
- . ألا ينشر البحث في مكان آخر بعد اقرار نشره في مجلة الاكاديمية إلا بعد الحصول على موافقة بإذن كتابي من رئيس التحرير .
- . حصول الباحث على إذن مسبق لاستخدام مادة سبق نشرها .
- . أن يوافق الباحثون على نقل حقوق النشر كافة الى المجلة .
- . يعرف الباحثون بالمصادر المستعملة في أبحاثهم .
- . يمنح الباحثون نسخة من العدد المنشور فيه بحثهم .
- . لا ترد أصول البحث التي تصل المجلة سواء نشرت أم لم تنشر .

. تكتب البحوث بالحاسوب بنظام *Microsoft Windows* - ويخط *Arial* ويحدد حجم النص في حجم 14 و يكتب البحث على وجه واحد مع ترك مسافة مزوجة بين السطور .

اسلوب كتابة البحث للنشر في المجلة :

. تترك مسافة 4 سنتيمتر من أعلى الصفحة و 3 سنتيمتر من أسفل الصفحة و 3,5 من كلا الجانبين .

. أن لا يزيد البحث عن 15 صفحة من حجم الورق الابيض **A4** ولا يزيد عدد السطور عن 34 سطراً .

. يتبع الباحث طريقة *(APA) American Psychological Association* جمعية علم النفس الأمريكية في كتابة البحث والمصادر والجداول.

متطلبات البحث المقدم للنشر:

- أن يحتوي البحث على اسم الباحثين و عناوينهم الحالية في أسفل عنوان البحث .
- أن يحتوي البحث على ملخص باللغات لوارزة أعلاه بما لا يزيد عن ١٥٠ كلمة لكل ملخص.
- يقدم البحث مطبوع بثلاث نسخ مع نسخة الكترونية مطبوعة على قرص مدمج .
- يرفق بالبحث اسم الباحثين وعناوينهم ومكان عملهم ورتبهم العلمية مع عنوان البريد الإلكتروني .

الاشتراكات والمراسلات

داخل الوطن العربي:	للأفراد	للمؤسسات
سنة واحدة (أربع أعداد)	١٠٠ دولار	١٥٠ دولار
سنتان (ثمان أعداد)	٢٠٠ دولار	٣٠٠ دولار
ثلاث سنوات (اثنا عشر عدداً)	٣٠٠ دولار	٤٥٠ دولار

خارج الوطن العربي:	للأفراد	للمؤسسات
سنة واحدة (أربع أعداد)	١٥٠ دولار	٢٠٠ دولار
سنتان (ثمان أعداد)	٣٠٠ دولار	٤٠٠ دولار
ثلاث سنوات (اثنا عشر عدداً)	٤٥٠ دولار	٦٠٠ دولار

تدفع قيمة النسخ بالطريقة التالية:

تسدد قيمة النسخ المطلوبة بشيك مصرفي مسحوب على:

اسم البنك: **ADCB AEAA** (بنك أبو ظبي التجاري)

رقم الحساب: **ACCOUNT NO : 285609032001**

الاسم: **ريسان خريبط مجيد (RISSAN K MAJID)**

جميع المراسلات والأبحاث توجه باسم أ. د. محمد صبحي حسانين - رئيس التحرير

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الناشر

مركز الكتاب للنشر - جمهورية مصر العربية - القاهرة

شارع الهداية - حي السفارات - مدينة نصر

قطعة رقم ١ - بلوك رقم ١٨ - برج النور رقم ١

هاتف: ٢٢٧٠٤٠٩٥ فاكس: ٢٢٩٠٦٢٥٠

الرقم الدولي للعدد الأول للمجلة المسجل في المكتبة الوطنية (استوكهولم-السويد)

٩٧٨-٩١-٩٧٩٣٦١-٠٠-١



التكنولوجيا

المجلة الأوربية علوم الرياضة

مهرس الأبحاث

٨

تأثير التدريبات الوظيفية على تقوية العضلات العاملة ومرونة
العمود الفقري ومفصل الكتف للحد من الإصابة لدى السباحين
د. محمد سعد اسماعيل

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أثر الفساد الإداري والاجتماعي على المؤسسات الرياضية في دولة الكويت
د. بدر عايض العتيبي

٣٩

نسق الذكاءات المتعددة المميزة للاعبات كرة السلة
أ. م. د. علية إبراهيم زهدى
م. د. نيفين ممدوح محمد زيدان

كلمة العدد

أعزائي الباحثين ...

أود أن أنتهز فرصة صدور هذا العدد من المجلة الأوروبية لتكنولوجيا علوم الرياضة لأعبر عن عميق امتناني للباحثين المتميزين المشاركين في هذا الإصدار على مجهودهم لإثراء الرياضة في مختلف فروعها . هذه المساهمات التي تبنت أفكاراً جديدة وبرامج ونماذج للارتقاء بنظريات ومعارف وأفكار التربية الرياضية في شتى التخصصات . ونحن في هذا الإصدار وبمجملة الأبحاث المنشورة - والتي تدور حول فكرة الإبداع في المجال الرياضي - نتمنى أن نُقدّم أفكاراً تقديمية، ونمضى سوياً للارتقاء بمهنتنا العزيزة .

وقد اختص صدور هذا العدد بالمؤتمر العلمي الدولي للإبداع في المجال الرياضي بالتعاون مع كل من جائزة الشيخ / محمد بن راشد آل مكتوم للإبداع الرياضي ، وقطاع التربية الرياضية بالمجلس الأعلى للجامعات المصرية .

وفي النهاية ... أود أن أشكر كل الباحثين المشاركين في هذا العمل متمنياً أن يستمر التعاون المثمر في الإصدارات القادمة بإذن الله .

رئيس التحرير

أ.د. محمد صبحي حسانين
نائب رئيس جامعة حلوان الأسبق
عميد كلية التربية الرياضية الأسبق
(جمهورية مصر العربية)



على تقوية العضلات العاملة و مرونة العمود الفقري ومفصل الكتف

للحد من الإصابة لدى السباحين

د/ محمد سعد إسماعيل

أستاذ مساعد بقسم علوم الصحة الرياضية
بكلية التربية الرياضية بالعريش، جامعة قناة السويس

المقدمة ومشكلة البحث

يعتبر التدريب الرياضي عملية تربية هادفة تعتمد في المقام الأول على العديد من الأسس العلمية التي تخدم جوانب الإعداد المختلفة (البدني، المهاري، الخططي، النفسي) بل ويتحقق من خلالها مبدأ التكامل في تطوير تلك الجوانب للوصول باللاعب إلى أعلى المستويات الرياضية .

**تأثير التدريبات الوظيفية
على تقوية العضلات العاملة
و مرونة العمود الفقري ومفصل الكتف
للحد من الإصابة لدى السباحين**

الوظيفية مع لاعبيهم ضرورة التعرف على هندسة الجسم البشري وكيف يعمل في التدريب (٢٥ : ٥٠٩)

ويشير **فوم هوف Vom Hofe** (١٩٩٥) إلى أن التدريبات الوظيفية تناسب جميع الأفراد على اختلاف مستوياتهم التدريبية وتهدف إلى تحسين العلاقة بين العضلات والنظام العصبي عن طريق تحويل الزيادة في القوة المكتسبة من حركة واحدة إلى حركات أخرى ، ولذلك فتدريبات التحكم الحركي تعتبر ضرورية وهامة. (٢٧ : ٢٤٩)

ويرى **فابيو كويلو Fabio Lilo** و **Comana** : (٢٠٠٤) أن تدريبات القوة الوظيفية هي مزيج من تدريبات القوة وتدريبات التوازن يؤديا في توقيت واحد . (٢٢ : ٢٧)

ويشير **ديف شميتز Dave Schmitz** : (٢٠٠٣) إلى أن التدريب الوظيفي يتميز بخصائص وسمات من أهمها :

١ - التركيز على مجموعة عضلات المركز: فجميع الحركات الرياضية ستفتقر للكفاءة بدون تكاملها مع عضلات قوية للمركز، فعضلات المركز القوية تساعد على ربط الطرف السفلي بالطرف العلوي ، بالإضافة إلى منع تسرب القوة .

٢ - تعدد المستويات : أداء الحركات الرياضية في أكثر من اتجاه وعدم قصر التمرين على اتجاه واحد فقط ، فالجسم البشري مصمم ولديه القدرة على التحرك مباشرة للأمام وللإسار ولليمين وأيضا للتدوير، والتدريب يجب أن يعمل على تحسين هذه القدرة من خلال التركيز على الأبعاد الثلاثة للحركة (الأفقي- السهمي - الرأسى) .

٣ - تعدد المفاصل : يلاحظ عند النفاط شيء من الأرض يتحرك عدد كبير من المفاصل،

ويشير **عمرو حمزة (٢٠٠٨)** على أن العديد من الباحثين والمتخصصين في المجال الرياضي يتفقوا على وجود ارتباط قوى بين القدرات الحركية وبين مستوى الأداء المهاري ، فالفرد الرياضي لا يستطيع إتقان المهارات الأساسية لنوع النشاط الرياضي الذي يتخصص فيه في حالة افتقاره للقدرات الحركية لهذا النوع من النشاط . (٨ : ١٦)

ويشير **رون جونز Ron Jones** : (٢٠٠٣) إلى أن تدريبات القوة الوظيفية التدريبية المستخدمة حديثا في المجال الرياضي . (٢٤ : ٢٤)

ويضيف **كريستين كوننجهام Christine Cunningham** : (٢٠٠٠) إلى أنه في خلال العشر سنوات الماضية أصبح التدريب الوظيفي من المصطلحات شائعة الاستخدام في المجال الرياضي ، وأنه يستخدم تحت عدة مسميات مثل التدريب التكاملي والتدريب النموذجي . (٣ : ١٨)

ويعرفها **فابيو كويلو Fabio Lilo** و **Comana** : (٢٠٠٤) بأنها عبارة عن حركات متكاملة ومتعددة المستويات (أمامي، مستعرض وسهمي) تشتمل على التسارع والتثبيث والتباطؤ ، بهدف تحسين القدرة الحركية ، القوة المركزية (يقصد بها العمود الفقري ومنتصف الجسم) والكفاءة العصبية والعضلية . (٢٢ : ٨٧).

ويشير **شميدت وولف Schmidt & Wulf** : (١٩٩٧) إلى أن جميع الأشكال الحركية منشأها العمود الفقري . ويضيف أن مصطلح (وظيفي) يبدو غير واضح قليلا، فالوظيفية هي حركات تؤدي كتلك الحركات التي صمم الجسم على أدائها في الحياة ، ولذا على المدربين الرياضيين الذين استخدموا التدريبات

٩ - السرعة النوعية: لتحقيق سرعة الأداء يجب أن يكون التدريب سريعاً، ولتحقيق التحكم والثبات يجب أن يكون التدريب بطيئاً. (٢١:٣).

ويعتبر حزام الكتف ذو تركيب معقد يتركب من العضلات والأربطة و المفاصل والعظام وهذا التركيب صمم لكي يقوم بوظيفية معينة وبطريقة محددة و الإصابة في أي جزء من هذه المكونات يعنى عدم القدرة على إنجاز الحركات التي يقوم بها وبالكفاءة المطلوبة. (٥:٩).

علاوة على ذلك فان الأنسجة المكونة لهذا التركيب تتميز بالاستقلالية في اتزانها النسبي عن باقي أجزاء الجسم وذلك يعرضها للإصابة بدرجة كبيرة قد تتحول إلى إصابة مزمنة إذا تكررت أو أهمل علاجها. (٦:١١٢)

وتعتبر السباحة من الرياضيات التي تعتمد اعتمادا كبيرا في أدائها على حركات الذراعين وخاصة عضلات مفصل الكتف مما يجعل الكتف عرضة لعدد من الإصابات نظرا لأن هذا المفصل واسع الحركة لذا فهو يتعرض للضغط الحركي الناتج عن كثرة الأداء للحركات الفنية باستمرار، هذا بالإضافة لتكوين مفصل الكتف الذي يتكون من أربعة مفاصل منفصلة يجب أن تعمل معا وفي وقت واحد وهى: المفصل الحقي العضدي *Glenohumeral*، والمفصل الأخرمى الترقوي *Acromio Ciavicular* و المفصل القصى الترقوي *Sternoclavicular* والمفصل بين اللوح والصدر *Scapulothoracic* بالإضافة إلى افتقار مفصل الكتف لدعم عضلي أسفله (٣:٢٩).

فالتدريب يجب أن يركز على استعمال أكثر من مفصل بدلا من مفصل واحد، فطوع الدرج يعتبر أكثر تأثيراً من رفع ثقل بالرجلين، كما أن اللاعب يتضى كثيرا من الوقت ضد تأثيرات الجاذبية الأرضية، لذا يجب التركيز على عضلات الثبيت الرئيسية الموجودة في المركز.

٤ - السيطرة على النوازن المضاد: الحركات متعددة الاتجاهات تتطلب توازن، ومنا لا يتطرب فقط عضلات قوية للمركز، بل مهارة كافية وتوافق للأداء، ويتم ممارسة التدريبات الدينامية لنوازن مع أو بدون حد أقصى لنوازن المضاد، وتعمل تنمية النوازن على تحسين شكل الأداء والإحساس بالقوة المنجدة.

٥ - طرف واحد: معظم المهارات الرياضية يتطلب أدائها التركيز على ساق واحدة، وحتى في حياتنا العادية نؤدي مهامنا المختلفة باستخدام يد واحدة، ومن هنا لزم التركيز على طرف واحد.

٦ - الأطراف المتناوية: الجري والمشي يؤدي عن طريق انتقال أقدامنا في أسلوب تبادلي، والتدريب بهذا الأسلوب يعمل على تحسين الحركات الطبيعية والقوة العامة والتوافق في الأداء.

٧ - الحركة التكاملية: الرفع والمشي والجري جميعها حركات تؤدي من قبل مفاصل وعضلات متعددة تعمل سويا كنتيجة لاتصالهم المثالي ببعضهم، لذا يجب أن يهدف التدريب الوظيفي إلى زيادة حساسية الجسم وتكامله.

٨ - النشاط النوعي: ويتطلب لتحقيق ذلك فهم طبيعة ومتطلبات النشاط الرياضي المؤدى، فالمبارز يختلف أسلوب تدريبيه عن لاعب الماراتون أو لاعب كرة القدم، ومن خلال فهم متطلبات الأداء نحدد التمارين والمقاومات لتلبية تلك الاحتياجات.

8- العضلة المحرّفة المربعة *Trapezius*

9- العضلة العريضة الظهرية

Latismus Dorsi

10- العضلة ذات الثلاث رؤوس العضدية

Triceps

لذا حظيت هذه العضلات باهتمام الباحثين حيث قام فريق منهم بدراسة إصابات مفصل الكتف مثل محمد يونس (٢٠٠١) (١١) ، سامية عثمان (٢٠٠٢) (٤) نبيل العطار (١٩٨١) (١٦) ، أحمد عبد الهادي (١٩٩٦) (١٢) وفريق اهتم بدراسة القوة والمرونة العضلية مثل عاطف رشاد (١٩٩٩) (٥) ، مدحت قاسم (٢٠٠٠) (١٣) ، عبد العزيز النمر وناريمان الخطيب (٢٠٠١) (٧) ، أسامة عبد العزيز (٢٠٠٣) (٣) ، ومن خلال اطلاع الباحث على الشبكة القومية للمعلومات لاحظنا ان إصابات العمود الفقري ومفصل الكتف يتعرض لها كثير من السباحين وذلك نتيجة للجهد الزائد المتراكم على المفصل لفترات طويلة مما يتسبب في حدوث التهابات في العضلات القطنية وفي الكيس الزلالي المبطن لمفصل الكتف *Peri Arthritis* والذي يؤدي إلى زيادة سمك الغشاء المبطن للمفصل وبالتالي تؤدي إلى تقييد الحركة في جميع اتجاهاتها فيستبعد السباح عن التدريب لفترات طويلة . من هنا ظهرت فكرة البحث خاصة وأن هناك وسائل عديدة للعلاج إلا أن الباحث لاحظ ندرة الدراسات التي اهتمت بالجانب الوقائي ولم يعثر الباحث على دراسة اهتمت بزيادة مرونة وتقوية العضلات العاملة على العمود الفقري ومفصل الكتف لدى سباحين المستويات العليا و تبرز مشكلة البحث التي تدور حول أثر

ويتكون **حزام الكتف** من مجموعة من العضلات وهذه العضلات هي المسئولة عن جميع الحركات التي يقوم بها الحزم الكنفي عن طريق تبادل الانقباض والانبساط فيما بينها وهي :

أ - مجموعة العضلات الأمامية وهي :

1- العضلة الصدرية *Pectoralis Major*

2- العضلة الصدرية الصغرى

Pectoralis Minor

3- العضلة تحت الترقوة *Subclvius*

4- العضلة المسننة الأمامية

Serratus Aterior

5- العضلة الغرابية *Coracabrachialis*

6- العضلة الدالية *Deltoib*

7- العضلة ذات الرأسين العضدية

Biceps (١٢ : ١١ - ١٣)

ب - مجموعة العضلات الخلفية وهي .

1- العضلة فوق الشوكة *Supra Spinatus*

2- العضلة تحت الشوكة

Infre Spinatus (١٦٢ : ٢٠)

3- العضلة تحت اللوح

Subscapulris (١٦١ : ٢٠)

4- العضلة الرافعة للوح الكتف

Levator Sacpulae (١٢٢ : ٢١)

5- العضلة المعنية الكبرى و الصغرى

Rhomboideus Mojorand Minor

(١٢٢ : ٢١)

6- العضلة المستديرة الكبرى

TeraMajor (٢٢ : ٢١)

7- العضلة المستديرة الصغرى

Teres Minor (١٢٠ : ٢١)

بعنوان سمات وتأثيرات التدريب الوظيفي على الأنشطة البدنية للحياة اليومية وقد بلغ قوام العينة (٦٦٩) فرد كمجموعة تجريبية ، (١١١٠) فرد كمجموعة ضابطة وكان من أهم النتائج وجود فروق لصالح المجموعة التجريبية لكلا الجنسين في متغيرات التوازن والسرعة والقدرة والرشاقة والمرونة العضلية وان التأثيرات كانت واضحة أكثر على الناشئين مقارنة بالبالغين .

كما أجرى **Swanik, et al** : (٢٠٠٢) (٢٦) دراسة بهدف التعرف على تأثيرات التدريب الوظيفي على تقليل آلام الكتف والقوة العضلية لدى السباحين الجامعيين ، وبلغ قوام العينة (١٢) سباح جامعي ، (١٣) سباحة جامعية، وبلغت مدة البرنامج (٦) أسابيع ، وكان من أهم النتائج أن التدريبات الوظيفية المقترحة ساهمت في تقليل آلام الكتف وتحسين القوة العضلية لدى السباحين .

وأجرى **Cymara, et al** : (٢٠٠٤) (٢٠) دراسة بهدف التعرف على تأثير استخدام التدريبات الوظيفية في تأهيل إصابات الركبة على عينة بلغ قوامها (٦) سيدات ، (١٠) رجال وكان من أهم النتائج أن التدريبات الوظيفية أسهمت في تحسين القوة الوظيفية لمفصل الركبة المصاب وتقليل الجهد المبذول في رفع ثقل باستخدام الركبة المصابة

كما أجرى **Marijke, et al** : (٢٠٠٤) (٢٣) دراسة بعنوان تأثيرات تدريبات المقاومة والتدريبات الوظيفية على كفاءة الحياة و تقليل الاكتئاب لدى كبار السن وبلغ قوام العينة (١٧٣) فرد تم تقسيمهم إلى مجموعتين إحدهما تجريبية والأخرى ضابطة وتم تطبيق برنامج لمدة (٦)

التدريبات الوظيفية على تقوية العضلات العاملة ومرونة العمود الفقري ومفصل الكتف للحد من الإصابة لدى السباحين .

هدف البحث

يهدف البحث إلى التعرف على تأثير التدريبات الوظيفية على تقوية العضلات العاملة ومرونة العمود الفقري ومفصل الكتف للحد من الإصابة لدى السباحين .

فروض البحث

توجد فروق دالة إحصائياً بين القياس القبلي والقياس البعدي في القوة العضلية للعضلات العاملة على العمود الفقري ومفصل الكتف ولصالح القياس البعدي .

توجد فروق دالة إحصائياً بين القياس القبلي والقياس البعدي في مرونة العضلات العاملة على العمود الفقري ومفصل الكتف ولصالح القياس البعدي .

توجد فروق دالة إحصائياً بين القياس القبلي والقياس البعدي في أداء زمن السباحة الحرة قيد البحث ولصالح القياس البعدي .

الدراسات السابقة :

أجرى **Cress, et al** (١٩٩٦) (١٩) دراسة بهدف التعرف على تأثيرات التدريب الوظيفي على القدرة العضلية الوظيفية لسطرغ السفلى لسيدات كبار السن على عينة بلغ قوامها (١٣) سيدة تم تقسيمهم إلى مجموعتين إحدهما تجريبية (٧) سيدات والأخرى ضابطة (٦) سيدات وكان من أهم النتائج أن التدريبات الوظيفية أسهمت في تحسين القدرة الوظيفية لسطرغ السفلى لسيدات كبار السن .

وأجرى **Yasumura, et al** : (٢٠٠٠) (٢٨) دراسة

**تأثير التدريبات الوظيفية
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للحد من الإصابة لدى السباحين**

وقام الباحث بإجراء التجانس بين عينة البحث
والجدول رقم (1) يوضح ذلك .

أسباب اختيار عينة البحث

- أ - مواظبة السباحين على التدريب .
- ب - موافقة أولياء الامور .
- ج - الانظام في البرنامج التدريبي المفرح .
- د - موافقة إدارة نادى المنصورة الرياضي
على إجراء تجربة البحث على السباحين .

الأدوات والأجهزة المستخدمة:

- 1 - استمارة لجمع البيانات .
- 2 - جهاز الرستاميتير لقياس الطول بالسنتيمتر
- 3 - ميزن طبي .
- 4 - ساعة STOP WATCH .

شهور بواقع مرتين أسبوعيا وكان من أهم
النتائج أن البرنامج المقترح أسهم في تحسين
كفاءة الحياة وتقليل مستويات الاكتئاب مقارنة
بالمجموعة الضابطة .

إجراءات البحث

منهج البحث

استخدم الباحث المنهج التجريبي
باستخدام التصميم التجريبي للقياس القبلي
- البعدي باستخدام مجموعة واحدة .

عينة البحث :

تم اختيار عينة البحث بالطريقة العمدية
من سباحي نادى المنصورة الرياضي مواليد
1987 وما فوقها والمسجل أسمائهم بالاتحاد
المصري للسباحة للعام 2012 - 2013م وكان
حجم عينة البحث 15 سباحا، تم استبعاد
(5) سباحين لإجراء التجربة الاستطلاعية،

جدول (1)

تجانس أفراد عينة البحث

المتغيرات	وحدة القياس	المتوسط	الانحراف	الوسيط	الالتواء
السن	سنة	19,10	1,20	19,00	0,23-
الطول	سم	173,70	8,07	175,00	0,97-
الوزن	كجم	70,20	6,25	69,00	0,62

بين أعلى قيمة وكانت (0,62) وأقل قيمة
(-0,97) ، أى أن جميع قيم معامل الالتواء
تتحصر ما بين ± 3

يتضح من جدول (1) تجانس أفراد
عينة البحث فى متغيرات السن والطول
والوزن حيث انحصرت قيم معامل الالتواء

التصميم التجريبي للبحث :

استخدم الباحث التصميم التجريبي للتجربة القبليّة - البعدية باستخدام مجموعة واحدة وفق ما يلي.

تم إجراء القياس القبلي لأفراد عينة البحث ١ / ١ / ٢٠١٢م وذلك لتحديد مستوى القوة العضلية للعضلات العاملة على العمود الفقري ومفصل الكتف ومرونة العضلات العاملة على العمود الفقري ومفصل الكتف ، كما تم تحديد مستوى أداء السباحة الحرة عن طريق القياس بالزمن ال ٥٠ متر حرة.

الاختبارات المستخدمة :

قام الباحث بإجراء دراسة مسحية لبعض الدراسات والبحوث والمراجع المتخصصة في الاختبارات والقياس والتأهيل والتدريب الرياضي وتدريب المرونة والقوة الخاصة بالسباحين وخاصة العضلات العاملة على العمود الفقري ومفصل الكتف وذلك بهدف تحديد بعض اختبارات مرونة العضلات العاملة على العمود الفقري ومفصل الكتف والقوة القصوى للعضلات العاملة على العمود الفقري ومفصل الكتف الخاصة بلاعب السباحة وقد وقع اختيار الباحث على الاختبارات التالية لارتفاع معاملاتها العلمية .

- أ - اختبار مرونة مفصل الكتف . (اختبار رفع الكتفين) .
- ب - اختبار مرونة العمود الفقري . (اختبار ثنى الجذع للأمام من الجلوس طولاً) .
- ج - اختبار القوة . (الديناموميتر) .
- د - اختبار القوة . (انبطاح مائل . ثني ومد الذراعين) .

هـ - تحديد مستوى أداء سباحة الزحف على البطن . قام الباحث بقياس مسافة ال ٥٠ متر زحف على البطن .

- الدراسة الاستطلاعية :

قام الباحث بإجراء دراسة استطلاعية في الفترة من ٢/١٥ وحتى ٢٠١٢/٢/٢١م على العينة الاستطلاعية وعددهم (٥) سباحين وذلك للتأكد من :

- صلاحية الأجهزة والأدوات المستخدمة .
- سلامة وتنفيذ وتطبيق القياسات والاختبارات وما يتعلق بها من إجراءات وفق الشروط الموضوعية لها .

- التدريب على زيادة معلومات وخبرة المساعدين في الإشراف على تنفيذ القياسات والاختبارات وذلك للتعرف على الأخطاء التي يمكن الوقوع فيها أثناء التنفيذ ولضمان صحة تسجيل البيانات .

- تحديد الزمن اللازم لعملية القياس وكذلك الزمن الذي يستغرقه كل لاعب لكل اختبار على حدة وذلك لتحديد المدة المستغرقة في تنفيذ الاختبارات والقياسات .

- ترتيب سير الاختبارات وأدائها وتقنين فترات الراحة بينها .

- مدى ملائمة الاختبارات قيد البحث للمرحلة السنوية للعينة المختارة .

- التعرف على الصعوبات التي قد تواجه الباحث أثناء إجراء الدراسة الأساسية .

- مناسبة البرنامج لعينة البحث الأساسية .

- تحديد شدة الأداء وعدد التكرارات وفترات الراحة بين كل تمرين وآخر .

**تأثير التدريبات الوظيفية
على تقوية العضلات العاملة
و مرونة العمود الفقري ومفصل الكتف
للحد من الإصابة لدى السباحين**

وعدددهم (٥) طلاب تخصص سباحة ،
وقد تم تطبيق الاختبارات على المجموعة
الاستطلاعية لإيجاد الصدق والجدول (٢)
يوضح ذلك:

يتضح من جدول (٣) وجود ارتباط طردي
دال إحصائياً بين التطبيقين الأول والثاني
للقياسات البدنية على العينة الاستطلاعية مما
يدل على ثبات الاختبارات البدنية المختارة.

**خطوات تنفيذ البحث :
القياسات القبليّة :**

- إجراء المعاملات العلمية للاختبارات
البدنية والمهارية قيد البحث .

**أولاً : معامل صدق الاختبارات قيد
البحث (صدق التمايز) :**

قام الباحث بإيجاد الصدق للمتغيرات
البدنية والمهارية قيد البحث عن طريق
صدق التمايز وذلك على العينة الاستطلاعية
كمجموعة مميزة سباحين نادي المنصورة
الرياضي و عدددهم (٥) سباحين، وعينة
استطلاعية مماثلة وخارج عينة البحث

جدول (٢)

معامل الصدق للاختبارات المطبقة في البحث

(ن = ١٠)

T	المجموعة غير المميّزة		المجموعة المميّزة		وحدة القياس	المتغيرات
	ع	س	ع	س		
٤,٤١	٢,١٥	٥٤,٨٤	١١,٧٤	٧٣,٤٤	درجة	مرونة مفصل الكتف
٤,٦١	٠,٩٣	٣١,٠٠	٧,٣١	٤٣,٠٠	كجم	قوة عضلات الكتف
١١,٧٨	٠,٥٧	٢٩,٥٩	٠,٤٢	٢٦,٦٣	ث	زمن الاداء سباحة حرة

● قيمة T الجدولية عند مستوى معنوية $٠,٠٥ = ١,٧٦١$

**ثانياً : معامل ثبات الاختبارات قيد
البحث (تطبيق و'عادة التطبيق):**

قام الباحث بإيجاد ثبات الاختبارات
المختارة قيد البحث بطريقة تطبيق الاختبار
وإعادة تطبيقه $Test Retest$ وذلك على
عينة عددها (٥) من سباحين نادي المنصورة
الرياضي ، عينة مماثلة وخارج عينة البحث
الأساسية، بهدف إيجاد معامل الثبات
للاختبارات البدنية والمهارية قيد البحث،
وذلك بفارق زمني قدرة اسبوع بين التطبيقين،
ويوضح الجدول (٣) ثبات الاختبارات:

يتضح من جدول (٢) وجود فروق دالة
إحصائياً بين المجموعتين المميّزة وغير
التمييزة حيث كانت قيمة T المحسوبة اعلى
من قيمتها الجدولية عند مستوى معنوية
 $٠,٠٥$ مما يدل على صدق الاختبارات
المختارة للبحث في إظهار الفروق بين
المجموعات .

جدول (٣)

معامل الثبات للاختبارات المطبقة في البحث

(ن = ٥)

ر	التطبيق الثاني		التطبيق الأول		وحدة القياس	المتغيرات
	ع	س	ع	س		
٠,٩٨	١٢,٠٥	٧٣,٦٨	١١,٧٤	٧٣,٤٤	درجة	مرونة مفصل الكتف
٠,٩٧	٧,٠٣	٤٣,٢٥	٧,٣١	٤٣,٠٠	كجم	قوة عضلات الكتف
٠,٨٤	٠,٤١	٢٦,٧٥	٠,٤٢	٢٦,٦٣	ث	زمن الأداء سباحة حرة

● قيمة ر الجدولية عند مستوى معنوية $0,05 = 0,082$

- أن يكون التركيز على تقوية وثبات عضلات المركز ومفصل الكتف .

- في نهاية الوحدة التدريبية تعطى تدريبات إطفالة للحصول على الاسترخاء بهدف العودة بالعضلات إلى الحالة الطبيعية .

القياسات البعدية:

قام الباحث بتطبيق القياسات البعدية بنفس تسلسل القياسات القبليّة في الفترة من ٣ / ٥ إلى ٢٠١٢/٣/٨ م

المعالجات الإحصائية:

استخدم الباحث المعالجات الإحصائية التالية:

- المتوسط الحسابي .
- الانحراف المعياري .
- معامل الالتواء .
- اختبار (ت) .
- معامل الارتباط .
- نسب التحسن .

القياسات البدنية:

قام الباحث بإجراء القياسات القبليّة يوم الاثنين الموافق ٢٠١٢/٢/٢٤ م ، وذلك للمتغيرات البدنية قيد البحث وعددها (٥) اختبار بدني . مرفق رقم (٢) .

القياسات المهارية:

قام الباحث بإجراء القياسات القبليّة يوم الثلاثاء الموافق ٢٥ / ٢ / ٢٠١٢ م لاختبار مستوى أداء سباحة ٥٠ م حرة . مرفق رقم (٣) .

تنفيذ البرنامج:

قام الباحث بتنفيذ البرنامج التدريبي المقترح يوم السبت الموافق ٢٩/٢/٢٠١٢ م لمدة (١٢) أسبوع متصلة ويتكون من (٣٦) وحدة تدريبية بواقع (٢) وحدات تدريبية في الأسبوع وهي أيام السبت، الاثنين، الأربعاء، مرفق رقم (٤) .

وقد اعتمد الباحث عند تطبيق التدريبات

الوظيفية على الآتي:

**تأثير التدريبات الوظيفية
على تقوية العضلات العاملة
و مرونة العمود الفقري ومفصل الكتف
للحد من الإصابة لدى السياحين**

عرض ومناقشة النتائج:

أولاً : عرض النتائج :

جدول (٤)

دلالة الفروق بين القياسين القبلي و البعدي

(ن = ١٠)

T	القياس البعدي		القياس القبلي		وحدة القياس	المتغيرات
	ع	س	ع	س		
• ٥,٣٤	٠,٤١	١٢,٥٨	٠,١٢	١١,١٢	سم	مرونة العمود الفقري
• ٤,١٢	٧,٧٤	٧٩,٣٦	٤,٢٢	٧٣,٠٥	كجم	قوة عضلات العمود الفقري
• ٦,٣٣	٦,٦٠٤	٩٠,١٢	١١,٢٨	٧٤,٢٥	درجة	مرونة مفصل الكتف
• ٤,٢٢	٦,١٦٩	٤٠,٥	٧,٤٦٨	٢٣	عدد	قوة عضلات الكتف
• ٣,٩٥	٠,٣٩	٢٦,٢٢	٠,٤٧	٢٦,٧٦	ث	زمن الاداء سباحة حرة

• قيمة T الجدولية عند مستوى معنوية $0,05 = 1,833$

يتضح من جدول (٤) وجود فروق دالة إحصائية بين القبلي والبعدي حيث كانت قيمة T المحسوبة أعلى من قيمتها الجدولية عند مستوى معنوية $0,05$ مما يدل على تحسن المجموعة التجريبية في الاختبارات المطبقة .

جدول (٥)

نسبة التحسن بين القياسين القبلي و البعدي

T	الفرق	البعدي	القبلي	وحدة القياس	المتغيرات
• %١١,٣٢	١,٤٦	١٢,٥٨	١١,١٢	سم	مرونة العمود الفقري
• %٢٥,٠٦	٦,٣١	٧٩,٣٦	٧٣,٠٥	كجم	قوة عضلات العمود الفقري
• %٢١,٣٧٤	١٥,٨٧	٩٠,١٢	٧٤,٢٥	درجة	مرونة مفصل الكتف
• %٤٠,٦٩٨	١٧,٥	٤٠,٥	٢٣	عدد	قوة عضلات الكتف
• %٢٠,٠٢٩-	٠,٥٤٣-	٢٦,٢٢	٢٦,٧٦	ث	زمن الاداء سباحة حرة

اختبار مرونة مفصل الكتف ووصل إلى (٢١, ٣٧)٪ وفي النهاية كان نسبة التحسن في قياس السباحة الحرة قد وصل إلى (٢, ٠٢٩) .

يتضح من جدول (٥) نسب التحسن للاختبارات المطبقة في البحث حيث كانت أعلى نسبة تحسن لاختبار قوة عضلات الكتف وصلت إلى (٤٠, ٦٩٨)٪ يليها

جدول (٦)

العلاقة بين القياسات البدنية وزمن السباحة الحرة

(ن = ١٠)

T	القياس البعدي		ع	س	وحدة القياس	المتغيرات
	ع	س				
٠,٦٦٤	٠,٣٩	٢٦,٢٢	٠,٤١	١٢,٥٨	سم	مرونة العمود الفقري
٠,٥٨٩	٠,٣٩	٢٦,٢٢	٧,٧٤	٧٩,٣٦	كجم	قوة عضلات العمود الفقري
٠,٥٦٤	٠,٣٩	٢٦,٢٢	٦,٦٠٤	٩٠,١٢	درجة	مرونة مفصل الكتف
٠,٥٤٢	٠,٣٩	٢٦,٢٢	٦,١٦٩	٤٠,٥	عدد	قوة عضلات الكتف

● قيمة ر الجدولية عند مستوى معنوية ٠,٠٥ = ٠,٥٢١

مفصل الكتف وهذا يشير إلى فعالية البرنامج المقترح في تنمية وتحسين القوة العضلية لعضلات العمود الفقري ومفصل الكتف خلال أداء سباحة الزحف على البطن .

وفي هذا الصدد يؤكد ديف شميترز Dave Schmitz (٢٠٠٣) (٢١) إلى أن من أهم سمات التدريبات الوظيفية هو *emphasizes the core* ، حيث تقوم عضلات المركز القوية بربط الطرف السفلي بالطرف العلوي ، بالإضافة إلى أن التدريب الوظيفي يشمل على حركات متعددة الاتجاهات -*multi-directional* وأن تؤدي تمارينه من خلال التركيز على طرف واحد *single limb* مما يجعلها من أفضل التدريبات

يتضح من جدول (٦) وجود ارتباط طردي دال إحصائياً بين التحسن في مرونة وقوة عضلات العمود الفقري ومفصل الكتف وزمن السباحة الحرة مما يدل على وجود علاقة إيجابية بينهم .

ثانياً- مناقشة النتائج

يتضح من جدول (٤) وجود فروق دالة إحصائياً بين القبلي والبعدي حيث كانت قيمة T المحسوبة أعلى من قيمتها الجدولية عند مستوى معنوية ٠,٠٥ مما يدل على تحسن المجموعة التجريبية في الاختبارات المطبقة .

ويرجع ذلك إلى إن الباحث عند وضع البرنامج ركز على تنمية وتحسين القوة العضلية القصوى لعضلات العاملة على

تتفق نتائج هذه الدراسة مع ما أشار إليه كل من حسن علاوي ، نصر الدين رضوان (١٩٩٥) (١٠) ، ناريمان الخطيب وآخرون (١٩٩٧) (١٥) ، صبحى حسانين وأحمد كسرى (١٩٩٨) (١٢) من حيث أن تمرينات إطالة العضلات والأوتار، وزيادة المدى الحركي في مفصل من أهم الوسائل لتنمية المرونة . وهذا ما يشير إليه الباحث من أن برنامج تنمية وإطالة العضلات العاملة على العمود الفقري ومفصل الكتف له تأثير إيجابي على تنمية وتحسين مرونة هذا المفصل واستطالة العضلات العاملة عليها .

ويتضح من جدول (٥) وجود فروق حقيقية بين القياس القبلي والقياس البعدي لأفراد عينة البحث في زمن أداء سباحة الزحف على البطن لدى سباحين الدرجة الأولى ، ويرجع ذلك إلى أن البرنامج يؤدي إلى تنمية كل من القوة العضلية ومرونة العضلات العاملة على المفصل والاهتمام بالجانب البدني المتمثل في السرعة القصوى والقوة المميزة بالسرعة مما أدى إلى إعطاء تأثير إيجابي على تحسين أداء زمن سباحة الزحف على البطن قيد الدراسة وهذا يتحقق مع ما توصل إليه كل من عبد العزيز النمر ، ناريمان الخطيب (٢٠٠١) أن تدريبات القوة بالأثقال له تأثير إيجابي على تحسين القوة العضلية للمستويات الرقمية لسباحي المسافات القصيرة ، أبو العلا عبد الفتاح (١٩٩٤) (١) والتي تشير إلى ضرورة تحسين أداء القوة والمرونة لزيادة المدى الحركي للعضلات لتحسين أداء سباحة الزحف على البطن .

المستخدمة في تحسين قوة عضلات المركز (منتصف الجسم) والتوازن .

ويؤكد فاييو كوماننا *Fabio Comana* (٢٠٠٤) (٢٢) على أن التوازن عنصر رئيسي في التدرّيات الوظيفية ، ليس فقط التوازن بين القوة والمرونة أو العضلات العاملة وغير العاملة ولكنه أيضا ما قد نعتقد أنه وسائل مستخدمة ، فمثلا الوقوف على قدم واحدة وأن يكون قادرا على تحريك أعضاء الجسم الأخرى بدون أن يسقط ، وهذه سمة تفاعلية مهمة في التدرّيات الوظيفية .

وتتفق هذه النتائج مع نتائج كل من هشام شوكة (١٩٩٨) (١٧) ، مدحت قاسم (٢٠٠٠) (١٣) عاطف رشاد (١٩٩٩) (٥) والتي تشير إلى أن البرنامج المقترح يؤدي إلى تحسين وتنمية القوة العضلية مما يوفر الوقت اللازم لتنمية الصفات البدنية وبالتالي يؤدي إلى تحسين أداء المهارة المطلوبة بشكل أفضل .

وتشير نتائج اختبار (ت) بين متغيرات البحث قيد الدراسة في كلا القياسين القبلي والبعدي إلى وجود فروق حقيقية بين مرونة وإطالة العضلات العاملة على العمود الفقري ومفصل الكتف في كل من القياسين القبلي والبعدي ولصالح القياس البعدي ويرجع ذلك إلى حدوث تنمية في أداء العضلات العاملة على العمود الفقري ومفصل الكتف مما أدى إلى تحقيق الهدف المرجو من البرنامج .

وتتفق نتائج هذه الدراسة مع ما أشار إليه أسامة عبد العزيز (١٩٩٦) (٣) إلى أن تمرينات المرونة الخاصة تؤدي إلى تنمية وتحسين نمو العضلات واستطالتها كما

الاستنتاجات

في ضوء ما تشير إليه أهداف البحث وفروضه وفي حدود المنهج والبرنامج المستخدم والعينة التي طبقت عليها الدراسة ومن خلال مناقشة النتائج أمكن استنتاج ما يلي :

- (١) برنامج تنمية القوة العضلية للعضلات العاملة على العمود الفقري ومفصل الكتف له تأثير إيجابي على هذه العضلات .
- (٢) برنامج تنمية مرونة العمود الفقري ومفصل الكتف وإطالة العضلات العاملة على العمود الفقري ومفصل الكتف له تأثير إيجابي على تحسين المدى الحركي للمفصل .
- (٣) برنامج تنمية كل من مرونة العمود الفقري ومفصل الكتف وإطالة العضلات العاملة عليها والقوة العضلية لهذه العضلات له تأثير إيجابي على تحسين زمن أداء سباحة الزحف على البطن لدى لاعبي المستويات العليا .

التوصيات

في ضوء ما تم من استنتاجات من نتائج البحث يوصى الباحث بما يلي :

- (١) استخدام البرنامج المقترح لزيادة وتقوية ومرونة العضلات العاملة على العمود الفقري ومفصل الكتف عند وضع البرامج التدريبية لفرق السباحة .
- (٢) استخدام البرنامج المقترح في تطوير وتحسين مستوى أداء سباحة الزحف على الظهر .
- (٣) إجراء أبحاث لتحسين أداء السباحات المختلفة وخاصة للناشئين .

قائمة المراجع

أولاً : المراجع باللغة العربية :

- ١) **أبو العلاء عبد الفتاح (١٩٩٤)** : تدريبات السباحة لمستويات العليا ، الطبعة الأولى ، دار الفكر العربي ، القاهرة.
- ٢) **أحمد محمود: عبد الهادي (١٩٩٦)** : تأثير إصابات حزام الكتف لدى سباحي المسافات القصيرة، رسالة ماجستير ، كلية التربية الرياضية للبنين ، جامعة حلوان .
- ٣) **أسامة أحمد عبد العزيز (٢٠٠٣)** : تأثير التدريب بالأثقال وتمارين المقاومة الفذقية والتمرينات المركبة على اللياقة العضنية ، رسالة دكتوراة ، كلية التربية الرياضية للبنين ، جامعة حلوان .
- ٤) **سامية عبد الرحمن عثمان (٢٠٠٢)** : تأثير برنامج تأهيلي بدني مقترح لعلاج تيبس مفصل الكتف، رسالة دكتوراة ، كلية التربية الرياضية للبنين جامعة حلوان القاهرة .
- ٥) **عاطف رشاد خليل (١٩٩٩)** : تأثير برنامج تدريبي لفة والإطالة العضنية على تحسين اخنلال التوازن العضني في العضلات العاملة على مفصل الركبة ، رسالة دكتوراة ، كلية التربية الرياضية للبنين ، جامعة حلوان.
- ٦) **عبد العزيز النمر، نازيمان الخطيب (١٩٩٦)** : تدريب بالأثقال ، الطبعة الأولى ، مركز الكتاب للنشر .
- ٧) **عبد العزيز النمر، نازيمان الخطيب (٢٠٠١)** : تأثير برنامج تدريبي بالأثقال على معدلات تحسين في الفوة العضنية والمستويات الرقمية لسباحي المسافات القصيرة في مرحلة ما قبل البلوغ ، العدد السابع والثلاثون أبريل ، كلية التربية الرياضية للبنين ، جامعة حلوان.
- ٨) **عمر صابر حمز، (٢٠٠٨)** : تأثير التدريب المركب على التعبير الجيني وبعض المتغيرات البدنية ومستوى أداء مهارتي الطعن والهجمة الطائرة لدى ناشئ المبارزة ، رسالة دكتوراة ، كلية التربية الرياضية للبنين ، جامعة الزقازيق.
- ٩) **محمد حسن علاوي (١٩٨٨)** : سيكولوجية الإصابة الرياضية ، مركز الكتاب للنشر القاهرة .
- ١٠) **محمد حسن علاوي ، محمد نصر الدين رضوان (١٩٩٤)** : اخنبارات الأداء الحركي ، الطبعة الثالثة ، دار الفكر العربي
- ١١) **محمد سلامة بونس سيد (٢٠٠١)** : تأثير تمارين تأهيلية نوعية مقترحة لحالات إصابات أوتار العضلات الدوارة لمفصل الكتف لرياضيين رسالة دكتوراة ، كلية التربية الرياضية للبنين ، جامعة حلوان .
- ١٢) **محمد صبحي حسنين ، أحمد كسرى معاني (١٩٩٨)** : موسوعة التدريب الرياضي التطبيقي ، الطبعة الأولى ، مركز الكتاب للنشر القاهرة .

قائمة المراجع

تابع : المراجع باللغة العربية :

- ١٣) **مدحت قاسم عبد الرزق (٢٠٠٠)** : فعالية عنصرى القوة والمرنة في الوقاية من الإصابات الشائعة وتأثير الإصابات على مستوى كفاءة الجهاز الماعي للاعبى كرة القدم واليد ، رسالة دكتوراة، كلية التربية الرياضية ، جامعة حلوان .
- ١٤) **ناريمان الخطيب ، عبد العزيز النمر ، عمر السكرى (١٩٩٧)** : التدريب الرياضى الاطالة العضنية ، مركز الكتاب لسشر .
- ١٥) **ناريمان الخطيب وأخرون (١٩٩٧)**: الإطالة العضنية ، مركز الكتاب لسشر القاهرة .
- ١٦) **نبيل العطار، عصام حلمى (١٩٨١)**: الاصابات المرتبطة بتدريب السباحة لساشئين في المرحلة السنبة تحت ١٢ سنة ، المؤتمر العلمى الثانى لدراسات وبحوث التربية الرياضية ، كلية التربية الرياضية لسبنين ، جامعة الإسكندرية .
- ١٧) **هشام أحمد عبد العزيز شوكة (١٩٩٨)** : تأثير برنامج لتدريب القوة باستخدام كلا من الاطفال الحرة والأجهز، على تنمية السرعة للاعبات كرة اليد المصغرة ، رسالة ماجستير ، كلية التربية الرياضية لسبنين ، جامعة حلوان .

قائمة المراجع

ثانياً : المراجع باللغة الإنجليزية :

- 18) **Christine Cunningham (2000): The Importance of Functional Strength Training, Personal Fitness Professional magazine, American Council on Exercise publication, April .**
- 19) **Cress ME, Conley KE, Balding SL, Hansen-Smith F, Konczak J (1996): Functional training: muscle structure, function, and performance in older women, J Orthop Sports Phys Ther. Jul; 24(1):pp4-10 .**
- 20) **Cymara P.K; David E.K; Chris A.M and Donna M.S(2004): Chair rise and lifting characteristics of elders with knee arthritis .functional training and strengthening effects, J American Physical Therapy Association Vol. 83 · N. 1 · January .**

تابع : المراجع باللغة الإنجليزية :

- 21) *Dave Schmitz (2003) : Functional Training Pyramids , New Truer High School , Kinetic Wellness Department , USA .*
- 22) *Fabio comana (2004): function training for sports, Human Kinetics: Champaign IL , England*
- 23) *Marjke J, Michael F, Bianca R (2004): A Non-cooperative Foundation of Core-Stability in Positive Externality NTU-Coalition Games , University of Hagen , Sweden .*
- 24) *Ron Jones (2003): Functional Training #1: Introduction , Reebo Santana, Jose Carlos univ. , USA .*
- 25) *Schmidt, R. A. and G. Wuf.(1997): Continuous concurrent feedback degrades skill learning: implications for training and simulation. Human Factors 39: pp 509-525 .*
- 26) *Swanik, KA; Swanik, CB; Lephart, SM; Huxel, K. (2002): The effects of functional training on the incidence of shoulder injury in intercollegiate swimmers, J Sport Rehabil.; 11 : 142 – 154 .*
- 27) *Vom Hofe, A.(1995): The problem of skill specificity in complex athletic tasks: a revisitation. International Journal of Sport Psychology 26, pp249-261.*
- 28) *Yasumura ST, Hamamura A, Ishikawa M, Ito H, Ueda Y, Takehara M, Miyaoka H, Murai C, Murakami S, Moriyama M, Yamamoto K, Yoshinaga T, Takeuchi T.(2000) : Characteristics of functional training and effects on physical activities of daily living , Nippon Koshu Eisei Zasshi. Sep; Vol. 47(9):792-800 .*

أثر الفساد الإداري والاجتماعي

على المؤسسات الرياضية

في دولة الكويت

د/ بدر عايض العتيبي

مدرس في الهيئة العامة للتعليم التطبيقي والتدريب في دولة الكويت

المقدمة ومشكلة البحث

يعتبر الفساد الإداري أحد الآفات الاجتماعية التي جاهد الكثير من المجتمعات الحديثة للتخلص منها وعقاب التسبب فيها ، لأنها عقبة كأداء

في سبيل التطور السليم والصحيح والصحي لتلك المجتمعات. ولذا اعتبر ارتفاع مؤشر الفساد الإداري في أي مجتمع كدليل على تدني فعالية الرقابة الحكومية وضعف القانون وغياب التشريعات الفعالة ، في الوقت الذي اعتبر فيه انخفاض مؤشر الفساد كدليل على قوة القانون وهيئته وفعالية التشريعات ووجود رقابة فاعلة ومؤثرة .

المحاباة ، والتعيين لأغراض سياسية والتساهل في تطبيق القانون والواسطة، إضافة لطبيعة العمل التشريعي وما يصاحبه من وسائل ضغط وسوء تقييم للمناطق الانتخابية وانتشار الرشوة وبروز التكتلات السياسية وتأثيرها على الحكومة. أما عن الأسباب الاجتماعية فإنها تتمثل في التركيبة السكانية والولاء العائلي أو المذهبي والقبلي أو الحزبي ، مما يؤثر على انتشار الواسطة وخدمة المجموعة التي ينتمي إليها، إضافة لضعف دور مؤسسات وجمعيات النفع العام في القيام بدورها (إكرام بدر الدين ٢٠١٠م).

لذلك تلك الأسباب أدت إلى تشابك الاختصاصات التنظيمية للوحدات الإدارية وغياب الأدلة الإجرائية المنظمة للعمل ووضوح السلطات والاختصاصات والمسؤوليات الوظيفية والاعتماد على الفردية والشخصية في العمل، مما يؤدي إلى استغلال الوظيفة العامة. كذلك ضعف الدور الرقابي، مما يؤدي إلى سوء اختيار القيادات والأفراد، إضافة لعدم تفصيل مبدأ العقاب وتطبيق القانون على المخالفين والمستغلين العمل لمصالحهم الشخصية وضعف المسؤولية الإدارية عن الأعمال الموكلة أو المحاسبة عليها .

كما تظهر آثار الفساد بشكل واضح على المهتمين ، فبسبب هذا الفساد الواسع يحدث فقدان الثقة في النظام الاجتماعي السياسي ، وبالتالي فقدان شعور المواطنة والانتماء القائم على علاقة تعاقدية بين الفرد والدولة ، إلى جانب هجرة العقول والكفاءات ، والتي تفقد الأمل في الحصول على موقع يتلاءم مع قدراتها ، مما يدفعها للبحث عن فرص عمل ونجاح في الخارج ،

ويعتبر مفهوم الفساد هو سوء استغلال السلطة لتحقيق مكاسب شخصية ، ومن أهم دوافعه هو غياب القيم الأخلاقية ، وهي من أهم وسائل الرقابة الذاتية للفرد أمام الله ثم المجتمع ، بالإضافة إلى غياب ثقافة المواطنة، وأهم ما تعانيه إدارات الدولة هو الفساد التراكمي نتيجة غياب الرقابة الإدارية الصارمة وغياب مبدأ الثواب والعقاب عبر قانون الدولة ، وارتكاب أى مسئول كبير تجاوزات قانونية ومالية وعدم معاقبته .

والفساد التراكمي يشجع كل موظف في وزارات الدولة على ارتكاب تجاوزات مماثلة ، مما يؤدي إلى تراكم الفساد ، وتصبح معالجته مسألة غاية في الصعوبة بل تحتاج إلى حملة شعبية واسعة تستنهض كل الضمائر التي مازالت قلقة على مصلحة الوطن (أبو شيخة، نادر أحمد: ٢٠١٠م) .

والفساد الإداري ظاهرة توجد نتيجة لغياب المعايير والأسس التنظيمية والقانونية وتطبيقها وسيادة مبدأ الفردية ، مما يؤدي إلى استغلال الوظيفة العامة وموارد الدولة من أجل تحقيق مصالح فردية أو تكتلات معينة أو حزبية على حساب الدور الأساسي للجهاز الحكومي ، مما يؤثر في مبدأ العدالة وتكافؤ الفرص لدى المواطنين وطلبي الخدمة العامة ، إن حدوث هذه الظاهرة ليس بالضرورة أن يكون مرتبطاً بحوافز غير مشروعة تقدم من قبل أطراف أخرى فقط بل قد يكون السبب في حدوثها اندفاعات ذاتية عند الموظفين تكون لمصالحهم (حنان محمد حسن سالم ٢٠١٠م) .

من ناحية أخرى هناك أسباباً سياسية واجتماعية ، تعد أحد الأسباب الرئيسية للفساد الإداري، حيث يظهر من خلالها

يوضح غياب عملية الرقابة، وبالتالي يوضح قصور مواد القانون وغفلة تطبيقه فكل هذا سبب رئيسي لوجود الفساد الاجتماعي (صالح أحمد علي ٢٠١٠م).

ويرى دور كايم *Emile Dur Kheim* إن النظام الاجتماعي وجد من أجل إشباع الحاجات الاجتماعية، وأن جميع الأنساق الأخلاقية الموجودة في المجتمع التي يمارسها الفرد لا بد أن تكون مؤدية إلى وظيفة بالتنظيم الاجتماعي. وأن كل مجتمع يطور نظاماً أخلاقياً يتلاءم مع الوظيفة الحقيقية التي يؤديها ولذلك فإن السلوك الإجرامي يجب أن يشبع حاجة معينة لأنه وجد ليبقى وأن هذا السلوك يمثل جزءاً متكاملًا داخل المجتمعات الطبيعية.

من ناحية أخرى فقد ركز ميرتون *Robert C. Merton* على أن الفساد يمكن أن يرجع إلى وجود الأنومي ونموه وتعاظمه في المجتمع الذي ينتج عن التناقض والانفصال بين الأهداف التي تحث على النجاح والوسائل المشروعة لتحقيقها، فأسباب الجريمة والانحراف ترجع إلى ردود فعل الفرد وتكيفه مع الضغوط التي تفرزها ثقافة مجتمعه المنبثقة عن البيئة والتنظيم الاجتماعي، وهي تعتمد كذلك كما أشار كلوارد وأوهلين على مدى توفير الفرصة أمام الأشخاص والجماعات التي تشغل أوضاعاً معينة في البناء الاجتماعي لتحقيق أهدافهم بوسائل غير مشروعة (دينا كشك: ٢٠١١م).

ويشير توماس وزنانيكي إلى توضيح الخلل القيمي عن طريق الأغراض والمصالح والاتجاهات والأهداف، فالقيمة شيء قابل للتقدير وله غرض معين وربطوا بين القيمة

وهذا له تأثير على اقتصاد وتنمية المجتمع عموماً.

وتتسم المؤسسات التي ينتشر بها الفساد بأنها هشّة وضعيفة وذلك نظراً لغياب القواعد والتنظيمات التي تحكم الأعمال والمشروعات العامة. فالمسؤولين عادة ما يتحايلون على القوانين واللوائح وهناك عدم اتفاق بشأن تطبيق السياسات والقوانين، فالفساد المؤسسي قائم على استغلال المنصب وتحويل المصلحة العامة لمنافع شخصية وارتكاب المخالفات والمحابة والرشوة والانحراف الاجتماعي واللامعيارية.

كما أن للفساد عدة أنماط وأشكال، فقد يكون فساد أبيض، أو فساد رمادي، أو فساد أسود، أما من حيث المستوى فقد يكون (فساد القمة، أو الفساد المؤسسي)، ومن حيث النطاق (الفساد الصغير، الفساد الكبير) (مي فريد ٢٠١١م). فالفساد له أشكال متعددة سواء كان إدارياً يخص القرارات الإدارية في الهيئة العامة للشباب والرياضة أو الأندية الرياضية أو مالياً أو إعلامياً أو اجتماعياً أو قانونياً أو سياسياً أو رياضياً أو رقابياً أو رشوة.

والفساد له أضرار متعددة فهو يؤثر على المجتمع الداخلي أو الخارجي فهو يبدد الموارد، ويشوه السياسات ويخلق قيماً سيئة، كما أن أشكال الفساد كلها مرتبطة ببعضها البعض، فالفساد عملية متكاملة ومركبة وظهوره بأى شكل من الأشكال داخل أحد الأنساق الاجتماعية المكونة لعناصر المجتمع سواء دين أو ثقافة أو اقتصاد أو سياسة أو غيرها يؤدي لفساد باقي الأنساق. وعلى سبيل المثال فإذا كان هناك فساد مالي فإنه بالطبع يؤدي إلى فساد إداري، وبالتالي

والفساد له أشكال عديدة مثل الفساد الأخلاقي أو الفساد السياسي أو الفساد الاقتصادي أو الفساد الاجتماعي أو الفساد الديني أو الفساد القانوني أو الفساد الإداري أو الجريمة الاقتصادية أو الاختلاس أو الرشوة .

وهناك كذلك فساد غير مباشر مثل المحسوبية (Nepotism): أي تنفيذ أعمال لصالح فرد أو جهة ينتمي لها الشخص مثل حزب أو عائلة أو منطقة ...، دون أن يكونوا مستحقين لها، والمحاباة (Favoritism)، والواسطة (Wasta) ، وكذلك الابتزاز (Black mailins) للحصول على أموال من طرف معين في المجتمع مقابل تنفيذ مصالح مرتبطة بوظيفة الشخص المتصف بالفساد .

وقد أضاف (خير الدين عويس، عصام الهلالي : ٢٠١٠م) إلى أشكال الفساد الخمس الكبرى ثلاثة أشكال لها طابع رياضي وتهدف إلى تحقيق المكاسب الرياضية من خلال الغش، الذي يعني تلك الأنماط السلوكية واللفظية أو الحركية أو المجتمعية التي تهدف إلى تحقيق الفوز عن طريق غير مشروع :

النموذج الأول هو الغش العفوي . وهذا النوع من الغش غالباً لا يكون مخطط له مسبقاً لكنه عفوي ، حيث يقوم المنافس بالخروج عن قواعد التنافس لحرمان المنافس من إحراز تقدم إيجابي بالإعاقبة غير القانونية .

والنوع الثاني من الغش الرياضي هو الغش الاستراتيجي الذي يكون غالباً مخطط له مسبقاً ، مثل الضرب المتعمد للمنافس أثناء الالتحام ، أو ضرب متعمد لأحد نجوم الفريق المنافس ، أو تناول العقاقير ، وأسوأ مستويات الغش الرياضي هو **الغش المؤسسي**

والمصلحة فإذا كان هناك قيمة يجب أن تكون هناك مصلحة مشتركة باعتبارها أي شيء له معنى لدى اثنين أو أكثر من أعضاء المجتمع ، والقيم هي مجموعة من الأهداف المتفق عليها اجتماعياً والمتمثلة في المجتمع من خلال عمليات التشريط والتعلم والتنشئة الاجتماعية .

(2010,Clarke George A, Lixin And,Collin Xua)

لذلك فإن الخلل القيمي إدراك واضح وضمني يميز الفرد أو الجماعة المرغوب فيها، والذي يؤثر في انتقاء الطرق الممكنة والوسائل وغايات الفعل غير المشروعة في مصطلحات المرغوب فيه و انتقاء مصطلحات أساسية تشير حسب ترتيبها إلى أبعاد الفاعلية، البعد المعرفي ، الاختيار الدقيق وهي عناصر أساسية للقيمة . وقد ترتب على ذلك اعتبار الاتجاهات الاجتماعية في جزء منها الانعكاس الذاتي للقواعد الاجتماعية والتي كان قد ركز عليها « توماس و زنانكي » كبؤرة للفساد .

وعلى الرغم من تعدد أشكال الفساد الإداري إلا أن معظم هذه الأشكال هي أوجه لظاهرة واحدة تعبر عن ممارسات غير مشروعة خارجة عن القانون ، ومن وجهة نظر الباحث فإن أشكال الفساد الإداري وفقاً للممارسة هي شائعة وبشكل كبير في المؤسسات الرياضية الكويتية وقد يعود ذلك إلى أسباب قيمية وثقافية واجتماعية وأخرى سياسية واقتصادية ، التي ترسخت في المجتمع وتراكمت بشكل يصعب القضاء عليها إلا بتطبيق القانون وسن الكثير من القرارات والتشريعات الرياضية التي تسمح بالتمردية والمراقبة و التدقيق و المحاسبة .

معينين، تقديم تقارير دورية عن نتائج أعمالهم ومدى نجاحهم في تنفيذها، وحق المواطنين في الحصول على المعلومات اللازمة عن أعمال الإدارات العامة (أعمال النواب والوزراء والموظفين العموميين) حتى يتم التأكد من أن عمل هؤلاء يتفق مع القيم الديمقراطية ومع تعريف القانون لوظائفهم ومهامهم، وهو ما يشكل أساساً لاستمرار اكتسابهم للشرعية.

الشفافية: هي وضوح ما تقوم به المؤسسة ووضوح علاقتها مع الموظفين (المنتفعين من الخدمة أو مموليها) وعلنية الإجراءات والغايات والأهداف، وهو ما ينطبق على أعمال الحكومة كما ينطبق على أعمال المؤسسات الأخرى غير الحكومية.

النزاهة: هي منظومة القيم المتعلقة بالصدق والأمانة والإخلاص والمهنية في العمل، وبالرغم من التقارب بين مفهومي الشفافية والنزاهة إلا أن الثاني يتصل بقيم أخلاقية معنوية بينما يتصل الأول بنظم وإجراءات عملية.

ولا يمكن النظر إلى الرياضة كنظام اجتماعي بشكل مستقل بعيداً عن بقية النظم الأخرى وذلك لصعوبة أن تعمل الرياضة بعيداً عن العادات والتقاليد وعن الأسرة والتنشئة الاجتماعية والتنظيم الطبقي والنظام الاقتصادي والنظام السياسي، وبالتالي فإن الرياضة كنظام اجتماعي يعمل داخل النسق متأثراً بالأنظمة الأخرى ومؤثراً فيها كذلك، وهذا يؤكد أن دراسة الرياضة ومشكلاتها وطموحاتها وأهدافها يجب ألا تتم بمعزل عن علاقتها الوظيفية ببقية الأنظمة الاجتماعية سواء الاقتصادية أو السياسية أو الدينية.

الذي يعتبر نوعاً من الخروج على قواعد وشرف المنافسة مخطط له مسبقاً ومشارك فيه ممثلي المؤسسات الكبرى أو الأنظمة الاجتماعية العاملة في مجال الرياضة، الغش هنا مرتبط بالحكم والمدرّب والنادي والذي قد يشمل التزوير والرشوة والتواطؤ وتسهيل تناول العقاقير.

إن الغش سواء العفوي أو الإستراتيجي أو المؤسسي ما هو إلا حصيلة أنماط من السلوك غير السوي التي تهدف إلى توجيه نتيجة المنافسة وفقاً لمحددات غير التمايز المهاري أو الحركي أو الخططي أي تهدف إلى الإخلال بشرف المنافسة، ومن المنطقي أن التلاعب في نتيجة المنافسة الرياضية هو عملية توجيه متعمد للفوز والهزيمة لتحقيق عائد مادي أو معنوي لأحد الفرق أو الأفراد المتنافسة، وقد تكون طرفاً ثالثاً غير المتنافسين.

وتعتقد ظاهرة الفساد الإداري ومكائنية تغلغلها في كافة جوانب الحياة، ونتيجة لأثارها السلبية، فقد وضعت عدة آليات لمكافحة هذه الظاهرة، وهي:
(اللامي، مازن زير: ٢٠١١م):

المحاسبة: هي خضوع الأشخاص الذين يتولون المناصب العامة للمساءلة القانونية والإدارية والأخلاقية عن نتائج أعمالهم، أي أن يكون الموظفين الحكوميين مسؤولين أمام رؤسائهم (الذين هم في الغالب يشغلون قمة الهرم في المؤسسة أي الوزراء ومن هم في مراتبهم) الذين يكونون مسؤولين بدورهم أمام السلطة التشريعية التي تتولى الرقابة على أعمال السلطة التنفيذية.

المساءلة: هي واجب المسؤولين عن الوظائف العامة، سواء كانوا منتخبين أو

مركز مالي وتجاري (تقرير الجمعية الكويتية للشفافية، يوليو: ٢٠١٢م).

لذلك فإن مشكلة البحث الراهن هو الكشف عن آراء جمهور العاملين في الحقل الرياضي حول الفساد في الرياضة الكويتية.

أهداف البحث :

يهدف هذا البحث إلى التعرف على أثر الفساد على المؤسسات الرياضية وعلاقته بالإنجاز الرياضي وعلى الأخص محاولة تحقيق الأهداف التالية :

- التعرف على أنواع الفساد في المجال الرياضي.

- التعرف على علاقة الانتماء السياسي والاجتماعي بالفساد في المجال الرياضي.

- التعرف على طبيعة تطبيق القوانين واللوائح والقرارات السياسية المرتبطة بالفساد في المجال الرياضي .

تساؤلات البحث :

تحاول الدراسة التوصل إلى الإجابة على التساؤلات الآتية :

- ما هي أنواع الفساد في المجال الرياضي؟

- ما هو دور علاقة الانتماء السياسي والاجتماعي بالفساد في المجال الرياضي؟

- ما هي القوانين واللوائح والقرارات السياسية المرتبطة بالفساد في المجال الرياضي؟

الدراسات السابقة :

دراسة إسماعيل الشطي، وآخرون

عام ٢٠١٠م التي هدفت إلى دراسة حالات الفساد في بعض البلاد العربية ، واعتمدت الدراسة على المنهج الوصفي، وأجريت الدراسة

إن المجال الرياضي أحد المجالات الهامة واكتسب أهميته من خلال زيادة حجم الممارسين والمتابعة الجماهيرية لأحداثه وأنشطته التي ترتبط بالمجتمع وأفراده مما جعله مرتبطاً بالاقتصاد والسياسة وكافة أنشطة المجتمع ، وذلك يجعله أكثر عرضة للتعرض لعمليات الفساد وإهدار الأموال واستغلال النفوذ والسلطة وذلك ليس على المستوى المحلي فقط وإنما على المستوى الدولي فرؤساء وأعضاء مجالس إدارات المؤسسات الرياضية يتصارعون على السلطة لجني كثير من العائدات والمنافع وذلك من خلال ارتكاب المخالفات الواضحة والمستترة وذلك نتيجة للضغط كالإغراءات المالية (خير الدين عويس، عصام الهاللي : ٢٠١٠م).

وتعتبر المؤسسات الرياضية الكويتية التي تتمثل في الهيئة العامة للشباب والرياضة واللجنة الأولمبية الكويتية ، والاتحادات والأندية الرياضية، هي مؤسسات اجتماعية مثل كل مؤسسات المجتمع المختلفة تخضع لنفس الديناميكية الاجتماعية للمجتمع وتظهر بها نفس آليات الجودة والرداءة بنفس النسب التي توجد بالمجتمع .

ويشير تقرير جمعية الشفافية الكويتية بأن تقدم الكويت على المستوى العربي من المركز السابع إلى الخامس، وخليجياً من السادس إلى الخامس ليس بسبب تحسن حال الكويت، ولكن لتراجع كل من المملكة العربية السعودية والأردن لصالح الكويت، مشيراً إلى أن ترتيب الكويت في مؤشر مدركات الفساد ما زال غير مرض ، حيث ما زال أقل من ٥ من ١٠، وأن النتيجة تعكس غياب المتابعة الحكومية لهذا الملف ، الذي انتشر بشكل مخيف في كل قطاعات الدولة ، الذي يرتبط برؤية مستقبلية للكويت وتحويلها إلى

العديد من النفقات بسبب الفساد الرياضي، والحرص على جذب المشاهدين للملاعب بأي أسلوب، والنظرة للرياضة أحيانا على أنها مجرد تجارة، واهتمام التنظيم الرياضي بإرضاء اللاعبين أكثر من اهتمامه بالجانب الاحترافي، وعدم الجدية، واستغلال الألعاب الرياضية لتحقيق أهدافهم.

قدم كل من تافيس و مارجريريت (Tavits, Margit) دراسة بعنوان الديمقراطية بعد الشيوعية ولماذا الناس تتورط في الفساد في آستونيا عام ٢٠١١ واستخدم في هذه الدراسة الاستبيان على مواطنين بعدد (٤٧٠) مفحوص والموظفين العموميين في القطاع الحكومي بعدد (٥١٠) مفحوص في الديمقراطية ما بعد الشيوعية لدراسة مستوى ومحددات الفساد في آستونيا. وتشير النتائج إلى أن كلا من الموظفين العموميين هم أكثر عرضة للانخراط في الفساد عندما لا تعرف الفساد والخطأ وعدم المبالاة في مقدرات الدولة ، ويرون أن السلوك الفاسد منتشر على نطاق واسع بين أقرانهم الموظفين ، وبهذا المعنى يصبح التعلم الاجتماعي مهمة إحصائية صعبة بالنسبة لهم من الذين يحتاجون إلى دعم والوسطية الأكثر شيوعا في آستونيا على الفساد والامتثال للقانون ، في حين يرى المواطنون أنهم أكثر ميلا للانخراط في الفساد عندما يقل مستوى الخدمات التي تقدمها الحكومة ، وعدم تطبيق القانون على أصحاب الشركات التجارية المسيطرة على السوق المحلي في آستونيا .

دراسة محمد الدمياطي عام ٢٠١١ التي هدفت إلى دراسة الفساد المؤسسي في الرياضة والتي اعتمدت على تحليل تقارير الجهاز المركزي للمحاسبات (مصر)

على بعض الوثائق والكتب التاريخية، وأظهرت النتائج عوامل الفساد وآثاره على السياسة، الإعلام، البنية الاجتماعية بالإضافة إلى بعض النماذج العربية التي تعرضت لحالات من الفساد وكيفية مواجهته من خلال تفعيل النظم الديمقراطية والرقابة المانعة .

دراسة عطية حسين أفندي، اتجاهات الفساد في القطاعات العامة والخاصة : ٢٠١٠م. التي هدفت إلى دراسة سمات وأحوال الشركات التي تقبل هذه الرشاوى، دراسة مدى تأثير الفساد على القطاع بأكمله ، واعتمدت الدراسة على المنهج الوصفي ، وأجريت الدراسة على بعض الشركات والمؤسسات ، وأظهرت النتائج أن معظم الموظفين الذين يقبلون الرشاوي من الدول التي تعاني مؤسساتها من كثرة الضغوط والقيود ، وأن أكثر دافعي الرشاوى هم المالكون للمؤسسات الربحية ، ممن يعانون من دفع مبالغ متأخرة

دراسة كريستوفر لاش Lasch Christopher عام ٢٠١٠م التي هدفت إلى دراسة الآثار الضارة لبعض الممارسات الرياضية ، واعتمدت الدراسة على المنهج الوصفي ، وأجريت الدراسة على عدد (١٢٢) رياضي ، وأظهرت النتائج عدم اهتمام الدول الرأسمالية بالألعاب الرياضية مما أدى إلى إهمالهم الأخلاق العامة والتقاليد الاجتماعية، وبالتالي تخسر الألعاب الرياضية جاذبيتها عندما تصبح مجرد مواد تعليمية أو تنافسية بحتة ، كذلك ظهر تغير أسلوب اللاعبين عند اللعب بدلاً من اللعب بحرية وحماس الأطفال فإنهم يلعبون بعنف ووحشية كالمراهقين، كما أظهرت النتائج العديد من المظاهر السلبية التي ارتبطت بالممارسة الرياضية أهمها : إنفاق

وفى دراسة عن « الفساد الرياضي في إنجلترا » *corruption in Sport England* - عام ٢٠١٢ و أجريت على (٦٢٠) مفحوص من (١٥) مدينة ، وهدفت إلى معرفة أشكال الفساد داخل المؤسسات الرياضية الإنجليزية ، وأثره على الاستعداد لافتتاح أولمبياد لندن ، حيث يرى (٢٧٪) بأن الهدر المالي للأولمبياد مبالغ فيه لصالح ملاك شركات ذات صلة باللجنة الأولمبية الدولية والبريطانية اعتمادا منهم على تعويضه من خلال الإعلانات والبيت التلفزيوني والحضور الجماهيري في حين يرى (٧٣٪) بأن الدور الإداري والمالي كان جيدا ، وهو واجهه حضارية لإبراز الهوية البريطانية في تجهيز المجمعات التجارية والمواصلات والملاعب والفضائق و المطاعم في جميع المدن لإنعاش الاقتصاد البريطاني .

إجراءات البحث :

أ- منهج البحث:

اعتمدت هذه الدراسة على إجراءات ومحددات المنهج الوصفي « الدراسات المسحية » على الأدوات وتطبيق الدراسة الميدانية ، كما اعتمدت على مداخل المنهج التاريخي والنقدي في صياغة المفاهيم النظرية وتحليل الدراسات السابقة ، وكذلك في إعداد توصيات البحث .

ب - مجتمع البحث:

وقد شملت الدراسة الميدانية كافة القيادات الرياضية العاملة في المؤسسات الرياضية ، ويمكن تصنيف مجتمع البحث وفق المناصب في المؤسسات الرياضية الكويتية كما يلي :

عن أعمال المؤسسات الرياضية للاتحادات والأندية خلال الفترة من عام ٢٠٠٠ حتى عام ٢٠٠٤ ، وقد شملت الدراسة سبعة محاور هي : الميزانية العمومية، والحسابات الختامية، والحسابات الدائنة والمدينة، والأراضي والإنشاءات والمشروعات، والمصروفات والإيرادات ، والتلاعب والاختلاس ، والمخازن. وأظهرت النتائج أن مخالفات الإيرادات تمثل أكثر محاور الفساد تليه المخالفات الخاصة بالمصروفات، ثم عدم تعبير الميزانية العمومية عن حقيقة المركز المالي ، بينما لم تظهر حالات تذكر من المخالفات في بقية المحاور .

قام كلا من إكسوجوانج ، تشنغ، فينو (Song, Xuguang; Cheng.)

(Wenhao) عام ٢٠١٢ بدراسة بعنوان مسوغات الإدراك الاجتماعي المهمة لقياس الفساد، حيث أن معظم مسوغات الإدراك الموجودة تعبر عن الفساد على المستوى الوطني أو الدولي، ولا توفر معلومات عن الفساد على المستويات المحلية. الذي يؤثر حقا على الحياة اليومية للناس العاديين. وهدفت هذه الدراسة إلى تصحيح هذه الثغرة من خلال مسح لقياس الفساد في (٣٦) مدينة صينية كبرى باستخدام الاستبيان الذي تضمن (١١) سؤالا رئيسيا حول مختلف جوانب الفساد في المناطق الحضرية وأظهرت النتائج بأن (٦٣٪) يرون تفاوت كبير في الفساد الإقليمي من حيث مدركات الفساد في البلاد ، في حين أشار (٥٢٪) إلى نقاط الضعف في نظام مكافحة الفساد وعدم توفر رقابة كافية للحد من الفساد في الصين ، وعدم جدية الحكومة في تطبيق القانون على المنفذين .

وهي متوسط نسبة الاتفاق في الاستجابات لعينة التقنين، وتتألف من (١٥) سؤالاً على ثلاثة محاور.

في ضوء أهداف البحث وتساؤلاته فقد تحددت المحاور الأساسية للاستبيان فيما يلي :

المحور الأول : أنواع الفساد في المجال الرياضي.

المحور الثاني : علاقة الانتماء السياسي والاجتماعي بالفساد الرياضي.

المحور الثالث : القوانين واللوائح والقرارات السياسية المرتبطة بالفساد في المجال الرياضي.

- أعضاء مجلس إدارة الهيئة العامة للشباب والرياضة في دولة الكويت (ن = ١١)

- أعضاء مجالس اللجنة الأولمبية الكويتية (ن = ٩)

- أعضاء مجالس إدارات الاتحادات والأندية الرياضية (ن = ٤٥) .

ج - أدوات جمع البيانات :

قام الباحث ببناء استمارة استبيان وفقاً للقواعد العلمية ، وقد تم عرضها على السادة الخبراء للحصول على الصدق (صدق المحكمين)^(١) الذي بلغ (٩٢٪) بينما بلغ الثبات بإعادة التطبيق بعد أسبوع على خمسة أفراد من مجتمع البحث (٩٧٪)

جدول (١)

دلالة الفروق بين استجابات عينة البحث من (الإداريين) حول أنواع الفساد الإداري في المجال الرياضي

(ن = ٦٥)

ك	الإداريين		نوع الاستجابة	العبارة	م
	%	ك			
٣,٩١	٤٣,٠٨%	٢٨	نعم	هل تقوم بتقديم خدمات من أجل منافع تقدم لك ؟	١
	٣٧,٨٥%	٢٢	أحياناً		
	٢٣,٠٨%	١٥	لا		
٢,٠٦	٤١,٥٤%	٢٧	نعم	هل يعتبر الأغنياء الموجودين في الوسط الرياضي أكثر فساداً من الفئات المتوسطة والفقيرة ؟	٢
	٣٠,٧٧%	٢٠	أحياناً		
	٢٧,٦٩%	١٨	لا		
١١,٢٠	٤٤,٦٢%	٢٩	نعم	هل تقوم المؤسسات الرياضية بإنجاز معاملات غير قانونية؟	٣
	٤١,٥٤%	٢٧	أحياناً		
	١٣,٨٥%	٩	لا		
٢٣,٨٤	٦١,٥٤%	٤٠	نعم	هل تعتبر الوساطة في المجال الرياضي نوع من أنواع الرشوة؟	٤
	٢٣,٠٨%	١٥	أحياناً		
	١٥,٣٨%	١٠	لا		

● دال عند ٥٪ (٥,٩٩)

- (١) أ. د/ عصام الهلالي أستاذ الاجتماع الرياضي . جامعة حلوان .
أ. د/ خير الدين عويس أستاذ علم النفس الاجتماعي الرياضي . جامعة حلوان .
أ. د/ مایسة البنا أستاذ الاجتماع الرياضي . جامعة الاسكندرية .

كانت الاستجابات الإيجابية (نعم، أحياناً) تشكل (٨٦٪) تقريباً من استجابات العينة، كذلك السؤال الخاص باعتبار الوساطة في المجال الرياضي نوعاً من الرشوة فقد ظهرت فروق دالة في استجابات العينة حيث وصلت الاستجابات التي توافق على هذا الموضوع (نعم، أحياناً) إلى حوالي (٨٤٪).

يتضح من الجدول السابق عدم وجود فروق ذات دلالة في آراء عينة البحث حول تقديم الخدمات من أجل المنافع الشخصية، واعتبار الأغنياء أكثر فساداً من الفئات المتوسطة والفقيرة، كما يتضح وجود فروق دالة في استجابة العينة عن قيام المؤسسات الرياضية بالكويت بإنجاز معاملات غير قانونية حيث

جدول (٢)

دلالة الفروق بين استجابة عينة البحث من (الإداريين) حول علاقة الانتماء السياسي والاجتماعي بالفساد الإداري في المجال الرياضي

(ن = ٦٥)

ك	الإداريين		نوع الاستجابة	العبارات	م
	ك	%			
١١,٢٩	٣٢	٤٩,٢٣%	نعم	هل تقوم بتقديم خدمات وفق التقارب الاجتماعي والسياسي؟	١
	٢٣	٣٥,٣٨%	أحياناً		
	١٠	١٥,٣٨%	لا		
١٠,٥٥	٣١	٤٧,٦٩%	نعم	هل تتعرض لضغوط لتنفيذ معاملات من قبل أفراد ينتمون لك جهوياً؟	٢
	٢٤	٣٦,٩٢%	أحياناً		
	١٠	١٥,٣٨%	لا		
٢٨,١٨	٤١	٦٣,٠٨%	نعم	هل العمل داخل المؤسسات الرياضية تحكمه مصالح شخصية وجهوية؟	٣
	١٧	٢٦,١٥%	أحياناً		
	٧	١٠,٧٧%	لا		
٢,٩٩	٢٨	٤٣,٠٧%	نعم	هل تسعى للعمل الإداري بهدف خدمة الأقارب؟	٤
	٢٠	٣٠,٧٧%	أحياناً		
	١٧	٢٦,١٥%	لا		

● دال عند ٠,٠٥٪ (٥,٩٩)

(٨٤٪) من عينة الدراسة كذلك (نعم، أحياناً) تعرضها لضغوط لتنفيذ معاملات من قبل أفراد ينتمون جهوياً، وقد ظهر الأمر أكثر وضوحاً في استجابة عينة الدراسة للسؤال الخاص بأن العمل داخل المؤسسات الرياضية تحكمه مصالح شخصية وجهوية حيث أفاد (نعم، أحياناً) حوالي (٨٩٪) بالموافقة على هذا الاتجاه.

يتضح من الجدول السابق عدم وجود فروق دالة في استجابات العينة في السؤال الخاص بالسعي للعمل الإداري بهدف خدمة الأقارب. من ناحية أخرى فقد ظهرت فروق دالة في استجابات عينة الدراسة حول تقديم الخدمات وفق التقارب الاجتماعي والسياسي حيث وصلت الاستجابات المؤيدة (نعم، أحياناً) إلى (٨٤٪) تقريباً، بينما أكدت

جدول (٣)

دلالة الفروق بين استجابات عينة البحث من (الإداريين)
حول القوانين واللوائح والقرارات المياسية المرتبطة بالفساد
في المجال الرياضي

(ن = ٦٥)

ك	الإداريين		نوع الاستجابة	العبارة	م
	%	ك			
١٠,٥٥	١٥%	١٠	نعم	هل القوانين الحالية تحمي المؤسسات الرياضية من الفساد؟	١
	٣٦,٩٢%	٢٤	أحيانا		
	٤٧,٦٩%	٣١	لا		
٥١,٩٠	٧٢,٣١%	٤٧	نعم	هل توجد ضوابط ولوائح قانونية تطبق للكشف عن الفساد في المؤسسات الرياضية؟	٢
	-	-	أحيانا		
	٢٧,٦٩%	١٨	لا		
١١,٩٩	٤٤,٦٢%	٢٩	نعم	هل يسمح القانون للجهات الرقابية بالاطلاع على التقارير الإدارية والمالية؟	٣
	٤١,٥٤%	٢٧	أحيانا		
	١٣,٨٥%	٩	لا		
١٨,٦٧	١٨,٤٦%	١٢	نعم	هل سبق أن طبق القانون (الخاص بالمحاسبة) على أحد الأفراد في مؤسستك الرياضية؟	٤
	٢٣,٠٨%	١٥	أحيانا		
	٥٨,٤٦%	٣٨	لا		

● دال عند ٠,٠٥ % (٥,٩٩)

عينة الدراسة بوجود ضوابط ولوائح تطبق للكشف عن الفساد ، وأن القانون يسمح للجهات الرقابية بالاطلاع على التقارير الإدارية والمالية (٤٥%) أجابوا بالموافقة و(٤٢%) إلى حد ما ، أما عند المحك الميداني لتطبيق القانون فقد أشار (٥٩%) إلى أن القانون لا يطبق فيما أشار (٢٣%) أنه أحيانا يطبق القانون .

يتضح من الجدول السابق الخاص بالقوانين واللوائح والقرارات المرتبطة بالفساد في العمل الإداري في المجال الرياضي أن عينة الدراسة قد أفادت أن القوانين الحالية تحمي المؤسسات الرياضية من الفساد (٣١%) ، فيما كانت (٢٤%) من استجابات العينة أن القوانين أحيانا تحمي المؤسسات الرياضية من الفساد ، كما أفادت (٧٢%) من

مناقشة النتائج :

أظهرت نتائج المحور الأول أنواع الفساد الإداري في المجال الرياضي أن هناك العديد من أنواع وأشكال الفساد، والتي منها البحث عن المال بطرق غير مشروعة، وكذلك تحقيق مكاسب اجتماعية وشخصية، بعيداً عن تحقيق توازن الرضا الاجتماعي بالعمل الإداري في المؤسسات الرياضية وخدمة المجتمع، وكذلك عدم الاهتمام بتحقيق الإنجاز الرياضي، وقلة الرغبة في الإنتاج، مقابل العمل مع كتل رياضية أو اجتماعية للسيطرة على المؤسسات الرياضية، وهذا يتفق مع دراسة حالات الفساد في بعض البلاد العربية لإسماعيل الشطي، وآخرون عام ٢٠١٠م، ويتفق مع دراسة الآثار الضارة لبعض الممارسات الرياضية لكريستوفر لاش Lasch Christopher عام ٢٠١٠م، ويتفق مع دراسة عن الفساد الرياضي في إنجلترا *corruption in Sport - England* عام ٢٠١٢م .

كما أظهرت نتائج المحور الثاني علاقة الانتماء السياسي والاجتماعي بالفساد الإداري في المجال الرياضي، أن ثقافة العمل الإداري في المؤسسات الرياضية يتم دعمها من خلال مؤسسات المجتمع المدني والقوى السياسية والعلاقات الاجتماعية في المجتمع، وأيضاً لها علاقة وثيقة بالانتماء الوطني والشعور بالمواطنة وكذلك التقرب إلى التيارات والكتل السياسية، وقد اتجهت القوى السياسية والاقتصادية إلى استغلال العمل الإداري لتحقيق أهدافها الخاصة، عبر مكونات المجتمع، وهذا يتفق مع دراسة عطية حسين أفندي: اتجاهات الفساد في القطاعات العامة والخاصة، ٢٠١٠م، ويتفق

مع دراسة مسوغات الإدراك الاجتماعي المهمة لقياس الفساد لإكسوجوانج ، تشنغ، فينو . *Song . Xuguang . Cheng* . Wenhao عام ٢٠١٢م ، ويتفق مع دراسة الديمقراطية بعد الشيوعية ولماذا الناس تتورط في الفساد في آستونيا؟ لكلا من تافيس ومارجريت *Tavits, Margit* عام ٢٠١١م .

بينما أظهرت نتائج المحور الخاص بالقوانين واللوائح والقرارات السياسية المرتبطة بالفساد في المجال الرياضي، أن المعوقات التشريعية التي تواجه المؤسسات الرياضية تضعف من القضاء على الفساد لعدم وجود دور للهيئات الرقابية العامة أو دواوين الرقابة المالية والإدارية في الدولة على المؤسسات الرياضية، وعدم مقدرة مجلس الأمة من أداء دوره الرقابي، وعدم تطبيق القوانين، وعدم مناسبتها للوضع الرياضي في الدولة، أسهم بشكل مباشر إلى عدم تحقيق التوازن المالي والإداري في المؤسسات الرياضية، الأمر الذي يتطلب سن تشريعات رياضية جديدة تحمي المؤسسات الرياضية من الفساد الإداري والمالي، وربط الهيئات الرقابية بالمؤسسات الرياضية للنهوض بالرياضة بصفة عامة وهذا يتفق مع دراسة عطية حسين أفندي : اتجاهات الفساد في القطاعات العامة والخاصة : ٢٠١٠م، ويتفق مع دراسة حالات الفساد في بعض البلاد العربية لإسماعيل الشطي، وآخرون عام ٢٠١٠م ، ويتفق مع دراسة الآثار الضارة لبعض الممارسات الرياضية لكريستوفر لاش *Lasch Christopher* عام ٢٠١٠م، ويتفق مع دراسة عن : الفساد الرياضي في إنجلترا *corruption in Sport - England* عام ٢٠١٢م .

الاستنتاجات

- (١) **يرى** (٨٦٪) من القيادات الرياضية العاملة في المؤسسات الرياضية بالكويت أن المؤسسات الرياضية تقوم بإنجاز معاملات غير قانونية، وأن العمل داخلها تحكمه مصالح شخصية وجاهوية (٨٩٪) .
- (٢) **يتفق** (٨٥٪) من القيادات الرياضية العاملة في المؤسسات الرياضية بالكويت على أن الوساطة تعتبر نوعاً من الرشوة ، على الرغم من ذلك فإن (٨٦٪) من هذه القيادات يقدموا خدمات وفقاً للتقارب الاجتماعي والسياسي ، ويبرروا ذلك بتعرضهم لضغوط جاهوية (٨٩٪) .
- (٣) **يؤكد** (٧٢٪) من القيادات الرياضية العاملة في المؤسسات الرياضية بالكويت وجود ضوابط ولوائح قانونية تطبق للكشف عن الفساد في المؤسسات الرياضية ، كما يمكن للأجهزة الرقابية الاطلاع على التقارير المالية والإدارية (٨٥٪) ، وعلى الرغم من ذلك فهي لا تحمي المؤسسات الرياضية من الفساد (٤٨٪) وأحياناً تحمي المؤسسات الرياضية من الفساد (٣٧٪) ، وأن المحاسبات لا تطبق (٥٨٪) وأحياناً تطبق (٢٣٪) .

التوصيات

- (١) **التركيز على البعد الأخلاقي** والقيمي وبناء الإنسان في محاربة الفساد في قطاعات العمل العام والخاص وذلك من خلال عمل برامج توعية وندوات ودورات تثقيفية ومؤتمرات لمحاربة الفساد ، ويجب أن تكون القوانين واللوائح واضحة وشاملة ، وتشديد الرقابة على جميع المؤسسات الرياضية ، وسرعة الفصل في المخالفات .
- (٢) **دعم حرية الصحافة** والجمعية الكويتية للشفافية وتمكينها من الوصول إلى المعلومات ومنح كامل الحرية للصحفيين للقيام بدورهم في نشر المعلومات وعمل التحقيقات التي تكشف عن قضايا الفساد ومرتكبيها .
- (٣) **تعزيز دور هيئات الرقابة العامة** كمرقب الدولة أو دواوين الرقابة المالية والإدارية (ديوان المحاسبة) وتطوير آليات الرقابة والمساءلة للهيئات التشريعية من خلال الأدوات البرلمانية المختلفة .

٤) **تفعيل القوانين المتعلقة** بمكافحة الفساد على جميع المستويات ، كقانون الإفصاح عن الذمم لذوي المناصب العليا ، وقانون الكسب غير المشروع ، وقانون حرية الوصول إلى المعلومات ، وتشديد الأحكام المتعلقة بمكافحة الرشوة والمحسوبية واستغلال الوظيفة العامة في قانون العقوبات .

٥) **بناء جهاز قضائي رياضي** مستقل وقوي ونزيه يقوم على الشفافية والمساءلة، وتحريمه من كل المؤثرات التي يمكن أن تضعف عمله ، والالتزام من قبل السلطة التنفيذية على احترام أحكامه .

قائمة المراجع

أولاً : المراجع باللغة العربية :

- ١- **أبو شيخة ، نادر أحمد :** الفساد في المنظمة العربية لتنمية الإدارية، كلية الاقتصاد والعلوم السياسية ، جامعة الملك عبد اله ، الأردن : ٢٠١٠م.
- ٢- **التقرير السنوي للجمعية الكويتية للشفافية :** الكويت ، يوليو : ٢٠١٢م.
- ٣- **إسماعيل الشطي :** الفساد والحكم الصالح في البلاد العربية ، الندوة الفكرية التي نظمها مركز دراسات الوحدة العربية بالتعاون مع المعهد السويدي بالإسكندرية : ٢٠١٠م.
- ٤- **إكرام بدر الدين :** ظاهرة الفساد السياسي، مجلة الفكر العربي ، بيروت : ٢٠١٠م.
- ٥- **اللامى، مازن زير :** الفساد بين الشفافية والاستبداد، مطبعة دانية، الطبعة الأولى، الأردن : ٢٠١١م.
- ٦- **بيير لاكوم ، ترجمة: سوزن خليل :** الفساد، عين لدراسات الإنسانية والاجتماعية : ٢٠١١م.
- ٧- **حنان محمد سالم :** التوجهات الأيدلوجية ومعالجة الصحافة لظاهرة الفساد في المجتمع المصري، رسالة دكتوراة ، كلية الآداب، جامعة عين شمس، القاهرة : ٢٠١٠م.
- ٨- **خير الدين عويس ، عصام الهلالي :** الاجتماع الرياضي، القاهرة. دار الفكر العربي : ٢٠١٠م.
- ٩- **صالح احمد علي :** أمراض إدارية تشخيص وعلاج، معهد التدريب والتطوير، الأردن : ٢٠١٠م.
- ١٠- **عطية حسين أفندي:** اتجاهات الفساد في القطاعات العامة والخاصة ، كلية الاقتصاد والعلوم السياسية، جامعة القاهرة : ٢٠١٠م.
- ١١- **محمد عبد النبي :** الفساد الإداري في الرياضة ، رسالة ماجستير غير منشورة ، كلية التربية الرياضية للبنين ، جامعة حلوان : ٢٠٠٥ .
- ١٢- **مي فريند :** الفساد رؤية نظرية ، مجلة السياسة الدولية ، يناير ٢٠١١م.

قائمة المراجع

ثانياً: المراجع باللغة الإنجليزية :

13-Clarke George, A, And Lixin Collin Xua B:

Privatization, Competition, And Corruption: How Characteristics Of Bribe Takers And Payers Affect Bribes To Utilities, Guanghua School Of Management,University

14- Corruption In Sport – England:

Summary Report Of The Findings Of The Sports Corruption Study Commissioned, By Sport England From The Leisure Industries, Research Centre Sport England, 3rd Floor,, Sheffield, October 2012.

15-Laschchristopher:

the Corruption Of Sports, University Of Minnesota Applied ScieNces, 2010.

16-Song, Xuguang; Cheng, Wenhao.

New Direction In The Study Ofadministrative Corruption.Social Cognition, Public Administration, University Of China: 2012 .

17- Tavits, Margit.

Democracy Aftercommunism,Estonia National University 2011.

الملخص

(١) **تهدف الدراسة الراهنة** إلى التعرف على أثر الفساد على المؤسسات الرياضية بدولة الكويت من خلال محاولة الكشف عن أنواع الفساد داخل المؤسسات الرياضية الكويتية أو علاقة الانتماء السياسي والاجتماعي بالفساد داخل هذه المؤسسات ، كذلك التعرف على طبيعة تطبيق القوانين واللوائح والقرارات السياسية المرتبطة بالفساد . أجريت دراسة مسحية على عينة تتكون من (٦٥) فرد من القيادات الرياضية العاملة بالمؤسسات الرياضية بالهيئة العامة للشباب والرياضة وأعضاء مجلس إدارة اللجنة الأولمبية الكويتية وأعضاء مجالس إدارة الاتحادات والأندية الرياضية . اعتمد الباحث في دراسته الميدانية على استبيان للكشف عن آراء عينة الدراسة مكون من (١٤) قضية مطروحة عن الفساد تتميز بدرجة صدق (٩٢٪) فيما بلغ ثباتها بعد إعادة التطبيق (٩٧٪) .

نسق الذكاءات المتعددة

المميزة للاعبات

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مقدمة وأهمية المشكلة

اتجه علماء النفس إلى إلقاء الضوء على إمكانيات الأفراد وتمدرّتهم الذهنية وإمكانية الاستفادة القصوى منها على الوجه الأمثل، وتماوياً بإزاحة الستار عن وجود عدد هائل من القدرات البشرية وخاصة القدرات العقلية والتي تعكس ذكاء ممتلكها واستخدامه لعقله. (١٩ : ١٤).

وفي نهاية القرن العشرين وتحديداً عام (١٩٨٣) قدم العالم هوارد جاردنر (Howard Gardner) نظريته عن الذكاءات المتعددة والتي أحدثت ما يشبه الثورة الهادئة على الساحة التربوية خلال السنوات الأخيرة، وعملت على تعديل المفاهيم التقليدية به التي تنظر إلى قدرات الأفراد نظرة ضيقة الأفق أحادية الجانب، والتي تعتقد بوجود ذكاء واحد عام قابل للقياس بالطرق التقليدية، وتصنف الأفراد إلى أذكى أو أغبياء وفقاً لدرجاتهم في اختبارات الذكاء المعروفة التي تركز على عدد محدود من القدرات اللفظية والرياضية المنطقية، وقد أهملت النظرة التقليدية للذكاء القدرات الأخرى التي تكشف عن مكامن الإبداع والتفوق لدى الأفراد والتي تتسم بالتنوع كالقدرات الموسيقية والمكانية والجسمية والاجتماعية والانفعالية والفنية (٦ : ١).

للمهارات الحركية وتفكير دائم لمجاهاة المواقف المتغيرة أثناء المنافسات وإدراك هذه الموقف وتفسيرها في ضوء خبراته ومهاراته ومن ثم تكون الاستجابة الملائمة التي تحقق النجاح والفوز. (١٤: ١٨٧) (١٧: ٤٢).

ويشير عماد الدين عباس (٢٠٠٥) إلى أن تحديد متطلبات أى نشاط رياضي هي المحور الرئيسي للانتقاء العلمي المخطط والذي يجب أن يبدأ من أعلى إلى أسفل، بمعنى ضرورة التعرف على الإمكانيات والقدرات الخاصة باللاعبين ذوي المستويات الرياضية العالية ووضعها كمتطلبات لهذا النشاط الرياضي ويتم عن طريقها التعرف على القدرات والاستعدادات المختلفة التي مكنت هؤلاء اللاعبين من الوصول إلى المستويات الرياضية العالية (١٢: ٧٠)، ويتفق معه محمد لطفي طه (٢٠٠٢) على أن الكشف عن استعدادات وقدرات اللاعب في أي نشاط رياضي يصبح عديم القيمة إذا لم يتم التعرف على العوامل التي تساعد على تحقيق أعلى المستويات الرياضية لهذا النشاط، وكذلك الخصائص النموذجية التي يجب أن يتمتع بها اللاعب لكي يتمكن من تحقيق هذا المستوى . (٢١: ٨٢)

وتؤكد داليا زكريا (٢٠١٠) أن هناك حاجة ملحة لتحديد المتطلبات العقلية الدقيقة التي يجب توافرها في الرياضي حتى يمكن الوصول به إلى المستويات الرياضية العالية، وتضيف أنه أصبح من مقتضيات التطور العلمي في المجال الرياضي دراسة الذكاءات المتعددة للممارسة الرياضية ووضعها في نسق يرتب هذه الذكاءات وفقا لأهميتها في مساعدة الرياضي على التفوق وتحقيق المستوى المنشود، وتضيف أن الاختلاف بين نشاط وآخر في نسق ذكائه تكون في

وغى مقابل تلك النظرة المحدودة للذكاء بمفهومه التقليدي الذي ركز على القدرة اللغوية والقدرة الرياضية المنطقية توصل « جارنر» لأدلة علمية تؤكد أن الناس لديهم ذكاءات متعددة ولكن بدرجات متفاوتة. (٤: ٥)، وتقدم تعريفاً للذكاء على أنه «قدرة نفسية بيولوجية لتشغيل المعلومات التي يمكن تنشيطها في كيان ثقافي لحل المشكلات، أو خلق المنتجات التي لها قيمة في الكيان الثقافي»، وهذا التغير في الثقافة يعتبر مهم لأنه يفترض أن أنواع الذكاء ليست أشياء يمكن رؤيتها أو عدها، فهي قدرات أو إمكانيات بافترض أنها وحدات عصبية تنشط أو لا تنشط، استنادا إلى قيم ثقافية معينة، كالفرص المتاحة في الثقافة، والقرارات الشخصية التي يتخذها الأفراد أو عائلاتهم ومدريهم وآخرون، (٣٠ : ٦٧) وأعد جارنر نظريته عن الذكاءات المتعددة حيث أوضح أن القدرات التي يمتلكها الناس تقع في سبع ذكاءات تغطي نطاقاً واسعاً من النشاط الإنساني لدى الفئات العمرية المختلفة وحددها في : الذكاء اللغوي - الذكاء المنطقي الرياضي - الذكاء البصري المكاني - الذكاء الموسيقي - الذكاء الجسدي الحركي - الذكاء الاجتماعي - الذكاء الشخصي (٦: ١١-١٢).

والذكاء كقدرة عقلية شرطاً هاماً للنجاح في معظم الأنشطة الرياضية وخاصة تلك الأنشطة التي تتطلب سرعة وحسن التصرف في مواقف اللعب المختلفة والتي تتميز بالكفاح المباشر مع المنافس وجهاً لوجه حيث يعتبرها البعض كفاح بين ذكاء اللاعب وذكاء منافسه. (١٧: ٤١).

ويتفق كل من قاسم حسن، فتحي المهشيش (٢٠٠٠)، محمد سعد عبد الله (١٩٨٢) أن الأنشطة الرياضية تتطلب من الفرد الرياضي قدرة عقلية لتنفيذ خطط اللعب واستخدام أمثل

الانفعالي للرياضيين (٣)، دراسة محمد إبراهيم، راندي عبد العزيز (٢٠٠٧) وموضوعها برنامج تدريبي لتنمية الذكاء الخططي لناشئي كرة القدم تحت ١٢ سنة (١٥)، دراسة وائل رفاعي إبراهيم رضوان (٢٠٠٦) وموضوعها بناء مقياس الذكاء الانفعالي للمدرب الرياضي (٢٦)، دراسة جينفر فانسكيل لويز (٢٠٠٤) *Van Jennifer Sickle Louise* وموضوعها العلاقة بين الذكاء الانفعالي وقاعدية المدرب في القسم الأول لدى المديرين الفنيين للكرة الناعمة (٣٥)، دراسة هيرسكورن *Hirschhorn*، ودولاس *Douglas*، كامين *Kamin* (٢٠٠٠) وموضوعها العلاقة بين مستويات الذكاء الانفعالي ومعدلات تحسن الأداء لدى لاعبي البيسبول (٣٣)

أما الأبحاث التي تناولت الذكاءات المتعددة فقد كانت محدودة بالرغم من أهمية تلك النظرية في التعرف على أكثر الذكاءات المتعددة ارتباطا بالممارسة الرياضية والتميز الرياضي، ومن أهم هذه الدراسات دراسة داليا زكريا زيد (٢٠١٠) وعنوانها نسق الذكاءات المتعددة لرياضيي الأنشطة الفردية و الجماعية (٩)، دراسة أحمد علي حجاج يوسف (٢٠٠٦) وموضوعها مؤشرات ذكاء الإداري الرياضي في ضوء نظرية الذكاء المتعدد (١)، دراسة منال محمد زكي الجندي (٢٠٠٥) وموضوعها تدريس منهج الإيقاع الحركي المطور باستراتيجيات قائمة على نظرية الذكاء المتعدد وأثره على نواتج التعليم (٢٢) .

ومن العرض السابق نجد بعض الدراسات تناولت المفهوم الحديث للذكاء في المجال التربوي الرياضي حيث وجدت دراسة في الأنشطة الجماعية والفردية، وأخرى في الإيقاع الحركي، ودراسة في مجال الإدارة الرياضية، ولم تتعرض

ترتيبها وليس في وجود أو عدم وجود بعض الذكاءات المدرجة في نظريته (٩).

وترى الباحثان أن كرة السلة من الألعاب التي قد يختلف نسق الذكاءات المتعددة بها عن غيرها من الألعاب الجماعية، كما أن كرة السلة من الألعاب التي تتطلب قدرات ذهنية عالية نظراً لما تتميز به خطط اللعب من تحركات مركبة ومهام مختلفة تختلف حسب ظروف كل مباراة .

وغى حدود علم الباحثان اتضح ندرة الأبحاث التي تناولت الذكاءات المتعددة، حيث تناول أغلبها ذكاءات متباينة ومتعددة في مجالات تربوية رياضية ومنها دراسة عبد المنعم سليمان (١٩٨١) للتعرف على العلاقة بين بعض مظاهر النمو البدني والذكاء العام (١١) ، ودراسة بورتون (١٩٧٥) للتعرف على العلاقة بين التفوق في القدرة الحركية العامة والذكاء، والفروق الفردية في الذكاء العام والقدرات العقلية (٢٨)، ودراسة سلوى موسى (١٩٧٥) للتعرف على العلاقة بين الذكاء (القدرة العقلية) وعناصر التفوق الرياضي (١٠)، ودراسة محمد صبحي حسنين (١٩٧٣) للتعرف على العلاقة بين الذكاء وبعض عناصر اللياقة البدنية (١٨).

كما تناولت بعض الدراسات الذكاء في المجال الرياضي دراسة نشأت محمد أحمد منصور (٢٠١٠) وموضوعها الذكاء الانفعالي وعلاقته بقلق المنافسة الرياضية ونتائج البطولات لناشئي الجمباز (٢٤)، دراسة أحمد فاروق خلف، محمود حسين محمود (٢٠٠٨) وموضوعها تأثير برنامج للأساسيات الخططية الهجومية على تطوير الذكاء الخططي للناشئين في كرة السلة (٢)، دراسة أحمد نبيه إبراهيم محمد (٢٠٠٧) وموضوعها بناء مقياس الذكاء

الذكاء المنطقي الرياضي : Logical : Mathematical Intelligence

القدرة على استخدام الأعداد بفاعلية وتتضمن الوضع في فئات التصنيف والاستنتاج والتعميم والحساب (٢٧: ٢) (٢٤: ٥٧) ويتضمن أيضاً الترتيم أي القدرة على تحديد رقم أو عدد يطابق شيئاً في سلسلة من الأشياء (٦: ٢٧٢).

الذكاء البصري المكاني : visual Spatial : Intelligence

القدرة على إدراك العالم البصري المكاني بدقة. (٦: ١٠)

الذكاء الموسيقي : Musical Intelligence

القدرة على إدراك الصيغ الموسيقية. (٦: ١١)

الذكاء الجسدي الحركي : -Bodyily : Kinesthetic Intelligence

الخبرة والكفاءة في استخدام الفرد لجسمه ككل للتعبير عن الأفكار والمشاعر. (٦: ٣٣)

الذكاء الاجتماعي : Social Intelligence

القدرة على فهم الأفراد والعلاقات الاجتماعية والتمييز بينها والقدرة على تمييز اتجاهاتهم ونواضعهم والتصرف بحكمة حيالها ، و القدرة على التعامل بفاعلية مع الآخرين. (٢٠)

الذكاء الشخصي : Personal : Intelligence

قدرة الفرد على الإدراك الصحيح لذاته والوعي بمشاعره، الداخلية وقيمه ومعتقداته ونواضعه، وتحديد نقاط القوة والضعف لديه واستخدامها في إدارة شؤنه ، والحكم على صحة تفكيره في اتخاذ قراراته واختيار البدائل المناسبة في ضوء أولوياته. (١٨: ٢٩)

أية دراسة لاستخدام نظرية الذكاءات المتعددة في تحديد نسق للذكاءات المتعددة للاعبات كرة السلة وترتيبها طبقاً لأهميتها .

لذا رأت الباحثتان ضرورة القيام بالدراسة الحالية لنسق الذكاءات المتعددة المميز، للاعبات كرة السلة للاستفادة منها في انتقاء وتوجيه اللاعبات .

أهداف الدراسة :

- تحديد نسق الذكاءات المتعددة للاعبات كرة السلة .

تساؤلات الدراسة :

- ما هو نسق الذكاءات المتعددة للاعبات كرة السلة .

مصطلحات الدراسة :

الذكاء : Intelligence

« قدرة بيونفسية كاملة لمعالجة المعلومات التي يمكن تنشيطها في بيئة ثقافية لحل المشكلات أو خلق المنتجات التي لها قيمة في ثقافة ما» . (٣١: ٣٣)

الذكاءات المتعددة : Multiple intelligences

«هي المهارات العقلية القابلة للتنمية والتي توصل اليها جارنر والمتثلة في الذكاء المنطقي ، الذكاء اللغوي ، الذكاء الموسيقي ، الذكاء البصري المكاني ، الذكاء الجسدي الحركي ، الذكاء الاجتماعي ، الذكاء الشخصي» . (٥: ٩)

الذكاء اللغوي : Linguistic Intelligence

القدرة على استخدام الكلمات شفويًا أو تحريرياً بفاعلية. (٦: ١٠)

العمدية ، من لاعبات فرقتي للدرجة الأولى للسيدات ، والناشئات تحت ١٨ سنة بأندية القاهرة والإسكندرية ، من المسجلات في الاتحاد الرياضي المصري لكرة السلة لمدة لا تقل عن ٧ سنوات، والمشاركات في البطولات الرسمية التي يشرف عليها الاتحاد ، بالإضافة إلى لاعبات الفرق القومية للسيدات و الناشئات تحت ١٨ سنة لكرة السلة بجمهورية مصر العربية والمصنفات دولياً وفقاً لأشراكهن في البطولات الدولية .

و الجدول التالي يوضح التوزيع العددي والنسبة المئوية لعينة الدراسة الأساسية وفقاً لتصنيف العينة قيد الدراسة .

حجم العينة :

اشتملت العينة على (١٤٨) لاعبة من لاعبات كرة السلة ، وذلك على نحو ما هو موضح بالجدول (١) :

جدول (١)

التوزيع العددي والنسبة المئوية لعينة الدراسة الأساسية وفقاً لتصنيف العينة قيد الدراسة

م	تصنيف العينة	العدد	النسبة المئوية %
١	تحت ١٨ سنة	٥٧	٣٨,٥١
٢	درجة أولى	٤٨	٣٢,٤٣
٣	دولي	٤٣	٢٩,٠٦
	المجموع الكلي للعينة	١٤٨	١٠٠

رابعاً: تحديد أداة الدراسة :

قامت الباحثتان بإجراء دراسة مسحية

نسق الذكاءات المتعددة في كرة السلة (إجرائي):

نموذج منظم و متكامل من الذكاءات المتعددة في كرة السلة ، يستخدمها اللاعبون في مواجهتهم للمواقف المتغيرة أثناء التدريب و المناقشة بحيث تتفاعل مع بعضها داخل هذا النموذج الذي ينظمها ويرسم لها تدرجاً خاصاً يأخذ شكلاً (متسلسل) على قمته نمط الذكاء الغالب للاعبات كرة السلة و يأتي من بعده باقي الذكاءات في ترتيب تنازلي وفقاً لأهميتهم في نشاط كرة السلة .

إجراءات الدراسة :

أولاً : المنهج المستخدم :

استخدمت الباحثتان المنهج الوصفي بالأسلوب المسحي بإجراءاته وخطواته، حيث استخدمتا التحليل المنطقي للمراجع والدراسات المتخصصة والمرتبطة لتحديد أداة المسح، ثم قامت الباحثتان بتطبيق الأداة على مجموعة متميزة من لاعبات كرة السلة تمهيداً للإجابة على التساؤلات العلمية المطروحة من قبل الباحثتان .

ثانياً : مجتمع الدراسة :

تمثل المجتمع الأصلي للدراسة في لاعبات من فرقتي الدرجة الأولى للسيدات و الناشئات تحت ١٨ سنة بأندية الإسكندرية والقاهرة ، (نادي اسبورتينج - نادي سموحة - نادي الترام - النادي الأولمبي) (النادي الأهلي - نادي الجزيرة - نادي الصيد - نادي هليوبوليس - نادي الشمس) ، بالإضافة إلى لاعبات من الفريق القومي للسيدات و الناشئات تحت ١٨ سنة .

ثالثاً : عينة الدراسة :

تم اختيار أفراد العينة بالطريقة الطبقية

خامساً : الدراسة الاستطلاعية

تم إجراء هذه الدراسة بهدف : إجراء المعاملات العلمية للاختبار في مجال كرة السلة في البيئة المصرية (الصدق - الثبات) عينة الدراسة الاستطلاعية : عدد ٤٠ لاعبة من لاعبات كرة السلة ممن تتوفر فيهن نفس شروط عينة الدراسة الأساسية ومن خارجها .

المجال الزمني : تم إجراء الدراسة الاستطلاعية في الفترة من ١٠ / ٥ إلى ٢٥ / ٥ / ٢٠١١

المجال المكاني : أندية فرقى كرة السلة للأنسات (الزمالك - المعادي - مدينة نصر)

وقد توصلت الباحثتان إلى ما يلي :

أ - صدق الاختبار :

قامت الباحثتان باحتساب صدق الاتساق الداخلي للاختبار عن طريق احتساب معامل ارتباط كل عبارة مع نوع الذكاء الخاص بها واتضح وجود ارتباط دال إحصائياً بين درجة كل عبارة والدرجة الكلية لنوع الذكاء التي تنتمي إليه في اختبار الذكاءات المتعددة، حيث كانت قيمة (ر) الجدولية عند مستوى دلالة (٠,٠٥) = ٠,٣١٢ مما يدل على أن كل عبارة صادقة في قياس النوع الذي تنتمي إليه وبالتالي فهي متسقة معه وتمثله .

وقد اكتفت الباحثتان بمعامل الارتباط بين كل عبارة والذكاء الذي تنتمي إليه باعتبار أن كل ذكاء مستقل لذاته ولا يمكن جمع درجات المقياس للحصول على درجة إجمالية له طبقاً لما جاء بنظرية جارنر للذكاءات المتعددة

على القوائم العربية والأجنبية ذات الصلة بموضوع الدراسة متمثلة في : قائمة ماكنزي (١٩٩٩) ترجمة فتحي عبد الحميد، السيد محمد أبو هاشم (٢٠٠٦) (١٣)، قائمة نائلة نجيب الخزندار، عزو اسماعيل (٢٠٠٤) (٢٥) قائمة نايل دوجلاس (٢٠٠٢) (٣٧)، قائمة تيري أرمسترونج (١٩٩٨) ترجمة محمد عبد الهادي حسين (١٩)، قائمة توماس أرمسترونج للذكاءات المتعددة للراشدين (١٩٩٤) ترجمة جابر عبد الحميد جابر (٦)، وبعد مراجعة الدراسات السابقة في مجال البحث واستقرت الباحثتان على استخدام اختبار الذكاءات المتعددة وفقاً لنموذج جارنر (M.I) إعداد (Shislett Chapman) (٢٠٠٥).

بعنوان : *Multiple Intelligence Test - based on Howard Gardner's (M.I) Model* المصدر : www.businessballs.com و الذي أتم ترجمته باللغة العربية داليا زكريا (٢٠١٠) (٩) مرفق (١) .

أداة الدراسة :

وقد قامت الباحثتان باختيار الأسئلة الخاصة بذكاءات الألعاب الجماعية و ذات الاحتكاك المتوسط وهم (الذكاء البصري المكاني - الذكاء الجسدي الحركي - الذكاء الاجتماعي - مزيج من الذكاء اللغوي - المنطقي الرياضي - الموسيقي - الذكاء الشخصي) حيث كان عدد هذه الاسئلة (٧٠ سؤال) وذلك وفقاً لما توصلت إليه نتائج دراسة داليا زكريا زيد (٢٠١٠) مرفق (١) .

ب - ثبات الاختبار:

تم حساب ثبات الاختبار عن طريق التطبيق وإعادة التطبيق باعتبارها أفضل الطرق المستخدمة لحساب معدل الثبات، وذلك على عينة الدراسة الاستطلاعية التي بلغ قوامها (٤٠) لاعبة، وتم إعادة التطبيق بفارق زمني قدره أسبوع من تاريخ التطبيق الأول ومن ثم إيجاد معامل الارتباط بين التطبيق الأول والتطبيق الثاني، واتضح أن معامل الارتباط بين التطبيق الأول والتطبيق الثاني دال احصائياً عند مستوى دلالة (٠,٥) حيث كانت قيمة (ر) الجدولية عند مستوى دلالة (٠,٥) = ٠,٢١٢، مما يدل على أن اختبار الذكاءات المتعددة على درجة عالية من الثبات، وبذلك أصبح الاختبار مناسباً للتطبيق في مجتمع الدراسة الحالية .

سادساً : تطبيق أداة الدراسة :

في ضوء نتائج الدراسة الاستطلاعية التي قامت بها الباحثتان من أجل إعداد الاختبار ليناسب لاعبات كرة السلة في البيئة المصرية، وبعد التحقق من المعاملات العلمية للاختبار والتأكد من صلاحيته للتطبيق، قامت الباحثتان بتطبيق الاختبار على عينة الدراسة الأساسية وقوامها (١٤٨) من لاعبات كرة السلة وذلك في الفترة الزمنية من ٢٠١١/٦ إلى ٢٠١١/١١، وذلك بهدف تحديد أنساق الذكاءات المتعددة المميزة للاعبات كرة السلة المستهدفة في الدراسة

سابعاً : المعالجات الإحصائية:

تمت المعالجة الإحصائية للبيانات بواسطة برنامج (SPSS) الإصدار ١٧ وفقاً للخطوات التالية :

١. حساب المتوسط الحسابي ومعامل الارتباط .

٢. حساب مصفوفة الارتباط البينية .

٣. التحليل العاملي باستخدام طريقة المكونات الأساسية لهوتلينج .

٤. التدوير المتعامد لمصفوفة العوامل الأولية بطريقة ألفا ريمكس لكايزر.

ثامناً : عرض ومناقشة النتائج:

للإجابة عن تساؤل البحث الذي طرح في هذه الدراسة قامت الباحثتان بإجراء التحليل العاملي من الدرجة الأولى لعينة البحث وفقاً للمعالجات الإحصائية التالية :

التحليل العاملي من الدرجة الأولى لإجمالي العينة ويتضمن :

١- مصفوفة الارتباطات البينية:

قامت الباحثتان بحساب معاملات الارتباط البينية بين العبارات المستخدمة في المقياس وعددها (٧٠) عبارة، و التي أسفرت عن وجود معاملات ارتباط موجبة، وأخرى سالبة، كذلك معاملات ارتباط دالة وأخرى غير دالة، مما يتضح معه وجود تجمعات تتبني بظهور عوامل مستقلة عند إجراء التحليل العاملي، بهدف التعرف على عوامل الذكاءات المتعددة لدى عينة البحث .

٢- مصفوفة العوامل قبل التدوير المتعامد بطريقة المكونات الأساسية لهوتلينج Hotteling:

قامت الباحثتان باستخدام طريقة المكونات الأساسية لهوتلينج في تحليل المصفوفة عاملياً بهدف استخلاص أقصى تباين ارتباطي للمصفوفة وتحقيق أكبر قدر من الثقة في تقدير التشعبات على العامل، كما أن هذه الطريقة تتقبل محك كايزر لتحديد العوامل حيث يقبل العامل الذي يزيد جزء الكامن عن الواحد الصحيح.

وقد تم التعرف على المصنوفة العاملية لمتغيرات البحث والجذر الكامن للعوامل المستخدمة، وقيم اشتراكيات المتغيرات على العوامل، ونسبة تباين كل عامل للتباين الكلي للمصنوفة الارتباطية، وذلك قبل التدوير المتعامد للعوامل.

٢- مصنوفة العوامل بعد التدوير المتعامد بطريقة فاريمكس Varimax لكايزر Kaiser.

قامت الباحثتان بتدوير العوامل لإعادة توزيع التباين بين العوامل الناتجة مع المحافظة على الخصائص التصنيفية.

والحصول على أفضل الحلول التي تستوفي خصائص البناء البسيط Simple Structure «لثرستون» حيث حقق التدوير الخصائص الآتية :

١- زادت التشبعات الصفرية بالعوامل المستخلصة بعد التدوير عنه قبل التدوير، وبناء على ذلك قلت عدد التشبعات ذات الدلالة بالنسبة للعوامل .

٢- تغيرت القيم العددية لتشبعات المتغيرات بعواملها المشتركة بعد تدوير المحاور وظلت الاشتراكيات ثابتة بالرغم من هذا التدوير.

٣- ظهرت عوامل طائفية بعد التدوير المتعامد ممثلة في فئة من العبارات دون غيرها، حيث لا يتحقق هذا التمايز إلا إذا ارتفعت القيم العددية لتشبعات بعض العبارات بالعامل المشترك وانخفضت تبعاً لذلك القيم العددية لتشبعات الأبعاد الأخرى.

٤- توصلت الباحثتان إلى النتائج النهائية للتدوير المتعامد بعد حذف التشبعات التي تقع بين (+ ٠,٣) مرفق (٢) وتوضح من

النتائج النهائية للتدوير العامل المتعامد بعد حذف جميع التشبعات التي تقع بين ($\pm ٠,٣$)، أن عدد التشبعات الصفرية لكل عامل من العوامل الأربعة المستخلصة تزيد عن عدد العوامل وهو أحد الشروط المهمة التي وضعها «ثرستون» Thurston للتكوين العامل البسيط.

هذا وقد تم قبول العامل في ضوء الشروط والمحكات التالية:

١- اتباع محك «جتمان» Jatman الذي يرى أن العامل الجوهري هو ما كان له جذر كامن أكبر من الواحد الصحيح.

٢- قبول العامل الذي يتشبع عليه ثلاث أبعاد على الأقل.

٣- قبول البعد الذي يكون دلالاته الإحصائية للتشبع على العامل وفقاً لمحك «جيانفورد» Guilford ($\pm ٠,٣$) فأكثر.

٤- تم تفسير العوامل في ضوء نتائج تدوير الأبعاد حيث يتم توزيع التباين الكلي للمصنوفة العاملية في ضوء خصائص البناء البسيط حيث يؤدي إلى تمييز المتغير الواحد بتشبع مرتفع على عامل واحد فقط.

ووفقاً لشروط قبول العامل، واسترشاداً بمعايير البناء البسيط فقد تم قبول أربعة عوامل، وغيماً يلي تفسير هذه العوامل.

تفسير العامل الأول:

يتضح من جدول (٢) أن العامل الأول المستخلص من التحليل العامل يتشبع عليه عشرون عبارة بنسبة (٢٨,٥٧٪) من مجموع العبارات المرشحة للتحليل العامل، وقد تراوحت قيم تشبعات العبارات ما بين (٠,٣٢١ ، ٠,٧٣٦) .

ويتضح من جدول (٢) ارتباط العبارات المشبعة على هذا العامل مع بعضها البعض ارتباطاً دال إحصائياً عند مستوى معنوية (٠,٠٥).

وغى ضوء التفسير السابق وغى ضوء البناء العاملى لهذا العامل وتقييم التشبعات الدالة يمكن تسمية هذا العامل (الذكاء الاجتماعي اللغوي)، وتقتصر الباحثان أن أفضل مقياس لقياس هذا العامل هو العبارة ٣٦ لأنها تمثل أكبر القيم المشبعة على هذا العامل.

ويلاحظ أن هذا العامل أحادي التكوين حيث تشبعت عليه العبارات بتشبعات موجبة فقط ، ومن خلال دراسة هذا العامل يتضح أن العبارات التي تشبعت على هذا العامل ذات طبيعة مشتركة حيث توجد أربع عبارات لكل من الذكاء الاجتماعي، الذكاء الجسدي الحركي، الذكاء البصري المكاني ، الذكاء المنطقي الرياضي وثلاث عبارات للذكاء اللغوي وعبارة واحدة للذكاء الموسيقي.

جدول (٢)

الترتيب التنازلي للعبارات المشبعة بالقيم المقبولة على العامل الأول لإجمالي العينة

رقم العبارة	العبارة	الذكاء	التشبع
٣٦	اهتم بشعور الآخرين من حولي .	الاجتماعي	٠,٧٣٦
٣٣	استمتع بالحوار والمناقشة مع الآخرين .	اللغوي	٠,٧٠٨
١٥	أمارس الرياضة أو الرقص.	الجسدي الحركي	٠,٦٨١
٥٠	غالباً ما أتحدث إلى نفسي سواء بصوت مسموع أو في ذهني .	اللغوي	٠,٦٧٥
٧	لدي توافق بدني جيد.	الجسدي الحركي	٠,٦٠٧
٦٨	لتعلم شيء جديد أحتاج فقط للمحاولة .	الجسدي الحركي	٠,٦٠٤
٥٣	أجد ألعاب الكرة سهلة وممتعة .	الجسدي الحركي	٠,٥٩١
٦٥	إنني أفضل الألعاب الرياضية الجماعية.	الاجتماعي	٠,٥٧٨
٣٢	أفضل التفكير في المشكلة بدقة، أخذاً في الاعتبار جميع العواقب والنتائج .	المنطقي الرياضي	٠,٥٧٠
٧٠	دائماً ما يطلب مني أصدقائي المشورة والدعم العاطفي .	الاجتماعي	٠,٥٥٩
١٩	أنا شخص اجتماعي جداً، أحب أن أكون وسط الآخرين.	الاجتماعي	٠,٥٤٧
١٠	أحب أن تكون الأمور واضحة ومحددة.	المنطقي الرياضي	٠,٤٧٥
٤٧	عندما أتعلم أداء شيء جديد، أفضل رؤية الرسوم والأشكال التوضيحية التي توضح طريقة عمله .	البصري المكاني	٠,٤٤٨
٤	غالباً ما يكون في ذهني أغنية أو قطعة موسيقية.	الموسيقي	٠,٤٤٨
١٧	أغضب من الناس الذين يتصرفون بصورة عشوائية وغير عقلانية .	المنطقي الرياضي	٠,٤٢٥
٦٧	لا أضل الطريق أبداً حين أكون وحيداً في مكان جديد .	البصري المكاني	٠,٣٨٠
٥	أجد من السهل علي وضع الميزانيات وإدارة واستثمار أموالي.	المنطقي الرياضي	٠,٣٧٩
٤٤	يمكنني بسهولة تخيل كيف يبدو شيء ما من منظور آخر.	البصري المكاني	٠,٣٥٦
٣١	اللغة الأجنبية واحدة من المواد الدراسية المفضلة لدي أثناء الدراسة .	اللغوي	٠,٣٤٢
٢٤	أتذكر دائماً الأماكن التي زرتها من قبل، حتى عندما كنت صغيراً جداً .	البصري المكاني	٠,٣٢١

تفسير العامل الثاني:

يتضح من جدول (٣) أن العامل الثاني المستخلص من التحليل العاملي تشبع عليه عشرون عبارة بنسبة (٢٨,٥٧٪) من مجموع العبارات المرشحة للتحليل العاملي، وقد تراوحت قيم تشبعات العبارات ما بين (٠,٣٢٠ ، ٠,٧٥٥). ويلاحظ أن هذا العامل أحادي التكوين حيث

تشبعت عليه العبارات بتشبعات موجبة فقط ، ومن خلال دراسة هذا العامل يتضح أن العبارات التي تشبعت على هذا العامل ذات طبيعة مشتركة حيث تمثل خمس من هذه العبارات كل من الذكاء البصري المكاني والذكاء الجسدي الحركي والذكاء المنطقي الرياضي بينما تمثل ثلاث عبارات الذكاء اللغوي وعبارة واحدة كل من الذكاء الاجتماعي والذكاء الموسيقي.

جدول (٣)

الترتيب التنازلي للعبارات المشبعة بالقيم المقبولة على العامل الثاني لإجمالي العينة

رقم العبارة	العبارة	الذكاء	التشبع
٢١	أفهم الرسوم البيانية للأشكال بسهولة .	البصري المكاني	٠,٧٥٥
٤٩	أجيد العد والحساب في عقلي دون استخدام الورقة والقلم .	المنطقي الرياضي	٠,٦٦٨
٢٩	أجد الحساب العقلي أسهل .	المنطقي الرياضي	٠,٦٦٤
٥٤	مادتي المفضلة أثناء الدراسة هي الرياضيات.	المنطقي الرياضي	٠,٦٥١
٩	استمتع بالكلمات المتقاطعة، والبحث عن الكلمات أو أي ألفاظ تتعلق بالكلمات.	اللغوي	٠,٦١٨
٤٢	أجيد استخدام حاسة اللمس في التعرف على الأشياء (شخص مادي غير معنوي).	الجسدي الحركي	٠,٥٩٤
٦١	استطيع قراءة الخراط بسهولة .	البصري المكاني	٠,٥٨٩
٣٨	أجيد صنع الأشياء، أجيد استخدام يدي جيدا (الأشغال اليدوية) .	الجسدي الحركي	٠,٥٨٣
٢٦	أحب أن أرسم أثناء التركيز .	البصري المكاني	٠,٤٩٤
٤٨	غالبا ما أرى صورا واضحة عندما أغمض عيني.	البصري المكاني	٠,٤٧١
٣٠	يمكنني التعرف على معظم الأصوات الصادرة من الآلات الموسيقية دون رؤية هذه الآلات .	الموسيقي	٠,٤٧١
١١	أحب الألفاظ المنطقية مثل (سودوكو).	المنطقي الرياضي	٠,٤٥٠
٢٢	يمكنني الرمي بسهولة (السهم، النبال، الحصى، الخ).	الجسدي الحركي	٠,٤٣٩
٦٣	أستطيع حل الخلافات بين الآخرين بصورة جيدة .	الاجتماعي	٠,٤٣٣
٣	يمكنني حل المشاكل بصورة أسهل أثناء ممارسة الرياضة	الجسدي الحركي	٠,٤١٨
٥٢	عندما أكون في الخارج، أجد من السهولة تعلم أسس لغة أخرى .	اللغوي	٠,٤١٤
١٤	من السهولة إقناع الآخرين برأبي حتى وإن كان خاطئا .	اللغوي	٠,٣٦٦
٣٤	أحب الرياضات والسباقات العنيفة .	الجسدي الحركي	٠,٣٣٨
٢٠	أحب أن أكون منهجيا (روتيني) ومنظما .	المنطقي الرياضي	٠,٣٢٩
٥٩	مادتي المفضلة أثناء الدراسة هي الرسم .	البصري المكاني	٠,٣٢٠

حيث تشبعت عليه العبارات بتشعبات موجبة وأخرى سالبة ، ومن خلال دراسة هذا العامل يتضح أن العبارات التي تشبعت على هذا العامل ذات طبيعة مشتركة حيث تمثل سبع من هذه العبارات الذكاء الشخصي، بينما تمثل عبارة واحدة كل من الذكاء المنطقي الرياضي الذكاء اللغوي والذكاء الاجتماعي وقد تشبعت سبع عبارات تخص الذكاء الشخصي من إجمالي عشر عبارات تخص هذا الذكاء في المقياس .

ويتضح من جدول (٤) ارتباط العبارات المشبعة على هذا العامل مع بعضها البعض ارتباطاً دال إحصائياً عند مستوى معنوية (٠,٠٥).

وغى ضوء التفسير السابق وغى ضوء البناء العاملي لهذا العامل وقيم التشعبات الدالة يمكن تسمية هذا العامل (الذكاء الشخصي)، وتقرح الباحثان أن أفضل مقياس لقياس هذا العامل هو العبارة رقم ٢٨ لأنها تمثل أكبر القيم المشبعة على هذا العامل.

ويتضح من جدول (٣) ارتباط العبارات المشبعة على هذا العامل مع بعضها البعض ارتباطاً دال إحصائياً عند مستوى معنوية (٠,٠٥).

وغى ضوء التفسير السابق وغى ضوء البناء العاملي لهذا العامل وقيم التشعبات الدالة يمكن تسمية هذا العامل (الذكاء البصري الرياضي الحركي)، وتقرح الباحثان أن أفضل مقياس لقياس هذا العامل هو العبارة ٢١ لأنها تمثل أكبر القيم المشبعة على هذا العامل.

تفسير العامل الثالث:

يتضح من جدول (٤) أن العامل الثالث المستخلص من التحليل العاملي تشبع عليه عشر عبارات بنسبة (٢٩, ١٤٪) من مجموع العبارات المرشحة للتحليل العاملي، وقد تراوحت قيم تشعبات العبارات ما بين (-٦٤٨, ٠ ، ٠, ٧١٧). ويلاحظ أن هذا العامل ثنائي التكوين

جدول (٤)

الترتيب التنازلي للعبارات المشبعة بالقيم المقبولة على العامل الثالث لإجمالي العينة

رقم العبارة	العبارة	الذكاء	التشبع
٢٨	يمكنني أن أتبع بدقة بشعوري وسلوكي تجاه بعض المواقف.	الشخصي	٠,٧١٧
٥٥	دائماً أعرف ماهو شعوري وإحساسي تجاه الآخرين والموضوعات حولي	الشخصي	٠,٦٤٩
١	أحب أن أعرف المزيد عن نفسي.	الشخصي	٠,٦٤٨-
٤١	أضع لنفسي أهدافاً وخططاً للمستقبل.	الشخصي	٠,٦٠٢
٥٧	احتفظ بمذكرات يومية خاصة بي .	الشخصي	٠,٥٨٤
١٢	أحب التأمل .	الشخصي	٠,٥٣١-
٤٠	من السهل عليّ تذكر أرقام التليفونات .	المنطقي الرياضي	٠,٤٥٦-
٦٢	أنزعج إذا رأيت شخصاً ما يبكي وكنت غير قادر على مساعدته .	الاجتماعي	٠,٤٣٢-
٥٦	أنا واقعي فيما يتعلق بنقاط قوتي وضعفي.	الشخصي	٠,٣٨٨
٢٣	من السهل أن أتذكر المقتبسات أو الجمل.	اللغوي	٠,٣٣٣-

تفسير العامل الرابع:

يتضح من جدول (5) أن العامل الرابع المستخلص من التحليل العاملي تشبع عليه عشر عبارات بنسبة (29, 14%) من مجموع العبارات المرشحة للتحليل العاملي، وقد تراوحت قيم تشبعات العبارات ما بين (0, 309, 0, 725).

ويلاحظ أن هذا العامل أحادي التكوين حيث تشبعت عليه العبارات بتشبعات موجبة.

ومن خلال دراسة هذا العامل يتضح أن العبارات التي تشبعت على هذا العامل ذات طبيعة مشتركة حيث تمثل ثمان من هذه العبارات الذكاء الموسيقي وعبارة واحدة لكل من الذكاء البصري المكاني و الذكاء اللغوي وقد تشبعت ثمان عبارات تخص الذكاء الموسيقي من إجمالي عشر عبارات تخص هذا الذكاء في المقياس .

ويتضح من جدول (5) ارتباط العبارات

المشبعة على هذا العامل مع بعضها البعض ارتباطاً موجباً و-إال إحصائياً عند مستوى معنوية (0, 05).

وغى ضوء التفسير السابق وغى ضوء البناء العاملي لهذا العامل وقيم التشبعات الدالة يمكن تسمية هذا العامل (الذكاء الموسيقي)، وتترح الباحثان أن أفضل مقياس لقياس هذا العامل هو العبارة رقم 66 لأنها تمثل أكبر القيم المشبعة على هذا العامل.

ومما سبق يتضح أن نسق الذكاءات المتعددة لعينة البحث :

1. الذكاء الاجتماعي اللغوي .
2. الذكاء البصري الرياضي الحركي .
3. الذكاء الشخصي .
4. الذكاء الموسيقي .

وترى الباحثان أن لكل نوع من أنواع الذكاءات

جدول (5)

الترتيب التازلي للعبارات المشبعة بالقيم المقبولة على العامل الرابع لإجمالي العينة

رقم العبارة	العبارة	الذكاء	التشبع
66	الغناء يجعلني سعيدا .	الموسيقي	0, 725
64	كنت أحلم دائما أن أكون موسيقيا أو مطربا .	الموسيقي	0, 646
51	أثناء الدراسة كنت أحب الدروس الموسيقية.	الموسيقي	0, 612
39	أفضل وجود الموسيقى في الخلفية.	الموسيقي	0, 528
18	تعتمد الموسيقى التي تعجبني على حالتني المزاجية (الوجدانية) .	الموسيقي	0, 463
13	الموسيقى هامة جدا بالنسبة لي.	الموسيقي	0, 423
37	منزلي مليء بالرسومات والصور .	البصري المكاني	0, 394
8	عادة ما أستمع إلى كلمات من يتحدث معي وليس فقط معناها .	اللغوي	0, 370
2	يمكنني العزف على بعض الآلات الموسيقية.	الموسيقي	0, 364
25	أستمتع بأنواع كثيرة من الموسيقى .	الموسيقي	0, 309

وتضيفا أن التفاعل الحركي يعتبر من المقومات الأساسية لفرق كرة السلة حيث يتم الاتصال بين اللاعبين بواسطة الكرة أو التحركات داخل ملعب كرة السلة، وتحدد شبكة الاتصال بين اللاعبين من خلال حركة كل عضو في الفريق في ضوء بقية حركات زملاءه، مما يحتم عليه توقع حركات زملاءه وتحركات المنافسين، وبالتالي يتوقف إنتاج الفريق على مقدرة جميع أعضائه على التواصل والتفاهم للتغلب على المنافس في ظرف الاحتكاك المباشر وغير المباشر.

وتعزي الباحثان ظهور الذكاء اللغوي كعامل أول مميز للذكاءات المتعددة المميز؛ للاعب كرة السلة بجانب الذكاء الاجتماعي إلى طبيعة اللعبة وحاجة اللاعبات إلى الاتصال داخل الملعب لأداء أكثر فاعلية لخططهم المختلفة سواء كان الاتصال لفظي أو جسدي وتشير إلى ذلك جيهان أبو راشد (٢٠٠٦) حيث ترى أن الذكاء الاجتماعي هو القدرة على التواصل مع الآخرين، والقدرة على قراءة مشاعرهم، ووافقهم، ونواياهم، و القدرة على التواصل اللفظي وغير اللفظي (الاتصال بالعين، إيماءات الجسم) (٨: ٢٤).

ويشير محمد أمين المفتي (٢٠٠٤) إلى أن الذكاء اللغوي تسود فيه الحساسية للأصوات والمعاني والإيقاع كما أن الأفراد الذين يتمتعون بهذا الذكاء يكون لديهم نمو مرتفع في مكونات اللغة والمهارات السمعية (١٦: ٨) كما تضيف نيفين عبد الله (٢٠٠٤) أن القدرة على استخدام اللغة يساعد على التواصل والتحفيز (٣٦).

وترى الباحثان أن كرة السلة تتطلب هذا النوع من أنواع الذكاءات لاستخدامه في متابعة توجيهات المدرب وطريقة إلقاء التعليمات لأفراد

أهمية في مجال كرة السلة، واستخلاصاً من العرض السابق يتضح أن الذكاء الاجتماعي اللغوي هو العامل الأبرز المميز للذكاءات المتعددة الخاصة بلاعبات كرة السلة، حيث يشير جارنر (١٩٨٣) إلى أن الذكاء الاجتماعي في القدرة على فهم الأفراد والعلاقات الاجتماعية، أي القدرة على فهم مشاعر الآخرين والتمييز بينها والقدرة على فهم اتجاهاتهم ووافقهم والتصرف بحكمة حيالها والقدرة على التعامل بفاعلية مع الآخرين (٣٠).

ويرى محمد عبد الهادي حسين (٢٠٠٥) أنه القدرة على ادراك الحالات المزجية للآخرين (٢٠- ١٠٧).

وتضيف منى خالد (٢٠٠٨) ورسترنج (٢٠٠٦) إلى أنه يتضمن القدرة على التمييز بين عدة أنواع مختلفة من الإشارات البين شخصية، والقدرة على التجاوب بفاعلية تجاه هذه الإشارات بطريقة واقعية مثل التأثير على مجموعة من الناس ليتبعوا مسار عمل معين . (٢٧: ٢٣: ٢٦).

وترى الباحثان ضرورة توافر الذكاء الاجتماعي في كرة السلة من أجل الوصول إلى أعلى المستويات الرياضية حيث أنها تحتاج التعاون بين أفراد الفريق، وتوافر القيادة الصالحة والتفاعل بين اللاعبات، وغهم انفعالات أعضاء الفريق وكذلك انفعالات الفريق المنافس .

كما ترى أن كرة السلة تعتبر من الكيانات الجماعية التي تحتاج إلى توافر الذكاء الاجتماعي الذي ينظم سلوك الأفراد داخل هذا الكيان ويساعد على التفاعل المتبادل بين أعضاء الفريق وغهم تفكيرهم وتوقع استجاباتهم التالية من أجل استخدامها في خطط اللعب.

الفريق، وفهم خطط اللعب حتى يكون أقدر على التعلم الخططي، وتطبيق خطته بفاعلية أثناء المباريات عن طريق التواصل اللفظي بينهم .

واستخلاصاً من العرض السابق يتضح أن الذكاء البصري الرياضي الحركي هو العامل الثاني المميز للذكاءات المتعددة الخاصة بلاعب كرة السلة .

حيث يشير جارنر (١٩٨٣) إلى أهمية الذكاء البصري في إدراك المعلومات البصرية والتفكير في حركة ومواضع الأشياء في الفراغ والقدرة على إدراك صور أو تخيلات ذهنية داخلية ويتضمن الحساسية للخطوط والأشكال و الألوان و الحيز والعلاقات بين العناصر ، وهي تتضمن القدرة على التصور البصري للأفكار ذات الطبيعة البصرية أو المكانية (٣٠ - ٣٨) .

بينما يؤكد جابر عبد الحميد (١٩٩٧) أن الترتيم يعد من العمليات المحورية للذكاء الرياضي ، حيث يساعد اللاعب على تحديد رقم أو عدد يطابق شيئاً في سلسلة من الأشياء أو الموضوعات (٦ : ٢٧٢) .

وتؤكد داليا زكريا زيد (٢٠١٠) على مكانة الذكاء الحركي في الأنشطة الرياضية حيث تتطلب قدرة الفرد على الأداء الحركي الذي يتميز بالتوافق والقدرة على سرعة تعديل الأداء بصورة تتناسب مع متطلبات المواقف المتغيرة ، والدقة في إصابة الهدف ، وسرعة تغيير اتجاه الحركة واتجاه الجسم والتغيير المفاجيء في الحركات أثناء الأداء وهو ما يحققه الذكاء الحركي. (٩ : ١٨) .

وترى الباحثتان أن اندماج أكثر من نوع من أنواع الذكاءات المتعددة كعامل ثاني (الذكاء البصري الرياضي الحركي)، يرجع إلى طبيعة

الأداء أثناء المباريات حيث يتطلب الأداء الفعال القدرة على الإحاطة البصرية وتكوين الصور الذهنية و التعامل معها بغرض حل المشكلات أو إجراء التعديلات وإعادة إنشاء التصورات الأولية ثم طرحها في شكل جديد أو معدل يتناسب مع المواقف المتغيرة التي تواجهها اللاعبات في المواقف التنافسية، وهذا الذكاء يتطلب الحساسية للأشكال والمساحات والعلاقات التي توجد بين عناصر اللعبة (الملعب - لوحة الهدف - لوحة التسجيل - جهاز الـ ٢٤ ثانية - لاعبي الفريق و الفريق المنافس) كذلك القدرة على التصور البصري، بالإضافة إلى حاجة اللاعبات إلى الذكاء الرياضي نظراً إلى أن لعبة كرة السلة بها العديد من الأرقام التي يجب أن تتعامل معها اللاعبات والتي تستخلصها عن طريق عمليات حسابية بسيطة وذلك عن طريق الأرقام التي تعلنها الأجهزة الفنية الخاصة بإدارة المباريات كجهاز الـ ٢٤ ثانية ولوحة إعلان النتائج و الأخطاء الشخصية الخاصة بكل لاعبة و بالفريق ككل حتى يستطيعن التصرف في المواقف الحرجة وخاصة في الدقائق والثواني الأخيرة من المباريات ، كما أن الذكاء الحركي أحد أنواع الذكاءات التي تعتمد عليها اللاعبات في التحرك في الفراغ والتحرك مع الزميلة والتحرك داخل التشكيلات الهجومية والدفاعية، كما يتطلب من اللاعبات الأداء الحركي بكافة أجزاء أجسامهن سواء كانت الأيدي أو الأرجل أو الأصابع، ويضم هذا النوع من الذكاءات مهارات نوعية مثل التآزر والتوازن والمهارة والقوة والمرونة والسرعة والإحساس بحركة الجسم ووضعه، وهذه المهارات تعتبر من المهارات التي يجب أن تتوافر في اللاعبات .

واستخلاصاً من العرض السابق يتضح أن الذكاء الموسيقي هو العامل الرابع المميز للذكاءات المتعددة الخاصة بلاعبات كرة السلة .

حيث تشير داليا زكريا زيد (٢٠١٠) إلى أن هناك بعض الأنشطة الرياضية التي تحتاج لمثل هذا النمط من الذكاء بصورة كبيرة لاستخدامه في تطوير إيقاع الفرد في الأداء حيث أن لكل لاعب إيقاعه الخاص به في الأداء ، وأن الإيقاع السريع للحركة يرفع مستوى الأداء حيث يساعد اللاعب على تحريك أجزاء جسمه في مسار الحركة الصحيح ، وفي تحديد أجزاء الحركة التي تحتاج إلى معدل أعلى من القوة (٩ : ١٨) .

وترى الباحثتان أن طبيعة الأداء في كرة السلة تحتاج إلى التغيير المستمر في إيقاع الحركات المختلفة سواء عند أدائه للمهارات الهجومية أو الدفاعية بالإضافة إلى إيقاع اللعب بصفة عامة أثناء أداء الخطط المتنوعة وذلك للتطور المستمر في الفنون الخططية بما يواكب هذا التطور .

كما يشير العرض السابق للنتائج إلى أن الذكاء الشخصي هو العامل الثالث المميز للذكاءات المتعددة الخاصة بلاعبات كرة السلة .

ويرى جابر عبد الحميد (٢٠٠٣) إلى أن الذكاء الشخصي هو القدرة على معرفة الذات والقدرة على التصرف توافقياً على أساس تلك المعرفة ، ويتضمن أن يكون لدى الفرد صورة دقيقة عن نواحي قوته وحدوده والوعي بأمزجته الداخلية ومقاصده ، ونوافعه وحالاته المزجية، ورغباته و القدرته على تقييم الذات وفهمها وتقديرها (٧ : ١٢) .

وترى الباحثتان أن هذا النوع من الذكاءات يؤثر بدرجة كبيرة في اتخاذ القرارات المتعلقة بالأداء في المواقف المتغيرة طبقاً لتقديرهم لنواحي القوة والضعف، كما أنه يساعدهم على التحكم في رغباتهم وحالتهم الانفعالية سواء في حالة المكسب أو الخسارة وتقدير قدراتهم الذاتية التقدير الصحيح الذي يمكنهم من الوصول لأهدافهم.

استخلاصات البحث :

- في إطار ما أسفرت إليه نتائج هذه الدراسة وتحقيقاً لهدف البحث توصلت الباحثتان إلى الاستخلاص التالي :

نسق الذكاءات المتعددة الخاصة بلاعبات كرة السلة هو :

- ١ . الذكاء الاجتماعي اللغوي .
- ٢ . الذكاء البصري الرياضي الحركي .
- ٣ . الذكاء الشخصي .
- ٤ . الذكاء الموسيقي .

التوصيات

- في ضوء النتائج التي توصلت إليها الباحثتان الحالية و انطلاقاً من استخلاصات الدراسة الحالية توصي الباحثتان بما يلي :
- 1 . استخدام نسق الذكاءات المتعددة للاعبات كرة السلة والمستخرج من الدراسة الحالية كأساس لانتقاء اللاعبات الناشئات .
 - 2 . تدعيم الذكاء الاجتماعي اللغوي ، والذكاء البصري الرياضي الحركي حيث أنهم احتلوا المراكز الأولى في ترتيب العوامل و باعتبارهم أسباب التميز و الإجابة في كرة السلة .
 - 3 . إجراء دراسات مشابهة للتعرف على نسق الذكاءات المتعددة الخاصة بكل مركز من مراكز اللعب في كرة السلة و الأنشطة الرياضية الجماعية المختلفة .
 - 4 . الاستفادة بنسق الذكاءات المتعددة للاعبات كرة السلة المستخرج من الدراسة في وضع الاستراتيجيات التدريبية و تميمتها جنباً إلى جنب مع الإعداد البدني و المهاري و الخططي .
 - 5 . الاستفادة بنسق الذكاءات المتعددة للاعبات كرة السلة المستخرج من الدراسة في مساعدة المدربين في وضع برامج الإعداد العقلي و وضع معايير التقييم ، و مقارنة النتائج الرياضية في ضوء هذه المعايير
 - 6 . إجراء المزيد من الدراسات و البحوث للتعرف على أنساق الذكاءات للاعبين و لاعبات المستويات الرياضية العليا في كرة السلة و الأنشطة الرياضية الأخرى .

قائمة المراجع

أولاً : المراجع العربية :

- 1 . أحمد علي حجاج يوسف (٢٠٠٦) : مؤشرات ذكاء الإداري الرياضي في ضوء نظرية الذكاء المتعدد، رسالة دكتوراة غير منشورة، كلية التربية الرياضية للبنين بالهرم، جامعة حلوان.
- 2 . أحمد فاروق خلف، محمود حسين محمود (٢٠٠٨) : تأثير برنامج للأساسيات الخططية الهجومية على تطوير الذكاء الخططي للناشئين في كرة السلة، المجلة العلمية للتربية البدنية و الرياضة، العدد (٥٦) ديسمبر ٢٠٠٨، كلية التربية الرياضية للبنين بالهرم، جامعة حلوان .
- 3 . أحمد نبيه إبراهيم محمد (٢٠٠٧) : بناء مقياس للذكاء الانفعالي للرياضيين، المجلة العلمية للتربية البدنية و الرياضة، العدد (٤٩)، يناير ٢٠٠٧، كلية التربية الرياضية للبنين بالهرم، جامعة حلوان.
- 4 . السيد علي سيد أحمد (٢٠٠٥) : نظرية الذكاءات المتعددة و تطبيقاتها في مجال صعوبات التعلم (رؤية مستقبلية) .
- 5 . إمام مصطفى سيد (٢٠٠١) : مدى فاعلية تقييم الأداء باستخدام أنشطة الذكاءات المتعددة لجار-نر في اكتشاف الموهوبين من تلاميذ المرحلة الابتدائية، مجلة كلية التربية بأسيوط، المجلد السابع عشر، العدد الأول، (١٩٩ - ٢٥٠) .
- 6 . جابر عبد الحميد جابر (١٩٩٧) : الذكاء و مقياسه، الطبعة ١٧، دار النهضة العربية، القاهرة .

قائمة المراجع

تابع : المراجع العربية :

٧. ----- (٢٠٠٣) : الذكاءات المتعددة والفهم، تنمية وعميق، دار الفكر العربي، القاهرة
٨. جيهان أبو راشد العمران (٢٠٠٦): الذكاءات المتعددة للطلبة البحرنيين في المرحلة الجامعية وغقا للنوع والتخصص الأكاديمي، مجلة العلوم التربوية والنفسية، المجلد السابع، العدد الثالث.
٩. داليا زكريا زيد (٢٠١٠) : نسق الذكاءات المتعددة لرياضي الأنشطة الفردية والجماعية، رسالة دكتوراة غير منشورة، كلية التربية الرياضية للبنات، جامعة الإسكندرية.
١٠. سلوى موسى محمد عسل (١٩٧٥) : العلاقة بين الذكاء والتفوق الرياضي، رسالة ماجستير غير منشورة، المعهد العالي للتربية الرياضية بالجزيرة، وزارة التعليم العالي .
١١. عبد المنعم سليمان محمد برهام (١٩٨١): العلاقة بين بعض مظاهر النمو البدني والذكاء العام لتلاميذ المرحلة الإعدادية، رسالة ماجستير غير منشورة، كلية التربية الرياضية للبنين بالقاهرة، جامعة حلوان .
١٢. عماد الدين عباس أبو زيد (٢٠٠٥) : التخطيط والأسس العلمية لبناء وإعداد الفريق في الألعاب الجماعية، نظريات وتطبيقات، الطبعة الأولى، منشأة المعارف، الإسكندرية .
١٣. فتحي عبد الحميد عبد القادر، السيد محمد أبو هاشم (٢٠٠٦) : البناء العاملي للذكاء في ضوء تصنيف جارنر وعلاقته بكل من فعالية الذات وحل المشكلات والتحصيل الدراسي لدى طلاب الجامعة، مجلة كلية التربية، جامعة الزقازيق، العدد (٥٢)، يناير (٢٠٠٦) .
١٤. قاسم حسن حسين، فتحي المهشيش يوسف (١٩٩٩) : الموهوب الرياضي، سماته وخصائصه في مجال التدريب الرياضي، الطبعة الأولى، دار الفكر، عمان .
١٥. محمد إبراهيم محمود، راندي عبد العزيز حسن (٢٠٠٧) : برنامج تدريبي لتنمية الذكاء الخططي لناشئ كرة القدم تحت ١٢ سنة ٢٠٠٧، المجلة العلمية، كلية التربية الرياضية للبنين، جامعة الإسكندرية.
١٦. محمد أمين المفتي (٢٠٠٤) : الذكاءات المتعددة - النظرية والتطبيق، المؤتمر العلمي السادس عشر لتكوين المعلم، المجلد الأو، القاهرة، الجمعية المصرية للمناهج وطرق التدريس .
١٧. محمد سعد محمد عبد الله (١٩٨٢) : الشخصية والقدرات العقلية، دراسة في مجال التربية البدنية، دار الإصلاح، السعودية .
١٨. محمد صبحي أحمد حسانين (١٩٧٣) : العلاقة بين مستوى الذكاء وبعض عناصر اللياقة البدنية لتلاميذ المرحلة الإعدادية ومعاهد التربية الفكرية بمدينة الجيزة، رسالة ماجستير غير منشورة، المعهد العالي للتربية الرياضية بالهرم، وزارة التعليم العالي.
١٩. محمد عبد الهادي حسين (٢٠٠٣) : تربيوات المخ البشري، دار الفكر العربي، عمان.
٢٠. ----- (٢٠٠٥) : مدرسة الذكاءات المتعددة، دار الكتاب الجامعي، غزة، فلسطين.
٢١. محمد لطفي طه (٢٠٠٢) : الأسس النفسية لانتقاء الرياضيين، القاهرة .
٢٢. منال محمد زكي الجلدي (٢٠٠٥) : تدريس منهج الإيقاع الحركي المطور باستراتيجيات قائمة على نظرية الذكاء المتعدد وأثرهما على نواتج التعلم، رسالة دكتوراة غير منشورة، كلية التربية الرياضية للبنات، جامعة الإسكندرية.

٢٣. **منى خالد محمود عياد (٢٠٠٨)** : أثر برنامج بالوسائط المتعددة في ضوء نظرية الذكاءات المتعددة على اكتساب المفاهيم التكنولوجية وبقاء أثر التعلم لدى طالبات الصف السابع بغزة، رسالة ماجستير غير منشورة، كلية التربية، الجامعة الإسلامية بغزة .
٢٤. **نشأت محمد أحمد منصور (٢٠١٠)** : الذكاء الانفعالي وعلاقته بقلق المنافسة الرياضية ونتائج البطولات لناشئ الجمباز، رسالة دكتوراة غير منشورة، كلية التربية الرياضية للبنات، جامعة الإسكندرية .
٢٥. **ناقلة نجيب الخزندار، عزز إسماعيل عفانة (٢٠٠٤)** : مستويات الذكاء المتعدد لدى طلبة مرحلة التعليم الأساسي بغزة، وعلاقتها بالتحصيل في الرياضيات والميول نحوها، مجلة الجامعة الإسلامية (سلسلة الدراسات الإنسانية) المجلد الثاني عشر - العدد الثاني، ص٢٤٣ - ٣٦٦، يونيو (٢٠٠٤).
٢٦. **وائل رفاعي إبراهيم رضوان (٢٠٠٨)** : بناء مقياس الذكاء الانفعالي للمدرب الرياضي، المجلة العلمية للتربية البدنية والرياضة، العدد (٤٨) سبتمبر ٢٠٠٦، كلية التربية الرياضية للبنين بالهرم، جامعة حلوان .

قائمة المراجع

ثانياً : المراجع الأجنبية :

27. **Armstrong, T. (2006)** : Multiple Intelligences in the classroom 3rd Edition
28. **Burton, J. (1975)** : Res. Quart. vol. 64 .No.2.AAHPER.1975. P2
29. **Deing Z (2004)** : Multiple intelligence and learning style: two complementary dimensions: teacher college record.
30. **Gardner.H. (1983)** : Frames of mind: the theory of Multiple intelligences .tenth Anniversaries Editions NEW YORK: Books.
31. ----- (1999) : Intelligence Reramed. Multiple Intelligences For The 21st Century . Basic books. New York .
32. ----- (2003) : Multiple Intelligences after twenty years (paper presental the American .
33. **Hirschhorn, Douglas, Kamin(2000)** “ Therelationship between emotionalintelligence and performance statistics of NCAA division 1 caliberbaseballplayer “south - Connecticut - stat. University-Dissertation abstractsinternational page 1691
34. **Nelson.K.(1998)** : Developing students' Multiple Intelligences. New York.
35. **Vansickle-Jennifer-Louise (2004)** : the Relationship between Emotional Intelligence and coaching effectiveness in Division head softball coaches . University of Kentucky. No 100

ثالثاً : مراجع من شبكة المعلومات :

٣٦. **نيفين صلاح عبد الله (٢٠٠٤)** : اختبار ذكاء طفلك ، شبكة إسلام أونلاين. نت .
37. **Niall Doglas (2002)** : Multiple Intelligence Test . Last updated. 15 March 2009 .
http://www.nedprod.com/Niall_stuff/intelligence__test.html

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THE
EFFECTIVENESS
OF USING

*Some
Educational
Technology
Aids*

on the Performance Level of Scoring from Front Fall in
Handball

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Abstract

The research aims at recognizing the effectiveness of using some educational technology aids (i.e. watching photographed models, capturing the performance of the female students then presenting it for them using video recorder) on the performance level of the skill of scoring from front fall in handball. The researcher used the experimental approach on a sample of (36) female students in the fourth year, major of handball in the Faculty of Physical Education for Girls in Zagazig. The sample was divided into two groups, an experimental group and a control group, consisting of (15) female students each.

The researcher used a variety of research tools, such as physical tests, skill tests, high intelligence test, video recorder, display screen, video tapes and video camera.

The following are the most significant research findings:

1- *The educational technology aids (i.e. watching photographed models, capturing the performance of the female students then presenting it for them using video recorder) positively affect the performance level of the skill of scoring from front fall in handball.*

2- *The use of learning-by-direction approach (verbal explanation and practical modeling of the skill) positively affects the performance level of the skill of scoring from front fall in handball.*

3- *The members of the experimental group surpassed the members of the control group in the improvement of the post-measurement rates of accuracy and strength of scoring from front fall in handball, compared to the pre-measurement rates.*

Introduction:

Modern educational trends call on taking care of educated individual to be a basic component in the educational process. They also ask for developing the role of the instructor to switch him from a mere prompter and performer to be a designer of the educational environment.

Abdel Hamid Sharaf (2006) (14) mentions that the most important thing to help students throughout the phases of education is the instructor's use of some suitable educational aids which contributes largely to student's acquaintance of good performance of motor skills. Educational aids came to be one of the main components of the educational technology. In other words, educational aids became an integral part of educational technology. With using educational aids with its different and various types, the effectiveness of lessons increases and lessons become

more interesting, more exciting and full of typical performance that is desired to be educated.

Educational cartoons, videos, photos and oriented TV films have great importance in the physical education lessons, because they increase the effectiveness of the teaching process, tendency to learning and achievement of lesson objectives. They also save time and effort and trigger learners' incentive towards lessons. (Abdel Aziz Al Iqili, 2005, 194).

Both *Afaf Abdel Karim (1994) (16)* and *Hussein At-Tobeji (1996) (i)* agrees that presenting motor skills through video tapes using video recorder provides the opportunity for comprehending skill parts better than performing the skill quickly for one time. With the increase of the devices that display such films through visual display screens and visual recorders, there will be no obstacles that prevent trials to

use such educational aid in teaching compound motor skills in a good way.

Although educational technology devices and tools have spread in Egyptian schools and universities, the learning-by-direction approach is still more common than other approaches in schools today. Through this approach, an instructor finds all decisions related to the aspects of the educational process including planning, implementation and evaluation; and the role of the learner is just learning and performing. (Afaf Abdel Karim, 1994, Pg. 98).

Jalal Salim (2004) (6) indicates that the skill of scouring from front fall is one of the most difficult skills in terms of performance since fall is merged with the throwing movement and is based on several phases (the phase of building momentum, the phase of pushing, the phase of work in the air and the phase of fall).

Through the experience of the researcher in teaching the subject of handball for the female students of the Faculty of Physical Education for Girls in Zagazig, she noticed the emergence of some technical mistakes in performing the skill of scoring from front fall with the fourth-year students in the major of handball in the Faculty though they studied it theoretically and practically in the first and second years in the Faculty. The subject is taught according to the traditional method (learning by direction) which depends on the verbal explanation and the practical modeling of the skill without the least active participation from the female learners

in the educational situation. This contradicts with the advancement in the educational technology aids in terms of their use to promote the educational process in the present time. In addition, there is an increase in the number of female learners during practical lessons which should be consequently accompanied by increasing variation in the individual differences among female learners, leading to increasing the burden imposed on the instructor and her need to great effort to teach and simplify the skill in the way that allows learners to simply recognize the phases of the skill in an attempt to understand each attempt to reach the integral and correct performance of the skill.

The researcher believes that this matter requires those in charge of the educational process to look necessarily for modern and interesting teaching methods that lead to teaching basic skills in handball for students easily and without boredom and that attract their attention and work on polishing their educational experiences.

This the reason that urged the researcher to do such study to recognize the effectiveness of using some educational technology aids (i.e. watching photographed models, capturing the performance of the female students then presenting it for them using video recorder) on the performance level of the skill of scoring from front fall in handball for fourth-year students, major of handball in the Faculty of Physical Education for Girls, Zagazig University.

Thus, it becomes clear how this study is significant in helping fourth-year students, major of handball in the Faculty to watch a correct model and to focus on the technical aspects in the movement using all senses to recognize the particulars and details of the movement and also to increase their understanding of the performance which leads to their motive towards performance. This, in turn, helps them to learn and master the skills fast.

Research Objectives:

The research aims at recognizing:

1- The effectiveness of using some educational technology aids (i.e. watching photographed models, capturing the performance of the female students then presenting it for them using video recorder) on the performance level of the skill of scoring from front fall in handball.

2- The effectiveness of using learning-by-direction method (verbal explanation and practical model of the skill) on the performance level of the skill of scoring from front fall in handball.

3- The comparison of the effect of using some educational technology aids (under research) and learning-by-direction method on the performance level of the skill of scoring from front fall in handball.

Research Hypotheses:

1- There are statistically significant differences between the post and pre

measurements of the experimental group (i.e. watching photographed models, capturing the performance of the female students then presenting it for them using video recorder) in the performance level of the skill of scoring from front fall in handball.

2- There are statistically significant differences between the post and pre measurements of the control group (verbal explanation and practical model of the skill) in the performance level of the skill of scoring from front fall in handball.

3- There are statistically significant differences between the post and pre measurements of both the control and experimental groups in the performance level of the skill of scoring from front fall in handball.

Research Approach:

The research used the experimental approach, because it fits the nature of this research.

Research Environment and Sample:

The research sample was selected through the random intentional approach from the fourth-year female students, major of handball in the Faculty of Physical Education for Girls, Zagazig University in the academic year 2011/2012 - first semester. The research environment was composed of (45) female students. The researcher excluded (15) female students who had participated in the exploratory study.

Thus, the size of the research basic sample became (30) female students with a percentage of (66.67%). Those were divided into two equal groups (an experimental group, and a control group) consisting of (15) students each.

The researcher divided the sample randomly into two groups, consisting of (15) students each. Then the significance of differences between

the two groups was calculated, in order to ensure the equivalence of the groups prior to carrying out the experiment. This measurement is considered a pre-measurement for the members of the experimental group and the control group. This was done in the period from October 9, 2011 to October 11, 2011. This is illustrated by tables (1) and (2).

Table (1)
Significance of Differences between the Experimental and Control Group in Age, Length, Weight and Intelligence

Variables	Measurement Unit	Experimental Group N = 15		Control Group N = 15		"T" Value
		A	D	A	D	
Age	Year	21.80	0.64	21.60	0.77	0.74
Length	Centimeter	169.95	4.29	171.50	4.15	0.69
Weight	Kilogram	70.50	3.55	71.86	4.90	0.84
High Intelligence	Score	29.50	4.72	29.00	4.61	0.28

"T" tabular value at the level of 0.05 = 2.048

* Significant at the level of 0.05

From table (1), it becomes clear that there are no statistically significant differences at the level of 0.05 between the experimental and control groups in the growth variables, which indicates the equivalence of the research groups in these variables.

Table (2)

Significance of Differences between the Experimental and Control Group in Physical and Skill-Related Variables under Research

Variables	Measurement Unit	Experimental Group N = 15		Control Group N = 15		“T” Value
		A	D	A	D	
Muscular ability of the two arms	Meter	3.85	0.69	3.75	0.65	0.40
Muscular ability of the two legs	Meter	1.75	0.10	1.70	0.10	0.80
Eye-arm harmony	Mark	15.00	3.33	14.60	3.14	0.33
Agility	Second	9.37	1.12	9.49	0.98	0.30
Accuracy of scoring from fall	Mark	7.50	1.42	7.00	1.37	0.94
Strength and accuracy of scoring from fall	Mark	15.60	2.91	14.80	2.88	0.73

“T” tabular value at the level of 0.05 = 2.048

* Significant at the level of 0.05

From table (2), it is shown that there are no statistically significant differences at the level of 0.05 between the experimental and control group in the physical and skill which indicates the equivalence of the research groups in these variables.

Data Collection Tools:

First: Physical Tests under Research:

- 1- The test of pushing a medical ball weighing (3) kilogram.
- 2- The test of wide leaping from stability.
- 3- The test of harmony between the eye and the arm.
- 4- The test of zigzag running in Barrow Method 3 X 4.5 m.

Second: Skill Tests under Research:

- 1- The test of accuracy of scoring from fall.
- 2- The test of strength and accuracy of scoring from fall.

Third: The Test of High Intelligence:
prepared by Assayed Muhammad Khairy (1989) (2).

Basic Experiment:

First: Experimental Group:

The basic experiment was carried out during the first semester of the academic year 2011/2012 in the period from October 13, 2011 to November 23, 2011 for six continuous weeks with the rate of two educational units weekly. Control group members are taught through learning-by-direction method. On the other hand, the researcher followed the following steps while teaching the members of the experimental group:

- 1- Performing physical warm-up (10) minutes then presenting the

performance of the skill of scoring from front fall in handball by the visual recorder and the display screen (for one of the handball female players who is distinguished in this skill) to female students. The normal and slow-motion displays were used with pausing the image, commenting and explaining the technical aspects by the researcher over period of (3) minutes.

- 2- Performing the skill of scoring from front fall handball by the experimental group members with focusing on the basic phase and proceeding with skill performance and safe fall on (mattresses, jump pit, playground floor) over period of (22) minutes.

- 3- Repeating display of good performance by the visual recorder where the researcher opted to repeating the display when she noticed technical mistakes in performing the skill under research over period of (3) minutes.

- 4- Recording the performance of each female student when doing the skill under research then moving to the display room (that was close to the place of performing the experiment) so that each female student can watch her performance and so she can know her mistakes through using slow-motion display and pausing the image for watching (criticizing sessions over a period of 7 minutes).

- 5- Watching the good performance of the skill under research using the visual recorder and the display screen over period of (3) minutes.

- 6- Repeating the performance by

female students with focusing on fixing the mistakes that appeared in the skill performance over period of (7) minutes. This was repeated till the expiration of the period of the suggested educational program.

7- Completing the rest of the educational unit by the experimental group members over period of (35) minutes with the aim of teaching the rest of handball skills.

8- Performing the final part over a period of (3) minutes.

Second: Control Group:

The researcher used the learning-by-direction method with the members of

the control group in performing the skill of scoring from front fall. In this method, technical mistakes of the control group members are fixed through directions presented to them by the instructor. After (6) weeks had passed, the post measurement of the skill under research was carried out.

Post Measurements:

Post measurements were carried out in the period from November 24, 2011 to November 27, 2011 on the members of both the experimental and control groups in the same order and according to the same pre-measurement conditions.

Results Presentation:

Table (3)

Significance of Differences between the Pre and Post Measurements of the Experimental Group in the Performance Level of the Skill of Scoring from Front Fall

N = 15

Variables	Measurement Unit	Pre-Measurement		Post Measurement		"T" Value
		A	D	A	D	
Accuracy of scoring from fall	Mark	7.50	1.42	10.80	1.55	4.91*
Strength and accuracy of scoring from fall	Mark	15.60	2.91	19.97	2.34	4.37*

"T" tabular value at the level of 0.05 = 2.262

* Significant at the level of 0.05

From table (3) it appears that there are statistically significant differences at the level of 0.05 between the pre and post measurements of the experiment group regarding the accuracy and strength of scoring from front fall in handball in the favor of the post-measurement.

Table (4)

Significance of Differences between the Pre and Post Measurements of the Control Group In the Performance Level of the Skill of Scoring from Front Fall

N = 15

Variables	Measurement Unit	Pre-Measurement		Post Measurement		"T" Value
		A	D	A	D	
Accuracy of scoring from fall	Mark	7.00	1.37	8.93	1.41	2.53*
Strength and accuracy of scoring from fall	Mark	14.80	2.88	16.71	2.56	2.39*

"T" tabular value at the level of 0.05 = 2.262

* Significant at the level of 0.05

From table (4), it is shown that there are statistically significant differences at the level of 0.05 between the pre and post measurements of the control group regarding the accuracy and strength of scoring from front fall in handball in the favor of the post-measurement.

Table (5)

Significance of Differences between the Two Post Measurements of the Experimental and Control Groups In the Performance Level of the Skill of Scoring from Front Fall

Variables	Measurement Unit	Experimental Group N = 15		Control Group N = 15		"T" Value
		A	D	A	D	
Accuracy of scoring from fall	Mark	10.80	1.55	8.93	1.41	3.34*
Strength and accuracy of scoring from fall	Mark	19.97	2.34	16.71	2.56	3.51*

"T" tabular value at the level of 0.05 = 2.048

* Significant at the level of 0.05

Table (5) shows statistically significant differences at the level of 0.05 between the two post measurements of the experimental and control groups regarding the accuracy and strength of scoring from front fall in handball in the favor of the experimental group.

Results Discussion:

Considering the results of table (3), it becomes clear that there are statistically significant differences at the level of 0.05 between the pre measurement and post measurement of the experimental group in the strength and accuracy of scoring from front fall in handball in favor of the post measurement.

The researcher ascribes the reason of improvement in the accuracy and strength of scoring from front fall in handball for the experimental group members to the effectiveness of educational technology aids (i.e. watching photographed models, capturing the performance of the female students then presenting it using video recorder and display screen). This finding matches what *Abdel Aziz Al Iqili (2005) (15)* indicated that utilizing video devices presents the optimal performance as these devices are considered among the educational technology devices that help the learning process and mistakes correction. They present information by audio and video. Furthermore, the video options allow pausing videos, editing them or showing them in slow motion.

This finding agrees with the findings of the study of *Jalal Kamal Ali (2003) (5)*, *Muhammad Ad-Dabrawy and Issam Ad-Deen Rajai (2003) (23)*, *Muhammad Ahmad Abdullah (2004) (18)*, *Medhat Younis Abdel Razaq (2004) (24)*, *Tariq Mahdi Atyab (2005) (16)*, *Wael Jalal Al-*

Ayouti (2006) (28), *Muhammad Fekri Sayid Ahmad (2008) (22)*, *Medhat Younis Abdel Razaq (2008) (25)* that using auditory visual devices (video – display screens) contributes to developing the skill performance level and makes learners able to record their notes about their skill performance level in the educational lessons, which ultimately makes them able to correct their technical mistakes in the motor performance.

Atif As-Sayed (2006) (13) adds that there are many benefits of the visual recorder such as presenting auditory and visual information that represents reality; providing new skills and experiences; providing interactive environment that enables learners to control their self-speed, their course to follow during the program and the sequence of information; and enabling learners to provide immediate feedback on the learners' response.

This finding also goes well with what *Sayed Othman and Anwar Ash-Sharqawi (2006) (5)* indicated that feedback information performs a basic role in teaching skills since they are information available for individuals that makes it possible to compare their actual performance with a standard performance of the skill. Thus, the concept of feedback is originally connected to the learner's evaluation of his behavior and performance.

Thus, the validity of the first research hypothesis is proved

Table (4) results showed statistically significant differences at the level of 0.05 between the pre and post measurements of the control group in the accuracy and strength of scoring from front fall in handball in the favor of post-measurement.

The researcher ascribes the reason of improvement in the accuracy and strength of scoring from front fall in handball for the control group to using verbal explanation and performing practical modeling for the skill under research with repeating the performance of and training on the skill to promote the skill under research, leading to improvement in the post-measurement results, compared to the pre-measurement results of the group.

This result matches what *Aifred (2001) (25)*, *Fayez Mourad, Al-Amin Abdel Hafiz (2003) (11)* and *Fikri Hasan (2004) (12)* indicated that the learning-by-direction method is one of the direct methods to convey information and skill acquaintance from instructors to learners, because learners feel excellence and control on the educational situation and can set the conditions of the surrounding environment during learning.

Thus, the validity of the second research hypothesis is proved

The results of table (5) also showed statistically significant differences at the level of 0.05 between the two post-measurements of the experimental and control groups in the accuracy and

strength of scoring from front fall in handball in the favor of the experimental group.

The researcher ascribes the reason of improvement in the accuracy and strength of scoring from front fall in handball for the experimental group members to the multiplicity of feedback sources through pictures watched by the visual recorder and capturing the performance of each female student and presenting it to them to know their mistakes and thus enabling them to fix these mistakes. This contributed to improving the performance level of the skill under research. This finding agrees with what *Makarim Abu Harjab and Mubammad Saad (1999) (26)*, *Imam Mukhtar and et al (2005) (3)* indicated that using feedback which is supported by the visual recorder helps in forming intellectual imagination and concepts for learner better than the traditional method and that any educational system works according to traditional ways is not enough.

This finding matches the findings of the study of *Richard³ Wilkinson (2002) (31)*, *Russel (2003) (32)*, *Wael Al-Asiouti (2006) (28)*, *Iman Mubammad Wagihan Badr (2007) (4)*, *Najlaa Al-Barbari and Tariq Al-Jabroni (2005) (21)* on the effectiveness of educational technology aids in the improvement of performance level of basic skills in the group and individual games compared to the learning-by-direction method.

In this regard, *Samir Dababnah (2004) (8)* indicates that using educational technology aids, especially visual dynamic images that last in the mind of the learner, helps them to remember the parts of these movements. This stems from the fact that memorization process is not a matter of storing information, but it is rather retrieval and restoration of the movement again.

This finding also matches what *Richard Jensen (1991) (36)* indicated that using educational technology methods provides us with two main elements of the educational elements, namely active participating on the part of the learner and the element of feedback which should improve and develop motor performance.

Thus, the validity of the third research hypothesis is proved

Conclusions:

1- Educational technology aids (i.e. watching photographed models, capturing the performance of the female students then presenting it for them using video recorder) positively affect the performance level of the skill of scoring from front fall in handball.

2- The learning-by-direction method (verbal explanation and practical model of the skill) positively affects the performance level of the skill of scoring from front fall in handball.

3- The experimental group members

excelled the control group members in the rates of post measurement improvement compared to the pre measurement in the accuracy and strength of scoring from front fall in handball.

4- Using the visual recorder and the display screen helped the experimental group members in recognizing the points of weakness and strength in the skill under research, which contributed to developing the accuracy and strength of scoring from front fall in handball.

Recommendations:

1- Working on using educational technology aids (i.e. watching photographed models, capturing the performance of the female students then presenting it for them using video recorder) to improve the accuracy and strength of scoring from front fall in handball.

2- Producing more educational aids and bringing them out in a user-friendly cost-effective way such as (video tapes, educational portfolios, and compact discs) to help both learners and instructors in promoting the educational process in the subject of handball.

3- Providing several educational technology aids, especially photographing and display devices in the practical departments in the faculties of physical education.

4- Encouraging the teaching staff on using atypical strategies in teaching handball skills.

References

- 1- *Abmad Bilqis (2006): Feedback and its Applications in Organizing and Rationalizing Education, Department of Education, Amman, Jordan.*
- 2- *As-Sayid Mubammad Khairy (1989): High Intelligence Test (instructions and applications), An-Nahda Al-Arabia Publishing House, Cairo.*
- 3- *Imam Mokhtar Himidab (2005): Teaching Skills, Zahraa Ash-Sharaq Library, Cairo.*
- 4- *Iman Mubammad Mahmouid and Jihan Ahmad Badr (2007): "The Effect of Using Some Educational Technology Aids on Teaching Some Skills on the Floor Movement Apparatus in the Gymnastics for Girls," Journal of Sport Sciences and Arts, Volume (26), Faculty of Physical Education for Girls, Helwan University.*
- 5- *Jalal Kamal Ali (2003): "The Effect of an Educational Program Using Video Tape and Teacher Orientation on Learning Some Defensive Skills for Beginners in Handball," Journal of Sport Sciences and Arts, Volume (18), Faculty of Physical Education for Girls, Helwan University.*
- 6- *Jalal Kamal Ali (2004): Modern Handball (basics and applications), Raklam Satellite Publishing and Distribution House, Cairo.*
- 7- *Hussein Hamdi At-Tobaji (1996): "Means of Communication and Technology in Learning, 13th edition, Al-Qalam Publishing House, Kuwait.*
- 8- *Samir Dababnah (2004): A Window on Teaching the Deaf, Institution of the Sacred Lands for the Deaf, Jordan.*
- 9- *Sayid Othman, Anwar Ash-Sharqawi (2006): Learning and its Applications, Ath-Thaqafa Printing and Publishing House, Cairo.*
- 10- *Tariq Mahdi Atya (2005): "The Effect of Using Educational Technology Aids on the Technical and Record Achievement Level on the Front Crawl Swimming", Comprehensive Education Journal, second part, Physical Education for Girls, Zagazig University.*
- 11- *Fayiz Mourad, Al-Amin Abdel Hafiz (2003): Practical Education Guide and Teachers' Preparation, Wafaa Printing and Publishing House, Alexandria.*
- 12- *Fikri Hasan Rayan (2004): "Teaching, Objectives, Fundamentals, Evaluation of Results, and Applications", Alam Al-Kotob, Cairo.*

13- Atif As-Sayid (2006): *Educational and Information Technology and Using Computer and Video in Teaching and Learning*, Ramadan Printing House, Cairo.

14- Abdel Hamid Sharaf (2006): *Educational Technology in the Physical Education*, Al-Ketab Publishing Center, Cairo.

15- Abdel Aziz Muhammad Al-Iqili (2005): *Education and Communication Technologies*, Al-Qalam Publishing House, Riyadh, Saudi Arabia.

16- Afaf Abdel Karim (1994): *Teaching for Learning in Physical and Sport Education*, Al-Maarif Foundation, Alexandria.

17- Kamal Abdel Hamid, Muhammad Sobhi Hassanian (1984): *Measurement in Handball*, Al-Fikr Al-Arabi Publishing House, Cairo.

18- Muhammad Ahmad Abdullah (2004): "The Effectiveness of Using Some Educational Technology Aids on the Performance of Some Playing Skills of the Reversed Face of the Field Hockey Stick," *Journal of Sport Sciences and Arts*, Volume (20), First Issue, Faculty of Physical Education for Girls, Helwan University.

19- Muhammad Hasan Alawi, Muhammad Nasr Ad-Din Redwan (1996): "Tests of Motor Performance, 3rd edition, Al-Fikr Al-Arabi Publishing House, Cairo.

20- Muhammad Saad Zaghlol, Makarim Abu Hajj and Hani Saeed (2001): *Learning Technology and Methods in Physical Education*, Al-Kitab Publishing Center, Cairo.

21- Muhammad Sobhi Hassanian (2001): *Evaluation and Measurement in Physical and Sport Education*, 4th edition, Al-Fikr Al-Arabi Publishing House, Cairo.

22- Muhammad Fikri Sayid Ahmad (2008): "The Effect of Using Some Educational Technology Aids on the Performance Level of Basic Skills for Beginners in Handball," *Journal of Physical Education Researches*, Volume (42), Issue (78), Faculty of Physical Education for Boys, Zagazig University.

23- Muhammad Muhammad Ad-Dabrawi and Issam Ad-Deen Rajai (2003): "The Effectiveness of Some Educational Aids on the Skill and Record Achievement Performance Level for 400 meter hurdle Runners and Shot Put for Students Specialized in Athletics in the Physical Secondary School," *Journal of Physical Education Researches*, Volume (26), Issue (64), Faculty of Physical Education for Boys, Zagazig University.

References

24- Medhat Younis Abdel Razaq (2004): "The Effectiveness of Micro-Teaching Using Visual-Auditory Devices in Learning some Offensive Basic Skills for Beginners in Basketball," *Journal of Theories and Applications, Issue (50), Faculty of Physical Education for Boys, Alexandria University.*

25- Medhat Younis Abdel Razaq (2008): "The Effectiveness of Using the Computer-Aided Visual Recorder on Learning Some Basic Skills for Beginners in Basketball," *Journal of Physical Education Researches, Volume (42), Issue (78), Faculty of Physical Education for Boys, Zagazig University.*

26- Makarim Helmi Abou Hajjab, Muhammad Saad Zaghlol (1999): *Curricula of Physical Education, Al-Ketab Publishing Center, Cairo.*

27- Najlaa Abdel Moneim Al-Barbari, Tariq Ali Al-Jabroni (2009): "The Effect of Using some Educational Technology Aids on the Performance Level of the Volleyball Ace Skill", *Journal of Sport Sciences and Arts, Volume (33), Faculty of Physical Education for Girls, Helwan University.*

28- Wael Jalal Al-Ayouti (2006): "The Effect of Micro-Teaching Using Visual-Auditory Devices on the Performance Level of Some Compound Attack Skills in Epee," *Scientific Journal of Physical Education and Sports, Issue (47), Physical Education for Boys, Helwan University.*

29- Alfred, M., (2001): *Problems The Commands Styles in Physical Education, Journal Educational Research, Vol.114, No., 40.*

30- Richard e Jensen (1991): *Micro Teaching , Effective Behaviors Educational , Technology.*

31- Richard, H., e Wilkinson, C., (2002): *The Effects of Volleyball Software on Female Junior High School Students, Volleyball Performance, Physical Education, 65, No., 6.*

32- Russel, D., (2003): *The Effects of Prototypic Exatriples and Video on Adolescent Girls Acquisition of Basic Field Hockey Skills, Thesis (MPP. E), University of British Columbia.*

33- Zoltan, M., (1995): *Playing Handball , Trio, Budapest.*

Effect of
**using collective
competitive learning style**
ON
LEARNING SKILLS
OF PASSING AND RECEIVING IN
Handball
For Girls Of Preparatory Stage

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Abstract

This research aims to identify the effect of using collective competitive learning style on learning skills of passing and receiving in handball for girls of preparatory stage. And the researcher used the experimental method using experimental design of two groups, one of them is experimental uses collective competitive learning style and the second is control uses the traditional method with pre measurement and post measurement of each group. The main sample of research included 40 girl which were chosen in random and they were divided into 2 groups one experimental and the other is control, each of them is 20 girl. Teaching program has been applied on them for 4 weeks it included 8 lessons 2 lessons a week. The researcher used the survey reference, physical and

skill tests and physical measurement for data collection. The most important result is that the collective competitive learning style was more effective on learning the skills of the whip pass and receiving in handball for girls of preparatory stage than the traditional style and it exceeded in improving percentage. The most important recommendation is that we should use the collective competitive learning style in learning skills of the whip pass and receiving in handball for girls of preparatory stage and preparing educational programs using collective competitive learning style to learn the main skills in handball which haven't been applied yet on girls of preparatory stage and providing physical education teacher with teacher's guides that explain how to perform handball lessons using collective competitive learning style showing the role of teacher and learner.

Key words

Collective competitive learning style
Passing and receiving
Handball

Introduction

The attention to the educational process and the work on its improvement are considered important things which all communities concern with, due to the role of education in the progress and advancement of societies. Specialists seek to find new teaching methods by which they can overcome the typical traditional methods in education, make the student positive participant in the educational process not receiving information and facts negatively, and create interactions between pupils. This interaction occurs in the presence of an atmosphere of competition or cooperation, because they are considered manifestations of mutual relations between students and

motivate work. Competition motivates pupils to excel on their colleagues and achieve specific learning targets.

Collective, competitive learning is a cooperative learning strategy where is students divided into educational homogeneous groups. four members in each group, and each group is chosen on the basis of academic performance "one high and one low and two middle-achievement". And that competition is the first activity and the broader scope of cooperative learning, competition occurs within a cooperative text, competitors need to cooperate to recognize the nature of the conflict between them and determine who won and who lost and

know the rules governing their behavior during the competition, and whenever the Cooperative basis is strong whenever the competition was more effective. competitions should be with a clear beginning and end ,a specific method for selecting the winners , a clear set of rules and elements that control the interaction between students through the identification of the time of the competition or the number of attempts allowed with the promise of giving the highest degree to the fastest learner with a requirement for accuracy and mastering work [1] [6].

Education progress and be more effective in groups than in individual situations, learning is a social process in which the learner grows through interactions with others and be more active and demand on the educational process. Learning activities in groups are more effective in helping students on the achievement, acquiring skills and correct errors through cooperative and competitive interactions with each other [20].

Passing and receiving skills go together and can not be separated except to clarify pedagogically process. Both are affecting and affected by each other, and considered the base rule upon which build the rest of the offensive motor skills, there is no dribbling the ball or deceiving or scoring unless preceded by passing and receiving, and the error during their performance means lost possession of the ball and moving the team from striker to defender [16].

With the advent of modern educational theories calling attention to the learner`s positivity and participation in the educational process, and attention to the interaction between the teacher and students and between students and educational material it has become the main responsibility of the teacher is to work on the organization of educational situations and guiding students to do the activity necessary to achieve the desired objectives and therefore appeared Instructional Strategies that are interested in pupil`s activity and collective competitive learning strategy is one of those which allows students to work in small groups compete with each other and each member has a positive and effective role for the collection of information and skills in order to achieve excellence on the other groups.

The research problem is concentrated in that the teacher faces per class group of students different in the skill level (superior - medium - weak) and because of the burden placed on the teacher can not cope with such individual differences.

Because of the importance of passing and receiving skills in exceeding handball teams, where proficiency enables the attacking team to reach with the ball to throw the opposing team and assists in the implementation of the offensive tactical plans and score goals and win games. From here appears the importance of mastering scrolling and receiving skills, as they within handball curriculum to first prep students in the

first term. So researcher felt that it was important to conduct this study, which may contribute to the upgrading of the skill level of first prep students in passing and receiving skills.

From the researcher's knowledge through exploration in libraries and the World Wide Web he did not find sufficient studies on collective competitive learning style in learning motor skills in general, and in learning handball skills in particular, which called to conduct this study.

Research aim : This research aims to identify the effect of using collective competitive learning style on learning passing and receiving skills in handball for preparatory school girls.

Hypotheses :

* There are statistically significant differences between the average scores of pre and post measurements of the control group in learning passing and receiving skills in handball for preparatory school girls in favor of the post measurement.

* There are statistically significant differences between the average scores of pre and post measurements of the experimental group in learning passing and receiving skills in handball for preparatory school girls in favor of the post measurement.

* There are statistically significant differences at a level between the average scores of post measurement of the control group and post measurement

of the experimental group in learning passing and receiving skills in handball for preparatory school girls in favor of the post measurement of the experimental group.

Materials And Methods

Approach : The researcher used the experimental method with an experimental design for two groups, one is experimental using collective competitive learning style and the second is control using the traditional method with pre and post measurement for each group for its appropriateness for the nature and research procedures.

Society and the Research Sample: The population of the research was first prep girls from Almalek Faisal prepschool for girls in Sinbellawin for the school year 2011/2012. The sample was 50 schoolgirls randomly selected, and 10 girls were excluded to conduct surveys and selected, and 10 girls were excluded to conduct surveys and thus the sample became 40 schoolgirls divided into two groups, one experimental and the other control ,each group 20 schoolgirls.

Homogeneity of the sample:

The researcher found homogeneity for the research sample in key variables and the physical and skillful tests under discussion table 1.

The Table 1 indicates that the skew coefficients to the sample in basic variables and physical and skill under discussion ranged between - 0.034 and

1.69 and these values confined between ± 3 , which confirms the homogeneity of the sample search in key variables and physical and skill under discussion.

Data Collection Tools and Forms:

Through the informed scientific literature and previous studies related to the subject matter [2, 3, 7, 8, 10, 13, 19, 21, 22, 23], the researcher suggested data collection methods and tools according to the nature of the research as follows:

Basic measurements:

- Age "years" - total length "cm"
- weight "kg".

Physical Tests: The researcher surveyed the previous and related studies in Handball to determine the physical tests and concluded the following physical tests:

* Running 30 meters from the fixed beginning to measure the transition speed (second).

* Sergeant's vertical jump to measure the strength distinctive speed of the two legs (cm).

* Throw 800 grams handball to measure the strength distinctive speed of the arms (merer).

* Zigzag running in Baro method 3×4.75 meter to measure fine body agility (sec.)

* Pending the trunk before and down from the stand to measure flexibility (cm).

Skillful Tests :

The researcher surveyed the previous and related studies in Handball to determine the skillful tests and concluded the following skills tests:

* scrolling and receiving on the opposite wall for 30 seconds from a distance of 3 m.

* scrolling and receiving the ball on a smooth wall for 60 seconds from a distance of 1.5 m.

* passing and receiving the ball 10 times on the wall from a distance of 1.5 m.

* passing and receiving on a square 100×100 cm from a distance of 2 m from the wall for 30 seconds .

Table (1)

Homogeneity for the research sample in Basic variables and the physical and skil.ful tests

Variables	UM	Mean	Median	SD±	Skewness
Age	Year	21.95	13	0.55	- 0.034
Tall	Cm	155.37	145.50	5.59	0.15
Weight	Kg	55.32	53	10.53	1.22
Jogging 30m from fixed beginning	Seconds	6.78	6.77	.93	0.63
Zigzag running	Seconds	31.02	30.76	1.52	0.73
Vertical jumping	Cm	20.20	20	4.58	0.30
Throwing800g handball	M	8.14	7.90	1.71	0.19
bending the trunk before and down from the stand	Cm	4.82	3	6.93	1.69
passing and receiving on a square30secs	Number	11.27	12.50	3.65	- 0.318
passing and receiving on a wall	Number	33.22	33.50	7.07	0.062
passing and receiving the ball 10 times on the wall	Seconds	15.54	15.47	4.10	0.904
passing and receiving on a wall30 seconds	Number	4.12	4	3.10	0.461

UM = Unit of measurement; SD = standard deviation; SC = Skewness coefficient

Forms, Tools and Equipments used in the research :

- * forms for registration and unloading data.
- * a measure tape.
- * wood ruler.
- * medical balance to measure the weight
- * Ristamitr device to measure the length.
- * Stopwatch - Plastic Cones – Gear- Handballs.
- * a handball of 800 gm - a smooth wall.

The pilot study : The researcher conducted this study in the period from Sunday 10/09/2011 to Thursday, 10/13/2011 on 10 girls of first prep students in almalek faisal prep school for girls in Sinbellawin, sample similar to the reseach sample and out of the research basic sample, and the objectives of this study were:

* Determine the places in which the basic experiment and tests will be held.

* Make sure of the tools and measuring devices and the proper application of the tests.

*The appropriateness and suitability of tests for the research sample.

* Preparing (8 assistance) and inform them of the research aspects and how to conduct the tests and measurements under discussion and record the results.

* Experimenting the standard paper used and make sure girls understand it`s content.

* Determine the appropriate number of frequencies ,the groups and rest periods.

* Determine the number of educational steps and competitions that can be applied during the allocated time for educational and applied activity during the 20-minute lesson.

The Educational program with a collective competitive learning style:

The educational program was prepared after viewing and reading the specialized scientific refrences and related studies [2, 3, 5, 7, 8, 10, 13, 14, 16, 19, 21, 22, 23], and through the pilot study carried out by the researcher he was able to reach to the educational steps and applied competitions appropriate to the research sample to learn skills of receiving and passing in handball and in light of the results of the survey the educational program is designed to be in 4 weeks and taught twice a week within the educational and applied activity in the lesson 20 minutes.

pre-measurement:

The researcher conducted pre-measurement on the research sample in Basic, physical and skill variables under study in the period from Monday 24/10/2011 to Thursday 27/10/2011.

Implementation of the Basic experiment:

The basic study was conducted in the period from Monday 31/10/2011 until Tuesday 29/11/2011. For about a month over 4 weeks and included 8 lessons, 2 lessons per week on Mondays and Tuesdays of each week where field training students be in school on Mondays and Tuesdays of each week in a separate field training period and daily in the relevant period.

post measurement :

After finishing the educational program post measurement was conducted for the two experimental and control groups on Wednesday 30/11/2011, Thursday, 1/12/2011 in the skill variables under study.

Statistical treatments :

After data collection and tabulation, it was statistically treated by the statistical program SPSS V.17 using the mean, median, standard deviation, coefficient of torsion, T-tests, Pearson simple correlation coefficient, and percentage of improvement.

Results And Discussion

It is clear from Table 2 there are significant differences at the level of 0.05 between the pre and post measurements for the control group and in favor of post measuring, as the value (t) Tabulated at level 0.05 = 1.72 which is less than the value of (t) calculated that confined between 7.10 and 17.36

and improvement rate limited between 7.46% as the smallest percentage in test 10 times passing in less time from a distance 1.5 m on the wall & 51.57% as the largest percentage in the test of pass and receive the ball on a smooth wall 30 s from a distance of 3m.

The researcher says that the improvement in post measurement is due to regularity of control group schoolgirls in the implementation of the traditional approach where that continue training is one of the core principles that lead to an improvement in the level of performance skills, and the traditional method impact can not be overlooked where the verbal explanation is available and making a model of the skill by the teacher and then provide a set of educational steps and gradient exercises and the role of the learner is to perform and follow and obey the teacher's orders and imitate the model provided by the teacher or fluent student then repeat performing the skill by the learner and accompanied by debugging with guidance for aspects of technical and legal performance by the teacher. This is leading to learn properly and then a positive effect occurs in the skill level of performance.

The method of the command (the traditional way) in which the teacher explains and Shows models and the student emulates the form presented by the teacher as much as possible and through the exercise of the skill the teacher roaming through the lesson to observe student performance, and

thus diagnosis difficulties they may face during the implementation of the skill learned and correct wrong performance and provide feedback in multiple forms for students [12].

This agrees with the results of previous studies [2, 15, 19], which pointed out that the traditional method, which relies on verbal explanation and practical performance of the model led to accommodate and learning psychomotor skills, and thus verify the truth of what came first hypothesis of research hypotheses procedurally.

It is clear from Table 3 there are significant differences at level 0.05 between pre and post measurements for the experimental group and in favor of post measuring, as the value (t) Tabulated at level 0.05 = 1.72 which is less than the value of (t) calculated that confined between 5.55, 12.98, and improvement rate limited between 17.36% as the smallest percentage in test of 10 passings in less time from a distance 1.5 m on the wall & 120% as the largest percentage in the test pass and receive the ball on a smooth wall (30 seconds) from a distance of 3 m.

Researcher due improvement in the post measurement of the experimental group to the collective competitive learning style that works on achieving the higher degree. Where students learn the skill in the group, then groups compete with each other by providing a range of applied training in the form of competitions between groups, and the group that has more points is the

winner on the other groups, teacher's role in this method is to distribute the students to groups, and tell each group that it competes the other group, and to determine the most achievement, and compares the degree of each group with the degree of other group, also tells the students that the purpose of the position is to learn skills to be learned in order to achieve a higher degree of the other group, and this method is characterized by positive mutual dependence between members of the same group to achieve the goal.

This agrees with the results of previous studies [4, 9, 11, 17, 18, 20] which pointed to the positive and effective impact of competitive collective learning style, and thus have been achieved the truth of the second hypothesis of research hypotheses procedurally.

It is clear from Table 4 there were statistically significant differences in all tests of skill, where the value of (t) tabular at level 0.05 = 1.68 which is less than the value of (t) the calculated and which has been narrowed down between 2.14, 3.35, and the difference between the 2 averages was limited between 6.35 as the largest value in the test of passing and receiving ball on the wall for (1 minute) from a distance of 1.5 m & 2.85 as the smallest value in test of passing and receiving the ball on smooth wall for a period of (30 s) from a distance of 3 m, and the differences were statistically significant in tests of skill under discussion in

favor of the post measurement of the experimental group.

The researcher, however, pointed that competitive collective learning increases the desire to learn and complete the work and working to increase the effort by the student in the task that competed with others, and urges students to learn and gain knowledge and skills and applied them in the other educational situations, as it raises interest with educational material and provide them with opportunities that keep pace with their abilities.

The player's ability to scroll and receipt in all cases, whether easy or hard , stability or movement with required speed and accuracy one of the most important reasons outweigh the teams in handball. the team whose members fluent masterly rapid scrolling

is one of the teams that are difficult to overcome, fluent scroll enables the attacking team from reaching the ball to the nearest location of the target making it easier to win. in addition , the ability to keep the ball by scrolling makes team on the offensive situation threatens discount the longest period of the game, as being able to achieve victory over those teams that lacks master slider and receipt from different directions and distances [5] [14].

This agrees with the results of pervious studies [4, 9, 11, 17, 18, 20] which pointed to the positive and effective impact of competitive collective learning style, and thus have been achieved the truth of the third hypothesis of research hypotheses procedurally.

Table (2)

Sign. ficant differences and the Improving of percentage between pre and post -tests for the control group of skills variables under consideration

N = 20

Variables	UM	Pre-test		Post-test		Means difference	(t) value	Improvement (%)
		Mean	SD±	Mean	SD±			
passing and receiving on a square30secs	Number	11.40	4.09	14.95	5.22	3.55	7.10	31.14
passing and receiving on a wall 60 secs	Number	31.90	6.56	46.55	9.54	14.65	17.36	45.92
passing and receiving the ball 10 passing on the wall	Seconds	15.81	4.91	14.63	4.71	1.18	9.78	7.46
passing and receiving on a wall30 seconds	Number	4.75	3.04	7.20	3.65	2.45	11.60	51.57

(t) Table value on p=0.05 = 1.72 . UM =Unit of measurement; SD =standard deviation.

Table (3)

Significant differences and the improving of percentage between pre and post -tests for the experimental group of skills variables under consideration

N = 20

Variables	UM	Pre-test		Post-test		Means difference	(t) value	Improvement (%)
		Mean	SD±	Mean	SD±			
passing and receiving on a square30secs	Number	11.15	3.26	19.25	3.91	8.10	7.56	72.64
passing and receiving on a wall 60 secs	Number	34.55	7.48	52.90	9.19	18.35	12.98	53.11
passing and receiving the ball 10 passing on the wall	Seconds	13.07	2.78	10.80	1.96	2.26	5.55	17.36
passing and receiving on a wall30 seconds	Number	3.50	3.12	7.70	4.07	4.20	6.08	120

(t) Table value on $p=0.05 = 1.72$. UM =Unit of measurement; SD =standard deviation.

Table (4)

Significant differences and improving of percentage between the post test for the experimental and control group variables in the skill

N = 40

Variables	UM	Pre-test		Post-test		Means difference	(t) value
		Mean	SD±	Mean	SD±		
passing and receiving on a square30secs	Number	14.95	5.22	19.25	3.91	4.30	2.94
passing and receiving on a wall 60 secs	Number	46.55	9.54	52.90	9.19	6.35	2.14
passing and receiving the ball 10 passing on the wall	Seconds	14.63	4.71	10.80	1.96	3.83	3.35
passing and receiving on a wall30 seconds	Number	7.20	3.65	10.05	2.72	2.85	2.79

(t) Table value on $p=0.05 = 1.68$. UM =Unit of measurement; SD =standard deviation.

Conclusion

** The use of collective competitive learning style and traditional style individually have a positive impact on learning receiving and whip pass skills in handball for prep school girls.*

** Collective competitive learning style was more influential in learning receiving and whip pass skills in handball for prep school girls from the traditional method and was the highest in rates of improvement.*

Recommendations

** The need to use a collective competitive learning style in learning receiving and whip pass skills in handball for prep school girls.*

** Preparation of educational programs using the method of collective competitive learning to learn the basic skills in handball, which is not experimentation for prep school girls.*

** Provide physical education teachers with a guide demonstrates how to implement handball lessons using the method of collective competitive learning and explaining the role of the teacher and the learner.*

References

1- Abo- Alnasser, H.H. and Gebad, M.G., 2005. Cooperative learning (philosophy and practice). University book house, Al Ain united of Arab Emirate, pp : 25.

2- Abo- Donia, N.A.N., 2008. The effect of educational Pouch on learning some skills in Handball for girls of Faculty of Physical Education Menoufiya university. Master Thesis, Faculty of Physical Education in Sadat city, Mencfia University, pp : 46- 126.

3- Abo Elata, A.S.B., 2005. The Effectiveness of Using the Cooperative and Interchange Learning Style in Cognitive and Motor Achievement on some Handball Skills for Preparatory Stage Students. Master Thesis, Faculty of Physical Education, Mansoura University, pp : 52- 75.

4- Abo- Emiera, M., 1997. Expertsing of using collective competitive learning and collective cooperative learning strategies in Maths teaching of secondary stage students. Egyption association of curriculum and teaching methods, studies in curriculum and teaching methods, No 44, pp : 181- 219.

5- Abo- Zaid, A.A and Elsbafaey, M.M.A., 2007. Attack application in Handball. 1st Ed., pp :20.

6- Al- Boghdadi, M.R. and Abo El Huda, H.H. and Kamel, A.R., 2005. Cooperative learning. Dar Al- fikr Al- Araby, Cairo, pp : 134- 139.

7- Ali, M.A.M., 2007. A training program of some complex skilful performance and its effect on performance level for beginner players of Handball. PH.D. Thesis, Faculty of Physical Education, Tanta university, pp : 46- 49.

8- Al- Jbericf, M.KH.M.A., 2010. The effect of educational program by using hyper multimedia on learning some basic skills in Handball in sporting experimental school for girls in Qena governorate. Master Thesis, Faculty of Physical Education, Assuit University, pp : 34.

References

9- Araqawi, E.E.M., 2008. *Effect Of Cooperative and Competitive Learning Method in Tenth Graders' Academic Achievement and Retention of Reading Comprehension Skills of Arabic Poetry.* Master Thesis, Faculty of Graduate Studies, An-Najah National University, Nablus, Palestine, pp : 130- 133.

10- Elðkbakhany, A.M.S., 2009. *The effect of a comprehensive training program on developing some kinetic abilities and basic skills for handball beginners.* Master Thesis, Faculty of Physical Education, Tanta University, pp : 44- 71.

11- Elnagdy, A.A., 1996. *The effect of cooperative and competitive learning structure on students of secondary three achievement in chemistry and their attitude towards the practical performance.* Helwan university, faculty of Education, Educational and Social Studies, Vol 2, No 3, pp: 113 - 177.

12- Ezz- Eldin, A.A., 2005. *Teaching in physical Education (methods – styles – strategies).* Series 1, Shagaret Eldor Library, Mansoura, pp:67.

13- Geaisa, H.M.A., 2005. *The effect of using some teaching styles on the performance level of some basic skills in Handball of girl student of Faculty of Physical Education Assuit university.* PH.D. Thesis, Faculty of Physical Education, Assuit university, pp : 74- 80.

14- Hamouda, M.K.H.A and Salim, G.K., 2008. *Attack and Defence in Handball.* Dar Al- fikr Al- Araby, Cairo, pp : 76.

15- Hossam- Eldin, A.T., 2006. *The effect of using co-operative style on some learning side of Handball skills.* Master Thesis, Faculty of Physical Education in Sadat, Menoufiya University, pp : 97- 98.

16- Ibrahim, M.G., 2004. *Handball for all (Thorough training and skilful distinguishing).* Dar Al- fikr Al- Araby, Cairo, pp: 93- 94.

17- Kbaif Allab, W.A., 2002. The effectiveness of using some teaching styles in learning swimming skills. PH.D. Thesis, Alharam faculty of Physical Education for boys, Helwan university, pp: 71- 72.

18- Mahmoud, W.L., 2002. The effect of competitive style and cooperative style on the effectiveness in swimming. The Research magazine in education and Psychology, Minia University, Vol 15, No 4, pp :186- 212.

19- Mohamed, A.H.S., 2009. The effect of suggested educational program by using the internet on some cognitive and skilful changes in Handball on girls of preparatory stage Minia city. PH.D. Thesis, Faculty of Physical Education, Minia University, pp: 66.

20- Mohamed, A.R.K., 2001. The effect of using cooperative learning and the collective competitive learning strategy on the achievement and the attitude towards the environment of student teacher in elementary learning. Egypt association of practical education, practical education magazine, Vol 4, No 2, pp :43- 70.

21- Mohamed, T.M.E., 2006. Effect of using multi- figures motor task style on learning some attack skills in Handball for students of faculty of sports Education (comparison study). Master Thesis, Faculty of Physical Education, Mansoura University, pp : 37- 142.

22- Sengab, M.A.A. 2010. The effect of a suggested training program in the anaerobic direction on effectiveness of skilful performance for Handball players in the the shade of modern changes of international rules. PH.D. Thesis, Faculty of Physical Education, Mansoura university, pp : 62-63.

23- Shabein, E.N.M., 2010. A quality training program and its effect on the performance level of the Whip pass of Handball players. Master Thesis, Faculty of Physical Education, Tanta University, pp : 55- 125.

Effect of

**Cryotherapy on
some Blood contains**

and

**HIGH JUMP SHOOTING SKILL
FOR FEMALE**

Handball
players

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Abstract

Aim Of The Work:

Investigation of the impact of 3 minutes cold water immersion in the recovery in experimental group and compared to control group with passive recovery after the first half of the one hour exercise session on blood lactate , pyruvate concentrations and pH.

Methods:

14 healthy female handball players (Helwan University team) age average (19 ±1.56 years, weight 65±2.3 kg , height 171.21±8.8 cm and T- age 12.5 ± 2.54 year) performed experimental after first of the half exercise session (80% Intensity) , (experimental) (n=7) were immersed in cold water (cryotherapy) adjusted at 8 C° for 3 minutes (According to most of researches 2 - 10C°), the second group (control) underwent passive recovery. The 14 players completed the exercise session again. Blood samples have been collected for measuring blood lactate, pyruvate concentrations and pH levels pre- exercise session, immediately after first half and after recovery each group.

Results:

revealed significant increase ($P < 0.01$) in blood lactate levels with decreased pH levels immediately after 1st. half time in both groups but decreased samples taken after three minutes from the first half of the exercise session should sign lower level of lactate with higher level of blood pH in the experimental group when compared with the same parameters

Discussion And Conclusion:

It is concluded that cold water (cryotherapy) immersion may help recovery from short maximal by decreasing cellular metabolism, decreasing the lactate production and increasing cellular survival.

Introduction:

Intensive exercise causes microtrauma, leading to muscle soreness. Exercise-induced muscle soreness can be classified as either acute (occurs during exercise and may last up to 6 hours) or delayed (has onset 8 to 24 hours post exercise) (McDermott et al., 2009). Delayed onset muscle soreness (DOMS), peaks after 24 to 48 hours post exercise (Isabell et al., 1992).

Many studies investigated the etiology of DOMS from which several theories have evolved (Jones et al., 1986). DOMS can be explained as strenuous activity -especially eccentric exercise- causes injury or trauma to the muscle, its musculotendinous junction, or both, releasing breakdown products of muscle containing lactate in the blood and urine leading to decreased

pH (Clarkson, 1990), initiating trauma with inflammatory response resulting in muscles feeling painful and swollen (Ebbeling et al., 1990). It starts 8 hours post activity and gradually increases, peaking at 24 to 48 hours post exercise (Newham et al., 1988).

Pain is associated with decreased range of motion (ROM) and strength, result in muscle spasms (Dennegar and Perrin, 1990).

Because of the presence of pain and other possible debilitating performance factors, preventing or minimizing the effects of DOMS should be a concern for coaches, athletic trainers, physical therapists, and other sports medicine personnel. Little research, however, exists on the prevention or treatment of DOMS (Venter et al., 2010).

Performing Cryotherapy, cold water immersion, is treating this muscle damage and not only stimulates muscle cell activity but helps repair the damage and strengthen the muscle. It delays the onset of muscle pain and soreness (DOM.S) (Bailey et al., 2007).

Hence, this study was proposed to investigate the effect of cold water immersion (Cryotherapy) on blood lactate, pyruvate concentrations and pH in female handball team.

Subjects & Methods:

14 healthy female handball players (Helwan University team) age average 19 ± 1.56 years, weight 65 ± 2.3 kg and height 171.21 ± 8.8 cm, T- age 12.3 ± 2.54 year) constituted subjects of this study. They were subjected to (one hour) exercise session (80% Intensity) of two half with 10 minute interval break. they were divided into two equal groups (experimental group and control group) The experimental group was immersed in cold water (Cryotherapy) basin adjusted at 8°C for 3 minutes and then completed the rest of the break interval in passive rest.

The control group was subjected to normal passive rest interval. Both groups completed the second half time of the exercise session.

Venous blood samples were collected from each player three times (1- at rest)

(2- after first half hour the exercise session) (3- at the end of 3 minutes

cryotherapy in the experimental group and after 3minutes passive rest recovery for control group)syringes, kept on ice in icebox, transported to the lab to measure lactate, pyruvate concentration and blood pH, analysis in blood gases analyzer. Samples were collected at rest, after first half time of the exercise session and after recovery rest period between two halves of the exercise session,. The high jump shooting skill was recorded and compared twice times the first at the end of the first half exercise session, the second at the end of the exercise session for both groups

All revealed results were treated with a computerized statistical program (SPSS version 15) for means and standard deviation. Analysis of variance (ANOVA) were measured for difference between pre-exercise, after first half time and after recovery. Wilcoxon Sign Ranks Test was used to examine the difference between baseline and after exercise measurements for both experiments.

Results:

Results are showed as means and standard deviations (SD) in (Table 1).

Table (1):

difference in the statistics for investigated parameters between both groups.

groups parameters	Experimental group (cryotherapy)	Control group (Passive recovery)
pH	Mean ± S. D.	Mean ± S. D.
Rest	7.402± 0.02	7.39± 0.03
After 1st. Half	7.31± 0.03	7.31± 0.03
After recovery	7.39± 0.03	7.34± 0.02
LACTATE (mmol/l)	Mean ± S. D.	Mean ± S. D.
Rest	1.26± 0.11	1.25± 0.09
After 1st. Half	4.73± 0.40	4.73± 0.43
After recovery	3.27± 0.28	3.76± 0.33
PYRUVATE (μmol/l)	Mean ± S. D.	Mean ± S. D.
Rest	63.42± 6.08	64.42± 5.50
After 1st. Half	224.28± 11.09	227.42± 16.07
After recovery	239±10.79	225.71± 8.83

Show significant difference ($p < 0.05$) in blood lactate, pyruvate and pH in pre-exercise session or after 1st. halftime results

Table (2):

Wilcoxon signed ranks for experimental group compared to control group rest, after 1st. Half time and after recovery.

REST	Z	P	Significance
pH	0	1	N. S.
LACTATE(mmol/l)	-0.59	0.55	N. S.
PYRUVATE(μmol/l)	-0.17	0.86	N. S.
After 1st. Half time	Z	P	Significance
pH	-0.34	0.74	N. S.
LACTATE(mmol/l)	-0.17	0.87	N. S.
PYRUVATE(μmol/l)	-0.17	0.87	N. S.
After recovery	Z	P	Significance
pH	-2.37	0.02	S
LACTATE(mmol/l)	-2.20	0.03	S
PYRUVATE(μmol/l)	-1.99	0.05	S

After recovery, the Experimental group (cryotherapy) immersion group showed higher normal pH and pyruvate levels with lower lactate levels compared to Control group(passive recovery).

Table (3):

The differences between experimental and control groups in high jump shooting skill.

High jump shooting skill	Experimental group (cryotherapy)	Control group (Passive recovery)	P	Significance
First half.	12 ± 2.16	12 ± 1.15	0.77	N. S.
Second half.	14,55 ± 1.99	12.29 ± 2.14	0.01	S.

The results achieved after of recovery was in high jump shoot skill ($P < 0.01$) since Experimental group had a highly significant higher results compared to that of control group.

Table (4):

Multiple Comparisons (ANOVA & LSD) for investigated groups.

Variable	ANOVA		LSD			
	F	Sig.	compared groups		P	Significance
Experimental group (Cryotherapy)						
pH	32.18	0.00	Rest	After 1st. Half	0.00	S.
				After recovery	0.39	N. S.
			After 1st. Half	After recovery	0.00	S.
LACTATE	258.62	0.00	Rest	After 1st. Half	0.00	S.
				After recovery	0.00	S.
			After 1st. Half	After recovery	0.00	S.
PYRUVATE	721.27	0.00	Rest	After 1st. Half	0.00	S.
				After recovery	0.00	S.
			After 1st. Half	After recovery	0.01	S.
Control group (Passive recovery)						
pH	14.12	0.00	Rest	After 1st. Half	0.00	S.
				After recovery	0.00	S.
			After 1st. Half	After recovery	0.07	N. S.
LACTATE	222.59	0.00	Rest	After 1st. Half	0.00	S.
				After recovery	0.00	S.
			After 1st. Half	After recovery	0.00	S.
PYRUVATE	502.21	0.00	Rest	After 1st. Half	0.00	S.
				After recovery	0.00	S.
			After 1st. Half	After recovery	0.78	N. S.

*The mean difference is significant at the 0.05 level.

Moreover, analysis of variance (ANOVA) with its LSD comparisons revealed return of pH to be around baseline results ($P > 0.39$) in cold water group which isn't achieved in the passive recovery group ($P < 0.01$). Same findings was observed in pyruvate where results after recovery were higher than that of after 1st. half time ($P < 0.01$) but there was no significant difference in control group ($P > 0.78$).

Discussion:

Cryotherapy is the local or general use of low temperature is used to decrease cellular metabolism, increase cellular survival, decrease inflammation decrease Pain and spasm and promote vasoconcentration and may help in the recovery after muscular exercise .

The present study aimed to investigate pact of cryotherapy on blood lactate, Pyruvate and pH.

The obtained data in this study show that the player who received cryotherapy treatment after exercise reported a diminished lactate levels with decrease pH. These findings are consistent with those of similar investigations using cryotherapy as a modality to treat exercise-induced muscle damage (Eston & Peters, 1999; Howatson & van Someren, 2003; Yanagisawa et al., 2003 and Bailey et al., 2007).

Baily et al., (2007) stated that the acute onset of muscle soreness observed immediately after exercise is related to the accumulation of by-products that are either metabolic or contraction induced (Miles & Clarkson, 1994) rather than DOMS, which is more commonly associated with muscle damage (Cheung et al., 2003). This study observed lactate as by product and pH value as metabolic induced parameter. This could account for the biphasic increase in muscle soreness observed following exercise and support the proposal that cryotherapy was effective in reducing muscle injury rather than facilitating removal of exercise-induced accumulation of by-products as reconverting lactate to pyruvate. Moreover, Yanagisawa et al., (2003) observed reductions in DOMS at 24 and 48 h post-exercise with cryotherapy.

Cryotherapy improved recovery of lactate and pH which was markedly less than that experienced by the control group. These findings provide support for the use of muscle function waste products as an applicable and reliable measurement tool for quantifying exercise-induced muscle damage (Warren et al., 1999). However, Warren and coworkers' (1999) endorsement of specificity when measuring muscle function was not supported, as assessment of isometric maximal voluntary contraction was more sensitive to decrements in muscular function than sprint and vertical jump assessments.

It is still unclear what mechanism is responsible for the difference in lactate-pyruvate concentrations following cryotherapy treatment. Some authors have postulated that cryotherapy might reduce post-exercise muscle damage via a decreased permeability of blood and lymph vessels due to an attenuated inflammatory response. This explanation could, in part, account for the lack of a treatment effect observed with creatine kinase activity. Also, as secondary damage to skeletal muscle resulting from inflammation may be more pronounced in the hours rather than days after exercise (Lapointe et al., 2002; Merrick et al., 1999).

The positive effect of cryotherapy in the reduction lactate concentration may occur through .it's effect on cellular metabolism .

Conclusion:

Cryotherapy may help the recovery from short maximal efforts by decreasing cellular metabolism and lactate production.

References

- 1- Armstrong LE, Casa DJ, Millard-Stofford D, Moran D, Pyne SW, Roberts WO. American College of Sports Medicine position stand: exertional heat illnesses during training and competition. *Med Sci Sports Exerc.* 2007;39(3):556–572.
- 2- Bailey DM, Erith SJ, Griffin PJ, Dowson A, Brewer DS, Gant N and Williams C. (2007): Influence of cold-water immersion on indices of muscle damage following prolonged intermittent shuttle running *Journal of Sports Sciences*, September 2007; 25(11): 1163 – 1170
- 3- Binkley HM, Beckett J, Casa DJ, Kleiner DM, Plummer PE. National Athletic Trainers' position statement: exertional heat illnesses. *J Athl Train.* 2002;37(3):329–343.
- 4- Casa DJ, Armstrong LE. Exertional heatstroke: a medical emergency. In: Armstrong LE, ed. *Exertional Heat Illnesses*. Champaign, IL: Human Kinetics; 2003:29–56.
- 5- Cheung, K., Hume, P., & Maxwell, L. (2003). Delayed onset muscle soreness: Treatment strategies and performance factors. *Sports Medicine*, 33, 145 – 164.
- 6- Clarkson PM. Too much too soon: the aftermath of over action. *Sports Sci Exch.* February 1990; 2:1-4..
- 7- Dennegar CR, Perrin DH. The effects of combining cold and transcutaneous electrical nerve stimulation on delayed onset muscle soreness. *Athletic Training, JNATA.* 1990; 25:116. Abstract. Presented at 1990 National Athletic Trainers Convention; June 1990; Indianapolis, Ind.
- 8- Ebbeling CB, Clarkson PM. Muscle adaptation prior to recovery following eccentric exercise. *Eur J Appl Physiol.* 1990; 60:26-31.

9- Eston, R., & Peters, D. (1999). Effects of cold water immersion on the symptoms of exercise-induced muscle damage.

Journal of Sports Sciences, 17, 231 – 238.

10- Howatson, G., & van Someren, K. A. (2003). Ice massage: Effects on exercise-induced muscle damage.

Journal of Sports Medicine and Physical Fitness, 43, 500 – 505.

11- Isabell, W.K., Earlene Durrant, E., William Myrer, W. and Shauna Anderson, S. PhD (1992): *The Effects of Ice Massage, Ice Massage with Exercise, and Exercise on the Prevention and Treatment of Delayed Onset Muscle Soreness*

Journal of Athletic Training, 27 (3): 208 – 217

12- Jones DA, Newham DJ, Round JM, Toifree SEJ. Experimental human muscle damage: morphological changes in relation to other indices of damage.

J Physiol. 1986; 375:435-448.

13- Lapointe, B. M., Frenette, J., & Cote, C. H. (2002). Lengthening contraction-induced inflammation is linked to secondary damage but devoid of neutrophil invasion. *Journal of Applied Physiology*, 92, 1995 – 2004.

14- McDermott BP, Casa DJ, Ganio MS, Lopez RM, Yeargin SW, Armstrong LE and Maresh CM. (2009): *Acute Whole-Body Cooling for Exercise-Induced Hyperthermia: A Systematic Review*

Journal of Athletic Training 2009;44(1):84–93

15- McDermott BP, Casa DJ, Ganio MS, Yeargin SW, Armstrong LE, Maresh CM. *Recovery and return to activity following exertional heat stroke: considerations for the sports medicine sta.*

J Sport Rehabil. 2007;16(3):163–

References

16- Merrick, M. A., Rankin, J. M., Andres, F. A., & Hinman, C. L. (1999). *A preliminary examination of cryotherapy and secondary injury in skeletal muscle.*

Medicine and Science in Sports and Exercise, 31, 1516 – 1521.

17- Miles, M. P., & Clarkson, P. M. (1994). *Exercise-induced muscle pain, soreness, and cramps.*

Journal of Sports Medicine and Physical Fitness, 34, 203 – 216.

18- NewhamDJ, JonesDA, Ghosh G, Aurora P. *Muscle fatigue and pain after eccentric contraction at long and short length.*

Clin Sci. 1988; 74:553-557.

19- Venter RE, Potgieter JR and Barnard JB (2010): *The use of recovery modalities by elite south African Team athletes.*

South African Journal for Research in Sport, Physical Education and Recreation, 2010, 32(1):133-145.

20- Warren, G. L., Lowe, D. A., & Armstrong, R. B. (1999). *Measurement tools used in the study of eccentric contraction induced injury.*

Sports Medicine, 27, 43 – 59.

21- Yanagisawa, O., Niitsu, M., Yoshioka, H., Goto, K., Kudo, H., & Itai, Y. (2003b). *The use of magnetic resonance imaging to evaluate the effects of cooling on skeletal muscle after strenuous exercise.*

European Journal of Applied Physiology, 89, 53 – 62.

Effects of

Ballistic Training on

The Muscular Ability

And Digital Level

Of Long Jump Athletes

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Abstract

The current research aims at designing a ballistic training program for long jumpers, identifying the effects of a ballistic training program on the digital level of long jump and identifying the difference between the experimental and control groups on the digital level of long jump. The researchers used the quasi-experimental approach (two-group design) with experimental and control groups. Research community includes long jumpers from Kafr Al-Shaikh Sports Club, Kafr Al-Shaikh Youth Center and Meet Elwan Youth Center during 2012 season. Sample included (20) athletes divided into two groups (10 athletes each). Another (14) athletes from the same research community and outside the main sample were chosen as a pilot sample. The researchers conclude that the ballistic training overcomes the defects of lack of velocity due to traditional weight training. In addition, the nature of performing ballistic training is closer to real long jump performance. The recommended ballistic training program has positive effects on the maximum muscular ability of leg muscles. The recommended ballistic training program has positive effects on the digital record of the experimental group, compared to the control group

Background and Research Problem:

Advances in the results of international and Olympic championships is clear through the international achievements of champions of various sports, especially digital sports – against either time or distance. It is also clear through modern methods of sports training.

Esam Abd El-Khalek (1996) indicated that sports' training is an educational process based on scientific bases and educational rules that aim at reaching the highest possible levels in the athletic activity and improving the physical, motor, psychological and mental abilities of the athlete (5)

Mohamed Abd El-Ghany Othman (1994) indicated that sports training is “a well-planned process, performed through repetitive muscular work (physical load) and aims at improving the performance level. This process results in physical, functional, psychological and mental changes as load intensity vary from one person to another”. Accordingly, Ali Al-Beek (1988) indicated that planned training is a means through which we can evaluate the athlete's condition to set goals, methods and equipments needed, in addition to identifying the program components

and follow-up tests to achieve the set goals (15, 10).

Mohamed Abd El-Ghany Othman (1990) and Kasem Hasan Hussain (1990) agreed that specific physical abilities of jumping events are speed strength, maximum power and speed (14, 12).

Stone (1998) indicated that muscular strength is one of the physical elements that influence the performance characteristics for each of the performance phase. The body moves by these muscles that contract to direct the limbs from one place to another. The more powerful these muscles are, the more efficient the counteractions are. Improving strength can be done through two methods; first, increasing the physiological cross-section and the second is improving the contraction speed through improving coordination level of the agonist and antagonist muscles towards improving the synchronization of muscle fibers (21).

Burke (2001) showed that any sports movement is characterized by a muscular contraction phase with elongation, followed by a muscular contraction phase with shortening. This includes throwing and jumping skills. To train muscular strength, we should maintain the internal motor energy, through which we switch to muscular contraction phase with shortening as fast as possible. This switch is called maximal muscular power. The ability to generate this kind of muscular power is related, in the first place, with the methods of improving speed strength, among which is the ballistic training (18).

This is in agreement with Mohamed Hassan Allawy (1994) and Adel Abd El-

Baseer (1992) in that muscular strength is closely related to improving motor skills. Strength training programs are the best ways to improve sports performance. Performance in all sports activities depends on the contractile efficiency of muscles as the more powerful the muscle is, the more efficient the contractions are. Strength training programs should include more than mere lifting more weights as it should include modern training methods suitable for various kinds of specific muscular work (13, 6).

Ballistic training is an effective training method that not less effective or less positive than other training methods (weight – plyometrics) on the muscular ability of track and field athletes in general, and especially long jumpers. It includes explosive movements against resistance with maximum speed. This includes light weight lifting with max speeds. This maintains the specific motor coordination ability of long jump (17).

Kent (1998) indicated that ballistic training goes through three phases (inward shortening contraction towards the center – smooth movement that depends on max pushing force during the beginning of a jump – decrease of speed concurrent with outwards elongating contraction away from the center) (22).

Newton et al (1996) and Kerry & Newton (1998) indicated that ballistic resistance training includes movements against resistance with maximum speed and is a relatively modern training method that links plyometrics with weight training as it includes lifting light weights with high speed (23, 20).

Ahmed Farouk (2003) indicated that ballistic training has no phase for speed decrease. Therefore, it maintains specific coordination for most sports. Ballistic training begins relatively late in the training plan as it needs specific preparation with light resistances to strengthen tendons and ligaments. Finally, there is a lack of understanding concerning the improvement of muscular strength in most sports as the main aim is not to increase muscular strength. On the contrary, the main aim is to improve the sports performance. Therefore, coaches should consider this when designing physical preparation programs for their athletes (1).

The current research problem is clear in that the research sample members practice regularly without any noticeable improvement in their performance level. The researchers think that this is due to the inconvenience of the designed training program for those athletes' physical needs that help improving their digital level. This led the researchers to use ballistic training to improve muscular strength through a well-designed training program in a try to improve the digital level of long jumpers.

Research Aims:

The current research aims at:

Designing a ballistic training program for long jumpers.

Identifying the effects of a ballistic training program on the digital level of long jump.

Identifying the difference between the experimental and control groups on the digital level of long jump.

The Muscular Ability And Digital Level Of Long Jump Athletes

Research Hypotheses:

There are statistically significant differences between the pre- and post-measurements of the control group on all physical variables and the digital level in favor of the post-measurements.

There are statistically significant differences between the pre- and post-measurements of the experimental group on all physical variables and the digital level in favor of the post-measurements.

There are statistically significant differences between the post-measurements of the control and experimental groups on all physical variables and the digital level in favor of the experimental group.

Methods:

Approach:

The researchers used the quasi-experimental approach (two-group design) with experimental and control groups.

Subjects:

Research community includes long jumpers from Kafr Al-Shaikh Sports Club, Kafr Al-Shaikh Youth Center and Meet Elwan Youth Center during 2012 season. Sample included (20) athletes divided into two groups (10 athletes each). Another (14) athletes from the same research community and outside the main sample were chosen as a pilot sample.

Table (1)

Homogeneity between the two groups on all research variables

(n=26)

Variables	Measurement	Mean	Median	SD	Sqewness
Growth Indicators					
Age	Year / month	19.80	19.90	1.42	- 0.21
Training period	Year / month	7.16	7.00	0.83	0.77
Physical variables					
Vertical jump	Cm	29.80	29.62	2.89	0.18
Wide jump	M	1.98	1.85	0.76	0.51
30m running from flight	Sec	4.31	4.38	0.87	-0.24
3 hops right	M	4.23	4.13	0.84	0.35
3 hops left	M	4.05	3.91	0.76	0.55
30 sec sit-up	N	29.84	29.93	2.88	-0.10
Anthropometric variables					
Height	M	1.76	1.79	1.65	-0.05
Lower limb length	M	1.06	1.11	0.83	-0.18
Weight	Kg	76.84	75.74	6.84	0.48
Digital record	M	4.91	4.87	0.64	0.19

Table (1) : indicates that sqewness values were between (3±). This indicates sample homogeneity.

Table (2):

Difference significance between the two groups on all research variables (pre-measurements)

Variables	Experimental		Control		Difference	(t)
	Mean	SD	Mean	SD		
Growth Indicators						
Age	16.75	1.12	16.85	1.32	0.10	0.17
Training period	3.14	0.49	3.18	0.62	0.04	0.15
Physical variables						
Vertical jump	30.13	2.42	29.46	3.18	0.67	0.50
Wide jump	1.85	0.64	2.05	0.45	0.20	0.77
30m running from flight	4.36	0.49	4.26	0.52	0.10	0.41
3 hops right	4.25	0.52	4.20	0.38	0.05	0.23
3 hops left	4.00	0.44	4.10	0.51	0.10	0.45
30 sec sit-up	30.14	2.78	29.54	2.51	0.60	0.41
Anthropometric variables						
Height	1.77	1.23	1.75	1.38	0.02	0.03
Lower limb length	1.05	0.59	1.07	0.49	0.02	0.25
Weight	76.61	5.55	77.06	5.71	0.45	0.17
Digital record	4.90	0.40	4.92	0.49	0.02	0.09

Table (2)

indicates no statistically significant differences between the two groups on all research variables for the pre-measurements as (t) table value (2.10) was higher than its calculated values (between 0.03 and 0.77). This indicates sample homogeneity.

Tools and equipments:

The researchers used the following tools and equipments:

A medical balance for measuring weights

A restameter for measuring heights

Jumping hole

Measuring tape

Free weights

Weight machines

Data recording form

Stop watch

The recommended program

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Physical Measurements:

Through review of literature (Al-Sisy 2002, Fleck & Kramer 2004, Mahrous 2004), the researchers found out that the most important physical components for long jump are Speed strength, Transitive speed, Maximum strength and Agility (2, 19, 8, 16).

The researchers identified he physical tests for measuring the specific characteristics of long jump through reviewing the studies of Ahmed Maher (1983), Mo-

hamed Gaber (1994) and Ahmed Ebraheem (2004) (20, 21, 22). These tests are as follows:

- 1- Vertical jump from stance
- 2- Wide jump from stance (for measuring explosive power)
- 3- 30m running from flight (for measuring speed)
- 4- 3 consecutive hops with right leg
- 5- 3 consecutive hops with left leg
- 6- 30 seconds setups

Table (3):

d.fference sign.ificant between the distinguished and non-distinguished groups for calculating distinguishing validity for the pilot sample

(n1 = n2 = 7)

Variables	distinguished		non-distinguished		Difference	(t) value
	Mean	SD±	Mean	SD±		
Vertical jump	35.15	1.68	27.32	2.16	7.83	7.75*
Wide jump	2.42	0.41	1.61	0.53	0.81	3.01*
30m running from flight	3.91	0.33	4.77	0.37	0.86	4.30*
3 hops right	4.83	0.48	3.93	0.58	0.90	3.00*
3 hops left	4.46	0.32	3.72	0.44	0.74	3.36*
30 sec sit-up	37.89	2.84	28.33	2.36	9.56	6.37*

(t) table value on $P \leq 0.05 = 2.17$

Table (3) indicates statistically significant differences on all physical tests between the two groups in favor of the distinguished group as (t) table value was

less than the calculated values (ranging between 3 and 7.75). this indicates the tests validity.

Table (4):

correlation coefficient between test and re-test for calculating tests reliability on the pilot sample

(n=14)

Variables	Test		Re-test		R
	Mean	SD±	Mean	SD±	
Vertical jump	31.24	2.03	31.36	1.73	0.89*
Wide jump	2.02	0.64	2.06	0.72	0.91*
30m running from flight	4.34	0.42	4.29	0.38	0.92*
3 hops right	4.38	0.53	4.44	0.64	0.88*
3 hops left	4.09	0.57	4.15	0.56	0.90*
30 sec sit-up	33.11	3.25	33.45	2.61	0.87*

(r) table value on $P \leq 0.05 = 0.53$

Table (4)

indicates statistically significant correlations between test and re-test as (r) calculated values (0.87 to 0.92) was higher than its table value. This indicates tests reliability.

Aims of the training program:

- 1- Improving physical fitness
- 2- Improving technical performance of long jump phases
- 3- Increasing the beginners' abilities and facilitating their moves during technical performance
- 4- Strengthening most body muscles to work as far as possible
- 5- Acquiring special endurance strength and the feel of speed
- 6- Improving the flight trajectory and good landing

Bases of the training program:

Considering the continuous relations among load variables (intensity – volume – rest)

Prioritizing the training unit's aims and duties

Considering coordination and correlation among training units

Considering the gradual progression of loads and rotation between high and low loads according to progression principle

Mohamed H. Alaawy (1994), Talha Hosam El-Din (1997), Turner et al (2003) and Emad El-Din Abbas & Ali

Fahmy Al-Beek (2003) agreed that muscular strength evolves quickly as training for several weeks helps in increasing and improving it. Eight weeks of training is enough for reaching a measurable level of muscular strength. They indicated that duration of 60-90 minutes for the training unit is enough according to the number of weeks mentioned above (13, 5, 24, 11).

Fleck & Kramer (2004) indicated that the ballistic training units should not exceed 3 units per week so that muscles and joints can get full recovery before the following unit as this type of training is characterized by high intensity that overloads all parts of the body (19)

Accordingly, the researchers applied the training program for eight weeks (3 units per week) so that total number of units is (24) and each unit's duration is between 75 and 90 minutes. The researchers considered improving the maximum muscular strength before applying the program through a set of weight exercises as a condition for effective use of ballistic training. Through these exercises, the muscles become more able to tolerate any sudden changes in both power and speed.

Table (5):
load intensity of the training program

<i>Load intensity</i>	<i>Intensity (%)</i>	<i>Repetitions</i>
<i>Maximum</i>	<i>95 : 100</i>	<i>1 – 2</i>
<i>Sub-maximum</i>	<i>85 : 94</i>	<i>2 – 4</i>
<i>High</i>	<i>75 : 84</i>	<i>4 – 6</i>
<i>Moderate</i>	<i>65 : 74</i>	<i>6 – 8</i>
<i>Light</i>	<i>55 : 64</i>	<i>8 – 12</i>
<i>Low</i>	<i>More than 30</i>	<i>12 - 20</i>

Training loads for the recommended program:

Intensity:

Fleck & Kramer (2004) indicated that intensity of ballistic training should be between 30% and 40% of 1RM of weight training so that this weight does not affect the speed of muscle contraction negatively, causing injuries. For free weights, they also indicated that training intensity is identified through the weight of tool itself. As for medical balls this weight is between 2 to 6 kg and for kettle-bells this weight is between 5 to 10 kg (19).

Volume:

The suitable volume of ballistic training is 10:12 reps for 3:5 sets with rest intervals 2:3 minutes between sets. As for free weights, they indicated that the suitable volume is 10:15 reps for 1:3 sets with rest intervals 2:3 minutes between sets.

The researchers considered the age group of sample and their fitness levels. They also considered the progression principle. Intensities are set according to the following table:

The Training Unit:

Warm-up:

This part is to prepare the muscles and cardio-pulmonary system to the type of work to be performed during the unit, with special attention to stretches and flexibility exercises. This part takes (15-20 minutes with load 20-30% of the main unit load.

Main part:

This part includes ballistic exercises (the main aim of the unit) that work on improving muscular ability and some mechanical characteristics of the spear throwing arm. This part represents 75% of the unit duration. There will be (15) minutes at the beginning for training spear throwing techniques in only one unit each week.

Concluding part:

This part includes cool down through jogging and relaxation exercises for 5-10 minutes, according to the load intensity used. Appendix (2) includes the full recommended ballistic training program.

Main application:

The researchers applied the recommended program to the study groups from 15-6-2012 to 10-8-2012 (8 weeks / 3 units per week). Application was done in Kafr El-Shaikh Stadium.

Statistical treatments:

The researchers used SPSS software to calculate the following: mean – median – standard deviation – skewness – correlation coefficient – (t) test – percentage.

Results and Discussion:

Table (6):

difference significant between the pre- and post-measurements on all research variables for the experimental group

Variables	Pre-		Post-		Difference	Error	(t) value	Improvement percentage (%)
	Mean	SD±	Mean	SD±				
Vertical jump	30.13	2.42	36.31	1.38	6.18	2.26	2.73*	20.51
Wide jump	1.85	0.64	2.50	0.37	0.65	0.21	3.1*	35.14
30m running from flight	4.36	0.49	3.88	0.32	0.48	0.08	6.00*	11.01
3 hops right	4.25	0.52	4.80	0.47	0.55	0.15	3.67*	12.94
3 hops left	4.00	0.44	4.50	0.31	0.50	0.11	4.55*	12.50
30 sec sit-up	30.14	2.78	39.02	4.52	8.88	2.28	3.89*	29.46
Digital record	4.90	0.40	5.94	0.54	1.04	0.12	8.66*	21.22

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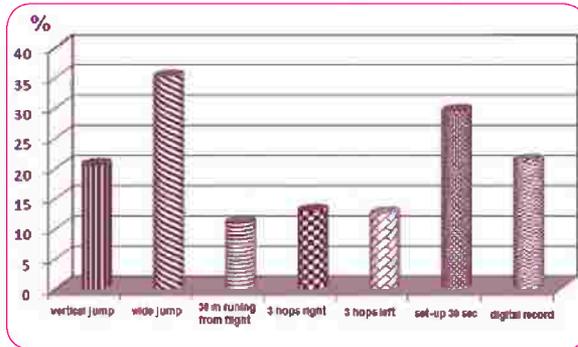


Fig. 1: improvement percentages between the pre- and post- measurements on all research variables for the experimental group

Table (6) and figure (1) indicate statistically significant differences between the pre- and post-measurements of the experimental group on all research variables in favor of the post-measurements. The percentage of improvement ranged between (11.01%) (30m running from flight) and (35.14%) (Wide jump). The digital record improvement percentage was (21.22%). This is due to the ballistic training program. The researchers think that these results indicate the effectiveness of ballistic exercises in improving muscular ability of

legs muscles and the digital record of long jump athletes. Each phase has a relative importance in jumping distance and the approach and take off phases are the most important (3, 4).

Fulfilling the specific mechanical criteria (speed – angle – height) of the start has specific importance in identifying the total jumping distance (3, 16, 7)

Physical variables play a major role in improving the digital record. This is clear from the differences between the pre- and post-measurements.

Table (7):

difference significant between the pre- and post-measurements on all research variables for the control group

Variables	Pre-		Post-		Difference	Error	(t) value	Improvement percentage (%)
	Mean	SD±	Mean	SD±				
Vertical jump	29.46	3.18	33.03	2.37	3.57	1.37	2.6*	12.12
Wide jump	2.05	0.45	2.22	0.32	0.17	0.12	1.41	8.29
30m running from flight	4.26	0.52	4.09	0.33	0.17	0.31	0.54	4.00
3 hops right	4.20	0.38	4.45	0.41	0.25	0.10	2.50*	5.95
3 hops left	4.10	0.51	4.20	0.39	0.10	0.05	2.00*	2.44
30 sec sit-up	29.54	2.51	33.00	4.28	3.46	2.01	1.72	11.71
Digital record	4.92	0.49	5.38	0.53	0.46	0.09	5.11*	9.35

(t) table value on $P \leq 0.05 = 1.83$

Fig.2:
improvement percentages between the pre- and post- measurements on all research variables for the control group

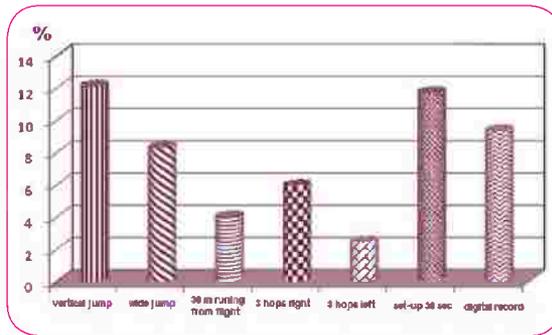


Table (7) and figure (2) indicate statistically significant differences between the pre- and post-measurements of the control group on all research variables in favor of the post-measurements as (t) calculated values ranged between (0.54 and 2.6) while its value was (5.11) for the digital record. This indicates that 30m running from flight and set-up for 30 seconds did not improve as the positive effect of the program was not complete. The percentage of improvement ranged between (2.44%)

(3 hops left) and (12.12%) (vertical jump). The digital record improvement percentage was (9.35%). This is due to the regular training program. The researchers think that the regular training program used for the control group has some positive effects due to athletes' punctuality and the coach's directions about the technical steps of performing the skill. These differences can also be due to the sound bases of designing the regular program. This is in agreement with Esam Abd El-Khalek (9).

Table (6):

difference significant between the post-measurements on all research variables for the experimental and control group

Variables	Experimental		Control		Difference	(t) value	Improvement percentage (%)
	Mean	SD±	Mean	SD±			
Vertical jump	36.31	1.38	33.03	2.37	3.28	3.60*	8.39
Wide jump	2.50	0.37	2.22	0.32	0.28	1.75*	26.85
30m running from flight	3.88	0.32	4.09	0.33	0.21	1.40	7.01
3 hops right	4.80	0.47	4.45	0.41	0.35	1.74*	6.99
3 hops left	4.50	0.31	4.20	0.39	0.30	1.87*	10.06
30 sec sit-up	39.02	4.52	33.00	4.28	6.02	2.90*	17.75
Digital record	5.94	0.54	5.38	0.53	0.56	2.24*	11.87

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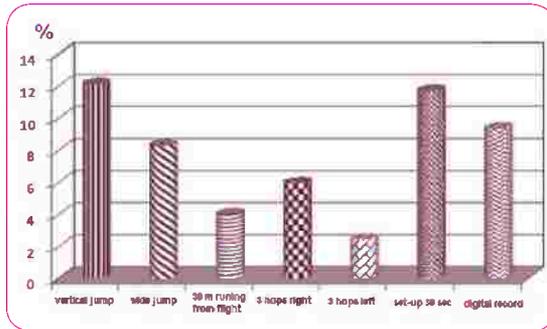


Fig.3: improvement percentages between the post-measurements on all research variables for the experimental and control groups

Table (8) and figure (3) indicate statistically significant differences between the post-measurements of the experimental and control groups on all research variables in favor of the experimental group. (t) values ranged between (1.40 and 3.60) and (2.24) for the digital record. This indicates no statistically significant differences on 30m running from flight. The percentage of improvement ranged between (6.99%) (3 hops right) and (26.85%) (Wide jump). The digital record improvement percentage was (11.87%). This is due to the ballistic training program and its superiority over the regular program. The researchers think that these results indicate the effectiveness of ballistic exercises in improving muscular ability of legs muscles and the digital record of long jump athletes. This is in agreement with various previous studies (2, 1, 19, 8).

Conclusions:

The researchers conclude that:

1- The ballistic training overcomes the defects of lack of velocity due to traditional weight training. In addition,

the nature of performing ballistic training is closer to real long jump performance

2- The recommended ballistic training program has positive effects on the maximum muscular ability of leg muscles

3- The recommended ballistic training program has positive effects on the digital record of the experimental group, compared to the control group.

Recommendations:

The researchers recommend the following:

1- Using the ballistic training program for long jump as it very important in improving maximum power

2- Using the content of the ballistic recommended program to design similar programs using various tools and calibrating the training loads of this type

3- Providing necessary equipments for ballistic training according to safety rules and regulations.

References

References in Arabic

1-	Khalaf, Ahmed F.	<i>Effects of a ballistic training program on some physical, physiological and technical variables for basketball players. The Scientific Journal of Physical Education and Sport. Faculty of Physical Education – Helwan University, 2002, P:7</i>
2-	Al-Sisy, Ashraf M.	<i>Effects of training on various altitudes of the landing point on the distance of long jump for junior athletes. Master thesis, Faculty of Physical Education – Tanta University, 2002, P: 11</i>
3-	Oleg Cloddy, Yvegini Lotowsky & Vladimir Okholof	<i>Athletivs. Translated by Malek Hasan. Radoga Press, Moscow, 1986, PP: 38, 134</i>
4-	Balistros, G. M. & Alfariz, G.	<i>Basics and principles of athletics. Translated by Othman Refaat & Mahmoud Fathy. The International Federation of Track and Field. The Regional Development Center, Cairo, 1991, P:137</i>
5-	Hosam El-Din, Talha	<i>Encyclopedia of Sports Training: strength, power, power endurance and flexibility, Part 1. Markaz Al-Ketab Press, Cairo, 1997, P:180</i>
6-	Abd El-Baseer, Adel	<i>Sports and integrity: theories and application. The United Press, Port Foad, 1992, P:5</i>
7-	Zaher, Abd El-Rahman A.	<i>Physiology of jumping events. Markaz Al-Ketab Press, Cairo, 2000, PP: 19-21</i>

References

References in Arabic

8-	Mahrous, Ezzat E.	<i>Effects of varied training using weights and plyometrics on some specific abilities and digital record of long jump athletes. PhD thesis, Faculty of Physical Education – Tanta University, 2004, P:9</i>
9-	Abd El-Khalek, Esam	<i>Sports Training)Basics – theories – applications) 6th ED, Dar Al-Maaref, Cairo, 1990, PP:4, 41, 73</i>
10-	Al-Beek, Ali	<i>Planning Sports Training. Dar Al-Maaref Al-Gameia, Al-alexandria, 1988, P:9</i>
11-	Abbas, Emad El-Din & Al-Beek, Ali	<i>Sports Coach: Planning and designing training programs and loads. Munshaat Al-Maaref, Alexandria, 2003, P:29</i>
12-	Hussain, Kasem H.	<i>Encyclopedia of track and field, Dar Al-Fikr Press, Cairo, 1999, P:147</i>
13-	Allawy, Mohamed H.	<i>Sports Training. Dar Al-Maaref, Cairo, 11th ED, 1994, PP: 8, 135</i>
14-	Othman Mohamed A.	<i>Encyclopedia of athletics: technique – training – instruction – judgement. Dar Al-Qalam, Kuwait, 1990, P: 404</i>
15-	Othman, Mohamed A.	<i>Motor learning and sports training, 2nd ED, Dar Al-Qalam, Kuwait, 1994, PP: 29, 210</i>
16-	Abd El-Rahman, Na-beela, Sheha, Sadia & Esmaeel, Madiha	<i>Sciences related to track and field. Dar Al-Maaref, Al-alexandria, 1986, PP: 143, 144</i>

References in English

17-	Donald A. chu	<i>Jumping into plyometric</i> , 3rd ed., Human Kinetics, Champaign United States, 2000 p17
18-	Edmund R. Burke	<i>Ballistic training for explosive results</i> , Human Kinetics publisher, Florida, U.S.A, 2001 p73
19-	Fleck , S.J and Kramer, W.J:	<i>Designing resistance training program</i> , 3rd ed., Human Kinetics Champaign, New York, USA, 2004 pp129 ,289
20-	Kerry P.McEvoy and Robert U.Newton	<i>Baseball throwing speed and base running speed: The effects of ballistic resistance training</i> , <i>Journal Of Strength And Conditioning Research</i> ,1998,12(4),p216-221
21-	Michael H. Stone	<i>Athletic Performance development, strength and Conditioning</i> , sport science Journal volume (20) Saint Louis, USA, 1998,pp17 ,25
22-	Michael Kent	<i>Oxford dictionary of Sport sciences and medicine</i> , Oxford University press, UK, 1998.p64
23-	Newton, Robert U.; Kraemer, William J.; Hakkinen, Keijo; Humphries, Brendan J.; Murphy, Aron J	<i>Kinematics, Kinetics, and Muscle Activation During Explosive Upper Body Movements</i> , <i>Journal of Applied Biomechanics</i> ;Feb 1996, 12 (1), p31-43
24-	Turner AM, Owings M, Schwane JA.	<i>Improvement in running economy after 6 weeks of plyometric training</i> , <i>J Strength Cond Res</i> . Feb 2003;17(1),p:7-60.

Construction of a Knowledge Test

FOR SPORTS

SHOWS DESIGNERS IN THE SCIENCES RELATED TO SPORTS SHOWS DESIGNING

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Abstract

The present study aims at constructing a knowledge test for sports shows designers in the sciences related to shows designing which are: the science of training, Mathematics, audio and video, organization and administration, computing, music, and direction. This test was constructed to measure designers' knowledge in those sciences, to know how it can classify the designers into different categories each according to his/her experience, knowledge and information in this area and to identify the strengths and support the weaknesses in order to raise the level of the designer. Consequently, improving the standard of sports shows can be reached. The researchers believe that the cognitive aspect in sports shows designing is one of the important aspects on which excellence in this area depends. The cognitive aspect is knowledge, information and concepts in the sciences related to shows designing. The researchers used the descriptive approach on a sample of 60 male and female designers. 7 basic pivots were nominated for the test. The test consists of 94 questions for those pivots: 14 questions for the science of training, 15 for Mathematics, audios and videos, organization and administration, music and direction, and 15 for computing. Difficulty and easiness index and discrimination index were found. Appropriateness of the test in terms of the easiness and difficulty to measure knowledge attainment and to distinguish between the levels of sports shows designers had been proved.

Key words

Construction of a knowledge test – sports shows

Introduction:

Developed countries have focused on sports shows as they show how their societies are advanced in culture, arts, sports, civilization; these shows are the mirror of this progress and have a profound impact nationally and internationally. In addition, individuals' superiority in sports is based on these shows.

Laila (2001) argues that training process in this area has made great strides in modern age and it has evident influence on the progress of the society. Educational and training process is based on measurement and evaluation process which is regarded as the basis of planning to set up programmers. It is certain that taking care of the measurement process in sports is vital. Moreover, progress in measurement processes requires participation in all areas of sports and physical education to reach the results which reflect learners' level.

Rickson (1985) and Zang (1993) emphasize the importance of the methods used in acquiring both motor skills and the skill of expressing words, in addition to promoting the teacher's role in

developing the cognitive area in order to be able to measure the information and skills of the students.

Singer and Dick (1980) argue that knowledge in sports and physical education includes learning and solving the problems that may hinder achieving the objectives. They add that the improvement must be done within the learning process and by using the knowledge tests.

Mathus (1982) states that the improvement in physical education could not be achieved without the knowledge tests. In this case, the learner's understanding the subject of any activities can be shown by doing written tests. The results of these tests enable the teacher to identify the weaknesses of the educational process.

Subhi Hasanein (1995) argues that tests being applied to the samples of the original population are regarded as the most viable of the tests being applied to the samples of any other population, whatever the degree of similarity between the two populations is.

Hasan Alawy and Nasr-Addin Radwan (2001) (1988) argue that these tests and measurements is one of the most means that indicates how learners are concerned about practice, encourages them to exert the utmost effort to reach the highest levels and helps in identifying the level of their capabilities and skills. The test is a

series of questions for learners to answer; it helps them to identify their capabilities, efficiency and knowledge.

Rasha (1988) highlights that knowledge is relevant to sports activities; it increases students' motivation to practice. This practice enables them to apply that knowledge so they can adapt to the environment and society. Although the motor and physical aspect generally dominates sports and physical education programmes, focusing on the cognitive aspect can help in improving learners' knowledge in their field. Furthermore, the more knowledge increases, the more sports activities can take a good and distinguished shape among cultures. Learners should increase their knowledge before practice.

According to Hasan Alawy (1997), the process of the individual's acquisition of information and knowledge associated with the skills and tactics to play is of a high importance. This process, Alawy adds, contributes in giving the individual perceptions necessary for proper performance. Moreover, Alawy thinks that practical application is based upon these knowledge and theoretical information and without them, one of the necessary elements of successful performance becomes absent.

Subhi Hasanein and Hamdi Abdul-Moneim (1997), Ali Yhya (1983) believe that the real success of the athlete is achieved through practicing the activity together with acquiring the related knowledge. Therefore, it is necessary for

every athlete to master the information and knowledge of the practiced activity for it is not reasonable for the individual to exercise without being aware of the necessary information and knowledge for this practice. This knowledge may be a crucial dimension between an individual and another, since knowledge is a range of meanings, beliefs, concepts and developments that have been made up as a result of man's repeated attempts to understand the phenomena and the things surrounding him.

Furthermore, the researchers believe that the cognitive aspect in sports shows designing is one of the important aspects on which excellence in this area depends. The cognitive aspect is knowledge, information and concepts in the sciences related to shows designing that the designers may have as a result of multiple attempts and experience in designing these shows.

Sports shows have become one of the important subjects taught in many physical education faculties. Moreover, a lot of sports shows competitions are held among specialized and non-specialized faculties in the Arab Republic of Egypt. Despite this, the excellence of these shows in these competitions does not rise to the level of spectacular performances of many faculties. This was clear in some sports shows which were held at the opening session of the Second Arab Universities' Tournament in Cairo in which "seven" physical education faculties participated from the Arab Republic of Egypt.

Through their work in this area, the researchers believe in the need to construct a knowledge test that measures the designers' knowledge in the sciences related to sports shows designing. In addition, it classifies the designers into different categories, each according to his/her experience, knowledge and information, to identify the strengths and support weaknesses in order to raise the level of the designer. Consequently, improving the standard of physical presentations can be reached.

Significance of the study

The present study is an attempt to:

- ✓ Measure the attainment of information and knowledge of the sports shows designers so that they can reach superiority in the area of designing shows.
- ✓ provide new method of measurement based on scientific bases aiming at improving the cognitive aspect of shows designers, and this helps them identify the weaknesses in the knowledge in the sciences related to shows designing on both levels, theoretical and practical.
- ✓ Construct a knowledge test that helps in classifying shows designers, males and females, into different categories according to their knowledge level, whether theoretical or practical.

Aim of the study

The aim of the study is to construct a test to measure the knowledge of shows designers in the sciences related to designing shows which are: the science of training, Mathematics, audio and videos, organization and administration, computing, music and direction. The aim also is to determine how the test can distinguish between the designers' levels by measuring their attainment of knowledge in these sciences.

Research questions

- ✓ Is the proposed test suitable for measuring the cognitive aspect of sports shows designers in the sciences related to shows designing?
- ✓ Can the proposed test differentiate between the designers' levels and classify them into different categories according to these levels?

Procedures

Methods: The researchers used the descriptive approach, using survey, as it is appropriate for the nature of this study.

Research sample and population: The population was selected from sports shows designers, with two-year experience as a minimum, from Arab Republic of Egypt. The population is 70 designers participated in designing sports shows in specialized and non-specialized faculties as well as in the opening session of Arab

Universities' Tournament in 2010. 10 of them were excluded because they participated in the pilot study. The original population becomes 60 male and female designers.

Determining the knowledge levels:

The knowledge levels of the test are determined according to the levels in Blom's division (knowledge - understanding - application) and this was according to studies conducted in this area.

Determining the test questions:

The test questions were put for measuring the knowledge attainment through interviews with experts in this field (validity). They all agreed upon the seven pivots which are: the science of training, Mathematics, audios and videos, organization and administration, computing, music and direction, with relative importance of 100% for each. The test consists of different forms of questions: true or false questions, multiple choice questions and gap-filling questions. The researchers form the questions in different ways in order to raise the questions objectivity. Previous studies by Safeya Ahmed (1990), Emad-Addin Abbas (1997), and Doaa (2009) proved that these kinds of questions are commonly used in knowledge tests. Amin Al-Khouly and Mahmoud Anan (1999) indicated that the more question forms vary, the more the test is characterized by validity and objectivity.

The pilot study: 1- The researchers put different kinds of questions for each pivot mentioned above in different ways. The total number of questions is 150.

Experts in the area of sports shows designing had been consulted (*) to know the question-pivot relations by putting tick (✓) in front of the question which is relevant to the pivot and the designers' knowledge, and by putting cross (×) in front of the question that is irrelevant. 45 questions were excluded from the test according to the experts' advice. As a result, the number of questions became 105. Modifications have been made according to the experts' guidance. The last version of the test was submitted to the experts for approval. (enclosed (1)). The experts expressed the opinion that the designers must be classified into levels according to the degree they got after applying the test: the first level is from (100:80%), the second level is from (79:70%) and the third level is from (69:60%).

2- The researchers applied the test to the pilot sample, from November 10, 2010 to November 15, 2010, to make sure that the questions are clear and well-formed, the unclear questions have been reformulated, and to determine the time of the test. The researchers calculated the difference between the time the first designer took to answer the test (30 minutes) and the last one (40 minutes). This time is called the experimental time of the test. Accordingly, the average time of the test was determined (35 minutes).

Applying the test: The test was applied from November 20, 2010 to December 10, 2010 on the sample aiming at finding the statistical coefficients of the test.

Discussion

Statistics tended to deal with the original sample of the research to judge the validity of each question to get the most accurate evidence. The result was that the

coefficient of correlation, the difficulty and easiness index and the discrimination index ensure the validity of the final judgment on the questions in each pivot of the test. The reliability of the test was calculated through applying test-retest and the following tables illustrate this.

Table (1):

Difficulty, easiness, discrimination and variation coefficients of questions on (the science of training – Mathematics)

Question number	Science of training				Mathematics			
	difficulty	easiness	variation	discrimination	difficulty	easiness	variation	discrimination
1	*0.36	*0.46	0.23	*0.49	*0.33	*0.67	0.22	*0.50
2	*0.45	*0.55	0.25	*0.43	0.19	*0.81	0.15	*0.45
3	*0.30	*0.70	0.21	*0.48	*0.27	*0.73	0.20	*0.50
4	*0.55	*0.45	0.25	*0.50	*0.35	*0.65	0.24	*0.50
5	*0.60	*0.40	0.24	*0.47	*0.47	*0.53	0.25	*0.50
6	*0.38	*0.62	0.24	*0.45	*0.32	*0.68	0.22	*0.50
7	*0.32	*0.68	0.22	*0.50	0.08	*0.92	0.74	0.28
8	*0.48	*0.52	0.25	*0.43	*0.46	*0.54	0.25	*0.50
9	*0.31	*0.69	0.21	*0.50	*0.36	*0.64	0.23	*0.43
10	0.18	*0.82	0.15	0.26	*0.38	*0.63	0.23	*0.50
11	*0.47	*0.53	0.25	*0.48	0.12	*0.88	0.11	0.25
12	*0.31	*0.69	0.21	*0.50	*0.40	*0.60	0.24	*0.50
13	*0.57	*0.43	0.25	*0.49	0.29	*0.71	0.21	*0.50
14	0.26	*0.54	0.14	*0.50	*0.32	*0.68	0.22	*0.48
15	*0.37	*0.63	0.23	*0.49	*0.37	*0.63	0.23	*0.50

* difficulty and easiness index (0.20:0.80)

* discrimination index (0.30 and more)

Table (2):

Difficulty, easiness, discrimination and variation coefficients of questions on (audio and video – organization and administration)

Question number	Audio & video				Organization & administration			
	difficulty	easiness	variation	discrimination	difficulty	easiness	variation	Discrimination
1	*0.26	*0.74	0.20	*0.49	*0.45	*0.55	0.25	*0.49
2	*0.57	*0.43	0.25	*0.47	*0.35	*0.65	0.23	*0.47
3	*0.62	*0.38	0.24	*0.48	0.25	*0.75	0.19	*0.48
4	0.15	*0.85	0.13	0.26	0.14	*0.86	0.11	0.22
5	*0.32	*0.68	0.22	*0.47	*0.63	*0.37	0.23	*0.47
6	*0.48	*0.52	0.25	*0.49	*0.42	*0.58	0.24	*0.49
7	0.29	*0.71	0.21	*0.50	*0.52	*0.48	0.25	*0.50
8	*0.39	*0.64	0.23	*0.43	*0.48	*0.52	0.25	*0.43
9	*0.41	*0.59	0.24	*0.50	0.29	*0.71	0.21	*0.50
10	*0.31	*0.69	0.21	*0.50	0.16	*0.64	0.11	*0.50
11	*0.55	*0.45	0.25	*0.48	*0.35	*0.65	0.23	*0.48
12	*0.46	*0.54	0.25	*0.50	*0.30	*0.70	0.21	*0.50
13	*0.56	*0.44	0.25	*0.49	*0.48	*0.52	0.25	*0.49
14	0.27	*0.73	0.20	*0.47	*0.40	*0.60	0.24	*0.50
15	0.19	*0.81	0.15	0.22	0.28	*0.72	0.20	*0.50

* difficulty and easiness index (0.20:0.80)

* discrimination index (0.30 and more)

Table (3):

Difficulty, easiness, discrimination and variation coefficients of questions on (computing – music – direction)

Quest. No.	Computing				Music				Direction			
	Diff.	Easi.	Var.	Disc.	Diff.	Easi.	Var.	Disc.	Diff.	Easi.	Var.	Disc.
1	*0.37	*0.63	0.23	*0.50	*0.35	*0.65	0.23	*0.50	*0.32	*0.68	0.22	*0.49
2	*0.44	*0.56	0.25	*0.49	*0.58	*0.42	0.24	*0.49	*0.48	*0.52	0.25	*0.50
3	*0.36	*0.74	0.27	*0.50	*0.53	*0.47	0.25	*0.48	0.29	*0.71	0.21	*0.48
4	*0.56	*0.44	0.25	*0.50	*0.46	*0.54	0.25	*0.50	*0.36	*0.64	0.23	*0.50
5	*0.62	*0.38	0.24	*0.50	*0.31	*0.69	0.21	*0.47	0.13	*0.87	0.11	0.26
6	*0.41	*0.59	0.24	*0.50	*0.49	*0.51	0.25	*0.49	*0.31	*0.69	0.21	*0.49
7	*0.32	*0.68	0.22	*0.46	0.18	*0.82	0.15	0.22	0.20	*0.80	0.16	0.26
8	*0.48	*0.52	0.25	*0.50	*0.35	*0.65	0.23	*0.43	*0.46	*0.54	0.25	*0.43
9	0.29	*0.71	0.21	*0.43	0.25	*0.75	0.19	*0.49	*0.36	*0.64	0.23	*0.50
10	*0.36	*0.64	0.23	*0.50	*0.30	*0.70	0.21	*0.50	*0.32	*0.68	0.22	*0.50
11	*0.46	*0.54	0.25	*0.48	*0.57	*0.43	0.25	*0.48	*0.43	*0.57	0.25	*0.49
12	*0.34	*0.66	0.22	*0.50	*0.46	*0.54	0.25	*0.50	*0.27	*0.73	0.20	*0.50
13	0.20	*0.80	0.16	*0.50	*0.40	*0.60	0.24	*0.43	*0.56	*0.44	0.25	*0.50
14	*0.55	*0.45	0.25	*0.50	*0.47	*0.53	0.25	*0.50	*0.41	*0.59	0.24	*0.50
15	*0.49	*0.51	0.25	*0.43	0.15	*0.85	0.13	0.26	*0.39	*0.61	0.24	*0.46

* difficulty and easiness index (0.20:0.80)

* discrimination index (0.30 and more)

It is noted from tables (1, 2, 3) that the coefficient is consistent with what "Jackson" (1975) referred to. Jackson prefers the easiness indices to constitute 50% of the test questions with easiness index (0.25, 0.75), and 25% of which are higher than (0.75), and 25% of which are less than (0.25). Moreover, discrimination indices are consistent with what is indicated by the "Salah al-Din Allam" (2000). He mentions that the discrimination index varies between (± 1) and that the positive coefficient indicates that the correct answer of any question contributes to the total score.

Table (4):

The reliability of the test in its final form

	pivots	Number of questions	First application		Second application		Coefficient of correlation
			Mean	Standard Deviation	Mean	Standard Deviation	
1	Science of training	14	13.34	4.51	13.55	4.56	*0.784
2	Mathematics	13	13.62	3.11	14.41	3.22	*0.702
3	Audio & video	13	14.12	4.63	14.52	4.71	*0.695
4	Organization & administration	13	19.82	4.27	20.31	4.83	*0.805
5	Computing	15	14.47	3.26	15.23	3.41	*0.764
6	Music	13	13.58	3.17	14.01	3.25	*0.743
7	Direction	13	13.97	3.27	14.02	3.68	*0.792

R = 0.232

Table (4) shows that the calculated values of the correlation coefficient exceeded its value on the spreadsheet. This shows the existence of the correlation between the first application and the second application of the knowledge test which proves its reliability.

Based on the above, and after the exclusion of a number of questions that did not achieve the required level of validity and reliability, these questions have been rejected after being applied to the original sample (designers). The first pivot, the science of training, has denied question number (10). The second pivot, Mathematics, rejected questions (7, 11), the third pivot, audio and video, rejected questions (4, 15). The fourth pivot, organization and administration, has denied questions (4, 10). The sixth pivot, music, rejected questions (7, 15). The seventh pivot, direction, rejected questions (5, 7). These questions have been rejected as they do not achieve the required level of discrimination and the difficulty.

Conclusions

First, 7 basic pivots had been nominated for the test. The number of questions was 94: 14 questions for the science of training pivot, 13 questions for Mathematics, audio and videos, organization and administration, music and direction and 15 questions for computing.

Second, the difficulty and easiness index and discrimination indications were found. Appropriateness of the test in terms of easiness and difficulty to distinguish between the levels of sports shows designers had been proved.

Third, the test is regarded as one of the modern scientific methods for

measuring the knowledge attainment of male and female shows designers in the sciences related to shows designing.

Recommendations

- ✓ Applying the knowledge test to all sports shows designers nationally to measure their knowledge level. Doing this test should be an essential prerequisite for anyone to participate in designing sports shows.

- ✓ It is necessary for physical education faculties to concern about providing their students with knowledge in the sciences related to shows designing by giving them educational and training courses to be successful in this field.
- ✓ It is recommended to conduct further future studies dealing with other pivots not included in this study to measure the knowledge attainment in the sciences related to other activities.

References

1- Ali Yehya Al-Mansoury (1983), *Modern and Contemporary Trends of Sports Knowledge*, Monshaat Al-Maaref, Alexandria, Egypt, p. 40.

2- Amin Anwar Al-Khouly and Mohamed Abdul-Fattah Anan(1999), *Sports Knowledge Conceptual Framework: The Tests of Sports Knowledge and its Bases*, Dar Al-Fekr Al-Araby, Cairo, Egypt.

3- Baumgartner, T.A., & Jackson (1975): *Measurement for evaluation in physical education*, Houghton Mifflin Co., Boston.

4- Doaa Dardiry Abul-Hassan (2009), *Designing a Test to Measure the Knowledge Attainment of Skill, Defense and Tactical Aspect in Handball by Using Computers*, the Third Scientific Conference, volume 1, Faculty of Physical Education for Boys, Zagazig University, Cairo, Egypt.

5- Emad-Addin Abbas Abu-Zeid (1997), *Construction of a Knowledge Test for Egyptian Handball Coach*, published research, sports and physical education journal, 7th edition, Faculty of Physical Education for Boys, Helwan University, Cairo, Egypt.

6- Laila Al-Sayed Farahat (2001), *Measurement and Testing in Physical Education*, Book Centre for Publication, Cairo, Egypt, p.24.

7- Mathus, B., (1982): *Taxonomy of physical objectives*, 13 ok(1) cognitive N.Y., long man inc, p. 63.

References

- 8- Mohamed Hasan Alawy (1997), *Coach Psychology and Sports Training*, Dar Al-Fekr Al-Araby, Cairo, Egypt, p. 288.
- 9- Mohamed Hasan Alawy, Mohamed Nasr-Addin Radwan (1988), *Measurement in Physical Education and Sports Psychology*, 2nd edition, Dar Al-Maaref, Cairo, Egypt, p. 44.
- 10- Mohamed Hasan Alawy, Mohamed Nasr-Addin Radwan (2001), *Measurement in Physical Education and Sports Psychology*, Dar Al-Fekr Al-Araby, Cairo, Egypt, p. 19.
- 11- Mohamed Subhi Hasanein (1995), *Methods of Constructing Tests and Measurements in Physical Education*, 2nd edition, Dar Al-Fekr Al-Araby, Cairo, Egypt, p.181.
- 12- Mohamed Subhi Hasanein, Hamdy Adul-Monaem (1997), *The scientific Bases of Volleyball and Measurement and evaluation Methods (physical – skill – knowledge – psychological – mental)*, 2nd edition, Book Center for Publication, Cairo, Egypt, p. 254.
- 13- Rasha Mohamed Ashraf (1988), *Construction of a Knowledge Test in Sports for the Students of the Physically Talented School*, unpublished MA Thesis, Faculty of Physical Education for Boys, Helwan University, Cairo, Egypt, p.16.
- 14- Rickson, Kenneth Bentil (1985): *The relationship between motion learning and reading cognition*, *Dissent abstracts international*, VOL.45, June.
- 15- Safeya Ahmed Moheii-Addin (1990), *Construction of a Knowledge Test in Innovative Modern Dance for Students of the Faculty of Physical Education for Girls in Cairo*, published research, science and arts of sports journal, volume 2, 3rd issue, Faculty of Physical Education for Girls, Helwan University, Cairo, Egypt.
- 16- Salah-Addin Mahmoud Allam (2000), *Educational and Psychological Measurement and Evaluation: its Bases, Applications and Contemporary Orientations*, Dar Al-Fekr Al-Araby, Cairo, Egypt
- 17- Singer, R.N., Dick Welter, (1980): *Teaching physical education system approach*, Second edition, Houghton Mifflin, Boston, p.131-135.
- 18- Zang-liru (1993): *Construction and validation of knowledge test for the united state volleyball association level II coaching certification volleyball*, PhD University of Iowa, USA.

*A Suggested Proposal
For Administration*

**Sport Recreation Risks
At Special Needs Training Centers In
Upper Egypt**

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Abstract

This Study was processed out to build A suggested proposal for administration sport recreation risks at special needs training centers in Upper Egypt through identifying sport recreation reality special needs training centers in Upper and sport recreation risks in addition to sport recreation risk administration,. The researcher used the descriptive approach (survey studies) as this approach suits the research nature and depended on questionnaire as a tool for collection data in a sample of (N= 127) from (5) special needs training centers in upper Egypt chosen randomly beside (16) of specialists experts in the fields of sport administration, sport recreation and social work and the most significant results was the most important risks of special needs centers were: social risk , healthy risk.administration risk, Risk technical ,Marketing risk and it's a must to apply the suggested proposal at special needs training centers in Upper Egypt.

Introduction

Special needs individuals represent a type of individuals possessing limited abilities less than normal abilities but this doesn't mean that they are less important in society as they represent at least 10% of the whole society consequently the society must make a good use of their abilities. (Abd El Rahim.,M.1985).

International health in the world in the world organization pointed out that the number of special needs is 530 million in 1992, including 122 million special needs living in the third world representing from 11% to 15% of whole world population. The number of people with special needs in Egypt in 1992 is 6 million and 7 million in 1997 in a way that indicates the severity of the problem and the necessity of overcoming this problem via therapeutic and preventive programs (Ibrahim.H,1998)

One of the aspects of taking care of people with special needs is to establish many institutions and rehabilitation centers so as to offer the social, psychological and physical care and handling each individual with special need as a separate unit putting into consideration that the people with special needs can cope with any available work, thus the government has establish 51 centers all over the country so as to achieve aspects of special needs integrated care. The physical aspect is considered one of the most important aspects of care as these centers spread the sport recreation activities to encourage practice rate and consequently discover people with special needs talents and

abilities in order to participate in the activities of the Egyptian Paralympics games.

In the light of fast changes taking place in the world resulting in negative results that may affect the continuity of social and daily activities of people with special needs, thus human abilities will be turned into idle abilities hindering society progress. A mechanism must be established to face problems hindering special needs individuals from getting their legitimate rights of physical care that may integrated through the activities of sport recreation in addition to facing expected risks and setting suitable solutions via risks administration offering distinguished sport service in order to achieve the needs of the beneficiaries

So the research aims at setting a suggested model for the administration of sport recreation risks at special needs training centers in Upper Egypt through: identifying, Sport recreation reality at special needs training center, Types of risks of sport recreation at training center and the hierarchy of sport recreation risks administration team at special needs training centers

Methods:

The researcher used the descriptive approach (survey studies) as this approach suits the research nature and depended on questionnaire as a tool for collection data in a sample of (N= 127) from (5) special needs training centers in upper Egypt chosen randomly beside (10) of specialists experts in the fields of

sport administration, sport recreation and social work.

Data Collection Tools:

The researcher designed three questionnaires: First questionnaire for recognizing the sport recreation reality, Second questionnaire for recognizing the types of risks of sport recreation and Third questionnaire for hierarchy of sport recreation risks administration team.

Scientific Transactions:

Validity: tools of data collection were applied on the pilot study and the pilot study was (30) individual of special needs representing research community outside the main sample to be sure of the validity

and reliability of data collection tools.

The researcher calculated scale validity between the content of each scale dimensions and the total degree through the internal consistency. He calculated R value and compared it to tabular R value, validity coefficients for the sport recreation reality ranged between (0.931-0.415), for types of risks of sport recreation ranged between (0.950-0.393), for hierarchy of sport recreation risks administration team ranged between (60%-100%) where the value of tabular (r) is (0.306) at the level of significance (0.05).

Stability: The researcher utilized the calculation of correlation coefficient between application and re-application with 15 interval days from 25/1/2012 to 10/2/2012.

Table (1):

Correlation Coefficients between application and re-application of motor performance debility scale (N=36)

Measure dimensions	First application		Second application		Correlation Coefficient	
	M1	St.D1	M2	St.D2	Calculated r	tabular r
sport recreation reality	284.8	81.9	276.5	81.4	0.99	0.306
types of risks	250.2	76.1	245.9	74.5	0.98	
hierarchy of sport recreation risks	56.4	28.0	49.2	25.6	0.99	

It is clear from the table that stability coefficients of the measurement were acceptable and statistically significant, where tabular[®] valued (0.306) at the level of significance (0.05).so After checking the validity and reliability of data collection tools, the application was done on the main sample during

the period from 11/02/2012 to 11/03/2012.

Results interpret

According to study aim and the researcher's questionnaires he will discuss and interpret the results as follow.

Table (2):

Sample response percentage of sport recreation reality special needs training centers in Upper Egypt. (N=127)

objectives	planning		organization		leadership		equipment		Controlling	
	phrase	↑	phrase	↑	phrase	↑	phrase	↑	phrase	↑
1	62.83	1	57.8	53.07	1	62.52	1	59.37	1	59.69
2	63.15	2	72.91	73.54	2	64.09	2	57.8	2	56.54
3	59.69	3	65.98	59.06	3	59.37	3	50.55	3	49.29
4	71.65	4	43.94	54.65	4	53.7	4	51.5	4	51.5
5	43.94	5	61.89	46.46	5	57.17	5	51.5	5	47.72
6	57.8	6	54.65	63.46	6	60.94	6	67.24	6	54.65
7	48.35	7	66.61	54.65	7	72.91	7	48.98	7	65.35
8	57.8	8	65.67	56.85	8	48.03	8	50.55	8	64.72
9	62.2	9	59.06	67.24	9	60.94	9	57.17	9	65.98
10	62.2	10	48.35	60.49	10		10	49.61	10	66.93
11	61.89	11	51.5	57.8	11		11	45.51	11	52.13
12	71.02	12	63.46		12		12	48.66	12	47.72
13	76.69	13	63.46		13		13	55.91	13	51.18
14	46.46	14	60.94		14		14	70.39	14	59.69
15	47.72				15		15	74.8		
16	60.94									

The previous table pointed out that the sample response for the form of sport recreation reality ranged between ((%43.94), (76.69%).

On the objectives pivot , ranged between (%43.94- 76.69%)on the planning pivot , ranged between(% 43.94- 72.91%), On the organization pivot , ranged between(% 46.46- %73.54), On the leadership pivot , ranged between (% 48.03-% 72.91), On the equipment pivot, ranged between(% 45.51 - %74.80) and On the ontrolling pivot ranged between(%- 47.72 % 65.98)

Table (3):

Estimated mark and percentage of sample response concerning sport recreation risks at special needs training centers in Upper Egypt (N= 127)

Marketing risk		administration risk		social risk		Risk technical		healthy risk	
phrase	%	phrase	%	phrase	%	phrase	%	phrase	%
1	51.50	1	59.06	1	64.09	1	51.81	1	65.98
2	54.02	2	51.50	2	62.52	2	54.02	2	62.20
3	57.80	3	44.57	3	62.52	3	55.91	3	54.33
4	48.35	4	62.52	4	75.75	4	50.55	4	52.13
5	54.65	5	59.37	5	71.34	5	66.30	5	53.39
6	48.35	6	62.20	6	59.69	6	49.61	6	49.61
7	45.51	7	41.10	7	74.80	7	45.83	7	53.70
8	60.61	8	62.83	8	59.06	8	54.65	8	65.67
9	50.55	9	45.83	9	59.69	9	51.81	9	74.72
10	54.02	10	55.28	10	57.17	10	53.70	10	62.52
11	50.55	11	50.87	11	65.98	11	49.92	11	51.18
12	68.50	12	61.26			12	63.46		
13	44.57	13	39.84			13	53.7		
14	53.07	14	57.80			14	56.54		
15	62.83	15	68.82			15	55.91		
16	59.37	16	57.48			16	48.66		
17	55.59					17	56.54		
18	52.76								

The previous table pointed out that the sample response for the form of concerning sport recreation risks at special needs training centers in Upper Egypt ranged between (%44.57) (% 75.75).

The sample response on the technical pivot ranged between %45.83 - % 66.30, the sample response on the healthy pivot ranged between. % 49.61 to % 74.72, The sample response on the social pivot ranged between %57.17 to % 75.75, The sample response on the marketing pivot ranged between % 44.57- % 68.50, The sample response on the healthy pivot ranged between %/ 49.61 % 74.72

In the light of total percentage of every pivot, the researcher found that the most important risks of special needs centers were : (Social risk, Healthy risk, administration risk, Risk technical, marketing risk

Table (4):

Estimated mark and percentage of sample response concerning hierarchy of sport recreation risk administration at special needs rehabilitation centers in Upper Egypt (N=127)

<i>Tasks and duties of the team</i>		<i>Risk management team</i>	
<i>phrase</i>	<i>%</i>	<i>phrase</i>	<i>%</i>
1	100	1	100
2	100	2	100
3	100	3	100
4	100	4	100
5	100	5	100
6	90	6	100
7	100	7	100
8	100	8	100
9	100	9	80
10	90	10	100
11	90		
12	100		
13	80		
14	100		
15	90		
16	70		
17	100		
18	100		
19	100		
20	100		
21	100		
22	100		
23	60		

The previous table indicated that the sample response concerning hierarchy ranged between 80%, 100% and all responses agreed on the hierarchy items for administering risks.

The research results concurred with the study of Gary .(2006) and Thomas ,C(2004) which affirming the importance of establishing hierarchy so as to create suitable environment for activity practicing and to reduce the beneficiaries expected risks..

The suggested model: model philosophy

Model philosophy emerged from the state's trend in all sport sectors to activate and improve activities offered for beneficiaries and to pay attention to provide human force with suitable environment to make a good use of their abilities in an efficient way. Special needs and special needs persons are motivated toward society service, thus the continuity of practicing sport recreation activities contributes in improving psychological and physical status of people of special needs in addition to life enjoying expertise.

Objectives of the model:

1. The real existence of sport recreation risk administration in order to compete with the people with special needs training centers in upper Egypt.
2. Facing economical and administrative obstacles of people with special needs training centers in upper Egypt.
3. Fulfillment of clear improvement in the performance of special needs training centers in upper Egypt.
4. Reorganizing of special needs training centers so as to cope with the advanced trends.
5. Linking between programs and activities of special needs institutions and the ability of these institutions to meet the needs of special needs and promote their talents and abilities.
6. Creating new trends for cooperation among institutions that may support special needs sport such as the media,

sport federations, and youth organizations....etc.

Elements of model success:

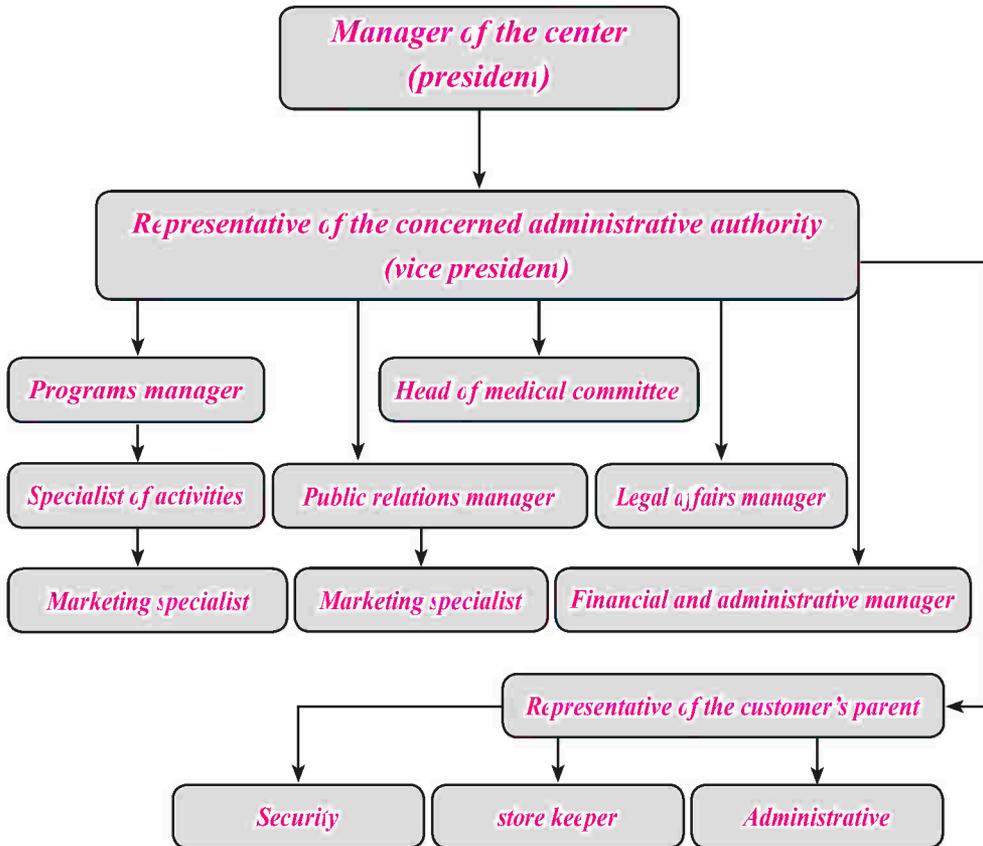
1. Determining the objectives clearly and time programs for implementation.
2. Determining the procedures for executing duties accurately.
3. Beneficiaries' participation in setting objectives and the method of implementation.
4. Developing financial resources of special needs centers and creating new investments with the existence of private financing as an alternative to the governmental financing.
5. Creating incentives system to support positive practice of activities inside the centers.
6. Clear distribution of employees' duties inside the center.
7. Clear announcement on the programs, their time, and the places of their execution.
8. Paying attention to the center's legal aspects so as to recognize the legitimate aspects and the illegitimate aspect.
9. Creating programs via experts so as to suit the scientific foundations.
10. Providing centers with all things needed to implement activities.
11. Paying attention to social relations inside training centers.
12. Paying attention to security and safety factors during the execution of recreation activities.

13. Following up periodically the execution of duties so as to determine negatives and the obstacles of activity execution.

Requirements of model execution:

1. Requirements related to human and financial equipments as constructions, tools, and financial budget covering all aspects of activities in addition to human element as per his preparation, rehabilitation, incentives and work system.
2. requirements related to the employees health care at special needs training centers and providing them with safety factors inside the center.
3. Requirements related to center administration stability so as to encourage creative and inducing administrative methods that may contribute to duties execution in an efficient way .
4. requirements related to the administration legal aspects dividing duties determining authority and responsibility raising the legal awareness and the relation between the president and employees .
5. requirements for supporting of various society institutions to promote the sport of people with special needs and providing them with means of rest so as to contribute in developing their feeling of self in a positive way.

Hierarchy



duties

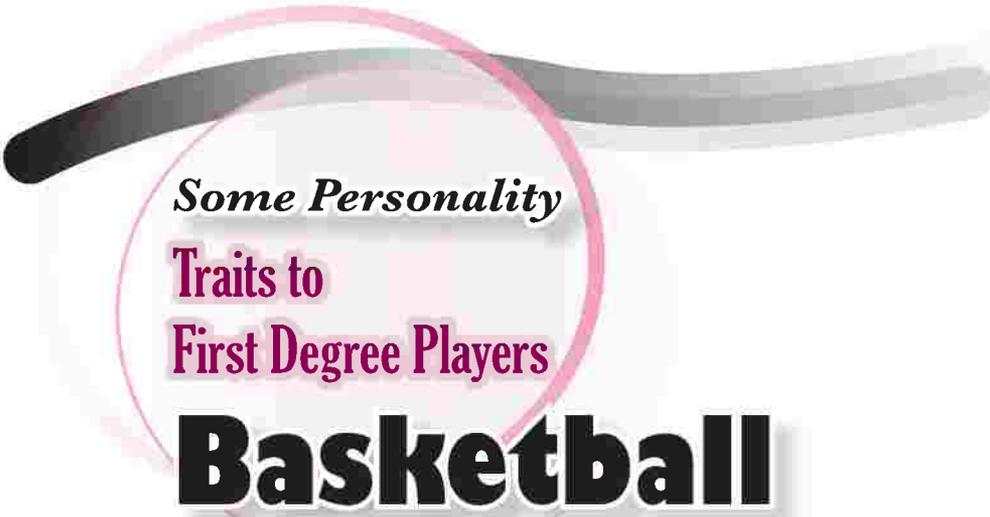
- 1- *predicting expected risks and reducing them*
- 2- *setting alternative solutions for the frequent problems*
- 3- *collecting information and data concerning causes of problems*
- 4- *providing suitable environment for activities inside the center*
- 5- *creating effective communication with society institution*
- 6- *protecting the rights of people of special needs inside and outside the centers*
- 7- *activating the participation of special needs people in increasing production of the country .*

Controlling and evaluation

In the light of the objectives, evaluation is done via measuring reality and comparing it with expected events and recognizing positive and supporting them and trying to solve negative points in addition to the change of content rate about services offered to people of special needs

References

- 1- Helmy, I. and Laila, F. (1998): *Physical Education and Recreation for special needs*, Dar El Fekr Al arabi, Cairo, pp. 37.
- 2- Fathi, E.A. (1985): *using projection method to study some social situation as a mean variables between physical defect and psychological maladjustment, reading on social psychology in the Arab world, vol no.(14), Cairo, pp. 15.*
 - a. Gary, J. Lhotsky. (2006): *An analysis of risk management at football stadium, PHD of education, college of education, the Florida state university, USA.*
- 3- Thomas, C. Aaron. (2004): *Factors affecting levels of risk management, behaviors of Florida high school athletics, PHD of education, college of education, the Florida state university, USA.*



*Some Personality
Traits to
First Degree Players*

Basketball

and their Relationship of Matches Results

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Abstract

The research aims to try to identify Quantum level and the differences in the quantum level sports personality dimensions of the basketball players according to the results of the competition level. The researcher used the descriptive method style screening for relevance to the nature of the search. Was chosen intentional sample of 45 teams player of the joint in the league championship for basketball players for the training season 2010/2011. The results indicate the presence of statistically significant differences between the three levels of basketball players in grades dimensions list Sports Personality (dynamic-motivations and values- openness- pressure- training methods self) and that most of the differences moral for advanced level, and the lack of significant differences found between the three levels of players Basketball in social degrees. It is recommended researcher guided the importance of psychological characteristics associated with achieving psychic energy homosexual as success factors and achieve the best results sports have athletes in general and basketball players in particular, and the importance to learn coach how it helps players to know the psychic energy homosexual regularly, with regard to measuring personality traits the 1st step in this process to identify the shortcomings and develop, and use the list of personal sports for athletes periodically to measure some psychological aspects of the athletes, and take advantage of the results in the classification of players with the assurance that whenever possible training on psychological skills at an early age, the better.

Key words

Personality Traits, First, Basketball, Matches Results.

Introduction:

Hardly consistent interested training sports that achievement levels sporting high associated by various factors, foremost of which physical preparation and skill and tactical and psychological, and where that physical preparation and skill and tactical have converged methods and principles - to a large degree - in recent years there is a need to more attention preparing psych[1].As a result, taking athletic training experts directing careful attention to the different psychological characteristics associated with sports training and athletic competitions, which are expected to significantly affect the level of performance and achieve the best results[2].and attempts or actions or different strategies fall under the scope of what is known in the sports psychology psychological mobilization for the player, and are intended to "positive activation cognitive, emotional and motivation are contribute in helping to better performance in athletic competition"[3]. The measure personality traits first step in this process and there are two main objectives for the study of personality traits in the sports field are: the impact of personal athletic performance. On the one hand, and the impact of sporting behavior on the personality of the individual on the other[4].And that, in order to accomplish two goals and methods were used a

variety of research designs, to search for an answer to important questions, foremost of which:

- ✓ Do personality traits differ depending on the level of achievement of sports?
- ✓ What is the nature of the relationship between personality traits and sports achievement?[5].

Whereas many studies have focused on studying personality traits for athletes, such as studying[6,7,8,9,10,11,12,13,14,15,16,17,18,19].Has pointed out that with the development of talent, sports and the presence of selection methods Scientific, and the availability of coach qualification His long experience, as well as programs physical preparation and skill inhalers, and methods of psychological preparation that contribute to the control of the competitive pressure has become clear that the difference between winning and defeat linked in greater psychological aspects and the importance of attention to the preparation of psychological sports competitions so that the player can take the appropriate decisions in highly competitive situations. As the sport of basketball a sports competition, which is characterized performance motor outstanding, which requires the ability to respond rapidly with conditions match, it also sports activity is characterized by the struggle direct between two teams, as

well as they are replete with many of the attitudes and psychological stress, which is characterized Deeply and speed of change, which that would affect the performance of skill and tactical player and then on the outcome of the game. It is here that the importance of the role played by the coach to achieve integration between energy, physical and psychological even up sports to the physical condition best, when misses Sports amount of psychic energy, the need to be urgently psychologically, stimulate and raise motivation for him, but if sports has psychic energy too high, the need becomes the need to calm him down and search for appropriate methods to achieve this. And so it was imperative for the sports trainer to learn how to help athletes learn best psychic energy on a regular basis[20,21].In this sense there is a problem search, which aims to try to identify the personality traits that characterize basketball players according to their ranking in the games, including useful knowledge psychological characteristics associated with achieving best accomplished athletes, which may contribute in develop psychological preparation programs for players.

Aims:

- ✓ Identify the quantum level sports personality dimensions of the basketball players, according to the results of the competition level.
- ✓ To identify the differences in the quantum level sports personality dimensions of the basketball

players, according to the results of the competition level.

Questions Search:

- ✓ What is the quantum level sports personality dimensions of the basketball players, according to the results of Contest?
- ✓ What are the differences in the quantum level sports personality dimensions of the basketball players, according to the results of the competition?

Materials And Methods

Approach: The researcher used the descriptive (survey) approach.

Sample Research:

Was chosen intentional sample of 45 teams player of the joint in the league championship for basketball players for the training season 2010/2011, the number has been divided into three levels by 15 players in each level as follows:

- ✓ first level: Club basketball players of the island and obtaining first place in the league for men's basketball.
- ✓ second level: basketball players Smouha Sporting Club and obtaining sixth place in the league for men's basketball.
- ✓ third level: basketball players Club Military Production and obtaining Twelfth in the league for men's basketball.

Tools: The researcher used a list of personal sports to measure factors mentality that have a significant impact on athletic performance[22], have been verified the authenticity of the list using internal consistency Internal Consistency of the dimensions of existing and phrases that contain them, as has been applied based on a sample of 15 of the basketball player were randomly selected from the original community to search and outside the research sample core, as has been verified reliability coefficient has been re-apply based on the same sample aforementioned, and the time interval between the application and the first and second five days, was calculated the correlation coefficient between the degrees of the sample in times application

Basic Study:

After making sure of psychometric conditions for the list, as was applied to the sample, according to the rules set for use, has also been corrected in accordance with the key patch prepared for this purpose[22].

Statistical treatments:

Processors included statistical averages and standard deviations and sprains and link transactions, and to find the differences between the three Levels for basketball players were using one-way Anova[23], and least significant difference test LSD and 0.05 level to make sure the moral differences.

Results And Discussion

Table (1):

the arithmetic average and the standard deviation and torsion coefficients Degrees dimensions list Sports Personality of the three levels of basketball players.

Dimensions list	first level			second level			third level		
	Mean	SD±	Sk	Mean	SD±	Sk	Mean	SD±	Sk
1 Dynamic	52.733	3.193	0.688	50.066	2.515	0.078	47.666	2.844	-0.352
2 Motives and values	53.533	2.679	-0.52	50.46	2.47	-0.64	48.73	3.29	0.66
3 Openness	49.53	3.30	0.48	47.26	3.56	1.06	46.46	2.80	-0.57
4 Social	50.06	2.76	0.07	49.46	3.18	-0.50	49.73	3.23	-0.24
5 Pressure	28.53	3.48	0.45	32.2	2.90	-0.82	36.4	3.36	-0.53
6 Self training Methods	51.8	2.42	-0.24	49.73	2.81	-0.28	49.20	3.22	0.24

*Sk=Skewness, SD± = standard deviation.

Table (2):

analysis of variance between the three levels For basketball players in grades sports personality dimensions.

	Dimensions	Source of variation	Sum of squares	Degrees of freedom	Average squares	Value «P»
1	Dynamic	Between groups	192.71	2	96.35	10.96
		Within groups	369.19	42	8.79	
		Total	561.91	44		
2	Motives and values	Between groups	177.24	2	88.62	10.27
		Within groups	362.39	42	8.62	
		Total	536.64	44		
3	Openness	Between groups	75.91	2	37.95	3.37
		Within groups	472.39	42	11.24	
		Total	548.31	44		
4	Social	Between groups	2.71	2	1.35	0.13
		Within groups	423.59	42	10.08	
		Total	426.31	44		
5	Pressure	Between groups	464.84	2	232.42	20.43
		Within groups	477.73	42	11.37	
		Total	942.57	44		
6	Self training methods	Between groups	56.57	2	28.28	3.24
		Within groups	365.73	42	8.70	
		Total	422.31	44		

*Value "P" when tabular level 0.05 = 3.22

Table (3):

significant differences between the three levels For basketball players in grades dimensions (dynamic - the motives and values).

Motives and values	Dimensions list	Mean	Dynamic		
			first level	second level	third level
			52.73	50.06	47.66
	first level	53.53	-	2.66*	5.06*
	second level	50.46	3.06*	-	2.4
	third level	48.73	4.8*	1.73	-

*Value less significant difference at 0.05 = 2.186 after dynamic

*Value less significant difference at 0.05 = 2.166 after the motives and values

Table (4):

significant differences between the three levels For basketball players in grades dimensions (openness - pressure)

	Dimensions list	Mean	Dynamic		
			first level	second level	third level
Pressure			49.53	47.26	46.46
	first level	28.53	-	2.26	3.06*
	second level	32.2	3.66*	-	0.8
	third level	36.4	7.86*	4.2*	-

*Value less significant difference at 0.05 = 2.473 after opening

*Value less significant difference at 0.05 = 2.166 after pressure

Table (5):

significant differences between the three levels For basketball players in grades (self-training methods)

	Dimensions list	Mean	Self-training methods		
			first level	second level	third level
Self training methods			51.8	49.73	49.2
	first level	51.8	-	2.06	2.6*
	second level	49.73	-	-	0.53
	third level	49.2	-	-	-

*Value less individual moral when the level of 05. = 2.176 for self-training methods

Results And Discussion

From Table 2 and private analyzes the disparity between levels of basketball players in grades dimensions list Sports Personality is clear that there are differences statistically significant between the three levels of basketball players in the dimensions of the menu (dynamic, motivated and values, openness, pressure, training methods self) reaching "P" calculated 10.961, 10.271, 3.374, 20.434, 3.248 respectively, and to detect significant differences between

the mean scores of the dimensions of existing test was used less significant difference LSD. While there are no statistically significant differences between the three levels in the fourth dimension - social - as the value of "P" calculated 0.134 which is less than the value of "P" spreadsheet at 0.05, this may be due to the fact that sports growth-oriented social individuals and increase their interaction with the society in which they live, and refines their initial orientation and earns principles and social status Semitic. And it can be through good planning

and educational supervision qualified to provide a variety of opportunities for the development of social skills in personal relationships with teammates, competitors, and leaders, and the public Etc., can also develop leadership skills when given his chances of directing his colleagues in order to achieve the objectives of the team successfully[24]. And lead the team conscious of the importance of continuous measurement of social relationships between the players, which use by from time to time, you can understand the internal organization of the team, helping to develop methods and procedures to protect the team from any cracks may occur in its architecture, as well as actions that increase of social interaction among its members[25]

From Table 1 and your terms of the differences between the three levels of basketball players in grades dimensions (dynamic - motivations and values) reveals an statistically significant differences in the scores after the dynamic between the players first level and all of the players level second and third for the advanced level which is consistent with art results of a study that is common in the sports field to feel sporting challenge tasks performance - Performance requirements - for his abilities making it feel to enjoy and satisfaction and enthusiasm to make the maximum effort and achieve the best possible performance, and fun to play is one of the most important fundamental factors to maintain the motivation sports access to boredom, and this requires the de-

velopment of the concept of victory and defeat and focus on enjoying it without looking to return it[26]. Which indicates that the practice of sports at any level of subscription levels something fun for the athlete which ensures strengthen energy positive mental, and understand the officials and coaches of the state of fluency and how it feels athletes in this case whenever they are better able to help athletes achieve optimal level of this experience[27]. It is important to own sports self-confidence as a personality trait and psychological skill, and performance improves when that trust is getting to a point like me[27]. Sports competition include in it the experiences of success and failure. It is noted that the athlete who has the self-confidence suggests itself realistic goals consistent with his abilities make him feel successful when it reaches to the highest level of his abilities, and does not seek to accomplish unrealistic goals[24]. And that self-confidence is at the heart of success, but the problem lies in the fact that it How can access the self-confidence without prior success? The relationship between confidence and success becomes elusive, sports need to self-confidence to win the game, or do they need to win in order to trust in himself? The importance of confidence in that in case of victory sports some games consecutive, the trend is that it will do so in the next time, which lead him to more self-confidence, Winning and defeat for the player sports, especially in sports competitions associ-

ated factor result Outcome, if the result of competition in favor of the player it means to win, and if the result is in favor of the rival, it means defeat[28]. The success and failure for a player it is linked by a factor of sports performance. If the player's performance in the competition well, it means success, but if the athlete's performance in the competition so bad it means failure and that regardless of victory or defeat in sporting competitions[3]. And that athletes who live experience fluency have the ability to perform the requirements of mathematical skills with a high degree of precision and perfection without thinking and awareness of the emotional performance. Therefore, it is important to learn the sport to have a knowledgeable and aware of what is happening in the environment performance and not think about how performance happens, where it is expected that the athlete who hopes to reach the stage of homosexual psychic energy have mastered skills to the point mechanism. This may coach the effectiveness of a course in sports help to focus, integration and access to the case of fluency during the performance[26].

As can be seen from Table 3 and there were statistically significant differences in the scores after the motives and values between the players first level and all of the players Level II and III for the players first level which is consistent as she pointed out the results of a study that the practice of basketball helps Ali attribute increasing degrees of

motivation I have players with the highest sporting levels[29]. And it has been growing interest in the study of motivation in general terms of dealing with the analysis of the various factors or circumstances that evoke and directs the activity of the individual, and sport in particular motivation as the key to sports practice, and determinants that move and excite motor behavior in sport[30]. Though the motivation in the light of the above considered as a case of a prefix and instilling a booster and directed behavior and working to pay the player towards a certain goal, or goals, and maintain the continuity of behavior. And we should take into account that the athlete's behavior does not result from a single motive, it is often the behavior of the athlete as a result of several overlapping motivations with each other, or may be the result of a combination of motives. We also find that motivated athlete altered and evolve within the evolution of sports level and it becomes possible to acquire new always motivated[3]. The process of building and developing the motivation I have athlete is considered among the most important factors that contribute to the upgrading of its level sports, and help to withstand the rigors and hassles intensity loads physical through sports training, as well as help him to persevere training throughout the year without getting bored or fatigue, and contributes to serious attempts to achieve its ambitious goals of success and winning and achieving sporting events[3]. And that there is a close re-

relationship between values and motives, he had classifies the motives of human behavior into three types (biological motives - values, preferences and trends - emotions)[31]. Though the values in the light of this category are considered "defended and is ubiquitous in all individuals in the community[32]. And defended the value mental shift to a mental factor is characterized by relatively stable and continue[33].

From Table 4 and private in terms of the differences between the three levels of basketball players in grades dimensions (openness - pressure) shows the presence of significant differences in the scores after the opening between the players Level I and Level III for players the first level, which may be due to their ability to accept new ideas and methods of performance art and a desire to learn. And here that the motive is a prerequisite for the learning process and continue it and try to overcome the objection individual difficulties and obstacles and gives the individual more enthusiasm and inclination, perseverance and effort, and prevent the emergence of signs of fatigue and signs of boredom. So Ali coach sports in mind this important principle at work and trying hard to interest the players to practice various motor skills in a variety of ways and means[3]. That the player, which is characterized by a desire to exercise generated has other motives, including the need for achievement and positive levels of ambition and some social motivations social Admissions[34].

As can be seen from Table 4 and there were statistically significant differences in the scores after the pressure between the players first level and all of the players Level II and III, as well as between the player Level II and III for the advanced level may be due to the fact that increasing the sources of stress associated with competition sports and attention overload results In exchange for not enough attention to make the effort in the performance, that is to win in the competition and the overall standings is the main goal[35]. The athletic competition is a test position calendar capabilities Sports carries many sources of threat and stress that may negatively affect athletic performance[27,35]. The athletic senior levels can control relatively their neurological, emotional, while on the contrary find players at least the level of difficulty in achieving this control, which requires the coach to follow up the situation emotional for the players in the positions of competitions to cope with the excitement high[36].

From Table 5 and private in terms of the differences between the three levels of basketball players in grades after training methods self-evident and there were statistically significant differences in the scores after (training methods self) between the players first level and players Level II and III for the advanced level. In this regard refers psychologists sports to that athlete before his participation in competitive sports may gave them some negative thoughts associated with his abilities or its level or ca-

pabilities and the level of competitors or views of others towards a result of competition, and this kind of negative thinking meaningfully affect on the level of the athlete and his abilities. Among the important means that can be used to manage the psychological mobilization training athlete to acquire and master the speech self-Sports Sports Self Talk and is intended to speak silent player for himself, as this method is one of the important aspects that contribute to the promotion of psychological mobilization of the player by increasing confidence in the himself and his abilities and has raised cognitive control in various sports positions.

Among the operations that can be directing the "self-talk sports player" what is known as self-assurance Positive Self Affirmations and through which the player proves positive in the sense of ideas linked to produce the best possible performance and best high spirits. It is through repeated use of such positive

self-affirmations, they located in the athlete's thinking and affect the perception of personal high efficiency and contribute to the psychological mobilization of the player[3]. Mental perception plays a clear role in the mental training programs which is at the heart of successful thought process, which is a reflection of things and appearances previously for individual recognition, and the physiological basis of perception is these processes that occur to parts of the sensory organs in the brain. perception function knowledge of the organism and a key factor in the development of motor skills and improve the level of performance and perception of mental inclusive process bear character compound include components of dimensionality and other mobility must therefore consider the perception of mental as more than just a vision he experienced in the eyes of the mind to, thanks to the use of all the senses whenever possible[37].

Conclusions:

The researcher concludes the following:

- * *And there were statistically significant differences between the three levels of basketball players in grades dimensions Sports Personality List (dynamic - the motives and values - openness - pressure - self-training methods) that most moral differences for the benefit of the advanced level.*
- * *There is no statistically significant differences between the three levels of basketball players in the social degrees.*

Recommends:

- * *Guided by the importance of the psychological characteristics associated with achieving homosexual psychic energy as one of the success factors and achieve the best results sports have athletes in general and basketball players in particular.*
- * *The importance to learn how to help coach the players to know the psychic energy homosexual regularly, with regard to measuring personality traits initial step in this process to identify the shortcomings and development.*
- * *It must be emphasized through the establishment of training courses to prepare trainers to mental skills training fits athletes with different ages or levels, and access to a level that can be employed in competitive situations need continuous training. - Use the list of personal sports for athletes on a regular basis to measure some of the psychological aspects of the athletes, and take advantage of the results in the classification of the players with the assurance that whenever possible psychological skills training at an early age, the better.*
- * *The need for other similar studies on the budding basketball players as well as the players (first class - junior).*
- * *Conducting similar research at the players other activities to identify the personality characteristics of each of these activities.*

References

- 1- Osama Kaml Rateb, Mustafa Mohamed Morsy: *emotional features of swimmers and junior swimmers and relationship with Digital accomplishment, theories and Taattabiqat, Faculty of Physical wild for Boys, Alexandria University, 19991, p:231. (in Arabic).*
- 2- Mohammad Hassan Allawi: *the psychology of training and competition, the seventh edition, Knowledge House, Cairo, 1992, p:16.(in Arabic).*
- 3- Mohammad Hassan Allawi: *The Psychology of sports training and competition, Dar Al-Fikr al-araby, Cairo, 2002, p.p:317, 352, 134, 135, 50, 326.(in Arabic).*
- 4- Martens. R: *The Paradigmatic Crises in American Sport Personality; in. A.C. Fisher (ed); Psychology of: Issues and Insights Palo; Mayfield; 1976, p:417.*

5- Morgan. W: *The Trait Psychology Controeeersy. R.Q. for Exercise and Sport. Vol 51, 1980, p:45.*

6- Shaker Farhood Aldrah: *an analytical study cf some personality traits cf the play-ers Kuwaiti Handball, the scient,fc journal cf Physical Education and Sports, Faculty cf Physical Education for Girls, Alexandria University, 1997.*

7- Salah al-Din Muhammad Malik, Omar Mohammed Ibrahim: *the personal character-istics cf water polo players according to the results cf the competition, the futuristic vision cf physical education and sport in the Arab world, Faculty cf Physical Education for Boys in Cairo, Helwan University, 1999, p:36. .(in Arabic).*

8- Essam Sayed Ahmad: *some personality traits with the judo players and their rela-tionship to the outcome cf the matches, unpublished Master, Faculty cf Physical Education for Boys in Cairo, Helwan University, 1992.*

9- Alaa Abdul Ghani Ahmad: *building positions checksums to detect some personality traits cf an emerging boxing, unpublished Master, Faculty cf Physical Education for Boys, Alexandria University, 1996.*

10- Kamal Suleiman Hassan: *A study cf some personality traits and their relationship to the correction ecfctively handball players, unpublished letter, Faculty cf Physical Edu-cation for Boys, Assiut University, 1993.*

11- Mohammed Abdulaziz Khazaal: *the personal characteristics cf international play-ers and is international and its relationship to the points listed in basketball, theories and applications magazine, Issue XXVIII, Faculty cf Physical Education for Boys, Alexandria University, 1997.*

12- Mohammad Yousifhgag: *personality Special scorers football players, unpublished Master, Faculty cf Physical Education for Boys in Cairo, Helwan University, 1996.*

13- Medhat Shawky Mikhail: *the study cf personality traits to the players on the Status Line front and rear in handball, the First Conference cf Sport in Egypt "Present and Fu-ture: Faculty cf Physical Education, Assiut University, 1994.*

14- Heba Radwan Labib: *the relationship between personality traits and penalties at handball matches, unpublished Mahster, Faculty cf Physical Education for Girls in Cairo, Helwan University, 1998.*

References

- 15- Chen. H: *A personality trait Analysis of Elite Athletes of The Republic of China for The 24 th Olympic Games in Seoul RQNo.84.1988.*
- 16- Chen. H: *Comparison of Personality Traits of Judo Coaches and Athlete Asian - Jou of Physical Education. Taiuean 94.Jun 1987. . :*
- 17- Gat & Mc Whrites: *Personality Characteristics of Competitree and Recreational Cyclists. Journal of Sport Behareion. 1999.*
- 18- Nieman. D: *Personality Traits Correlate with Success in Distance running. R.Q. No 38; 1987.*
- 19- Sulivan. D: *Personality Characteristtics of male Female Particepation in Team Sport; Personality and Indreidual D,fferencs; 1998.*
- 20- Osama Kaml Rateb: *Packing psychological Athletic high level, a study published in the Journal of the Egyptian Olympic, No. IX, June 1997, p:36.(in Arabic).*
- 21- Osama Kaml Rateb: *Organization of the psychological shot, "the entrance to the setup sports psychology for young people" Third Scient,fc Conference, and Women's Sport Science future impact, vulnerability, Faculty of Physical Education for Girls, Alexandria University, 1999, p:39.(in Arabic).*
- 22- Osama Kaml Rateb: *mental skills training, applications in the field of sports, second edition, Dar Al-Fikr al-araby, Cairo, 2004, p:487-493.(in Arabic).*
- 23- Mahmoud Abdel Halim Manasseh: *Measurement and psychological and educational statistics, Knowledge House, Cairo, 1994, p: 277 - 300. (in Arabic).*
- 24- Osama Kaml Rateb: *psychological preparation for juniors, user guidance and guidance for coaches, administrators and parents, Dar Al-Fikr al-araby, Cairo, 2001, p:58, 416.(in Arabic).*
- 25- Ahmed Amin Fawzy, Tarek Badr al-Din: *the psychology of team sports, Arab Thought House, Cairo, 2001, p:125.(in Arabic).*
- 26- Amr Ahmed El-Sayed: *building fluency psychological measure of athletes, unpublished Master, Faculty of Physical Education for Boys in Cairo, Helwan University, 2001, p:98, 53.(in Arabic).*

27- Osama Kaml Rateb : *sports psychology "concepts, applications, "* third edition, Dar Al-Fikr al-araby, 2000, p:145, 338, 189.(in Arabic).

28- Mohamed Alarbi Shimon, *Nabi Beauty: mental training in tennis*, Dar Al-Fikr al-araby, Cairo, 1996, p:64.(in Arabic).

29- Marwan Mostafa Ragab: *Attributes motivation and its relationship to the performance of high-level players in Handball*, unpublished Master, Faculty of Physical Education for Boys, Alexandria University, 2002, p:86.(in Arabic).

30- Osama Kaml Rateb: *motives excellence in sports activity*, Dar Al-Fikr al-araby, Cairo, 1990, p:15.(in Arabic).

31- Ahmed Amin Fawzy: *the psychology of learning psychomotor skills sports*, Knowledge House, Cairo, 1980, p:28.(in Arabic).

32- Wsama Mustafa Motawe: *the role of women's colleges in the strengthening of some social and religious values of its students*, unpublished Mahster, college girls, Ain Shams University, 1981, p:57.(in Arabic).

33- Attia Mahmoud hna: *comparative cultural studies in values, quoting Lewis Full Malika, a lower in social psychology in the Arab country, the first edition*, the National House for Printing and Publishing, Cairo, 1965, p:85.(in Arabic).

34- Mahmoud Abdel Fattah Annan: *the psychology of physical education and sports between theory and practice*, Dar Al-Fikr al-araby, Cairo, 1995. 82

35- Mohammad Hassan Allawi: *Introduction Sport Psychology*, second edition, book publishing center, Cairo, 1998, p: 253, 254, 286.(in Arabic).

36- Ezzat Mahmoud Elkashef: *psychological preparation of athletes*, Arab Thought House, Cairo, 1991, p:70.(in Arabic).

37- Mohamed Elarbi Shimon: *mental training in the field of sports*, Arab Thought House, Cairo, 1996, p:218.(in Arabic).

DOPING AGENTS

IN SOME RACQUET SPORTS

A Review of Literature

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Abstract

The current research aims at identifying the types of prohibited doping agents prevalent in racquet sports, namely tennis, table tennis and squash through a critical review of studies published in that field. The researchers used the descriptive (analytical) approach to review the related literature of doping agents in racquet sports. The researchers restricted their review to research studies published from 2003 to 2012 on "Doping in Racquet Sports". The total number of studies related to "doping in Sports" was (12435) studies. The total number of studies related to "doping in Racquet Sports" was (1393) studies. The total number of studies related to "doping in tennis, squash and table tennis" was (58) studies. According to results and discussion, the researchers concluded the following:

- Doping agents are prevalent in racquet sports.
- There is a major lack of studies dealing with doping agents in racquet sports.
- The least sport that is studied in relation to doping agents is squash.
- The most prevalent agents in racquet sports are Narcotics (Pain Killers), Cannabinoids, Anabolic Modulators, Stimulants, Hormones and Growth Factors.
- Most studies dealt with junior players and the least sample used in such studies were elite sample.
- Most studies dealt with the side effects of doping agents while testing came second and prevalence of doping agents came last.

Background:

According to Orchard et al (2006) certain drugs have the potential to increase athletic performance, but they carry the risk of side effects, which may include death and life-long morbidity. Examples include a cyclist dying from stimulant misuse during the 1960 Rome Olympics, and deaths from cardiovascular disease and various cancers resulting from use of anabolic steroids, as well as the permanent androgenizing effects of these drugs, including infertility, which affect many female athletes. Prohibitions on the use of dangerous performance-enhancing drugs have been introduced in almost all elite-level sports over the past 4 decades. Anti-doping laws attempt to minimize the numbers of athletes engaging in doping. (41)

The World Anti-Doping Agency (WADA) is responsible for developing and implementing uniform anti-doping standards worldwide (both with respect to lists of banned drugs and penalties for misusing them). The World Anti-Doping Code ("WADA Code") was adopted after consultation with governments, sporting bodies, national anti-doping agencies and other relevant parties in 2003 by all Olympic Committees, many nations and many elite sports associations. A substance can be included on the World Anti-Doping Code Prohibited List if it meets two of the three major criteria defined by WADA, or if it is a potential masking agent. The three criteria are that the substance is performance-enhancing, that there are health risks to the athlete with use of the substance and that use of the substance violates the spirit of sport. (14)

Athletes may use drugs for one of three main reasons: Inadvertent (or alleged inad-

vertent) consumption in a propriety medicine, Deliberate consumption for misuse as a recreational drug and Deliberate consumption to enhance performance. Stimulants may be taken to increase alertness or convey some psychological motivational or attitude advantage from central actions. Peripheral actions may increase performance at least in the early stage of exercise by increasing cardiac output, increasing blood flow to muscles and by mobilizing energy. A warm-up prior to strenuous exercise results in increased blood flow to the exercising muscle and to cardiac muscle, warming of the body by transferring heat from the exercising muscles into the bloodstream, a warming that will also aid oxygen uptake by the tissues (oxygen dissociation curve for hemoglobin shifts to the right), and sweating for temperature regulation. Some or all of these effects can be mirrored by agents, which stimulate the cardiovascular system and particularly the heart. (11)

According to WADA and The International Olympic Committee, the following substances are prohibited: Alcohol, Beta Blockers, Anabolic Agents, Peptide Hormones, Growth Factors, Beta-2 Agonists, Hormone and Metabolic Modulators, Selective estrogen receptor modulators (SERMs), anti-estrogenic substances, Agents modifying myostatin function(s), Metabolic modulators, Diuretics and Masking Agents, Stimulants, Narcotics, Cannabinoids and Glucocorticosteroids. (55, 61)

The side effects of using doping agents are numerous and the severity of these side effects depends on the type of the agent, dosage and duration of usage. These side effects include sudden death due to cardiac arrest, quitting the game altogether due to

permanent defect in muscles, joints and ligaments (due to the use of anabolic steroids or even pain killers) and various psychological side effects that affect the mental health of the athlete (43).

In addition, in its code for banning doping agents, The World Anti-Doping Agency (WADA) indicates that most doping agents are banned not only in competitions, but also during training as its side effects may hinder the athlete's abilities to perform well in training and in competition as well (61).

The prevalence of using these substances represents a major problem in the sports field and many researcher efforts try to identify its prevalence and side effects in most sports activities. The current study is a try to identify the prevalence of prohibited substances and their side effects in racquet sports, namely tennis, table tennis and squash.

Aim:

The current research aims at identifying the types of prohibited doping agents prevalent in racquet sports, namely tennis, table tennis and squash through a critical review of studies published in that field.

Research questions:

1. Through the review of literature, how far are doping agents prevalent in some racquet sports (tennis – squash – table tennis)?
2. Through the review of literature, what are the doping agents prevalent in some racquet sports (tennis – squash – table tennis)?

Methods:

Approach:

The researchers used the descriptive (analytical) approach to review the related literature of doping agents in racquet sports.

Sample:

The researchers restricted their review to research studies published from 2003 to 2012 on "Doping in Racquet Sports". The total number of studies related to "doping in Sports" was (12435) studies. The total number of studies related to "doping in Racquet Sports" was (1393) studies. The total number of studies related to "doping in tennis, squash and table tennis" was (58) studies. (1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,42,43,45,46,47,48,49,50,51,52,53,54,56,57,58,59,60)

Research tools:

The researchers used "Google search engine" to gather data. Data was analyzed using a content analysis form (prepared by the researchers).

Statistical treatments:

The researchers used SPSS software to calculate the frequency and percentage values.

Date of analysis:

The researchers gathered data from 15-8-2012 to 17-8-2012. Data was analyzed from 18-8-2012 to 16-9-2012. Statistical treatments were performed on 17-9-2012.

Results:

Table (1):

Frequency and Percentage of Doping Studies in racquet Sports out of Total Studies of doping in Sports Published from 2003 to 2012

Type of Studies	Frequency	Percentage
Doping in Sports	12435	100%
Doping in Racquet Sports	1393	11.202%

Table (2):

Frequency and Percentage of Doping Studies in racquet Sports Published from 2003 to 2012 according to the type of publication

Type of Studies	Frequency	Percentage
News letters and articles	1056	75.808%
Research studies	320	22.972%
Research projects	17	1.220%
Total	1393	100%

Table (3):

Frequency and Percentage of Doping Studies in racquet Sports Published from 2003 to 2012 according to the type of Doping Agents

Doping Agents	Frequency	Percentage
General	100	7.179%
Alcohol	59	4.235%
Beta Blockers	55	3.948%
Anabolic Modulators	62	4.523%
Peptide Hormones	22	1.579%
Growth Factors	58	4.164%
Hormones	46	3.302%
Beta 2 Agonists	88	6.317%
Metabolic Modulators	31	2.225%
Diuretics and Masking Agents	761	54.630%
Stimulants	267	19.167%
Narcotics (Pain Killers)	223	16.009%
Cannabinoids	189	13.568%
Glococortisteriods	31	2.225%
Total	1393	100%

Table (4):

Frequency and Percentage of Doping Studies related to racquet Sports (Tennis – Squash – Table Tennis) out of Total Studies of doping in Sports Published from 2003 to 2012

<i>Type of Studies</i>	<i>Frequency</i>	<i>Percentage</i>
<i>Doping in Sports</i>	<i>12435</i>	<i>100%</i>
<i>Doping in Racquet Sports (tennis – squash – table tennis)</i>	<i>58</i>	<i>0.446%</i>

Table (5):

Frequency and Percentage of Doping Studies related to racquet Sports (Tennis – Squash – Table Tennis) out of Total Studies of doping in Racquet Sports Published from 2003 to 2012

<i>Type of Studies</i>	<i>Frequency</i>	<i>Percentage</i>
<i>Doping in Racquet Sports</i>	<i>1393</i>	<i>100%</i>
<i>Doping in Racquet Sports (tennis – squash – table tennis)</i>	<i>58</i>	<i>4.163%</i>

Table (6):

Frequency and Percentage of Doping Studies related to each racquet Sport (Tennis – Squash – Table Tennis) out of Total Studies of doping in Racquet Sports Published from 2003 to 2012

<i>Type of Studies</i>	<i>Frequency</i>	<i>Percentage</i>
<i>Tennis</i>	<i>39</i>	<i>67.242%</i>
<i>Squash</i>	<i>2</i>	<i>3.448%</i>
<i>Table tennis</i>	<i>17</i>	<i>29.448%</i>
<i>Doping in Racquet Sports (tennis – squash – table tennis)</i>	<i>58</i>	<i>100%</i>

Table (7):

Frequency and Percentage of Doping Studies in racquet Sports (Tennis – Squash – Table Tennis) Published from 2003 to 2012 according to the type of Doping Agents

Doping Agents	Frequency	Percentage
<i>Anabolic Modulators</i>	<i>11</i>	<i>18.966%</i>
<i>Hormones</i>	<i>6</i>	<i>10.345%</i>
<i>Growth Factors</i>	<i>6</i>	<i>10.345%</i>
<i>Stimulants</i>	<i>11</i>	<i>18.966%</i>
<i>Narcotics (Pain Killers)</i>	<i>12</i>	<i>20.690%</i>
<i>Cannabinoids</i>	<i>12</i>	<i>20.690%</i>
Total	58	100%

Table (8):

Frequency and Percentage of Doping Studies related to racquet Sports (Tennis – Squash – Table Tennis) Published from 2003 to 2012 according to the aim of each study

Type of Studies	Frequency	Percentage
<i>Side effects</i>	<i>28</i>	<i>48.276%</i>
<i>Testing</i>	<i>16</i>	<i>27.586%</i>
<i>Prevalence</i>	<i>14</i>	<i>24.138%</i>
Total	58	100%

Table (9):

Frequency and Percentage of Doping Studies related to racquet Sports (Tennis – Squash – Table Tennis) Published from 2003 to 2012 according to the type of sample

Type of Studies	Frequency	Percentage
<i>Elite sample</i>	<i>9</i>	<i>15.517%</i>
<i>Junior sample</i>	<i>21</i>	<i>36.207%</i>
<i>Recreational sample</i>	<i>12</i>	<i>20.690%</i>
<i>Elderly sample</i>	<i>16</i>	<i>27.586%</i>
Total	58	100%

Discussion:

Table (1) indicates that the total number of studies published on doping in sports from 2003 to 2012 is (12435). The number of studies related to doping in racquet sports is (1393). Out of these (1393) studies, there were (1056) news letters and articles, (320) research studies and only (17) research projects (table 2). This indicates a major lack in studies related to doping in racquet sports.

Table (3) indicates that the most studied doping agents were diuretics and masking agents with (761) studies out of (1393) studies (54.63%) while peptide hormones came last with only (22) studies out of (1393) studies (1.579%).

The number of studies that dealt with tennis, squash and table tennis was only (58) studies; that is (0.446%) of total studies dealing with doping in sports (table 4) and (4.163%) of total studies dealing with doping in racquet sports (table 5). This clearly indicates a need for more studies in these specific sports as these percentages are relatively very low compared to other sports.

In addition, table (6) indicates that only (39) studies dealt with tennis, (2)

studies dealt with squash and (17) studies dealt with table tennis. This indicates that squash was the least considered sport in this type of research work.

Table (7) indicates that studies related to tennis, squash and table tennis dealt only with six types of doping agents. These agents are Narcotics (Pain Killers) and Cannabinoids (12 studies each) (20.690% each), Anabolic Modulators and Stimulants (11 studies each) (18.966%) and Hormones and Growth Factors (6 studies each) (10.345% each).

Table (8) indicated that (28) studies out of (58) dealt with the side effects of doping agents on racquet sports players while (16) studies dealt with testing procedures to discover such agents and (14) studies dealt with the prevalence of doping agents among racquet sports players.

Table (9) indicated that (21) studies out of (58) were performed on junior racquet sports players, (16) studies were performed on elderly people who play racquet sports, (12) studies were performed on recreational racquet sports players and only (9) studies were performed on elite racquet sports players.

Conclusions

According to results and discussion, the researchers concluded the following:

Doping agents are prevalent in racquet sports.

There is a major lack of studies dealing with doping agents in racquet sports.

The least sport that is studied in relation to doping agents is squash.

The most prevalent agents in racquet sports are Narcotics (Pain Killers), Cannabinoids, Anabolic Modulators, Stimulants, Hormones and Growth Factors.

Most studies dealt with junior players and the least sample used in such studies were elite sample.

Most studies dealt with the side effects of doping agents while testing came second and prevalence of doping agents came last.

Recommendations

The researchers recommend the following:

It is necessary more research effort on doping in racquet sports, especially in squash.

WADA policies and directives should be introduced to coaches and players of racquet sports, especially juniors, to help protecting them for the dangers of doping side effects.

More studies are needed on the side effects of doping agents on training and competition for racquet sports player, especially tennis, squash and table tennis.

It is necessary to perform a field study about the reality of doping prevalence among racquet sports players in Egypt.

It is important to hold seminars for coaches to introduce the dangers of doping agents, in cooperation with national racquet sports federations.

References

- 1- A. Bonetti, F. Tirelli, A. Catapano, D. Dazzi, A. Dei Cas, F. Solito, G. Ceda, C. Reverberi, C. Monica, S. Pipitone, G. Elia, M. Spattini, G. Magnati: *Side Effects of Anabolic Androgenic Steroids Abuse*. *Int J Sports Med* 2008; 29(8): 679-687
- 2- Alaranta A, Alaranta H, Holmila J, Palmu P, Pietila K, Helenius I: *Self-Reported Attitudes of Elite Athletes Towards Doping: Differences Between Type of Sport*. *Int J Sports Med* 2006, 27:842-6.
- 3- Andrea Petróczi, Eugene V Aidman and Tamás Nepusz: *Capturing doping attitudes by self-report declarations and implicit assessment: A methodology study*. *Substance Abuse Treatment, Prevention, and Policy* 2008, 3:9 doi:10.1186/1747-597X-3-9
- 4- Bengt Kayser and Barbara Broers: *The Olympics and harm reduction? Harm Reduction Journal* 2012, 9:33
- 5- Bengt Kayser, Alexandre Mauro and Andy Miah: *Current anti-doping policy: a critical appraisal*. *BMC Medical Ethics* 2007, 8:2 doi:10.1186/1472-6939-8-2
- 6- Beullens M, Delanghe JR, Bollen M: *False-positive detection of recombinant human erythropoietin in urine following strenuous physical exercise*. *Blood* 2006, 107:4711-4713.
- 7- Burke, Louise M.: *Caffeine and sports performance*. *Applied Physiology, Nutrition, and Metabolism*, 2008, 33(6): 1319-1334.
- 8- C Saudan, N Baume, N Robinson, L Avois, P Mangin, M Saugy: *Testosterone and doping control*. *Br J Sports Med* 2006;40(Suppl 1):i21-i24. doi: 10.1136/bjism.2006.027482
- 9- Campos DR, Yonamine M, Moraes Moreau RL: *Marijuana as doping in sports*. *Sports Med* 2003, 33:395-399.
- 10- Chester N, Reilly T & Mottram DR: *Physiological, subjective and performance effects of pseudoephedrine and phenylpropanolamine during endurance running exercise*. *International Journal of Sports Medicine*[2003, 24(1):3-8]
- 11- Docherty, JR: *REVIEW: Pharmacology of stimulants prohibited by the World Anti-Doping Agency (WADA)*. *British Journal of Pharmacology* (2008) 154, 606-622
- 12- DUNN, M., THOMAS, J. O., SWIFT, W. and BURNS, L. (2011), *Recreational substance use among elite Australian athletes*. *Drug and Alcohol Review*, 30: 63-68.

13- Fabrice Olivier Lorente; Patrick Peretti-Watel & Laurent Grelot: Cannabis use to enhance sportive and non-sportive performances among French sport students. *Addictive Behaviors*, Volume 30, Issue 7, August 2005, PP: 1382–1391.

14- Gary I. Wadler: *Doping in Sport: From Strychnine to Genetic Enhancement, It's a Moving Targe*. <http://law.duke.edu/sportscenter/wadler.paf>

15- Gomez J: Use of performance-enhancing substances. *Pediatrics* 2005, 115:1103-1106.

16- Grucza, R. A., Abbacchi, A. M., Przybeck, T. R. and Gfroerer, J. C. (2007), Discrepancies in estimates of prevalence and correlates of substance use and disorders between two national surveys. *Addiction*, 102: 623–629. doi: 10.1111/j.1360-0443.2007.01745.x

17- Haisma HJ, de Hon O: Gene doping. *Int J Sports Med* 2006, 27:257-266.

18- Hartgens F, Kuipers H: Effects of androgenic-anabolic steroids in athletes. *Sports Med* 2004, 34:513-554.

19- Javier Maquirriain: Epidemiological analysis of doping offences in the professional tennis circuit. *Journal of Occupational Medicine and Toxicology* 2010, 5:30.

20- Jennifer F. Buckman, David A. Yusko, Samantha G. Farris, Helene R. White & Robert J. Pandina: Risk of Marijuana Use in Male and Female College Student Athletes and Non-athletes. *Journal of studies on alcohol and drugs* Volume 72, 2011 > Issue 4: July 2011

21- Karl Peltzer: Leisure Time Physical Activity and Sedentary Behavior and Substance Use Among In-School Adolescents in Eight African Countries. *International Journal of Behavioral Medicine*, Volume 17, Number 4 (2010), 271-278.

22- Knight J: Drugs bust reveals athletes' secret steroid. *Nature* 2003, 425:752.

23- Koch JJ: Performance-enhancing: substances and their use among adolescent athletes. *Pediatr Rev* 2002, 23:310-317.

24- L Avois, N Robinson, C Saudan, N Baume, P Mangin & M Saugy: Central nervous system stimulants and sport practice. *Br J Sports Med* 2006;40:i16-i20 doi:10.1136/bjsm.2006.027557

References

- 25- Laure P, Leceyf T, Friser A, Binsinger C: *Drugs, recreational drug use and attitudes towards doping of high school athletes*. *Int J Sports Med* 2004, 25:133-138.
- 26- Laure P: [Doping: epidemiological studies]. *Presse Med* 2000, 29:1365-1372.
- 27- M Saugy, L Avois, C Saudan, N Robinson, C Giroud, P Mangin & J Dvorak: *Cannabis and sport*. *Br J Sports Med* 2006;40:i13-i15 doi:10.1136/bjism.2006.027607
- 28- M Saugy, N Robinson, C Saudan, N Baume, L Avois, P Mangin: *Human growth hormone doping in sport*. *Br J Sports Med* 2006;40(Suppl 1):i35-i39
- 29- M. Joseph John, Vineeth Jaison, Kunal Jain, Naveen Kakar, and Jubbin J. Jacob: *Erythropoietin use and abuse: Indian J Endocrinol Metab*. 2012 Mar-Apr; 16(2): 220-227
- 30- Madhusudhana Reddy, AlKa Beotra, S. Jain, and S. Ahi: *A simple and rapid ESI-LC-MS/MS method for simultaneous screening of doping agents in urine samples*. *Indian J Pharmacol*. 2009 April; 41(2): 80-86
- 31- Mario Thevis, Michael Sauer, Hans Geyer, Gerd Sigmund, Ute Mareck & Wilhelm Schänzer: *Determination of the prevalence of anabolic steroids, stimulants, and selected drugs subject to doping controls among elite sport students using analytical chemistry*. *Journal of Sports Sciences*, Volume 26, Issue 10, 2008, PP: 1059-1065.
- 32- Matthew Dunn, Johanna O. Thomas, Wendy Swift, Lucinda Burns & Richard P. Mattick: *Drug testing in sport: The attitudes and experiences of elite athletes*. *International Journal of Drug Policy*, Volume 21, Issue 4, July 2010, Pages 330-332
- 33- Mauricio Yonamine; Paula Rodrigues Garcia; Regina Lúcia de Moraes Moreau: *Non-Intentional Doping in Sports*. *Sports Medicine*, Volume 34, Number 11, 2004, pp. 697-704(8)
- 34- Mehlman MJ, Banger E, Wright MM: *Doping in Sports and the Use of State Power*.
- 35- Miah A: *Doping and the child: an ethical policy for the vulnerable*. *Lancet* 2005, 366:874-876.
- 36- Miah, Andy: *From anti-doping to a 'performance policy' sport technology, being human, and doing ethics*. *European Journal of Sport Science* 2005, 5 (1): 51-57.
- 37- Michele J. Moore & Chudley E. "Chad" Werch: *Sport and physical activity participation and substance use among adolescents*. *Journal of Adolescent Health*, Volume 36, Issue 6, June 2005, Pages 486-493
- 38- Miran Kondric, Damir Sekulic and Gordana Furjan Mandic: *Substance Use and Misuse Among Slovenian Table Tennis Players*. *Substance Use and Misuse* March 2010, Vol. 45, No. 4, Pages 543-553.

39- Miran Kondric, Damir Sekulic², , Andrea Petroczi, Ljerka Ostojic, Jelena Rodek and Zdenko Ostojic: *Is there a danger for myopia in anti-doping education? Comparative analysis of substance use and misuse in Olympic racket sports calls for a broader approach.* *Substance Abuse Treatment, Prevention, and Policy* 2011, 6:27

40- Naranjo OJ, Centeno Prada RA, Carranza M M.D.: *Use of beta2 agonists in sport: are the present criteria right?* *Br J Sports Med* 2006, 40:363-366.

41- Orchard, John W; Fricker, Peter A; White, Susan L; Burke, Louise M & Healey, Deborah J.: *The use and misuse of performance-enhancing substances in sport.* *MJA*, Volume 184 Number 3, PP: 132-136, 6 February 2006

42- P Acevedo, JC Jorge, A Cruz-Sánchez, E Amy, and JL Barreto-Estrada: *A Ten-year Assessment of Anabolic Steroid Misuse among Competitive Athletes in Puerto Rico.* *West Indian Med J.* 2011 October ; 60(5): 531–535

43- Patricky Peretti-Watel, Valerie Guagliardo, Pierre Verger, Jacques Pruvost, Patrick Mignon & Yolande Obadia: *Risky Behaviors among Young Elite-Student-Athletes: Results from a Pilot Survey in South-Eastern France.* *International Review for the Sociology of Sport* June 2004 vol. 39 no. 2 233-244

44- Peretti-Watel, P., Guagliardo, V., Verger, P., Pruvost, J., Mignon, P. and Obadia, Y. (2003), *Sporting activity and drug use: alcohol, cigarette and cannabis use among elite student athletes.* *Addiction*, 98: 1249–1256.

45- Petro´ czi A, Aidman EV, Hussain I, Deshmukh N, Nepusz T, et al. (2010) *Virtue or Pretense? Looking behind Self-Declared Innocence in Doping.* *PLoS ONE* 5(5): e10457. doi:10.1371/journal.pone.0010457

46- Petro´ czi A, Uvacsek M, Nepusz T, Deshmukh N, Shah I, et al. (2011) *Incongruence in Doping Related Attitudes, Beliefs and Opinions in the Context of Discordant Behavioral Data: In Which Measure Do We Trust?* *PLoS ONE* 6(4): e18804. doi:10.1371/journal.pone.0018804

47- Pillard F, Cances-Lauwers V, Godeau E, Navarro F, Rolland Y, & Rivière D: *Sport practice and cannabis consumption in a representative sample of French high school adolescents.* *Annales de Medecine Interne*[2001, 152 Suppl 7:28-36]

48- Ronald J. Peters, Jr., Lamar F. Adams, Joshua B. Barnes, Larissa A. Hines, Dallese E. Jones, Kandi M. A. Krebs and Steve H. Kelder: *Beliefs and Social Norms About Ephedra Onset and Perceived Addiction Among College Male and Female Athletes.* *Substance Use & Misuse*, 2005, Vol. 40, No. 1 , Pages 125-135.

References

- 49- Ross H. Lowe, Tsadik T. Abraham, William D. Darwin, Ronald Herning, Jean Lud Cadet & Marilyn A. Huestis: *Extended urinary Δ^9 -tetrahydrocannabinol excretion in chronic cannabis users precludes use as a biomarker of new drug exposure.* *Drug and Alcohol Dependence*, Volume 105, Issues 1–2, 1 November 2009, PP: 24–32
- 50- Savulescu J, Foddy B, Clayton M: *Why we should allow performance enhancing drugs in sport.* *Br J Sports Med* 2004, 38:666-670.
- 51- Schumacher YO, Ashenden M: *Doping with artificial oxygen carriers: an update.* *Sports Med* 2004, 34:141-150.
- 52- Sheridan H, Pasveer B, Van Hilvoorde I: *Gene-talk and sport-talk: A view from the radical middle ground.* *Eur J Sport Sc* 2006, 6:223-230.
- 53- *Specific incremental test in elite squash players* <http://www.smas.org/2-kongres/papers/7951.pdf>
- 54- Susan H. Backhouse & Jim McKenna: *Doping in sport: A review of medical practitioners' knowledge, attitudes and beliefs.* *International Journal of Drug Policy*, Volume 22, Issue 3, May 2011, Pages 198–202.
- 55- *The International Olympic Committee Anti-Doping Rules* http://www.olympic.org/Documents/Reports/EN/en_report_1316.pdf
- 56- Thiblin I, Petersson A: *Pharmacoepidemiology of anabolic androgenic steroids: a review.* *Fundam Clin Pharmacol* 2005, 19:27-44.
- 57- Thomas, Johanna; Dunn, Matthew; Swift, Wendy; Burns, Lucinda: *Elite Athletes' Perceptions of the Effects of Illicit Drug Use on Athletic Performance.* *Clinical Journal of Sport Medicine*: May 2010 - Volume 20 - Issue 3 - pp 189-192
- 58- Tokish JM, Kocher MS, Hawkins RJ: *Ergogenic aids: a review of basic science, performance, side effects, and status in sports.* *Am J Sports Med* 2004, 32:1543-1553.
- 59- Wichstrøm, T. and Wichstrøm, L. (2009), *Does sports participation during adolescence prevent later alcohol, tobacco and cannabis use?* *Addiction*, 104: 138–149.
- 60- www.usantidoping.org [<http://www.usantidoping.org>]
- 61 www.wada-ama.org [<http://www.wada-ama.org>]

The Factorial Components of
**The Ability
To Think Critic**
To The Supreme Students

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Abstract

Research aims at identifying simple factorial structure of the items that constitute a measure of the ability to think critically of graduate students, as well as a group of items brief (representing factors derived) have the power to measure the ability to think critically with graduate students. The random sample was selected from students and graduate students enrolled for a master's degree and PhD, Faculty of Physical Education at the University of Kafr el-Sheikh, and the Faculties of Physical Education for Girls and Boys, Alexandria University during the academic year 2010/2011 is, consisting of 90 demanded by 60 students stage Masters, 30 students doctoral phase. After presentation of the proposed

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scale items 36 an item on the gentlemen experts and based on their views have been deleted seven items, as well as the re-integration and formulation of four items and bringing the number of items 26 items. To calculate honesty factorial scale factor analysis was conducted Using the basic components of hotelling, To extract factors depending on the test Kaiser, After orthogonal rotation, Factors learned where most items saturated 24 an item in terms of ± 0.3 and above have the power to detect the ability to critical thinking among students in studies and they are distributed on four factors are acceptable: first factor: Calendar factor 13 items, second factor: workers understand the rules of logic (8 items), third factor: heuristics factor 5 items, fourth factor: factor doth objective facts 3 items. Also enjoyed the scale factor stability high calculated using coefficient alpha cronbakh reached 0.87 a reliability coefficient confirms confidence in the stability measure, has also been reached and there are significant differences in the ability to think critically of graduate students (Masters, PhD) in favor of students stage Doctorate.

Key words:

Components – Ability to Think Critic – Supreme students.

Introduction:

University Foundation social affect and are affected by the surrounding atmosphere, they are making community on the one hand and its in tool making

technical and professional leaders, political and intellectual on the one hand and the responsibility for bringing about change and progress of society, And scientific research essential feature of the University and graduate tool university in enriching scientific research and guidance to serve society issues of social and economic to meet the requirements of comprehensive development as an postgraduate mainstay in preparing

scientific researchers required for the University and other research institutions these researchers are materials which you graduate formation and preparation to become cadres and competencies for various work and scientific research centers, and graduate studies is the human resources industry and scientific personnel and development of the highest level in a continuous process does not stop. Not happen scientific research in a vacuum researcher scientific must be carefully prepared in terms of academic in the field of specialization in addition to the need trained on assets research and methods, in addition to this must be characterized by a researcher of attributes psychological which are among the qualities researchers good researcher man searching for the truth and so it needs to be characterized by patience and perseverance, curiosity and the ability to correct vision and perception Hittite relations linking results with Introduction as a researcher that is characterized by objectivity and not to rush to judgment and the ability to analyze phenomena and their causes and then work on linking and integration and to have the ability the correct perception of the reality of things, and that is characterized by the ability to foresight and thus has the ability to think properly and the use of reason and logic [1,2,3,4,5] and on this basis the scientific research is a kind of investigated access to knowledge [6]. It is noted that the researchers disagree among themselves on the cognitive side thinking represents one of its components, as the researcher's success has to do with

the pattern of thinking that is in scientific thinking and creative and critical [7]. And care for critical thinking is the focus of this study, and critical thinking is in the researcher's ability to verify the assumptions and alternatives, using the methods of experimentation and arrived at the facts [8]. The train researchers to use a method of critical thinking is an essential process to address the many changes successive in which we live, because this kind of thinking makes them differentiate and choose between several alternatives and judgment on this alternative chosen without interference to hand self-governance and Select. In light of the above show the importance of trying to reach a scientific method to detect components ability to think critically at graduate students, this kind of thinking, which is described as the finest thinking in order to detect researchers able to look at things around them look objectively without intolerance or jumped to the results as well as their ability to provide arguments and evidence and the evidence to solve the issue or problem before sentencing as it seems the importance of identifying the components global capacity to think critically as well as the identification of a set items brief represent factors learned have validity measure the ability to think critically of graduate students.

Aims:

- 1- Determine the factorial structure of items that constitute a measure critical thinking among graduate students..

- 2- A group of items brief (representing factors derived) have the power to measure the ability to think critically with graduate students.
- 3-To identify the differences in the ability to think critically of graduate students (Masters, Doctoral).

Hypotheses:

- 1- Candidate items to measure the ability to think critically of graduate students are gathered in the form factors.
- 2- Learned factors can be represented through a number of items and aggregating expressive power factor on critical thinking among students graduate.
- 3- There are significant differences in the ability to think critically of graduate students (MA, PhD).

Materials And Methods

Approach:

The researcher used the descriptive (survey) approach.

Sample Research:

A random sample of students and graduate students enrolled for a master's degree or doctorate, Faculty of Physical Education at the University of Kafr el-Sheikh, and the Faculties of Physical Education for Girls and Boys, Alexandria University during the academic year 2010/2011, consisting of 90 students by 60 students stage Masters, 30 students and asked stage doctorate.

Building scale:

In order to prepare the ability to measure critical thinking among graduate students, researchers follow the following steps:

- 1- Review theoretical frameworks and studies that addressed the issue of the thinking in the field of psychology in general, as well as critical thinking attributes in particular.
- 2- Review standards and tests and lists Standardization ability to think critically, which include:
 - Be wasted thinking test (amended) good preparation Ibrahim Mahmoud.
 - California Critical Thinking Skills Test From (A) Facione Peter & Facione Noreen.
 - California Critical Thinking Skills Test From (B) Facione Peter & Facione Noreen.
 - California Critical Thinking Disposition Inventory (CCTDI)
 - Watson Glaser Critical Thinking Appraisal.
 - Cornell Critical Thinking Appraisal.
 - List of critical personal attributes preparation Farouk Osman.

The preparation of the initial image of the scale:

Included the first picture of the scale of 37 items were formulated in the light of the review of standards and tests and lists the previous one hand and in the light of the perception the theoretical concept and

the skills and attributes critical thinking graduate students in the current study on the other hand, has been proposed items on the number five 5 experts in the field of sports psychology and measurement and evaluation and research of faculty members at universities Kafr El-Sheikh, Alexandria, Banha. In order to determine the accuracy of the items scale in the expression of the ability to think critically to graduate students after introducing them to this concept and skills and clarity of the items in terms of the wording has been applying the same image on a limited sample of the original community of research and outside the research sample core composed of ten students and graduate students were asked to answer to the terms of the scale and writing observation, especially with regard to items and instructions clearly and the expression of these items for their beliefs and attitudes toward the ability to think critically and in the light of these actions has been re-drafting and deletion of some items.

Results And Discussion

Scientific transactions of the scale: Validity scale:

scale has been found through all of:

-Validity arbitrators: the purpose of the scale on Gentlemen experts noted them and has identified researchers percentage of 80% to accept the item and based on expert opinions have been deleted seven items, as well as the reintegration and drafting four items, bringing the number of items 26 items.

-Validity configuration hypothesis: or what is sometimes called honestly concept is one of the types of honesty by which they can know how to measure the test to impose a certain configuration or a particular attribute[10].In this current study was important to verify the authenticity of the ability to think critically in measuring features put forward by researchers in their perception of the oretical concept, and to achieve that, the researchers studied sincerity configuration hypothesis of scale on the sample (n = 9) through the study of Factorial Validity a of the best types of honesty traded[11] Through factor analysis to scale items considering that the purpose of the factor analysis is the interpretation of the correlations seen between the variables in the light of the minimal number of factors[12]. This has been factor analysis of items scale manner principal components set by Hotelling using the software package Statistical Social Sciences (SPSS), has been chosen method basic components as one of the most analytical methods factorial accuracy and advantages of the most important possibility to derive maximum variation per worker and thus summed up correlation matrix of variables in the least number of factors[13].Prior to the factor analysis was prepared matrix correlations between items scale, To reach the building simple factorial matrix correlations were analyzed previous analysis globally using the basic components of Hotelling principal components using litmus Henry Kaiser proposed Gutman a touchstone stop

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derive factors that at least the underlying latent root the correct one[14].The stake depending on Cattell saw characterized by stability and provocation in the case of whether the number of matrix between variables 20 to 30 variable[15].In light of the above were extracted 6 factors directly, then conducted perpendicular orthogonal rotation way alvarimax concluded 6 orthogonal factors underlying

root increases when the right one as the underlying roots ranged between (8.10, 1.21),as contrast ratio ranged factors between (31.15, 4.65), while the contrast ratio kidneys that have been extracted from the matrix is 84.2% this indicates Safwat Ernest Faraj[15] that whenever factorial high contrast ratio whenever we were in front of more important factors.

Table (1):

Distribution tie to the sum of the squares saturation factors before and after the orthogonal rotation.

Factors	The underlying root		The percentage of variation factors	
	Before recycling	after recycling	Before recycling	after recycling
first factor	9.03	7.97	34.73	30.65
second factor	5.23	5.45	20.12	20.96
third factor	3.89	4.18	14.96	16.08
fourth factor	1.54	1.59	5.92	6.12
fifth factor	1.17	1.36	4.51	5.23
sixth factor	1.02	1.35	3.92	5.19
Total	21.9	21.9	84.2	84.2

It is a table 1 and private distribution tie for the sum of squares saturation factors before recycling orthogonal and several clear convergence numerical sum of the squares saturation each factor of six factors after recycling them before recycling, which confirms the impact of the importance of recycling to achieve global operating on the convergence of the numerical values of the sum of the squares saturation factors[16].To determine the identity of the worker is required to soak him three items hash at least, and to calculate the statistical significance of the factors orthogonal been extracted equation Burt and Banks[15]. to calculate the standard errors of the factors the six learned in order to confirm the presence of these factors or lack thereof, has reached error values standard six factors respectively as follows 0.251, 0.256, 0.260, 0.265, 0.271, 0.276. According to the conditions of admission factors Guided building standards simplex has been accepted by four factors of the six factors learned a in the order they are received in the matrix global orthogonal first, second, third and fourth factors, while rejected fifth and sixth factor to the lack of conditions for the admission factor as the touchstone substantial Group> 3 saturation the material, as well as eliminated the phrase 1, 2 and became the standard in its final component of 24 items.

*The following explanation of these factors:
1- Interpretation of first factor:*

Table (2): Saturation values measure the first factor items

<i>Item numbers</i>	<i>Single</i>	<i>Saturation</i>	<i>Common</i>
13	<i>The ability to evaluate issues</i>	0.986	0.98
15	<i>I accept results that gain to</i>	0.981	0.98
14	<i>I can make final judgments</i>	0.979	0.98
9	<i>I can test the validity of the results and discussions in an objective way that calendar</i>	0.948	0.92
8	<i>I can investigate the accuracy and note the facts that relate to the discussion topics</i>	0.944	0.93
17	<i>I can distinguish between opinion and fact</i>	0.913	0.93
11	<i>I tend to open up to new ideas and the trend towards it</i>	0.885	0.96
10	<i>The ability to in-depth observation</i>	0.971	0.79
16	<i>The ability to distinguish between bias and objectivity</i>	0.650	0.86
19	<i>I can judge the results in a logical way that</i>	0.463	0.85
18	<i>Possessed the ability to make decision</i>	0.439	0.84
21	<i>Possessed the ability to understand and analysis and synthesis</i>	0.349	0.81
22	<i>I can distinguish between the correct logic is correct</i>	0.342	0.83

The Table 2 that saturation items measure the first factor reached 13 items, including four mean value and nine items with saturation major numbers 13, 15, 14, 9, 8, 7, 11, 10, 16 are arranged according to values saturation The worker and represent 34.6% of the total number of items subject to analysis and dealing with these items ability researcher on calendar topics and discussions in an objective manner with the ability to differentiate between opinion and fact, as well as the credibility or reasonableness of the terms or representations other and can be named this factor calendar.

Table (3): Values saturation items measure the second factor

<i>Item numbers</i>	<i>Single</i>	<i>Saturation</i>	<i>Common</i>
25	<i>The ability to logical reasoning and avoid common mistakes</i>	0.921	0.90
23	<i>Possessed the ability to develop reasonable assumptions when solving problems</i>	0.901	0.91
24	<i>Interested rational logic in thinking</i>	0.861	0.80
20	<i>Has the ability to bind variables</i>	0.844	0.76
22	<i>I can distinguish between the correct logic and reasoning is correct</i>	0.843	0.83
21	<i>Possessed the ability to understand and analysis and synthesis</i>	0.765	0.81
19	<i>can judge the results in a logical way that</i>	0.718	0.85
26	<i>The ability to draw relationships between the given facts</i>	0.585	0.60

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The Table 3 that saturation items scale factor second hit 8 items with saturation major numbers 25, 23, 24, 20, 22, 21, 19, 26 are arranged according to values saturation the worker and represent 30.8% of the total number for items subject to analysis and spin the meanings of these items about the ability of the researcher to logical reasoning and avoid common mistakes with the ability to develop reasonable assumptions when solving problems as well as pampering logical whether these results tracking provided afforded first so-called this factor to understand the rules of logic.

Table (4):

Values saturation items measure the third factor

Item numbers	Single	Saturation	Common
6	<i>has the ability to infer to reach generalizations</i>	0.984	0.98
7	<i>has the ability to detect errors</i>	0.980	0.97
5	<i>has the ability to organize and creativity</i>	0.963	0.94
3	<i>has the ability to accept the views of others</i>	0.816	0.67
4	<i>has the ability to take different directions to solve problems</i>	0.749	0.59

The Table 4 that saturation items scale factor third hit 5 items with saturation major figures 6, 7, 5, 3, 4 are arranged according to values saturation the worker and represent 19.2% of the total number of items subject to analysis It is clear for these items it deals with the ability to infer access to generalizations and deduce the proofs which meanings are uncertain by assuming the truth of these introductions and this factor can be named by a factor of heuristics.

Table (5):

Values saturation items measure the fourth factor

Item numbers	Single	Saturation	Common
12	<i>has the ability to objectively Monetary</i>	0.914	0.86
16	<i>has the ability to distinguish between bias and objectivity</i>	0.616	0.86
11	<i>Emile openness to new ideas and the trend towards it</i>	0.393	0.96

The Table 5 that saturation items scale factor fourth hit 3 items, including 1 item mean value and the number 2 clause with saturation major numbers 12, 16 are arranged according to values saturation the worker and represent 7.7% of the total number of items subject to analysis and it seems that this factor associated most of the items under the researcher's ability to access to the results based on the merits alone away from the influence of the emotional aspects and this factor can be named by a factor doth objective facts.

2- the Reliability of the scale:

Reliability of the scale was calculated on the same above-mentioned honesty was calculated Cronbakh alpha coefficient The value of reliability coefficient 0.87 a reliability coefficient confirms confidence in the reliability of the scale.

Assessing the degree of the scale:

Be answered for each item of the scale according to a sliding scale of three times, namely:

- The answer largely given three degrees.
- Moderately answer given two degrees.
- Answer to a low degree is given by one degree.

The final score of the scale is the sum of all grades phrases 24 and maximum score for measure 72 degrees and the greater the student approaching this limit whenever Del on the severity of the orientation towards the ability to think critically.

Table (6):

Differences in the ability to think critically the graduate students (MA, PhD)

Scale	Masters (N = 66)		Doctorate (N = 36)		value (t)
	Mean	SD±	Mean	SD±	
The ability to think critically	44.02	3.91	56.07	4.18	13.39

*T table value on $p \leq 0.05 = 1.99$, $p \leq 0.01 = 2.63$, SD =standard deviation.

From Table 6 and private differences in the ability to think critically of graduate students (Masters, PhD) is clear and statistically significant differences at the level of 0.01 for the benefit of students doctorate stage a Degree, which was followed by a master's degree and you Doctorate degree mainly on original research for no less than two ends to provide message accepted by the jury and required traffic exam apply a in some universities may be costing the student some advanced studies as determined by the internal regulations and required to leave Doctorate degree to be a task of the scientific value testifies to the student competence profile in its research and studies and represents add new scientific[17]. which requires the researcher to subject

the information obtained by the analysis and scrutiny to determine whether they are true, suitability or differ from the information that has already verified or attempt to distinguish between old information which proved its sincerity and new information received. This confirms William Obaid, attributing Afanah [18] that critical thinking is not a general feature enjoyed by all individuals, it is feared appearing before others look may explain aggressiveness are not strong enough to be a critic and swearing reciprocity and believes that his criticism Thematic means that others will meet with harsh criticism can not be a critic, especially those who admire his ideas and touted his proposals and performance. The main skill of critical thinking includes skill consists of

sub-set of skills can be identified and placed on small tasks of image and so long as it is a skill it can Mastery training and has called this skill critical thinker efficient. There are a number of skills which underpin critical thinking when students must be taken into consideration by all parties in the university and in particular the faculty members who are leading the educational process in the university and these skills:

- Distinction between facts which can be substantiated and claims or allegations value.
- The distinction between information and claims and reasons related to the subject and is associated with it.
- Determine the level of accuracy of the novel or phrase.
- Determine the credibility of the source of the information.
- To identify the allegations and vague arguments or data.
- To identify unauthorized suggestions.
- To identify logical fallacies.
- To identify inconsistencies in the path of thinking and reasoning.
- Determine the strength of the evidence or the prosecution.
- A decision on the subject and build a sound basis for practical action.
- To predict what the consequent decision or solution.

As mentioned Fahim Mustafa [19] that the process of development of critical thinking and enhance thinking independence of the students require stimulate students to grow their skill ask

Conclusion

The Researcher Concludes the Following:

- 1- Building the ability to measure critical thinking among graduate students designed to measure critical thinking for students and in accordance with the scientific foundations for building standards in the field of psychological measurement and evaluation.
- 2- Enjoy the measure genuinely high was estimated using sincerity arbitrators and sincerity configuration hypothesis (honesty factorial) where saturated most of the items 24 an item in terms of (± 0.3 and above) on one or more of the factors learned accepted have the power detection capability critical thinking students graduate they are distributed on four factors are acceptable: first factor Calendar factor 13 items, second factor workers understand the rules of logic 8 items, third factor heuristics factor 5 items, fourth factor: factor doth objective facts 3 items
- 3- Items learned may saturated in terms of high just one factor of four factors accepted a 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 17, 20, 23, 24, 25. This refers to the purity of these items in measuring factors saturated, while saturated items numbers 11, 16, 19, 21, 22 on saturated significant factors and are therefore considered unclean items.
- 4- Enjoy a high scale by a factor of stability was calculated using the Cronbach alpha coefficient was 0.87, a

reliability coefficient of confidence in the stability of the scale.

5- And there were statistically significant differences at the level of 0.01 in the ability to think critically of graduate students (MA, PhD) for doctoral students stage.

Recommendation: The researcher recommends the following:

1- The importance of using the ability to measure critical thinking among students graduate in its current form because of the high Factorial honesty of its clauses and consistency of the scale transactions.

2- Re-analysis of this research data using multiple global methods to verify the results that have been reached.

3- Conducting similar studies using the ability to measure critical thinking among graduate students at varying levels disciplines and academic levels of the students and for both sexes.

Study of the relationship between the superiority between the student and the ability to think critically so can be guided by the importance of those ability as a Ahuam excel and achievement.

References

1- Ahmed Abdulkarim safety,2007: *Asset methodology for the preparation of scientific research, dar al-fikr al-araby, Cairo,pp:48-75. (in Arabic).*

2- Eklas Mohammad Hafeez, Musty Hussein Bahi,2002: *methods of scientific research and statistical analysis in the fields of educational, psychological and sports, book publishing center, Cairo,p:44. (in Arabic).*

3- Samir Abdul Qadir Gad,2007: *scientific research strategy, theses, World Publishing House and distribution, Cairo, p:13. (in Arabic).*

4- Soheir Bder Moussa,1982: *Scientific Research, Knowledge House in Egypt, Cairo, p:24. (in Arabic).*

5- Mohamed Awad Aidy,2007: *preparing and writing research, theses, book publishing center, Cairo, pp:29,30.(in Arabic).*

6- Abdel Sattar Jabbar Alsamd,2008: *scientific research and applications of Mathematical Statistics, candles Culture House, Kuwait,p:15.(in Arabic).*

7- Mohammad Hashim Ryan2009: *teaching strategies for the development of the intellect, farmer library for publishing and distribution, Kuwait, p:119. (in Arabic).*

References

- 8- Farouk Elsayed Osman,1992: list of critical personal attributes, *Journal of Psychology, Issue 22 ,Year 6, the Egyptian General Authority for the book, Cairo, p:20. (in Arabic).*
- 9- Amal sadei, Fuad Abu Hatab,2007: *Research Methods and Statistical Analysis Methods in Psychological Science, educational and social, the Anglo-Egyptian Library, Cairo, p:89.(in Arabic).*
- 10- Fuad Elsayed Bahi,1979: *Statistical Psychology and measurement of the human mind, i 3, dar al-fikr al-araby, Cairo, p: 554.(in Arabic).*
- 11- Mohamed Sobhy Hassanein,1982: *ways to build tests and measurements in physical education (global roads), i 1, the Central university text-books and teaching aids, Cairo,p:124.(in Arabic).*
- 12- Mahmoud El Sayed Abu Nile,1986: *factorial analysis of human intelligence and abilities, study Arab world, Arab Renaissance House, p: 51.(in Arabic).*
- 13- Safwat Ernest Faraj1975: *rationing creative abilities tests, unpublished Ph.D. thesis, Faculty of Arts, University of Cairo,p:99.(in Arabic).*
- 14- Safwat Ernest Faraj,1980: *factor analysis in the behavioral sciences, Arab Thought House, Cairo,p:344,150,151.(in Arabic).*
- 15- Fuad Elsayed Bahi,1985: *numerical ability, dar al-fikr al-araby, Cairo, p:119.(in Arabic).*
- 16- *Regulation Act universities and its implementing regulations1992:according to the latest amendments, the seventh edition amended, the General Organization for princely presses, Cairo,p:56,57. (in Arabic).*
- 17-William Abdul, attributing Afanah,2008: *thinking and of the school curriculum, library farmer for publication and distribution, Kuwait, 2008. pp: 53 – 55. (in Arabic).*
- 18-Fahim Mustafa,2002: *thinking skills in general education, dar al-fikr al-araby, Cairo,p:242.(in Arabic).*

Effective Use of Feedback in Learning Third Star

Swimming Skills

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Abstract

Feedback is important for junior swimmers who learn new motor skills as their perception of these skills is generally incomplete. So, they are in dire need of feedback information to improve their perception and performance of that skill, and to help to detect their errors and to determine how to correct them.

This study aims to identify the effective use of feedback through junior swimmers' combination of both viewing and model to learn the skills of swimming (free, back, breast, butterfly).

The researcher used the experimental method because of its suitability to the nature of the study by devising two groups (control group and experimental group), and using pre- and post test measurements. The research sample was selected -- according to the representative, deliberate method -- from among the research community represented by junior swimmers under 10 years at the Al-Ahly Club at Gizeera, Cairo, Egypt; the research sample was not from among those junior swimmers awarded the Third Star.

The research sample comprised 52 junior swimmers, 8 of them were excluded due to non-attendance at the tutorials and 12 were chosen for the pilot experiment. The remainder number was randomly divided into two equal groups, each one comprises 16 juveniles. Homogeneity was done to the research sample, where the first group (control group) used verbal explanation and the performance of the model, while the second group (experimental group) used the technical performance of swimming through a computer connected to screen displaying the performance of the model. The educational program was implemented for the two groups at the same time.

The most important results are that feedback has a positive impact in increasing the junior swimmers' perception of motion to enhance their correct skill performance, and that learning by using video-taped material and the repeat of model performance are more effective than learning through the model performance only.

The researcher recommends the importance of using educational aids, especially the novel ones such as video-taped material and multimedia in learning swimming.

Research Terms:

Third Star In Swimming Is The Skilled Outcome
Of Swimming Performance (Free, Back, Breast, Fly)
For A Distance Of 2 X 25 Meters In Addition
To Mastering The Start And Rotation As Well As Many
Of The Skilled Exercises Related To The Four Swimming Skills.
It Is A Basic Standard Test To Be Passed
Before The Participation In The Competitions
Of The Egyptian Swimming Federation At The Stage
Of 11 Years For All Swimmers.

Key words

Feedback - Third Star Swimming.

Introduction:

Feedback is important for junior swimmers who learn new motor skills as their perception of these skills is generally incomplete. Therefore, they generally need to use feedback information to improve their perception and performance of these skills.

Moreover, this information helps to discover young swimmers' errors and to correct them through directions and perceptual inputs in order to produce kinetic outputs suitable to responsive body organs, as a result of the learning process in order to achieve good performance.

The Research Problem & its Importance:

Registering records nowadays does not depend only on the functional and physical levels of a swimmer but also basically on a swimmer's proficiency to perform a skill correctly.

The process of teaching juniors swimming used to depend only on the verbal instruction and then performing the model and the movement. This method proved to be traditional and inadequate at the age of technology and information, and does not yield the required results.

Feedback is achieved through a junior swimmer's watching video-taped models

as well as watching his own performance increases his perceptual ability regarding his motor skill. Consequently, feedback increases a swimmer's ability to play back that motor skill with its minutest details; this helps him to understand the nature and form of that skill to achieve self-improvement when an error takes place.

It is important for junior swimmers to win the third star in the four skills of swimming (free, back, breast, butterfly) and master the two skills of starting and rotating spontaneously.

The evaluation of junior swimmers' third star skills (Attachment no. 1). The researcher found that most swimming instructors use the traditional method in their instruction (verbal explanation and performing a relevant motor model). Therefore, the researcher attempted to introduce a new approach and a technological method in instruction as an attempt to increase the motivation of junior swimmers and to enhance their attitudes towards learning and reaching the best level of motor performance.

Aim of the Research:

- 1- This research aims to set a syllabus by using feedback and knowing its effectiveness.
- 2- The effectiveness of using feedback appears through the merging of watching models & watch-

ing one's own performance with a view to knowing swimming skills of the third star (free, back, breast, and butterfly).

Premises of the Research:

There are statistically significant differences between pre- and post measurement grades in the four swimming skills of the third star (free, back, breast, butterfly).

Terms of the Research:

Third Star in swimming is the skilled outcome of swimming performance (free, back, breast, fly) for a distance of 2 x 25 meters in addition to mastering the start and rotation as well as many of the skilled exercises related to the four swimming skills. It is a basic standard test to be passed before the participation in the competitions of the Egyptian Swimming Federation at the stage of 11 years for all swimmers.

Literature Review:

1. MohamedAla'a-uddin Hassan (2007) devised a syllabus in 2006 by using feedback for 20 junior swimmers to learn first star skills in swimming for 4 weeks. Results show statistically significant differences between the grades of pre- and post measurement grades. Improvement ratio was between % 38.46 to % 61.65.

2. K. E. Mathias (1992) did a study showing the effect of interactive video-taped learning on 17 swimmers who were learning two swimming skills. He used the experimental method. His most important conclusion is that interactive video-taped learning is more effective and more positive than traditional learning.

The Research's Procedures:

The Research Method:

The present study used the experimental method, and adapted it to the nature of the research by having two groups: a control group and an experimental one.

The Research Sample:

The research sample was chosen deliberately from among 52 junior swimmers under 10 years at Al-Ahly Club at Gizeera. 12 junior swimmers were chosen for the pilot experiment.

The junior swimmers were divided into two groups (16 each): The control group used verbal instruction and a performing model, and the experimental group used watching the video-taped swimming performance. The teaching program was done for the two groups at the same time.

Table (1):

Classification of the Sample

Study sample				Percentage of sample of total sample		Sample of the pilot study		The excluded	
Experimental		Control group		Number	%	Number	%	Number	%
Number	%	Number	%						
16	30,77	16	30,77	32	61,54	12	23,08	8	15,38

Table (2):

The arithmetic mean, the standard deviation, the median and the value of coefficient of torsion of the sample in the growth variables

Variables	Measurement unit	Average	Deviation	Broker	Curve value
Old	Year	9,38	0,97	9,75	-,36
Tall	Cm	142,00	8,42	140,00	,54
Weight	Kg	33,73	3,77	33,00	1,15
Training Age	Year	3,64	0,96	3,00	,16

Handicapped (n) = 44

Table No 2 shows the arithmetic mean, the standard deviation and the value of coefficient of torsion of the sample in the variables under consideration, the growth rates (age, height, weight, age of training), where it is clear that the values of coefficients of these variables, torsion of the sample were confined between (+3), which refers to the moderation of the distribution of the sample and the homogeneity in these variables.

Methods of Collecting Data:

The researcher used previous studies and Arabic and foreign references. Then he designed a form for collecting all the data of the junior swimmers. (Attachment. 2)

The researcher used the following apparatuses and tools:

- ✓ A restameter set to measure the tallness of swimmers by cm., a k/g medical balance to measure the weight of the junior swimmers.
- ✓ A video camera attached to a computer set, a screen, a swimming pool 25 m., a gymnasium.

The Educational Program:

The pre-test measurement took place on 28-29 May 2009.

The post-test measurement took place on 11-12 July 2009.

The program took place between 30 May 2009 to 10 July 2009.

The Research Details & Discussion of Conclusions:

Table (3):

The arithmetic mean, standard deviation and T-value calculated in-between the pre- and post- measurements for the control group in the four types of swimming free, back, breast, butterfly)

Swimming way		Variables	Measurement	Pre-measurement		Post-measurement		<T> value calculated
				A	S	A	S	
Free	1-	25 m arm-stroke (arm action)	Degree	3,46	,45	4,58	,99	5,07*
	2-	25m leg kick on the side	Degree	4,19	,16	5,67	,49	10,93*
	3-	50m swimming (2×25) start and turn	Degree	5,93	0,79	8,96	0,86	6,91*
Back crawl	1-	25m arm-stroke	Degree	3,27	0,86	5,85	0,94	6,72*
	2-	25m leg kick on the side	Degree	3,07	0,47	5,68	0,78	18,41*
	3-	50m swimming (2×25)start and turn	Degree	6,56	0,49	7,74	0,62	10,063*
Brest stroke	1-	25m arm-stroke (arm action-breasi) and leg kick free	Degree	2,83	0,58	5,49	0,48	10,66*
	2-	25m breast stroke over flead water	Degree	3,05	0,13	6,08	1,08	9,95*
	3-	50m breast (2×25) standard and turn	Degree	6,54	0,49	9,56	0,66	10,94*
Fly single	1-	25m leg kick fly on back-stroke	Degree	2,72	0,45	3,73	0,44	8,19*
	2-	25m leg kick fly on the side	Degree	2,73	0,44	4,16	0,84	5,56*
	3-	25m arm left-arm right – two arms	Degree	4,73	0,62	6,43	0,50	9,44*
	4-	25m butterfly stroke	Degree	4,56	0,49	6,53	0,50	59,00*

Handicapped (n) = 16

*The value of indexed "T" at level of significance and degrees of freedom 15 = 2.131

Table No. 3 shows the arithmetic mean, standard deviation and T-value calculated between pre and post measurements under consideration, where there are statistically significant differences between the two measurements in favour of the post-test measurement.

Hence, it can be concluded that the verbal explanation and performance

of the practical model –with repeated application multiple times– has led to junior swimmers' remarkable improved performance, causing a positive impact on the speed of their learning. This conclusion is consistent with theories of learning (e.g. theory of trial and error) and is consistent with what Afaf Abdel-Karim concluded (1994).

Table (4):

The arithmetic mean, standard deviation and T-value calculated in-between the pre- and post- measurements of the experimental group in the four types of swimming free, back, breast, butterfly)

Swimming way	Variables	Pre-measurement		Post-measurement		'T' value calculated
		A	S	A	S	
Free	1- 25 m arm-stroke (arm action)	3,51	0,48	9,55	0,78	9,49*
	2- 25m leg kick on the side	4,25	0,45	7,17	0,39	19,59*
	3- 50m swimming (2×25) start and turn	6,19	0,38	11,90	0,29	43,93*
Back crawl	1- 25m arm-stroke	3,33	0,49	6,63	0,48	1,39**
	2- 25m leg kick on the side	3,18	0,39	6,78	0,40	19,23*
	3- 50m swimming (2×25)start and turn	6,70	0,44	12,28	0,62	29,09*
Brest stroke	1- 25m arm-stroke (arm action-breast) and leg kick free	3,01	0,43	6,52	0,51	18,19*
	2- 25m breast stroke over flead water	3,20	0,84	6,98	0,43	13,89*
	3- 50m breast (2×25) standard and turn	6,61	0,65	11,63	0,48	23,46*
Fly single	1- 25m leg kick fly on back-stroke	2,73	0,45	4,62	0,49	12,66*
	2- 25m leg kick fly on the side	2,73	0,44	5,08	0,56	12,43*
	3- 25m arm left-arm right – two arms	4,72	0,45	8,69	0,46	31,11*
	4- 25m butterfly stroke	4,55	0,50	8,87	0,53	29,45*

Handicapped (n) =16

*The value of indexed "T" at level of significance and degrees of freedom 15 = 2.131

Table No.4 shows the arithmetic mean, standard deviation and T-value calculated in-between pre and post measurements under consideration, where there are clearly statistically significant differences between the two measurements in favour of the post-test measurement.

Hence, it can be concluded that this improvement is due to the positive effect of feedback by using the repeated shows through computer

sets and projector screens as junior swimmers tend to imitate the performance show of champion swimmers. This conclusion agrees with the results of D. Burstein (1986) and K.E Mathias (1992) about using educational facilities such as films to improve the motivation of learners and acquire proper motor skills. A learner's view of his own performance has an effect on the speed of learning skills; this agrees with what Amgad El-Gameel suggested (1999).

Table (5):

The arithmetic mean, standard deviation and T-value calculated in-between the pre- and post- measurements of the experimental group in the four types of swimming free, back, breast, butterfly)

Swimming way	Variables	Pre-measurement		Post-measurement		'T' value calculated
		A	S	A	S	
Free	1- 25 m arm-stroke (arm action)	4,58	0,99	9,55	0,78	4,89*
	2- 25m leg kick on the side	5,67	0,49	7,17	0,39	9,95*
	3- 50m swimming (2×25) start and turn	8,96	0,86	11,90	0,29	12,55*
Back crawl	1- 25m arm-stroke	5,85	0,94	6,63	0,46	2,99*
	2- 25m leg kick on the side	5,86	0,78	6,78	0,40	3,96*
	3- 50m swimming (2×25)start and turn	7,74	0,62	12.28	0,62	17,61*
Brest stroke	1- 25m arm-stroke (arm action-breast) and leg kick free	5,49	0,48	6,52	0,51	5,69*
	2- 25m breast stroke over fead water	6,08	1,08	6,98	0,43	2,51*
	3- 50m breast (2×25) standard and turn	9,56	0,66	11,63	0,48	0,72*
Fly single	1- 25m leg kick fly on back-stroke	3,73	0,44	4,62	0,49	5,86*
	2- 25m leg kick fly on the side	4,16	0,84	5,08	0,56	3,92*
	3- 25m arm left-arm right – two arms	6,43	0,50	8,69	0,46	12,65*
	4- 25m butterfly stroke	6,53	0,50	8,87	0,53	12,53*

Handicapped (n 1) = (n 2) = 16

*The value of indexed "T" at level of significance and degrees of freedom 15 = 2.131

Table No. 5 shows the arithmetic mean, standard deviation and T-value calculated in-between the two post measurements of the experimental and control groups in all variables under consideration, where there are statistically significant differences between the two measurements in favour of the post test measurement of the experimental group.

Hence it can be concluded that the improvement of junior swimmers' motor

skills is due to their watching their own performance as well as the performance of champion swimmers; this stirs their imagination and thinking, motivates them, and makes the process of communication between the trainers and junior swimmers easier. This also leads to their better understanding and clear perception of the details of the swimming skills.

This conclusion agrees with those of Tarek Nada (1993), Tarek Mahdi (1994), and Hazen et al (1990).

Findings and Conclusions:

In the light of the discussion of the findings and the limitations of the research sample, it is found that:

- ✓ feedback has its positive effect on increasing a swimmer's movement perception with a view to consolidating his/ her proper skill performance
- ✓ Learning by viewing video-taped material and the repeat of the

performance of a model are more effective than learning by viewing the performance of a model only.

Recommendations:

It is important to use educational aids, especially the modern ones, such as video-taped materials and multi-media during the learning of swimming motor skills because of their positive effect in improving the level of skill performance.

References

References in English:

- 1- Burstein, D. (1986) "The Effect of Using Video Image Fusion in Learning Swimming Skills of Youth Competitive Swimmers". *Sport Psychologist*, 11104 (3).
- 2- Fina: (2000) *Fina Swimming Manual*.
- 3- Hazen, et al. (1986) "Video-taping Feedback Package for Improving Skills of Youth Competitive Swimmers", *Sport Psychologist*, 11104 (3).
- 4- Magill, Richard A. (2003) *Motor Learning and Control: Concept and Application*. USA, McGraw Hill.
- 5- Maglischo, Ernest W. (1993) *Swimming Even Faster*. California, Mayfield Publishing Company.
- 6- Mathias K.E. (1992) *A Comparison of the Effectiveness of Interactive Video in Teaching the Ability to Analyze Two Motor Skills in Swimming*. College of Human Development Performance, USA., University of Oregon Eugene.
- 7- Schmidt, Richard A. (2005) *Motor Control and Learning: A Behavioral Emphasis*. Human Kinetics.
- 8- Singer, R. N. (1980) *Motor Control and Human Performance*. New York, Macmillan.

References

Internet References:

- 9- www.drmosas.com/index95.htm
- 10- www.geocities.com/edutach5/chapter1.htm
- 11- www.fao.org/wairdocs/cf1960/04thm
- 12- www.riyadhedu.gov.sa/alanifntok/shli/5.dos
- 13- www.fina.org
- 14- www.membersnbcl.com/swim/foster

References in Arabic (Arabic titles translated into English):

- 15- Abd el Fattah, Abu Alaa Ahmed. (1996) *4 × 12 = 48 Hours to Learn Swimming*. Cairo: Dar-ul-Fikr al-Arabi publishers.
- 16- Alawy, Mohamed Hassan: (1997) *Psychology of Training and Competition*, Dar-ul-Fikr al-Arabi.
- 17- Atia, Tarek Mahdy. *The Effect of Some Feedback Methods on Learning Free-style (Crawl Stroke) Swimming for Beginners*. (1994) Unpublished M.A. dissertation. Faculty of Physical Education for Boys, Zagazig University, Egypt.
- 18- El-Beltagy, Mohamed Hamed. (2000) "The Impact of Using Audio-Visual Aids on Learning Swimming. Unpublished M.A. dissertation, Faculty of Physical Education Boys, Helwan University, Egypt,.
- 19- El Gameel, Amgad Mohamed. (1999) "Feedback and its Impact on Learning Breast Stroke for Children under 10 Years" Unpublished M.A. dissertation, Faculty of Physical Education for Girls, El Gizeera, Helwan University, Egypt.
- 20- Hasan, Afaf Abdel-Kareem. (1994) *Teaching for Learning in Physical Education and Sports*. Alexandria, Egypt, Dar-ul Ma'arefa publishers.
- 21- Nada, Tarek Mohamed. (1995) "The Impact of Visual Feedback on Learning Back Stroke for Beginners" *Journal of Physical Education, Faculty of Physical Education for Boys, Zagazig University, Egypt, 1995.*
- 22- Rateb, Osama Kamel. (1996) *Teaching Swimming*. Cairo, Egypt, 2nd edition, Dar-ul-Fikr al-Arabi.

Building A Measure Of The Psychological Pressures Of

Football

coaches In light of the new social

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Abstract

The research aims to build a measure of the psychological pressures of football coaches league Egyptian public in light of the new social, and use researcher method survey of descriptive method for appropriateness nature of the research, and was research sample (26) coach of the football coaches for some clubs the Egyptian Premier League, and the researcher used a form of pressure psychological football coaches for Premier League clubs league Egyptian public, was reached by the results of this study to build a measure of the psychological pressures of football coaches league Egyptian public, and recommended the researcher developed a measure of psychological pressure to trainers rest individual games, and compared psychological pressure located on the coaches mass games and individual games.

Key words

psychological measure - football coaches - new social

Introduction

Play evaluation and measurement big role and effective in reaching resolve many of the problems that we face in the sports field in general and in the field of psychology private Perhaps the rhythm of life rapidly puts rights in many situations may cause him some stress which affect professional performance or relationships with others and physical activity in general and Activity football in particular surpassed many of the psychological pressure that rests on the shoulders of works considering that football is most popular sport, which became associated with many aspects of economic, political, social and other various aspects so it became works is almost always subject to many psychological pressure. That coaches differ in their tendency or inclination towards influencing the pressures to which they are exposed due to individual differences in evaluate them for positions that cause these pressures, which lies on them[1]. It is noteworthy that psychological stress affect the behavior of the coach feels tired physically and mentally whenever he went to the club for training[2].

Given the importance of psychological pressures on the shoulders of coaches sports activities have focused on several studies to identify the sources of these pressures, for example, each of the study [3-4-5-6-7].

This is what Social and the accompanying change in the composition of society with a clear and significant impact on the performance of workers in the field of sports in general and football especially resulting in powerful and influential pressure on workers in the field of football. As

the stress a significant impact on the performance of the football coaches, whether from increased physical and psychological burden which evolves to become a burden mentally and emotionally affecting landing on the level of achievement of the coach. Due to the impact of the performance of football coaches pressures psychological located on their shoulders with a note differences that pressure and quantity were the researcher studying precedent to identify construction factorial to psychological pressures of football coaches have reached researcher on the impact of the presence of four major dimensions represent more dimensional psychological pressure on coach foot a (psychological stress associated with competitions and results, psychological stress associated support and reinforcement, psychological stress associated with Power Load training for competition, psychological stress is linked with the masses) this and due to the importance of identifying the degree of stress for football coaches and their impact on the performance of the coach saw the researcher do a measure of this pressure Psychological using the previous four dimensions major scale building and through a set of statements which express sources of stress for football coaches.

Aim:

Building a measure of psychological pressure for football coaches Egyptian league in the light of social developments

Hypotheses:

- Learned factors can be represented through phrases express sources of stress for football coaches.

Materials And Methods:

Approach:

Methodology used:

Researcher use the survey method of descriptive method for appropriateness nature of the research

Sample: The sample search (26) coach of football coaches for some Premier League clubs place.

Data collection tools:

- ✓ Use of research results that have been reached in the previous study psychological stress for football coaches beat the Egyptian public.
- ✓ Building a measure of psychological pressure in light of the results of a previous study by researcher which appeared four key dimensions:
- ✓ Psychological pressure associated with competitions and results.

- ✓ Psychological pressure associated with the masses.
- ✓ Psychological pressure associated with the support and reinforcement.
- ✓ Power Load psychological stress associated with training during the competition.

Transactions scientific a scale:

1- Validity measure:

The researcher used the internal consistency of the scale and dimensions words where the measure was applied to a sample of 26 representing some of the coaches coach Egyptian league year. This was done by creating correlation coefficients between the degree of each statement and overall dimension to which it belongs phrase inside the meter under Search, And were excluded dimension and phrases that have not achieved the level of significance of the scale.

Table 1:

Validity internal consistency coefficients between the degree of each dimension And overall the rest of the dimensions of the scale under consideration

	<i>Dimensions</i>	<i>value (T)</i>
1	<i>Psychological stress associated with competitions and results</i>	<i>0.730 *</i>
2	<i>Psychological stress associated with the support and reinforcement</i>	<i>0.779 *</i>
3	<i>Psychological stress associated with Load training and competition</i>	<i>0.650 *</i>
4	<i>Psychological pressures associated with the masses</i>	<i>0.640 *</i>

Table 1 that the correlation coefficients between the total score of each and overall the rest of the dimensions of the scale under consideration statistical significance at the level of significance 0.5

Reliability of the scale under consideration:

Been found Reliability dimensions the scale under consideration using alpha Cronbakh to find reliability coefficient

kidney category the scale under discussion), and it became clear that the phrases four dimensions statistically significant at the abstract level 0.5 with the exception of the phrase number 4,18, 20 of the phrases first dimension.

Table 2:

the arithmetic mean and the standard deviation and the percentage and the sign. ficance of the d. ferences and order of the first dimension statements In light of the relative weight of the sample responses (n = 26)

Serial phrase	Mean	SD±	agree		some extent		non agree		value Ca 2	relative importance	Relative weight	Ar
			Re	Ratio%	Re	Ratio%	Re	Ratio%				
1	2.73	0.452	19	73.07	7	26.92	0	-	5.53	91.02	71	1
2	1.76	0.764	5	19.23	10	38.46	11	42.30	2.38	58.97	46	17
3	2.46	0.859	18	47.92	2	7.62	6	23.07	16.00	82.05	64	9
4	2.11	0.908	12	46.15	5	19.23	9	34.61	2.84	70.51	55	14
5	2.57	0.702	18	69.23	5	19.23	3	11.53	15.30	85.89	67	4
6	1.73	0.724	4	15.38	11	42.30	11	42.30	3.76	57.69	45	18
7	1.76	0.651	3	11.53	14	53.84	9	34.61	7.00	58.97	46	17 bis
8	1.50	0.509	0	-	13	50.00	13	50.00	55	50.00	39	20
9	2.34	0.689	12	46.15	11	42.30	3	11.53	5.61	78.20	61	11
10	2.07	0.744	8	30.76	12	46.15	6	23.07	2.15	69.23	54	15
11	2.46	0.706	15	57.69	8	30.76	3	11.53	8.38	82.05	64	9 bis
12	2.73	0.452	19	73.07	7	26.92	-	-	5.53	91.02	71	1 bis
13	2.46	0.508	12	46.15	14	53.84	-	-	0.154	82.05	64	8 bis
14	2.57	0.702	18	69.23	5	19.23	3	11.53	15.30	85.89	67	4 bis
15	2.69	0.470	18	69.23	8	30.76	-	-	3.84	89.74	70	3
16	2.30	0.837	14	53.84	6	23.07	6	23.07	4.92	76.92	60	12
17	1.92	0.560	3	11.53	18	69.23	5	19.23	15.30	64.10	50	16
18	1.42	0.757	4	15.38	3	11.53	19	73.07	18.53	47.43	37	21
19	2.26	0.874	14	53.84	5	19.23	7	26.92	5.15	75.64	59	13
20	1.80	0.895	8	30.76	5	19.23	13	50.00	3.76	60.25	47	17
21	2.53	0.508	14	53.84	12	46.15	-	-	0.15	84.61	66	6
22	1.57	0.808	5	19.23	5	19.23	16	61.53	9.30	52.56	41	19
23	2.50	0.707	16	61.53	7	26.92	3	11.53	10.21	83.33	65	7
24	2.50	0.707	16	23.07	7	26.92	3	11.53	10.23	83.33	65	7 bis

*Re=Repetition, Ar=Arrangement

Table 2 significant differences between the responses of a sample Search (agree / To some extent / not agree) is related in the first dimension terms, And describes the results of the table that the relative weight of words this dimension may ranged between 71 - 37 and phrase No. 1 was ranked first on this dimension, reaching relative importance her 91.02 while the phrases 18 less phrases response the sample reaching the relative importance of each of them 47,43.

Table 3:

the arithmetic mean and the standard deviation and the percentage and the significance of the differences and order of the second dimension statements in light of the relative weight of the sample responses (n= 26)

Serial phrase	Mean	SD±	agree		some extent		non agree		value Cu 2	relative importance	Relative weight	Ar
			Re	Ratio%	Re	Ratio%	Re	Ratio%				
1	2.57	0.503	15	57.69	11	42.30	-	-	0.615	85.89	67	5
2	2.50	0.509	13	20.00	13	50.00	-	-	0.00	83.33	65	6
3	2.61	0.469	16	37.86	10	38.46	-	-	1.385	87.17	68	3 bis
4	2.65	0.485	17	65.38	9	34.61	-	-	2.462	88.46	69	2
5	2.50	0.509	13	50.00	13	50.00	-	-	0.00	83.33	65	7 bis
6	1.69	0.617	2	7.69	14	53.84	10	38.46	8.615	56.41	44	9
7	2.61	0.496	16	61.53	10	38.46	-	-	1.385	87.17	68	3
8	2.76	0.429	20	76.92	6	23.07	-	-	7.538	92.30	72	1
9	2.11	0.711	8	30.76	13	0.50	5	19.23	3.769	70.51	55	8

*Re=Repetition, Ar=Arrangement

Table 3 significant differences between the responses of a sample Search (agree / To some extent / not agree) is related to the second dimension terms. And describes the results of the table that the relative weight of words this dimension may ranged between 72 - 44 and phrase No. 8 was ranked first on this dimension, reaching relative importance her 92.30, while phrase 6 less phrases response the sample reaching the relative importance of each of them 56.41.

Table 4:

the arithmetic mean and the standard deviation and the percentage and the significance of the differences and order of the third dimension statements In light of the relative weight of the sample responses (n= 266)

Serial phrase	Mean	SD±	agree		some extent		non agree		value Cu 2	relative importance	Relative weight	Ar
			Re	Ratio%	Re	Ratio%	Re	Ratio%				
1	2.73	0.452	19	73.07	7	26.92	-	-	5.53	91.02	71	1
2	2.34	0.845	15	57.69	5	19.23	6	23.07	7.00	78.02	61	9
3	2.69	0.470	18	69.23	8	30.76	-	-	3.84	89.74	70	2
4	2.69	0.470	18	69.23	8	30.76	-	-	3.84	89.74	70	2 bis
5	2.61	0.496	16	61.53	10	38.46	-	-	1.38	78.17	68	9 bis
6	2.61	0.496	16	61.53	10	38.46	-	-	1.38	78.17	68	9 bis
7	2.53	0.508	14	53.84	12	46.15	-	-	0.154	84.64	66	5 bis
8	2.53	0.646	16	61.53	8	30.76	2	7.69	11.38	84.61	66	5 bis
9	2.65	0.485	17	56.38	9	34.61	-	-	2.46	88.46	69	4
10	1.53	0.508	14	-	12	53.84	-	46.15	0.154	84.61	66	5
11	2.26	0.666	10	38.46	13	50.00	3	11.53	6.07	75.64	59	12
12	2.42	0.702	14	53.84	9	43.61	3	11.53	7.00	80.76	63	8
13	2.15	0.833	11	42.30	8	30.76	7	26.92	1.00	71.79	56	13

Table 4 significant differences between the responses of a sample Search (agree / To some extent / not agree) is related terms, the third dimension. And describes the results of the table that the relative weight of words this dimension may ranged between 71 - 56 and phrase No. 1 was ranked first on this dimension, reaching relative importance her 91.02 while the phrase 13 less phrases response the sample reaching the relative importance of each of them 71.79.

Table 5:

the arithmetic mean and the standard deviation and the percentage and the significance of the differences and order of the fourth dimension statements In light of the relative weight of the sample responses (n = 26)

Serial phrase	Mean	SD±	agree		some extent		non agree		value Ca 2	relative importance	Relative weight	Ar
			Re	Ratio%	Re	Ratio%	Re	Ratio%				
1	2.69	0.470	18	69.23	8	30.76	-	-	3.84	89.74	70	4
2	2.80	0.401	21	80.76	5	19.23	-	-	9.84	93.56	73	1 bis
3	2.65	0.485	17	65.38	9	34.61	-	-	2.46	88.46	69	5
4	2.80	0.401	21	80.76	5	19.23	-	-	9.84	93.59	73	1
5	2.46	0.706	15	57.69	8	30.76	3	11.53	8.38	82.05	64	7
6	2.42	0.702	14	53.84	9	34.61	3	11.53	7.00	80.76	63	11
7	2.46	0.706	15	57.69	8	30.76	3	11.53	8.38	82.05	64	7 bis
8	1.61	0.697	3	11.53	10	38.46	13	50.00	6.07	53.84	42	15
9	2.53	0.706	17	65.38	6	23.07	3	11.53	12.53	84.61	66	10
10	2.46	0.811	17	65.38	4	15.38	5	19.23	12.07	82.05	64	7 bis
11	2.07	0.744	8	30.76	12	46.15	6	23.07	2.15	69.23	54	12
12	2.61	0.496	16	61.53	10	38.46	-	-	1.38	87.17	86	6
13	2.80	0.401	21	80.76	5	19.23	-	-	9.84	93.59	73	1 bis
14	1.88	0.908	9	38.76	5	19.23	12	46.15	2.84	62.82	49	13
15	1.73	0.827	6	23.07	7	26.23	13	50.00	3.30	57.69	45	14
16	1.57	0.808	5	19.23	5	19.23	16	61.53	9.30	52.56	41	16

Table 5 significant differences between the responses of a sample Search (agree / To some extent / not agree) is related terms, the fourth dimension. And describes the results of the table that the relative weight of words this dimension may ranged between 73 - 41 and phrase number 4 was ranked first on this dimension, reaching relative importance her 93.59 while the phrase 16 less phrases response the sample reaching the relative importance of each of them 52.56.

The final image of the a scale:

The results of the previous steps for extracting number 62 is enjoying truthfulness, fortitude and fall under four main dimensions distributed as follows:

- ✓ The first dimension: psychological stress associated with competitions and results 24 .
- ✓ Second dimension: psychological stress associated with the support and reinforcement 9 phrases.
- ✓ The third dimension: Power Load psychological stress associated with training 13.
- ✓ The fourth dimension: psychological stress associated with the masses 16 . Attachment 3.

And can represent these dimensions and axes belong to the final image to a scale stress the football coaches so these results can be calculated using the total score for each axis and the total score for the a scale of all alone.

Conclusion

The Researcher Concludes the Following:

- ✓ That stress plays a major role and an important role in the performance of football coaches both on and off the pitch.
- ✓ A a scale of psychological pressure for football coaches beat the Egyptian public.

Recommendation: The researcher recommends the following:

- ✓ A a scale of psychological pressure to individual instructors for the rest of the games.
- ✓ Compared to psychological pressures in intramural sports trainers and individual games.

References

- 1- Mufti Ibrahim Hammad,1998: *modern sports training, planning, implementation, leadership*, Arab Thought House, Cairo,p: 362 .
- 2- Osama Kaml Rateb,1997: *combustion stress between sports training and emotional stress*, dar al-fkr al-araby, No12, Cairo, pp273:.(in Arabic).
- 3- Adel Abdel Halim Haider, amal Helmy elgamal,2001: *Factorial construction a scale combustion symptoms in some sports activities trainers selected*, Journal of Physical Education College, the first issue, Ain Shams University.
- 4- Azza Shawky alwesame, Maysa Mohammed Al Banna,1999: *Burnout and his personal traits coaches some sports activities*, the Third International Scientific Conference for Sport and the mirror, Faculty of Physical Education for Girls, University of Alexandria 19 - 21 October.
- 5- Mohamed Abdel Salam Abu Rayya,2012: *Factorial structure of psychological pressure in football coaches*.
- 6- Betty . C. & Kelley,1993 :*A model of Stress And Burnout In Collegiate Coaches Effects of Gender And Time of Season*, Research Quarterly For Exercise And Sport, V65, Mar .
- 7- Hunt, K, Miller S.,1994: *Comparison of Level of Perceived Stress And Burnout Among College Basketball And Tennis Coaches*. Applied Research In Coaching And Athletics Annual (Boston) United States.

Constructing **A Scale Of** University Students *Attitudes Toward* *Outdoor Recreation*

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Abstract

Attitudes measurement allows forecasting behaviors, thus provides a chance to positively guide those behaviors, the purpose of this study is to construct a scale of attitudes toward outdoor recreation for Helwan University students in Egypt. A sample of (416) students has been chosen randomly, it included (278) males and (138) females. The researcher depended on the following tools to collect research data: Interviews with University officials who are responsible for recreational activities, attitudes toward outdoor recreation scale – constructed by the researcher and comprises (36) items distributed on (4) dimensions, plus the list of outdoor activities participation.

The results of this study have shown positive attitudes of University students toward outdoor recreation and the males students participate in more various outdoor activities than females, plus, there were significant differences between males and females in attitudes toward outdoor recreation in favor of females. Results also suggest the need to provide opportunities for outdoor recreation activities participation in Helwan University (Safe, under supervision and for appropriate cost).

Introduction:

The popularity of outdoor recreation in parks and other protected areas in Egypt has increased in the last decade following the economic, political and social changes in Egyptian society that resulted in the evolution in lifestyles and leisure habits.

Outdoor recreation allows participants to focus and interact with the natural environment through a wide range of activities. For some people outdoor activities provide experiences that are emotionally and spiritually rewarding; for others the attractions are adventure, risk, challenge and thrills. (Ibrahim & Cordes 1999, p.186)

The most popular outdoor recreational activities are: outdoor sports, aquatics, fishing, bicycling, horseback riding, outdoor gathering, walking, international and local camps, outdoor picnics, and nature handcraft (El Hamahmy & Abdel Aziz 2009). Outdoor recreation has a special position in education sector's vision for its great role of developing students' leisure skills or recreational education that affects individual's attitudes to be positive toward recreation and leisure (Mohamed, Tahany 2001)

Attitudes have a great importance in the field of social psychology because the relation between attitudes and individual's behaviors in daily life situations (Abdel Rahman, Saad 2004, p.361). Attitudes can be considered as kind of social motives toward behaviors, i.e. positive attitudes toward physical activities play a vital role in developing people as they push individuals

to regularly participate in those physical activities (Bahy, et al. 2005).

Individuals differ in their attitudes and differ in the degree of this attitude, because degrees range from full positive feeling to full negative feeling (Galal 2001, p.240) also, attitudes toward recreation direct individuals to positively participate in recreational activities (El Quosy 1982, p.137).

The researcher sees that university education represents a major source to prepare the required manpower very well in all cognitive, psychological, social and physical aspects through different activities that play a major role in shaping the attitudes of students.

The role of outdoor recreation programming in a campus recreation department has grown over the years. Trips and equipment rental has been a staple of outdoor recreation program for decades. The purpose of any campus outdoor recreation program can be varied as opportunities they provide. Students often participate in outdoor activities to increase their knowledge or skill in a certain area or they are seeking a particular experience. Colleges and universities often desire and value outdoor programs as part of comprehensive campus recreational sport department because they add an additional avenue for the pursuit of well-rounded and healthy lifestyles, and this generally supports the mission and vision of such organizations (NISRA 2008, p.154).

Statement of the Problem:

Understanding attitudes is one of the most important treated issues

by sociology and social psychology as they are considered as a pattern of human behavior, therefore attitudes play a key role in guiding the individual's behavior and positive attitudes have an important role in leisure investment and activity participation that leads to good development of the personality (Allawy 1991, p.219)

Today, the outdoor recreation profession is varied and encompasses many facets. A contemporary definition of outdoor recreation is "organized free-time activities that are participated in for their own sake and where there is an interaction between the participant and an element of nature" (Ibrahim & Cordes 2002, p. 5).

Based on the literature review there are many studies aimed to investigate attitudes toward recreation and leisure (Mohamed Said 2011, Mohamed Amin 2006, Taymour Ragheb, 1999), for different samples, but there is only one study – to the knowledge of the researcher – aimed to explore the attitudes of university students and officials toward outdoor recreation (Ebtisam Abdel Aal et.al. 2008). The importance of this study appears by providing a new scale for attitudes toward outdoor recreation.

The research problem is about the need of constructing and developing a scale to measure attitudes toward outdoor recreation for university students, as attitudes are formed at this age and because of the role played by the university in the preparation of young generation for the future by providing

opportunities for practicing various recreational activities.

Purpose of the study:

The purpose of this study is to construct scale of university students' attitudes toward outdoor recreation, through answering the following questions:

1. What are the attitudes of Helwan university students toward outdoor recreation?
2. What are participation rates by gender in outdoor activities for Helwan university students?
3. Are there significance differences in attitudes toward outdoor recreation between males and females?

Method:

Participants:

Research Sample included (416) students from 7 colleges in Helwan university in Cairo, Egypt; (278) males (66.8%) and (138) females (33.2%) after excluding invalid or incomplete responses to the data collection tools.

Research Design:

The researcher has depended on the qualitative method because its appropriateness to the nature of the study.

Measures:

The researcher used the following tools to collect research data:

- 1- Interviews with the officials in sport

recreation department at Helwan University to investigate the offered and available outdoor activities, plus the interaction levels of the students.

- 2- The scale of university students' attitudes toward outdoor recreation – constructed by the researcher; which comprises (36) items distributed on (4) dimensions: Attitudes toward concept of outdoor recreation (9 items) - Attitudes toward importance of outdoor recreation (9 items) - Attitudes toward outdoor recreational activities (8 items) - Attitudes toward the role of campus toward outdoor recreation (10 items). The researcher has used three-point scale (Agree-Undecided-Disagree) for participants' responses (Appendix 1).
- 3- The list of outdoor recreational activities: it asked respondents to check the box next to any of (21) activities in which they had participated. Those activities are selected to match the most popular activities in the Egyptian society. There was also space to write in another activity not included on the list (Appendix 2).

Procedure:

To develop the main scale of this research, a pilot study of (48) participants has been made to investigate reliability and validity of attitudes toward outdoor recreation scale. Then the application on the whole sample of (416) participants was made to collect the main data and answer the questions of the research. The data collection was made during the period from 18/3/2012 to 17/5/2012.

Results

Analysis:

The data from each survey were entered into an Excel spreadsheet and transferred to SPSS v. 8.0 for analysis. Descriptive statistics, frequencies, correlations and t-test were used. An alpha level of .05 is the standard.

Scale validity:

Scale validity has been verified by the following techniques:

- 1- Logical validity (Content validity): based on the reviewed literature and analysis of previous attitudes scales to guarantee that items belong to the suggested dimensions.
- 2- Face validity (Judges validity): The scale comprising of (4) dimensions and (71) items was introduced to (7) professors in the field of sport recreation, sport psychology and measurements and evaluation, They agreed on the four dimensions and excluded total of (21) items because of duplication or not belonging to the dimensions, so the total of (50) items were in the scale version before the pilot study.
- 3- Internal consistency validity: by calculating Pearson correlation coefficient between the value of each item and the total value of its dimension (see Table 1) and total value of each dimension and the total value of the whole scale (Correlations was significant).

Table (1):

Correlations between the value of each item and the total value of its dimension (N=46)

First Dimension		Second Dimension		Third Dimension		Fourth Dimension	
Serial	r	Serial	R	Serial	r	Serial	R
1	0.084	1	0.368**	1	0.202	1	0.559**
2	0.630**	2	0.631**	2	0.219	2	0.528**
3	0.189	3	0.715**	3	0.371**	3	0.859**
4	0.351*	4	0.680**	4	0.018	4	0.499**
5	0.526**	5	0.054	5	0.197	5	0.676**
6	0.499**	6	0.152	6	0.530**	6	0.604**
7	0.125	7	0.458**	7	0.481**	7	0.588**
8	0.021	8	0.674**	8	0.655**	8	0.149
9	0.540**	9	0.533**	9	0.787**	9	0.470**
10	0.555**	10	0.470**	10	0.114	10	0.679**
11	0.755**	11	0.521**	11	0.458**	11	0.552**
12	0.517**	12	0.178	12	0.517**		
13	0.321*			13	0.073		
14				14	0.643**		

*p < .05. **p < .01.

As shown in (Table 1) most of items correlations were significant except 14 items (excluded). The final total of scale items was 36 items distributed on the 4 dimensions as follows:

The first dimension (Attitudes toward concept of outdoor recreation): comprise 9 items (2, 6, 10, 14, 18, 22, 26, 30 and 34). Second dimension (Attitudes toward importance of outdoor recreation): comprise 9 items (3, 7, 11, 15, 19, 23, 27, 31 and 35). Third dimension (Attitudes toward outdoor recreation activities): comprise 8 items (4, 8, 12, 16, 20, 24, 28, and 32). Fourth dimension (Attitudes toward the role of campus toward outdoor recreation): comprise 10 items (1, 5, 9, 13, 17, 21, 25, 29, 33, and 36).

Scale reliability:

Scale reliability has been verified by the following techniques:

- 1- Test-Retest Method: the scale was tested on 33 students and retested after 2 weeks, Correlations varied between 0.764 and 0.922 which show that current scale is reliable.
- 2- Split-halves Method: using Cronbach's reliability coefficient (alpha), results has shown that (alpha) values are high for all scale dimensions as varied between 0.630 and 0.791, which shows high level of scale reliability. A Cronbach's reliability coefficient (alpha) of 0.60 or higher was required for a scale to be considered reliable (Tabachnick and Fidell 1996).

Attitudes toward outdoor recreation

To answer the first question of the study: What are the attitudes of Helwan university students toward outdoor recreation? See Table 2.

Table (2):

Descriptive statistics and frequencies for scale items (N=416)

Item	M	Frequencies			Total	%	Rank	Item	M	Frequencies			Total	%	Rank
		Agree	Un.	Dis.						Agree	Un.	Dis.			
<i>First Dimension</i>															
2	2.53	272	94	50	1054	84.46	8	4	2.72	300	116	0	1132	90.71	1
6	2.85	366	37	13	1185	94.95	2	8	2.39	174	229	13	993	79.57	4
10	2.72	317	82	17	1132	90.71	5	12	1.81	120	97	199	753	60.34	8
14	2.59	264	135	17	1079	86.46	7	16	2.52	230	173	13	1049	84.05	3
18	2.76	49	0	367	1150	92.15	4	20	2.38	207	161	48	991	79.41	5
22	2.70	17	90	309	1124	90.06	6	24	2.29	200	137	79	953	76.36	7
26	2.80	17	48	351	1166	93.43	3	28	2.67	282	131	3	1111	89.02	2
30	2.86	17	25	274	1189	95.27	1	32	2.30	201	139	76	957	76.68	6
34	2.36	150	266	0	982	78.69	9	1	2.93	386	30	0	1218	97.60	2
3	2.62	258	0	158	932	74.68	8	5	2.96	400	16	0	1232	98.72	1
7	2.69	287	129	0	1119	89.66	3	9	2.55	229	178	0	1043	83.57	10
11	2.64	284	115	17	1099	88.06	5	13	2.80	334	79	3	1163	93.19	5
15	2.68	284	132	0	1116	89.42	4	17	2.66	273	143	0	1105	88.54	7
19	2.30	210	121	85	957	76.68	7	21	2.81	335	81	0	1167	93.51	4
23	2.72	299	117	0	1131	90.63	2	25	2.52	294	45	77	1049	84.05	9
27	2.56	263	121	32	1063	85.18	6	29	2.66	307	77	32	1107	88.70	6
31	2.06	109	222	85	85	68.15	9	33	2.58	243	173	0	1075	86.1	8
35	2.77	336	63	17	17	92.23	1	36	2.88	365	51	0	1197	95.9	3
<i>Third Dimension</i>															
<i>Fourth Dimension</i>															
<i>Second Dimension</i>															

As shown in Table 2, students' general attitudes toward outdoor recreation are positive as most of their responses' means are more than 2.5. For the first dimension (Attitudes toward concept of outdoor recreation), the highest ranking item was "the outdoor activities are not only for talented and skilled people" but they are suitable for all, while the lowest ranking item was "Outdoor activities is practiced in the nature" as it might be practiced in urban areas too.

For the second dimension (Attitudes toward importance of outdoor recreation), the highest ranking item was "the outdoor activities makes me explore nature", while the lowest ranking item was "Outdoor activities save me from obesity and let me lose my weight" as they may not affect the weight of participants.

For the third dimension (Attitudes toward outdoor recreation activities), the highest ranking item was "I try to convince other to share me in outdoor activities", while the lowest ranking item was "I like to practice outdoor activities alone" as they may like group participation.

For the fourth dimension (Attitudes toward the role of campus toward outdoor recreation), the highest ranking item was "The campus must provide the required equipment and tools for outdoor activities", while the lowest ranking item was "The campus should conduct training courses for skill development in outdoor activities".

Participation in outdoor activities

To answer the second question of the study: What are participation rates by gender in outdoor activities for Helwan university students? See Figure 1

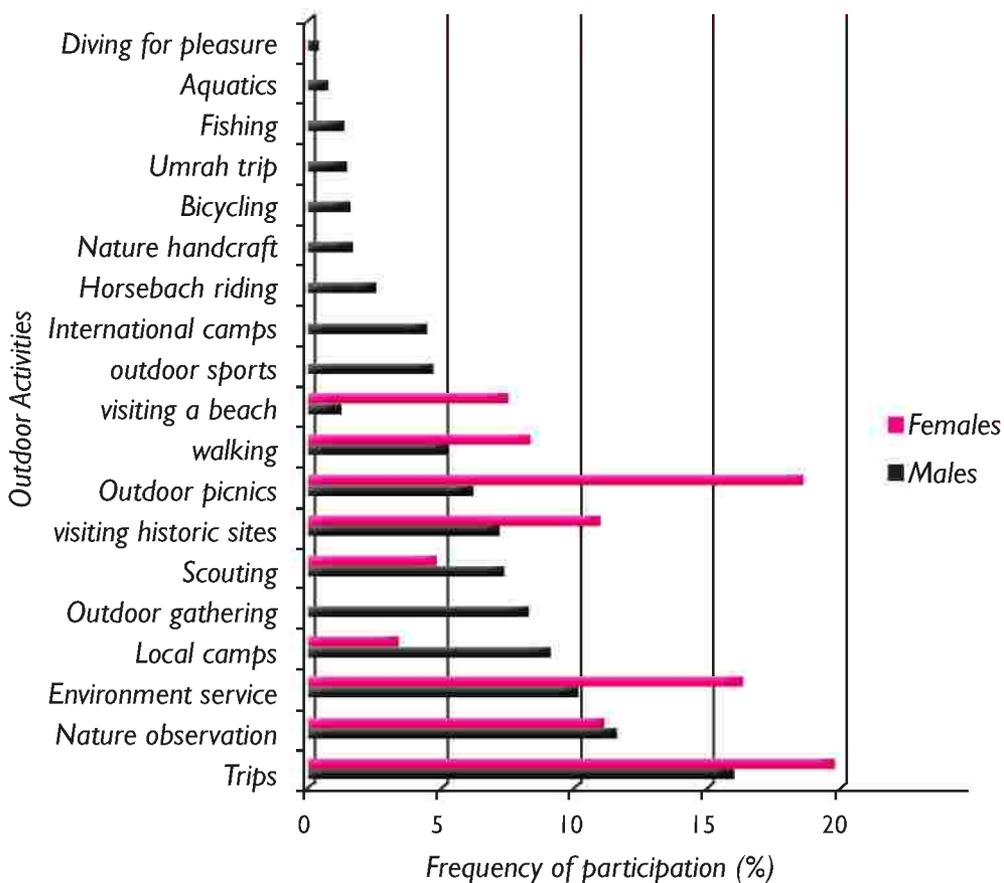


Figure1. - Participation rates by gender in outdoor activities for Helwan university students.

As shown in Figure 1, the type and number of outdoor activities is different from male students to female students. Males participate in 19 outdoor activities and females participate only in 9 activities. The top ranked outdoor activity for both males and females is “Trips”.

Gender differences in attitudes toward outdoor recreation:

To answer the second question of the study: Are there significance differences in attitudes toward outdoor recreation between males and females? See Table 3.

Table (3):

Differences significance between males and females students (t-test)

Serial	Scale Dimensions	Males (278)		Females (138)		t value
		M	SD	M	SD	
1	Attitudes toward concept of outdoor recreation	23.820	2.870	24.920	1.068	4.354
2	Attitudes toward importance of outdoor recreation	23.032	3.031	33.036	2.203	0.013
3	Attitudes toward outdoor recreational activities	18.699	3.104	19.920	1.683	1.121
4	Attitudes toward the role of campus toward outdoor recreation	26.022	2.411	30.000	0.000	19.374
5	Total score of the scale	91.543	6.234	97.877	3.880	10.796

t value < .05. = 1.966.

As shown in Table 3, there are significant differences in attitudes towards outdoor recreation between males and females students for the benefit of female students for the first, third and fourth dimensions of the attitudes scale toward outdoor recreation plus the total score of the scale.

But for the second dimension, no significant differences have been revealed between males and females students in attitudes toward outdoor recreation.

Discussion

This study aimed to construct and develop an attitude scale toward outdoor recreation for university students. The new valid and reliable scale comprises (36) items distributed on (4) dimensions.

Students' attitudes toward outdoor recreation were positive and high. The current results agree with the results of

the study of (Abdel Aal et al. 2008, p.19). This could be due to the stress of everyday life and crowded and polluted cities, plus the good promotion for outdoor activities inside campus or by tourism companies that offer creative and new activities.

The type and number of outdoor activities is different from male students to female students, males participated in more various outdoor activities and females participated in less number of activities although their participation rate is higher than males in many activities. Traditionally, many women have provided certain outdoor activities that were typically associated with males. (Ibrahim & Cordes 1999, p.187).

There are still differences in experiences, attitudes, and expectations of women's participation in sport and recreation versus that of men. (McLean et al. 2005, p.148) as there are many social constraints in the Egyptian society

related to female participation in outdoor activities, such as required supervision.

There are significant differences in attitudes towards concept of outdoor recreation, attitudes towards outdoor activities and the role of campus toward outdoor recreation between males and females students for the benefit of female students; this is consistent with the study of (Abdel Aal et al. 2008, p.20). This may probably due to that female students have more leisure time than males, plus the available outdoor activities for females are limited comparing to males, also because they mainly depend on campus activities for supervision and safety factors.

But for the affective part of the attitudes (importance of outdoor recreation), no significant differences

have been revealed between males and females students. This may probably due to that gender is ineffective factor for the emotional part of the attitudes toward outdoor recreation.

Results suggest using the new scale to compare between different samples in different communities. Results also suggest the need to provide opportunities for outdoor recreation activities participation in Helwan University (Safe, under supervision and for appropriate cost).

The researcher recommends that campus should provide more national and international camps and trips for the students with financial support and should encourage students to participate in community services and environment development.

References

- 1- Abdel Aal, Ebtisam M.; El Sayed, Nahla M.; El Barbary, Rasha A. (2008). *The attitudes of official and students in Alexandria University toward outdoor recreation. Scientific magazine for physical education and sport* (34). Faculty of physical education for girls, Alexandria University.
- 2- Abdel Rahman, Saad (2004). *Psychological Measurement, Theory and Application 4th ed.* Cairo: Dar El Fekr Al Araby.
- 3- Allaway, Mohamed H. (1991). *Sport psychology. 7th ed.* Cairo: Dar El Fekr Al Araby.
- 4- Amin, Mohamed M. (2006). *Constructing a scale of elderly's attitudes toward sport recreation. Ph.D. Faculty of physical education for men, Helwan University.*
- 5- Bahy, Moustafa H.; Abdel Ghany, Amin; Yousef, Magdi H. (2005). *Sport Psychology. Theories, Analysis and Applications.* Cairo: International House for Publication and Distribution.
- 6- California State Parks (1998). *Public opinions and attitudes on outdoor recreation in California 1997.* California: Author.
- 7- El Hamahmy, Mohamed; Abdel Aziz Ayda (2009). *Recreation between theory and application. 6th ed.* Cairo: Book Publication Center.
- 8- El Quosy, Abdelaziz (1982). *Psychological health.* Cairo: Egyptian Anglo Library.
- 9- Galal, Saad (2001). *Psychological Measurement and tests.* Cairo: Dar El Fekr Al Araby.
- 10- Ibrahim, H., & Cordes, K. A. (2002). *Outdoor Recreation: Enrichment for a lifetime.* Champaign, IL: Sagamore.
- 11- Ibrahim, H., & Cordes, K. A. (1999). *Applications in recreation and leisure: for today and the future. 2nd ed.* New York: The McGraw-Hill Companies, Inc.

References

- 12- Koura, Ahmed H. (2002). *Constructing a scale of leisure time socialization*. MD. Faculty of physical education for men, Helwan University.
- 13- McLean, Daniel D.; Hurd, Amy R.; Rogers, Nancy Brattain (2005). *Kraus' Recreation and Leisure in Modern Society*. 7th ed. Boston: Jones and Bartlett Publishers International, Inc.
- 14- Mohamed, Mohamed S. (2011). *Attitudes of gardens and parks visitors toward leisure activities according to some variables*. Scientific magazine for physical education and sport (64). Faculty of physical education, Helwan University.
- 15- Mohamed, Tahany A. (2001). *Recreation and recreational education*. Cairo: Dar El Nashr Al Araby.
- 16- National Intramural-Recreational Sports Association (NIRSA). (2008). *Campus Recreation, essentials for the professional*. Champaign, IL: Human Kinetics.
17. Ragheb, Taymour A. (1999). *Helwan university students' attitudes toward leisure time*. Scientific magazine for physical education and sport (24). Faculty of physical education, Helwan University.
18. Scott Porter Research & Marketing (2011). *Enjoying the Outdoors – attitudes and behaviour of young people in Scotland*. Scottish Natural Heritage Commissioned Report No.470.
19. Tabachnick, B.G.; Fidell, L.S. 1996. *Using multivariate statistics*. 3rd ed. New York: Harper Collins.
20. Van der smissen, Betty. (2005). *Recreation and parks: the profession*. Champaign, IL: Human Kinetics.
21. Hopkins, Mary. (2009). *A wild web: the tangled history of attitudes toward wildlife in a dynamic new England culture, 1945-1985*. Ph.D.

The Effect of the Ballistic Training to Developing the Maximum

**Muscular Power
On The Performance Level
Of The Flat Horizontal Strike
(Sweep) In Junior**

Women Hockey Players

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Abstract

This research aims to developing a program by using the ballistic training and determining its effect on the maximum muscular power of the two arms and the two legs for the U-18 hockey junior women and the performance level (punctuality – power – speed) of the flat horizontal strike (Sweep). Basic research sample (32) junior women who were divided into two groups, whereby one was experimental while the other one was controlling, and the number of each of them was (16) U-18 hockey junior women. Results: (1) The ballistic training program has a positive statistically significant effect at 0.05 level on the maximum muscular power of the two arms and the two legs and level of performance (punctuality – speed – power) of the flat horizontal strike for the U 18 hockey junior women. (2) The training program that is used with the controlling group has a positive statistically significant effect at 0.05 level on the maximum muscular power of two arms and two legs and the level of performance (punctuality – speed – power) of the flat horizontal strike of the U 18 hockey junior women.

Key words

Ballistic Training – Maximum Muscular Power - Flat Horizontal Strike (Sweep).

Introduction:

The ballistic trainings are regarded from the most suitable trainings used in developing the maximum muscular power for they are distinctive from other trainings of developing the muscular power in that they combine in its natural performance between the two features of muscular power and speed together, besides the used medium resistors (Ali Fahmy Al-Bek, 2008).

The performance of the ballistic trainings depends on the theory of using a resistor that is appropriate with the power and speed of the elasticity of the muscles in order to achieve the goal of the training program in developing the maximum muscular power as a means to developing the mechanical effectiveness of the working muscles to reach a better level of the motor performance (Ali Fahmy Al-Bek, Emad El-Deen Abbas Abu Zaid, 2003).

The muscular power means the ability to repeatedly overcoming resistors by using a high dynamic speed as the muscular power is represented in the repetition with no waiting moment to gather the powers such as repeating the rapid continuing passing training (Emad El-Deen Abbas Abu Zaid, 2007).

As for the maximum muscular power, it is the maximum power the individual

can bring forth during performance for only one time at maximum possible speed, such as long passing and shooting at the goal in field hockey (Ali Fahmy Al-Bek, 2008). Reaching the high athletic levels for the field hockey woman player requires perfecting the basic motor skills in the hockey sport and recognizing the principles of each skill, and this clearly appears in the importance of the basic skills and how to perform them.

The skill of the flat horizontal strike (Sweep) is considered among the important skills in field hockey as the defense and mid players perform it, as well as the offensive in the rapid passing and shooting, due to its rapid performance and due to shortness of the back swinging of the stick, unlike hitting the ball by the flat face of the racket which requires the player to take the get ready position and positioning the left shoulder which takes long time and make it easy for the defender to intercept the ball, as the sweep skill has a great importance in deciding the results of games through shooting with it at the goal in several offensive situations (Claire M. & Verner, 2009).

Through the researcher's readings and viewing of scholarly studies on field hockey, she noticed there was no a scholarly study that dealt with the effect of the ballistic training on the maximum muscular power of the two arms and the two legs and the performance level of the flat horizontal shot (Sweep) for the junior women hockey players, in addition to the low level of the flat horizontal

strike (Sweep) for the U-18 junior women hockey at the Sharkia Hockey Region as to punctuality, speed, and power, whether during training or during games, which affects the low rate of shooting at the goal and the scoring of goals in games. The reason of this may be the lacking of the U-18 junior women players to the component of the maximum muscular power of the two arms and the two legs as one of the important physical components in field hockey, despite the existence of the training programs and the various training methods of preparing the hockey junior women. The researcher believes this is due to not using the ballistic training programs during the process of the special preparing of junior women field hockey players.

Therefore, the researcher thought to examine this problem through developing a program by using the ballistic training to improve the maximum muscular power of the two arms and the two legs and determining its impact on the performance level of the flat horizontal strike (Sweep) for the U-18 hockey junior women.

Research Objectives:

This research aims to developing a program by using the ballistic training and determining its effect on the following:

1. The maximum muscular power of the two arms and the two legs for the U-18 hockey junior women.
2. The performance level (punctuality – power – speed) of the flat horizontal strike (Sweep)

Research Hypotheses:

1. There are statistically significant differences between the averages of the two dimensional measurements of the two groups the experimental and the controlling in the maximum muscular power of the two arms and the two legs in favor of the experimental group.
2. There are statistically significant differences between the averages of the two dimensional measurements of the two groups the experimental and the controlling in the performance level (punctuality – power – speed) of the flat horizontal strike in favor of the experimental group.

Research Procedures:

The researcher utilized the experimental method for its appropriateness to the current study.

Research Sample:

The researcher has chosen the research sample individuals by the deliberate way from among the U-18 hockey junior women who are enrolled with the Sharkia Sports Club and Al-Sayadin Sports Club during the sports season 2011/2012, and who are registered with the Egyptian Hockey Federation, whereby the total size of the sample before performing the basic experiment was (42) junior women, where a number of (10) junior women were

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excluded and these are the participants in the exploratory study. Thus the size of the basic research sample became (32) junior women who were divided into two groups, whereby one was experimental while the other one was controlling, and the number of each of them was (16) U-18 hockey junior women.

The researcher made the parity between the research two groups in the previous variables in which harmony was made. This measurement is considered as the pre measurement of the two groups: the experimental and the controlling. The two tables (1) and (2) show this:

Table (1):

The Significance of the Differences between the Two Groups: the Experimental and the Controlling In the Researched Growth Rates N=16

Variables	Unit	Experimental group		Control group		t-stat
		Mean	Variance	Mean	Variance	
Age	Years	16.55	0.59	16.70	0.62	0.68
height	Cm	162.00	4.91	162.95	5.27	0.51
Weight	Kg	59.25	3.73	60.00	4.01	0.53
Training age	Years	3.60	0.61	3.70	0.69	0.42

* Significantly different at $p < .05 = 2.042$

It is clear from Table (1) that there are no statistically significant differences at level of 0.05 between the two groups: the experimental and the controlling in the growth rates, which indicates the parity of the study two groups in these variables.

Table (2):

The Significance of the Differences between the Two Groups: the Experimental and the Controlling in the Researched physical and ski-ful variables

Variables	Unit	Experimental group		Control group		t-stat
		Mean	Variance	Mean	Variance	
throwing a weight of 900 gm to the maximum distance	Meter	9.20	0.77	9.35	0.82	0.52
wide jump from stationary	Meter	1.55	0.15	1.60	0.20	0.77
punctuality of the flat horizontal strike	Num.	2.00	0.95	2.16	0.66	0.54
strength of the flat horizontal strike	Meter	2.90	1.03	3.25	1.12	0.86
speed of the flat horizontal strike	Second	77.62	4.57	76.84	4.03	0.46

* Significantly different at $p < .05 = 2.042$

It is clear from Table (1) that there are no statistically significant differences at level of 0.05 between the two groups: the experimental and the controlling in the researched physical and skilful variables, which indicates the parity of the study two groups in these variables.

Tools of Collecting Data:

First: The Tests of the Researched Muscular Power:

- 1-The test of throwing a weight of 900 gm to the maximum distance
- 2-The test of wide jump from stationary.

Second: The Tests of the Researched Skills:

- 1-The test of the punctuality of the flat horizontal strike
- 2-The test of the strength of the flat horizontal strike
- 3-The test of the speed of the flat horizontal strike

Third: The Suggested Ballistic Training Program:

The Bases of Setting the Program:

- 1-The suitability of the selected exercises in the training unit to the abilities of the members of the research sample.
- 2- Paying attention to performing the trainings elongation and flexibility in the beginning of the training unit.
- 3-The consideration of the principle of the integration of trainings (the two arms – the trunk – the two legs) in order to achieve the maximum possible benefit.
- 4-The researcher used the method of periodic training in its two incisions: low and high intensity, during the suggested training program.

5-The consideration of the principle of gradualism from what is easy to what is difficult in performing the ballistic trainings inside the training units and throughout the training program.

6- Allowing a positive break interval between each and other group, its duration ranges between (2 minutes – 3 minutes).

7-The consideration of the principle of variety in performing the trainings within the training unit so that the junior woman does not feel bored.

8-The gradualism in increasing the training weights and the appropriate progress with it.

9- Giving relaxing trainings in the final part of the daily training unit with the objective of restoring the body to the natural state.

The Content of the Training Program:

The Intensity of the Load:

The load intensity used in the ballistic training ranges between 30%:50% which is represented in the weight trainings –the maximum weight that can be raised for one time- so that the weight may not be a burden on the body and affects negatively on the speed of the muscular contraction which causes injury.

As for the free weights (the medical balls – the shot with the handle), the intensity of the load can be determined through the weight of the tool itself as the weights of the medical balls range

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between (2 -5) kilo grams, and the weights of the shot with the handle range between (4 -7) kilo grams.

The Size of the Load (Repetition – Group):

The suitable size of the ballistic trainings by using the weights trainings ranges between (10 -12) repetitions in the one group, that the groups range between (3 - 5) groups, and the rest periods from (2 – 3) min between the groups.

As for the size of the load for the ballistic trainings with the free weights, it ranges between (10:15) repetitions, the groups between (2:3) groups, and the rest periods from (2-3) min between the groups.

Training Program:

The researcher determined the period to apply the suggested program of the

ballistic training by (10) weeks at rate of (3) times per week, the time of the daily training unit (70) minutes divided into the warm up part (15) minutes, the main part (50) minutes, and the closing (5) minutes, in addition to (20) minutes skillful trainings in the beginning of the main part of the daily training unit.

Pre measurements have been made in the period from 9/8/2011 until 11/8/2011 for the two groups of the study in the researched physical and skillful variables, While training program has been applied on the members of the experimental group, in the period from 12/8/2011 to 20/10/2011 for period of (10) weeks at the rate of three training units per week, and post measurements have been made for the members of the two groups: experimental and controlling in the same order and terms of the prior measurements, in the period from 22/10/2011 until 24/10/2011.

Table (3):

The Significance of the Differences between the Two Post Measurements for the Two Groups, the Experimental and the Controlling in the Researched Physical and Skillful Variables

Variables	Unit	Experimental group		Control group		t-stat
		Mean	Variance	Mean	Variance	
throwing a weight of 900 gm to the maximum distance	Meter	13.95	0.85	12.50	0.77	4.86*
wide jump from stationary	Meter	1.80	0.05	1.70	0.10	3.40*
punctuality of the flat horizontal strike	Num.	3.44	1.02	2.63	1.00	2.16*
strength of the flat horizontal strike	Meter	5.00	0.60	4.16	0.67	2.46*
speed of the flat horizontal strike	Second	63.79	4.16	70.23	4.25	4.18*

* Significantly different at $p < .05 = 2.0422$

Table (3) shows the existence of statistically significant differences at 0.05 level between the two post measurements of the two groups: the experimental and the controlling in the researched physical and skillful variables in favor of the experimental group.

Table (4):

The Ratios of the Improvement of the Post Measurement than the Pre for the Two Groups, the Experimental and the Controlling in the Researched Physical and Skillful Variables.

Variables	Experimental group (N=16)			Control group (N=16)		
	Pre	Post	Rate of Improvement	Pre	Post	Rate of Improvement
<i>throwing a weight of 900 gm to the maximum distance</i>	9.20	13.95	51.63%	9.35	12.50	33.69%
<i>wide jump from stationary</i>	1.55	1.80	16.13%	1.60	1.70	6.25%
<i>punctuality of the flat horizontal strike</i>	2.00	3.44	72.00%	2.16	2.63	20.09%
<i>strength of the flat horizontal strike</i>	2.90	5.00	72.41%	3.25	4.16	28.00%
<i>speed of the flat horizontal strike</i>	77.62	63.79	21.68%	76.84	70.23	6.41%

It becomes clear from Table (4) the existence of improvement ratios in the post measurement than the pre for the two groups: the experimental and the controlling, in the researched physical and skillful variables in favor of the experimental group.

Discussing the Results:

The results of Table (3) show the existence of statistically significant differences at 0.05 level between the two post measurements of the two groups: the experimental and the controlling in the maximum muscular power of the two arms and the two legs in favor of the experimental group.

The researcher attributes the improvement in the maximum muscular power of the two arms and the two legs for the members of the experimental group to the effectiveness the component of the ballistic training program which included a group of weights trainings for the two arms, trunk, and the two legs to establish the muscular power (The first stage of the suggested training program), and in the

second stage the preparation period, the weights trainings were executed by high intensities to make sure of improving the muscular power for the junior woman, then the starting in the third stage implementing the ballistic trainings, where it was taken into account the rationing of the training loads to be appropriate with the nature of the research sample, and the graduation with the trainings from the easy to the difficult, which had a positive impact on the researched physical variables.

This result is consistent with what (George, 2002) indicated that the ballistic training is considered from among the best trainings to develop the muscular power of the athletes, whereby most of the trainings are performed in an explosive way as the contraction by shortening is transformed into contraction by lengthening in the shortest possible time.

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By viewing the results of Table (4), it becomes clear that there exist improvement ratios in the post measurement than the prior measurement for the two groups: the experimental and the controlling in the maximum muscular power of the two arms and the two legs in favor of the experimental group.

This result is consistent with what (Fleck & Kramer, 2004) indicated that it could be benefited from the ballistic training for it is from among its principle is the emancipation from heaviness, and this forces the muscular fibers to rapid contraction to produce maximum power in shortest possible time, and this effectively affects the maximum muscular power of the two arms and two legs for athletes.

Also, the results of Table (3) showed there are statistically significant differences at 0.05 level between the two post measurements for the two groups: the experimental and the controlling in the performance level (punctuality – speed – power) of the flat horizontal strike in favor of the experimental group.

The researcher attributes this significant improvement in the level of performance (punctuality – speed – power) of the flat horizontal strike for the members of the experimental group to the effectiveness of the content of the ballistic training program as its exercises combine between power and speed, besides its exercises are closer to the nature of the requirements of the skill performance of the flat horizontal strike, and this result is consistent with what (Komi Beter, 1997) indicated that the

ballistic training increases the speed of the motor performance through the similarity of the nature of the performance of the ballistic trainings in that it simulates the athletic move in accordance with its time and architectural path, i.e. the gained power from this kind of training leads to the increase of the ability of the muscles to contract at a faster rate, and this speed represents great importance because it achieves a great deal of training outcome in the athletic skills that depend on the throwing movements such as the rapid, powerful shooting in field hockey.

Observing the results of Table (4) it becomes clear that there are improvement ratios in the post measurement than the pre measurement for the two groups: the experimental and the controlling in the level of performance (punctuality – speed – power) of the flat horizontal strike in favor of the experimental group.

This result agrees with what both of (Michael Stone, 1998) and (Edmund Burke, 2001) indicated that the ballistic training leads to increasing the speed as a result of using light weights, also the training includes speeding up with the weight or the object in an explosive way in a speed that is appropriate with the nature of the skillful performance in field hockey.

Also, the ballistic training leads to the rapid adjustment of the muscular nervous system with the nature of performance of the throwing skills unlike the training with the traditional weights with high loads and slow speeds.

Conclusion

- 1- *The ballistic training program has a positive statistically significant effect at 0.05 level on the maximum muscular power of the two arms and the two legs for the U 18 hockey junior women.*
- 2- *The ballistic training program has a positive statistically significant effect at 0.05 level on the level of performance (punctuality – speed – power) of the flat horizontal strike of the U 18 hockey junior women.*
- 3- *The training program that is used with the controlling group has a positive statistically significant effect at 0.05 level on the maximum muscular power of the two arms and the two legs and the level of performance (punctuality – speed – power) of the flat horizontal strike of the U 18 hockey junior women.*

Recommendations

- 1- *Using the ballistic training program to developing the maximum muscular power of the two arms and the two legs for what it has of positive effect on the level of performance (punctuality – speed – power) of the flat horizontal strike of the U 18 hockey junior women.*
- 2- *Having guidance in the components of the suggested ballistic training program in building up similar training programs that develop the maximum muscular power which serves the skilful aspect for the U 18 hockey junior women.*
- 3- *The Egyptian Hockey Federation is to include the ballistic training method as one of the innovated training methods in training hockey junior women among the educational sessions for the field hockey trainers.*

References

- 1- Adel Abdel Basir Ali (1998c): *Athletic Training and the Integration between Theory and Application*, Al-Kitab Center for Publishing, Cairo.
- 2- Abdel Aziz Al-Nimr, Nariman Al-Khatib (1996): *Weights Trainings, Designing Power Programs, and Planning the Training Season*, Al-Kitab Center for Publishing, Cairo.
- 3- Esam Helmy, Mohamed Gabir Bureqe (1997): *Athletic Training*, Dar Al-Maarif, Cairo.
- 4- Ali Fahmy Al-Bek (2008): *The Series of Modern Trends in Athletic Training: Theories and Applications – Methods of Measuring Anaerobic and Aerobic Capabilities, Part Two*, Munshaat Al-Maarif, Alexandria, pp:93.
- 5- Ali Fahmy Al-Bek (2008): *The Series of Modern Trends in Athletic Training: Theories and Applications – Methods and Ways of Training to Developing and Improving Anaerobic and Aerobic Capabilities, Part Three*, Munshaat Al-Maarif, Alexandria, pp:217.
- 6- Ali Fahmy Al-Bek, Emad El-Deen Abbas Abu Zaid (2003): *The Athletic Trainer in Team Sports and Planning and designing the Programs and Training Loads – Theories and Applications*, Munshaat Al-Maarif, Alexandria, pp:102.
- 7- Ali Mohamed Talaat (2003): “The Effect of Using the Ballistic Resistance Training on Some of Physical and Skilful Variables for Basketball Players”, *Master’s Thesis, Faculty of Physical Education-Boys, Helwan University*.
- 8- Claire M. & Verner (2009): *Field Hockey Techniques & Tactics*, Human Kinetics, USA, pp: 25.
- 9- Edmund Burk (2001): *Ballistic Training for explosive Results human, kinetics publishers, Florida, U.S.A*, pp:51.
- 10- Edmund Burk (2003): *Effects of Ballistic Training on per – season preparation of elite volleyball players*, *Journal of Strength and Conditioning Research*, 21, (3).

11- Emad El-Deen Abbas Abu Zaid (2007): *The Planning and Scientific Bases for Building and Preparing the Team in Team Sports –Theories and Applications*, Ed 2, Munshaat Al-Maarif, Alexandria, pp:270.

12- El-Sayed Abdel Maqsood (2000): *The Theories of Athletic Training*, Al-Shabab Al-Hur Press, Cairo.

13- Fleck,S & Kramer,W.,(2004): *Designing Resistance Training program*, 2nd edition, Human kinetics, Publishers, Inc., Champaign, Illinois, USA, pp:121.

14- George,B., (2002): *Sport Speed* ,Leisure Press, Champaign, Illinois. USA, pp:55.

15- Hamed Mohamed Al-Kumy (2011): “*The Effect of the Ballistic Training on the Speed of Achieving the Snap Offensive and the Defensive Moves to Cover It for the Handball Players*”, *The Sciences and Arts of Sports Magazine*, Volume (39), Faculty of Physical Education-Girls, Helwan University.

16- Hossam El-Sayed El-Araby (2010): “*The Effectiveness of Using the Ballistic Training to Developing the Muscular Ability on the Power and Punctuality of Shooting with High Jumping for the Handball Players*” *The Scientific Conference “Arab Universities Sports” – Horizons and Ambitions” – Among the Activities of the Second Arab Sports Tournament of the Universities*, Egypt.

17- Humphries, B., & Wilson, G., (1993): *The Optimal Training Load for the Development of Dynamic Athletic Performance*, *Medical Science of Sport Journal*, 25, (4), 86.

18- Irmgard,K., et.al. (2003): *Fussball: Spielend, Trainieren, das komplette Uebungs System*, Sportverlag Berlin.

19- Jason, B., (2008): *Eight weeks of Ballistic exercise improves power independently of changes in Strength and muscle fiber type expression*, *Journal of Strength and Conditioning Research*, 6.

References

- 20- Kerry,P.,&Robert,L., (2004): *Baseball Throwing Speed and Base Ramming Speed, The Effect of Ballistic Resistance Training, Journal of Strength and Conditioning*, 12.
- 21- Komi,P.,Beter (1997): *Neuromuscular Performance factors influencing Force of Speed production, sport science Journal*, 3, (5), 14-18.
- 22- Khaled Sayed Salah El-Deen (2007): *“The Effect of a Training Program by Using the Ballistic Resistance Method on the Fitness of Energy, Muscular Fitness, and the Body Components of the Basketball Players”*, Ph.D. Thesis, Faculty of Physical Education-Boys, Helwan University.
- 23- Mohamed Ahmed Abdullah (2008): *The Comprehensive Preparation of Hockey Players*, Ayat Center for Printing and Publishing, Zagazig.
- 24- Mohamed Sobhy Hassanain (2001): *Measuring and Evaluating in Physical Education and Sports*, P 1, Ed 4, Dar Al-Fikr Al-Arabi, Cairo.
- 25- Mohamed Mahmoud Abdel Dayem, Medhat Saleh, Tariq Qattan (1993): *Training Programs of Physical Preparation and Weights Trainings*, Al-Ahram Press, Cairo.
- 26- Michael Kent (1998): *Oxford Dictionary of Sport Science and Medicine*, Oxford University Press, UK, pp: 24.
- 27- Michael,H.,et.al. (2004): *Athletic Performance Development, Strength and Conditioning*, Sport Science Journal, 20, (6), 60.
- 28- Naglah Abdel Moneim Behery (2009): *“Suggested Program by Using the Ballistic Trainings on Developing the Muscular Power and the Digital Level of Pushing Shut put”*, The Third International Scientific Conference, Third Volume, Faculty of Physical Education-Boys, Zagazig University.
- 29- Nawal Mahdy Al-Ebedy, Mona Salem Fathy, Daymaa Ali Abdullah (2007): *“The Effect of a Program of ballistic Training on some of the Physical and Skiiful Variables for Handball Players”*, The Second International

Scientific Conference, Second Volume, Faculty of Physical Education-Boys, Zagazig University.

30- Newton,R.& Kramer,W. (1997): *Kinematics and Kinetics and Muscle Activation During Explosive Upper Body Movement*, *Sport Medicine Journal*, 14.

31- Peter,O.,&Will,G., (2003): *The Effect of Attempted Ballistic Training on the Force of Speed Movements*, *Journal of Strength and Conditioning Research*, 17.

32- Rasha Moustafa Mabrouk, Dalia Mohamed Sayed (2007): "A Comparative Study of the Effect of the Two Methods of Ballistic Resistance and the Cycle of Elongation and Reduction on Some of the Physical and Skilful Variables for Volleyball Players" *The Scientific Magazine of Physical Education and Sports*, Issue (49), Faculty of Physical Education-Boys, Helwan University.

33- Samah Kamal Mohamed (2009): "The Effect of a Suggested Training Program by Using the Ballistic Resistance on the Length of the Distance of Hopscotch and the Digital Level of the Competition Shot-put for Women Juniors", *The Sciences and Arts of Sports Magazine*, Volume (33), Faculty of Physical Education-Girls, Helwan University.

34- Sherif Ali Taha, Ahmed Mohamed Zaki (2010): "The Effect of the Rapid Ballistic Power Trainings in Shooting the Giants National Team in Handball", *The Scientific Conference "Arab Universities Sports" –Horizons and Ambitions – Among the Activities of the Second Arab Sports Tournament of the Universities*, Egypt.

35- Tim Schett (2004): *Go Ballistic this Revolutionary high-velocity training system will help you bust through sticking points become more explosive and speed up your muscle gains*, *Muscle & Fitness*, Oct.

36- www.iraqacad.org.

Influence of

Dolphin strikes

On 200-Meter Swim Races

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Abstract

This study is regarded a methodological attempt to identify the impact of training program (TF) for dolphin strikes (DS) to develop the physical variables, Leg muscle test (LM), Back muscle test (BM), Right hand power (RHF), Left hand power (LHF), long jump (LJ), free 200, back 200, breast 200, fly 200, and medley 200 tests for Al-Ably swimming club (ASC) juniors under 12 years old. The researcher has noticed the low and slow level in swimming performance and their velocity to perform continue the performance in a good way particularly in races that are approximately similar in level. So, researcher tended to use (TF) of (DS) to (LM), (BM), (RHF), (LHF), (LJ) and their impact on the velocity of free 200, back 200, breast 200, fly 200, and medley 200 for (ASC) juniors. The experimental method was applied on a subject of 26 (ASC) juniors in Egypt, their ages under 12 years old. One of the most important results of this research was an enhancement in Regular use of (TF) Exercises of (DS) leads to enhancement in physical variables (LM), (BM), (RHF), (LHF), (LJ), free 200, back 200, breast 200, fly 200, and medley 200 tests for (ASC) juniors under 12 years o in the post measurement than the pre one. Also, there were statistically significant differences between pre and post measurements for post measurement in the physical variables, (LM), (BM), (RHF), (LHF), (LJ), free 200, back 200, breast 200, fly 200, and medley 200 tests for (ASC) juniors under 12 years old.

Key words

swimming, Dolphin strikes, training program, Leg muscle, Back muscle, hand power, free 200m, back 200, brest 200 m, fly 200m, and medley 200m.

Introduction:

Achieved sports level a big step forward in previous years has been reflected on the achievement of indexes and physical abilities and skills, has focused on countries and peoples of different sports including swimming. Swimming competitions had the rapid progress in the figures recorded for different swim ways crashed these figures year after year, which was destroyed wishful impossible, dream flirts workers in the sports field, due this enormous development of scientific progress for ways and means different training to advance level digital in swimming. Because there are differences in the physical preparation programs and skills terms that achieve the accomplishments digital associated background coach and know academic and past experience, and what was part of a second impact is negative or positive on the order swimmer among his becomes impossible for the swimmer to improve his figures without undergo training scientific standardized.

The researcher noted that there is a difficulty for some swimmers when performing dolphins strikes which became unreliable at the beginning of each race (except breaststroke) and after rotation - or it may be confused does not help the progress and achievement

digital . Making the researcher is given dolphins strikes largest degree in the field of training for all ages, especially young even contribute to the upgrading of digital swimmers and use of the maximum of their capacities to reach the best performance . The researcher also noted the lack of interest coaches selected training performance on the implementation of Dolphins strikes skills during training units and do not use Help Tools despite attempts by these trainers upgrading digital by increasing training loads or use programs weight training, etc. which may not suit stages certain age and especially beginners, Therefore the researcher found that submit the study to complement the inception of previous studies to be helpful for coaches and swimmers to achieve their goal and upgrading the game and its development, particularly after the scan the Arab and foreign journals and found the scarcity of Arab Studies in this area and that it needs to be more effort and study, therefore the researcher tried to do this study to put some of the foundations and rules to upgrade the record level of swimmers. Therefore researcher try to investigate the impact of dolphins strikes (DS) in competitive swimming races (free 200-meter , 200 - back 200 m - butterfly 200 m brest 200 m - medley 200 m)

Material and methods

The subject:

The subject was 26 (ASC) juniors from AL-Ahly swimming club in Cairo under 12

years old, mean age (11.48 ± 0.23 years), weight (42.25 ± 0.36 kg), height (152.43 ± 4.32 cm) and training experience (5.95 ± 0.28 years), volunteered to participate in the study. The subject Was only one group, an experimental group

(EX) group 26 juniors from (SAC) and were informed about the experimental procedures and signed informed consent statement and medical history. The physical characteristics of the subject are given in table 1 .

Table (1):

The physical characteristics of the subject

Variables	Mean	SD	Median	Skewness
Age (y)	11.48	0.23	11.50	0.07
Height (cm)	152.43	4.32	153.00	0.12
Weight (kg)	42.25	0.36	42.25	0.16-
Experience (y)	5.95	0.28	6.00	0.14
Leg muscle test (kg)	55.25	2.08	55.5	0.127-
back muscle test (kg)	51.12	1.85	51	0.279-
Right hand power (kg)	22.38	0.68	22.5	0.3
Left hand power (kg)	21.38	0.66	21.35	1.00-
long jump (cm)	151.79	2.25	151.6	0.27
free 200 (Sc)	140.56	1.34	141	0.98-
back 200(Sc)	166.65	1.18	167	0.88-
brest 200(Sc)	180.51	1.25	182	1.17-
fly 200 (Sc)	159.14	1.32	159	0.32
medley 200 (Sc)	167.80	1.55	167	1.54

These results made clear that there are no significant deference's in the following variables (age, height, weight, training experience, and other variables, which indicates the harmony of research subject as well as the possibility of conducting such an experiment in such a subject. (table 1).

This study has been conducted of three steps (1) doing the pre- measurement from 20/4/2012 to 22/4/2012 by measuring height, weight, Leg muscle

test (LM), Back muscle test (BM), Right hand power (RHP), Left hand power (LHP), long jump (LJ), free 200, back 200, brest 200, fly 200, and medley 200 tests. (2) Applying the trainings program course (TP) to develop the Dolphin strikes (DS) for the subject for 10 weeks from 23/4/2012 to 30/6/2012, using (TP) to develop (DS) in this study. (3) Third step: post- measurements from 1/7/2012 to 4/7/2012 are performed on all variables in post- measurements.

The content of the training course being used:

- ✓ Duration of training course is 10 week.
- ✓ (TP) contain the basics exercises of (ASC)are in Appendix 1.
- ✓ (TP) Exercises content are in Appendix 2.

✓ Weekly training unit's time are 100 min.

✓ Weekly training units are 6 times, Appendix 2.

✓ Training unit consists of three parts (1) warming – up 15 min, (2) Basic part 80 min and (3) the relaxation part 5 min.

Table (2):

The Reliability of the tests

Variable	Pre- measurements	Post-measurements
Leg muscle test (kg)	55.25± 2.08	55.06± 1.88
back muscle test (kg)	51.12± 0.85	53.75± 2.14
Right hand power (kg)	22.38± 0.68	22.40± 1.25
Left hand power (kg)	21.38±0.66	21.65 ± 0.82
long jump (cm)	151.79± 2.25	152.00± 2.86
free 200 (Sc)	140.56±1.34	140.25 ±1.29
back 200(Sc)	166.65 ± 1.18	166.31 ±1.13
brest 200(Sc)	180.51± 1.25	180.19 ± 1.27
fly 200(Sc)	159.14± 1.32	158.75 ± 1.29
Medley 200 (Sc)	167.8± 1.55	1.67 ± 1.54

* Mean ± SD standard deviation *n=10

These results made clear that there are a significant differences between the first and the second application of the test

($P < 0.05$), which indicate the stability of the tests. These indicate the reliability of the tests (Table2).

Table (3):*The Validity of the tests*

Variable	Pre- measurements	Post-measurements
Leg muscle test (kg)	55.25 ± 2.08	58.50 ± 1.46
back muscle test (kg)	51.12 ± 1.85	55.18 ± 1.22
Right hand power (kg)	22.38 ± 0.68	25.12 ± 1.02
Left hand power (kg)	21.38 ± 0.66	24.93 ± 0.77
long jump (cm)	151.79 ± 0.79	154.44 ± 1.46
free 200 (sc)	140.56 ± 1.34	134.69 ± 0.87
back 200(sc)	166.65 ± 1.18	156.31 ± 2.15
brest 200(sc)	180.51 ± 1.25	168.00 ± 1.26
fly 200(sc)	159.14 ± 1.32	146.25 ± 2.25
medley 200 (sc)	167.80 ± 1.55	151.25 ± 3.82

* Mean ± SD standard deviation *n=10

These results made clear that there are a significant differences between the two distinctive and the non- distinctive groups ($P < 0.05$), which indicate the stability of the tests. These indicate the validity of the tests (Table 3).

Statistical analysis

Data analysis was performed using SPSS version 13.0. Where the researcher analyzed the results using the mean, Standard deviation, t.test, simple correlation, f test, L S D and percentage ratio.

Table (4):*The pre and post measurements for (EX) group.*

Variable	Pre- measurements	Post-measurements	Percentage ratio
Leg muscle test (kg)	51.55 ± 3.45	54.18 ± 14.34	4.85
back muscle test (kg)	55.25 ± 4.33	59.06 ± 6.32	6.45
Right hand power (kg)	22.38 ± 5.47	25.37 ± 1.58	11.78
Left hand power (kg)	21.38 ± 0.43	24.06 ± 86	11.13
long jump (cm)	151.79 ± 5.10	161.06 ± 8.19	5.75
free 200 (sc)	140.56 ± 1.80	135.43 ± 0.66	3.87
back 200(sc)	166.65 ± 1.40	161.93 ± 0.59	2.90
brest 200(sc)	180.51 ± 1.57	173.75 ± 2.60	3.89
fly 200(sc)	159.14 ± 1.74	151.63 ± 3.30	4.95
Medley 200 (sc)	167.8 ± 2.43	160.5 ± 1.86	4.54

* Mean ± SD standard deviation *n=16

These results made clear that there are no significant differences between the pre - and the post measurements in

(LM), (BM), (RHF), (LHF), (LJ), free 200, back 200, brest 200, fly 200, and medley 200 tests ($P < 0.05$). (Table 4).

Table (5):

The Anova between swimming races for (EX) group.

Variable	Variance	Sum of Squares	Degree of freedom	Squares average	F value
Digital level in swimming	Between groups	12965	4	3241.10	1795.10
	Inter groups	135.41	75	1.81	
	Sum of Squares	13100.41	79		

Anova Analysis of variance, *

These results made clear that there are a significant differences between the measurements in free 200, back 200,

brest 200, fly 200, and medley 200 tests ($F < 0.05$). (Table 5).

Table (6):

The Anova between swimming races for (EX) group.

Variable	Mean	difference of averages					L S D
		free 200 (sc)	back 200 (sc)	brest 200 (sc)	fly 200 (sc)	medley 200 (sc)	
free 200 (sc)	135.43						
back 200(sc)	161.93	*26.5					
brest 200(sc)	173.75	*38.31	*11.81				1.27
fly 200(sc)	151.64	*16.2	*10.3	*22.11			
medley 200 (sc)	160.5	*25.06	*1.43	*13.25	*8.86		

These results made clear that there are a significant differences (L.S.D) between the measurements of races free 200, back 200, brest 200, fly 200, and medley 200 tests for free 200, and between the measurements of races free 200, brest 200, fly 200, and medley 200 tests for back 200. And between the measurements of races brest 200, fly 200, and medley

200 tests for brest 200. The results show too there are a significant differences between fly 200 and medley 200 for fly 200m (Table 5).

These results show too that there are an enhancement in all variables between the pre - and the post measurements and between the swimming races (free 200, back 200, brest 200, fly 200, and

medley 200). The researcher refers that to influence of the (TP) exercises. The researcher refers that to influence of the (TP) which contains the exercises of (DS) exercises which led to an enhancement of muscular work among back and abdominal muscles in motor control of limbs. Which matches what was mentioned in previous studies that trunk area is the control area in motor performance especially if this performance depends on the strength of limbs through keeping the balance in improving forward and backward trunk muscles [1,2]. This refers that (TP) exercises led to improving the nervous system ability in increasing the harmony of muscular work between upper and lower limbs muscles. And this matches with what mentioned that swimming player mostly needs during motor performance in matches, to considerable harmony between body's parts during performance. And this correlated with muscle tone or muscles tension which suits the nature of target performance. Also, reflexes help achieving the required balance between stimulation and refraining processes within working muscles set inside motor performance and that is called motor harmony [3]. Also the (TP) contains a various and scientific standardized exercises which led to an enhancement in strength of abdominal and middle muscles, leg –hand muscles, flexibility of trunk muscles and raising level of biological capacity efficiency. The use of (TP) exercises led to strength of abdominal and middle muscles, flexibility

of trunk muscles and raising level of biological capacity efficiency [4].

Also These results made clear that there are no significant differences between the pre - and the post measurements in free 200, back 200, brest 200, fly 200, and medley 200 tests ($P < 0.05$). (Table 4). And These results shows too that there are an enhancement in all variables between the pre - and the post measurements, the researcher refers that to the impact of the (TP) which leads to improve in the different type of swimming, and that's indicate to the Importance of (DS) performance at the start and after a turnover in the limits of allowable distances (15 m) underwater in free, back and dolphin swimming. Also, take the horizontal position of the body during (DS) in drills contributed to improve the horizontal position of the body (trunk and legs) on the surface of the water, Where that dolphin movement are vertically Waves under the surface of the water and also on both sides body roll and also helped to improve the timing and compatibility and performance synchronization between legs and breathing rate. Osama Rateb and Ali Zaki (1992) and Essam Helmy (1980) confirms that many of the heroes of the swim performing 25% of their training to a butterfly in a dolphin way. (10-11). Also legs strikes in butterfly swimming like the same performance as soon as a dolphin swimming and has a benefit performance for leg strikes reciprocity in free and back swim

(hands pull together) "the movement of arms analogue" in exercises butterfly "drills" blows arms improvement in free and back swim, tensile strength for arm moment taking breathing during training two men dolphin drills in butterfly - sign a burden on the muscle groups of the arm and forearm helps to develop and improve the performance of arms. That's agree with Abo El-Elela (1994) Advised to increase the size of exercises butterfly swimmers brest for being the nearest road to the performance in the brest (12)

CONCLUSION

Regular use of (TP) Exercises of (DS) leads to enhancement in physical variables Leg muscle test (LM) 4.85%, Back muscle test (BM) 6.45%, Right hand power (RHP) 11.78%, Left hand power (LHP) 11.13%, long jump (LJ) 5.75%, free 200 (3.87%), back 200 (2.90%), brest 200 (3.89%), fly 200 (4.95%), and medley 200 (4.54%) tests for (ASC) juniors under 12 years old.

There were statistically significant differences between pre and post measurements for post measurement in the physical variables, Leg muscle test (LM), Back muscle test (BM), Right hand power (RHP), Left hand power (LHP), long jump (LJ), free 200, back 200, brest

200, fly 200, and medley 200 tests for (ASC) juniors under 12 years old.

Recommendations

- ✓ Using.
- ✓ the ((TP) Exercises of (DS) leads to enhancement in physical variables and record level of different type of swimming sports, free 200, back 200, brest 200, fly 200, and medley 200 for (ASC) juniors under 12 years old.
- ✓ Using a Procedure a training courses (training drills and paddels by dolphins strikes) for trainers to prepare the swimming juniors and develop them.
- ✓ Measurements and similar research to determine the impact of (TP) Exercises of (DS) in other swimming sports activities and different ages in swimming sports.
- ✓ concern using (TP) Exercises of (DS) to enhancement and increase the speed and time record of swimmers.
- ✓ Using of quality exercises inside the training unit to develop training programs
- ✓ Performance of all competitions swimmers for butterfly swimming by dolphins swimming

References

References in English:

1- Bompá, T.O., 1999. *Periodization training for sports Human Kinetics*, Champaign, USA, pp: 9-12,39,113.

2- Barenosik, T., R. Jago and M.L. Janker, 2005. *Effect of four weeks of Pilates on the Body composition of young Girls. Books. Macmillan Ltd., London*, pp: 50-51.

3- James, A. and C.D. Porterfield, 1998. *Mechanical perspectives in functional anatomy. Sounder Co, second edition, USA*, pp: 83.

Internet References:

4- http://www.easyvigour.net.nz/fitness/h_free_weighttraining_exercises.htm.

5- <http://www.Ncbi.nlm.nih.gov>

6- <http://www.Us/swimming.com/mag>

7- <http://www.coatchirfo.com>

8- <http://www.quickgetway.com>

9- <http://www.fina.org>

References in Arabic (Arabic titles translated into English):

10- Osama ,K., Rateb Ali ,Zaki (1992) : *The Scintific Basis for Swimming Training, El-Fekr El-Araby house, Cairo, Egypt.*

11- Essam ,M.,Helmy (1980): *Swimming Training among Theory and Application, P1, Dar El_Maref, Alexandria, Egypt.*

12- Abo El-Elela (1994): *Swimming training for high levels, El-Fekr El-Araby house, Cairo, Egypt.*

13- Abu Ola Abdel Fattah (1997): *athletic training, the physiological basis, Arab Thought House, Cairo.*

14- Talha Husamettin, and Wafaa Salah El deen, Mostafa Kamel, Saeed Abdul Comrade (1997): *Scientific Encyclopedia in the sports training, Dar of Zahran, Cairo.*

15- Mahmoud Mustafa Azazi, Sahar Abdel Aziz (2000): Effect capacity Alblomity training muscle of the two men and some Albyumkanique indicators to start the hijacker short distance swimmers, Journal comprehensive education, the first volume, Faculty of Physical Education for Girls, Zagazig University

16- Ahmed Amin Hefnawi (2005): impact exercises Alqohualsrah on level digital butterfly swimmers n Unpublished Master's Thesis, Faculty of Physical Education, University of Tanta

17- Mohammad Munir Ibrahim (2012): the relative contribution of the flexibility of the joints in the digital level to chest and butterfly swimmers, unpublished Master's Thesis, Faculty of Physical Education, Helwan University.

18- Mohamed Sobhy Hassanein (1995): Calendar and Measurement in Physical Education, c 1, i 3, Arab Thought House, Cairo.

19- Ahmed Samy Mashad (2005): Effect of Proposed Program on employment and energy level digital free and swimmers back, Master Thesis, Faculty of Physical Education, University of Tanta

20- sanaa Abdul Halim Jamal (1990): Proposed Program for muscle strength and its impact on the time of performance in different ways swimming, theories and applications magazine, Issue VI, the University of Alexandria .

Effects of **Cooperative Teaching Strategy** **ON** Improving Teaching Skills **AND** Anxiety of Student Teachers

IN FACULTY OF PHYSICAL EDUCATION
TANTA UNIVERSITY

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Abstract

The current researcher aims at identifying the effects of using cooperative teaching on improving the teaching skills and the state of anxiety for female student teachers at the faculty of physical education – Tanta University. The researcher used the quasi-experimental approach (two-group design) with pre- and post- measurements. Research community includes female students of the faculty of physical education – Tanta University for the academic year 2011-2012. Sample (n=40) was purposefully chosen from the field training student teachers of the fourth grade (n=100) (40% of the community). They were divided into two groups (experimental n=20 and control n=20). The researcher concludes that the cooperative teaching strategy is effective in improving teaching competencies and decreasing teaching anxiety of female student teachers. Cooperative teaching is more effective than the traditional methods in increasing teaching competencies and decreasing teaching anxiety of female student teachers.

Background and Problem:

The teacher is the core of any educational system and the more effective the teacher is, the more effective the educational process is. With the absence of an efficient teacher all other physical capabilities and curricula are meaningless. Physical education teacher is the key player in the educational process as he/she has more opportunities that may not be available for other teachers. Therefore, we should carefully prepare physical education teachers to bear all their responsibilities towards educating our siblings for the future (24).

Working as physical education teachers requires high quality teachers with good deal of knowledge and understanding of teaching skills. The responsibility of providing those student teachers with these skills lies upon the faculties of physical education to produce well-qualified teachers who can work through a modern teaching framework based on scientific bases and professional skills. Those student teachers should be provided with plenty of opportunities to practice and master teaching skills to guarantee their future career progress (13).

Teaching is a complicated process, even for expert teachers who are faced with doubled difficulty in achieving two goals; teaching a group of students at the same time he/she needs to learn how to teach. Sharaf (2000) indicated that the teaching process can never be effective unless there is a well-prepared

teacher who knows well all events and developments of the process itself (8).

The future success of a student teacher in his/her career depends on his/her pre-service preparation. In third millennium, the mission of a physical education teacher is not limited to explain and do model movements using traditional ways of teaching. Instead, the prime mission depends on planning the lesson strategically through using modern methods of teaching and educational aids to achieve the required goals (9).

Cooperative teaching is an approach where target social skills are integrated with the content. It works on improving various teaching skills of trainees. The idea of cooperative teaching is based on the concept that what a teacher does during teaching is a unit with limited results, while team work provides more profound results. The student teacher can be a source of information, motivation and encouragement for teaching his/her peers. This helps providing other student teachers with alternative perspectives aided by information to improve their teaching skills (27, 11, 26).

As the subject matter gets more difficult and the number of learners increases, this requires working in small groups as learners cooperate to achieve mutual goals. Learners contribute effectively in the learning process through discussion and dialogue in small groups that should be organized accurately to encourage cooperation and learning in the group as a whole (7, 9).

Teaching skills contributes in preparing student teachers and training them on the abilities and skills needed for various educational situations. The trainee who acquires teaching competencies can achieve the desired educational goals through preparing, planning and executing the educational situation. Therefore, competencies trend becomes more important for educational institutions all over the world. This indicates that this trend is the best solution for realistic preparation of student teachers (19).

As long as humans face problems that are difficult to solve during achieving their goals, their lives are rarely anxiety-free. Anxiety is a complex feeling of internal tension, fear and expecting danger and evil. Anxiety plays an important role in learning as it may have a positive driving force, and in this case it is called "facilitating anxiety", that affects the learner's performance and leads him/her to do more and increases his/her self-confidence. On the other hand, it could have negative driving force, and in this case it is called "restraining anxiety", that may hinder learners from doing well and decrease their self-confidence (4).

Anxiety can have positive effects on the educational process as it affects student teachers' attitudes towards teaching and creating a teacher who love his/her subject matter and teaches it effectively. During field training, the female student teacher in faculties of physical education is exposed to various problems like the lack of capabilities, the increase of students' number in class

and the duration and content of each lesson. In addition, she is overloaded with administrative supervision activities. Therefore, it is natural that all this may affect her efforts on improving her own teaching skills and may lead her to a continuous state of anxiety that affects her performance negatively.

This leads the researcher to perform the current study to identify the effects of using cooperative teaching on improving the teaching skills and the state of anxiety for female student teachers at the faculty of physical education – Tanta University.

Aims:

The current researcher aims at identifying the effects of using cooperative teaching on:

- 1) Improving the teaching skills for female student teachers at the faculty of physical education – Tanta University.
- 2) The state of anxiety for female student teachers at the faculty of physical education – Tanta University.

Hypotheses:

1. There are statistically significant differences between the post-measurements of the control and experimental groups on improving the teaching skills, in favor of the experimental group.
2. There are statistically significant differences between the post-

measurements of the control and experimental groups on the state of anxiety, in favor of the experimental group.

Methods:

Approach:

The researcher used the quasi-experimental approach (two-group design) with pre- and post- measurements.

Subjects:

Research community includes female students of the faculty of physical education – Tanta University for the academic year 2011-2012. Sample (n=40) was purposefully chosen from the field training student teachers of the fourth grade (n=100) (40% of the community). They were divided into two groups (experimental n=20 and control n=20).

Data collection tools and equipments:

1. Electric sets (video camera – video set – TV set).
2. Evaluation Form for Student teacher's Teaching Skills:

The researcher reviewed the related literature (12, 10, 20, 5, 9, 1, 18, 22, 15, 2, 8, 21, 24, 25, 31, 33) and identified (10) teaching skills as follows:

- ✓ Lesson planning and preparation.
- ✓ Forming educational and behavioral goals.

- ✓ Lesson Presentation.
- ✓ Variation of stimuli and motivating learning.
- ✓ Classroom management.
- ✓ Preparing lesson place.
- ✓ Using teaching aids.
- ✓ Lesson continuity.
- ✓ Evaluation.
- ✓ Principles and Methods of Teaching.

The researcher presented these skills to (9) experts of methodology and curricula of physical education who agreed on their importance to student teacher's preparation (agreement with 100%). The form included (10) items for each skill (total of 100 items) that student teachers respond to them on a five-point Lickert scale.

Experts' opinions indicated the content validity of the form. To calculate the form reliability, the researcher video-recorded the performance of pilot sample (n=3) from the same research community and outside the main sample and presented these videos to experts to notice the presence of the specified teaching skills using the form. After three days the same videos were re-presented to experts and they were asked to evaluate the teaching skills again. This test/ re-test procedure indicated the reliability of the form.

3. Teaching Anxiety Scale:

The researcher reviewed the related literature (11, 13, 22, 16, 20, 8,

28) to identify the sources of teaching anxiety for student teachers. In addition, (9) experts of methodology and curricula of physical education expressed their opinions and (40) student teachers from the same research community and outside the main sample answered an open-ended question about the sources of teaching anxiety. All these sources indicated that the most important sources are: mastering the content – time allocation – lack of capabilities – feeling nervous and confused – the supervisor's evaluation and criticism – classroom control – the relation between the student teacher and physical education office at school.

The researcher prepared the first draft of the scale (35 items) and presented it to (13) experts of methodology and curricula who omitted (5) items and the final draft included only (30) items. The minimum point of the scale is (30) while the max point is (150). The researcher calculated the correlations among each item and the total scale. This indicated the internal consistency validity of the scale. To calculate the scale reliability, the researcher used test/re-test procedure on (10) student teachers from the same research community and outside the main sample. This indicated the scale reliability.

Study Protocol:

The researcher performed the study according to the following protocol:

- ✓ Video-tapping a full lesson with

all its parts (warm-up – physical preparation – educational activity - cool-down) for 45 minutes for each student in both groups and applied the teaching anxiety scale. This was considered the pre-measurement.

- ✓ The experimental group (n=20) was sub-divided into four sub-groups (n=5) and each sub-group work on preparing and delivering one lesson.
- ✓ Each sub-group member only delivers one part of the lesson. Sub-group member take turns until the end of the lesson. This procedure takes one week and roles change every week.
- ✓ Student teachers are not allowed to move into the next role until they master the previous one completely.
- ✓ At the end of each session the researcher holds a meeting with sub-group members to practice self-evaluation and discussion of each one's weaknesses and strengths.
- ✓ Experimental sub-groups are provided with videos for ideal lessons as required.
- ✓ After mastering each part of the lesson, each student teacher prepares and delivers a whole lesson on her own.
- ✓ The control group members (n=20) preformed their lessons following regular teaching procedures.

Pre-measurement:

The researcher applied the evaluation for of student teachers' teaching skills and the teaching anxiety scale to both groups (experimental – control) during the period 12 – 15 / 2 / 2012.

Main application:

The researcher applied the experiment on both groups from 16/2/2012 to 30/4/2012.

Results:

Table (1):

Difference significance and variance rate between the pre- and post-measurements of the control group on teaching skills and teaching anxiety scale

N	Variables	Pre-		Post-		Mean difference	Difference SD	(i)	Variance rate (%)
		Mean	SD±	Mean	SD±				
1-	Teaching skills								
-	Lesson planning and preparation	3.30	2.27	3.35	2.62	0.05	3.26	0.07	1.52%
-	Goal setting (educational & behavioral)	2.27	1.57	2.43	2.01	0.16	2.03	0.28	7.05%
-	Lesson presentation	1.76	1.63	1.84	1.08	0.08	1.67	0.18	4.55%
-	Variation of stimuli and learners' motivation	1.80	2.38	1.91	1.12	0.11	1.24	0.19	6.11%
-	Classroom management	3.20	2.45	3.27	1.98	0.07	2.31	0.09	2.19%
-	Preparing lesson location	2.70	2.43	2.84	1.99	0.14	3.42	0.19	5.19%
-	Using teaching aids	1.20	2.07	1.34	1.04	0.14	2.92	0.27	11.67%
-	Lesson continuity	1.50	1.35	1.61	1.24	0.11	1.78	0.27	7.33%
-	Evaluation	2.43	1.40	2.71	1.47	0.28	1.94	0.62	11.52%
-	Principles & Methods of teaching	3.30	2.38	3.45	2.04	0.15	4.41	0.21	4.54%
-	Total	23.46	2.04	24.75	4.65	1.29	3.44	1.14	5.49%
2-	Teaching anxiety scale	127.16	6.11	125.03	10.83	2.13	10.56	0.76	1.68%

Significance on 0.05 = 2.10

Table (1) indicates no statistically significant differences between the pre- and post-measurements of the control group on all research variables.

Post- measurement:

Post-measurements were taken from 30/4/2012 to 3/5/2012, following the same protocol mentioned before.

Statistical treatment:

The researcher used SPSS software to calculate the following:

Mean – median – standard deviation
– variance rates – correlation coefficients
– skewness – Cronbach's Alpha.

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Table (2):

Difference significance and variance rate between the pre- and post- measurements of the experimental group on teaching skills and teaching anxiety scale

N	Variables	Pre-		Post-		Mean difference	Differences SD	(t)	Variance rate (%)
		Mean	SD±	Mean	SD±				
1-	Teaching skills								
-	Lesson planning and preparation	3.20	2.01	7.93	3.26	4.73	3.62	5.52*	147.81%
-	Goal setting (educational & behavioral)	2.63	1.97	9.40	2.19	6.76	3.01	10.27*	257.41%
-	Lesson presentation	2.36	2.17	9.90	0.40	7.53	2.17	15.28*	319.49%
-	Variation of stimuli and learners' motivation	2.57	2.84	9.70	1.46	7.13	3.24	9.98*	277.43%
-	Classroom management	2.43	2.29	9.46	1.91	7.03	2.97	10.54*	289.30%
-	Preparing lesson location	2.93	2.42	10.0	-	7.07	2.42	13.07*	241.29%
-	Using teaching aids	1.10	1.98	9.56	1.65	8.46	2.38	14.67*	769.09%
-	Lesson continuity	1.27	1.36	9.50	1.91	8.23	2.16	15.69*	648.03%
-	Evaluation	2.60	1.81	9.60	1.40	7.0	2.08	13.68*	269.23%
-	Principles & Methods of teaching	2.87	2.23	7.60	3.36	4.73	4.15	5.24*	164.81%
-	Total	23.96	1.89	92.65	2.60	68.69	2.95	95.57*	286.69%
2-	Teaching anxiety scale	125.17	4.25	109.27	9.80	15.90	9.09	6.65*	12.70%

Significance on 0.05 = 2.10

Table (2) indicates statistically significant differences between the pre- and post- measurements on all the researcher variables for the experimental group in favor of the post-measurements.

Table (3):

Difference significance between the post- measurements of the control and experimental groups on teaching skills and teaching anxiety scale

N	Variables	Control		Experimental		Mean difference	(t)
		Mean	SD±	Mean	SD±		
1-	Teaching skills						
-	Lesson planning and preparation	3.35	2.62	7.93	3.26	4.58	4.89*
-	Goal setting (educational & behavioral)	2.43	2.01	9.40	2.19	6.97	10.48*
-	Lesson presentation	1.84	1.08	9.90	0.40	8.06	31.29*
-	Variation of stimuli and learners' motivation	1.91	1.12	9.70	1.46	7.79	18.93*
-	Classroom management	3.27	1.98	9.46	1.91	6.19	10.06*
-	Preparing lesson location	2.84	1.99	10.0	-	7.16	16.09*
-	Using teaching aids	1.34	1.04	9.56	1.65	8.22	18.84*
-	Lesson continuity	1.61	1.24	9.50	1.91	7.89	15.49*
-	Evaluation	2.71	1.47	9.60	1.40	6.89	15.17*
-	Principles & Methods of teaching	3.45	2.04	7.60	3.36	4.15	4.72*
-	Total	24.75	4.65	92.65	2.60	67.90	56.99*
2-	Teaching anxiety scale	125.03	10.83	109.27	9.80	15.76	4.83*

Significance on 0.05 = 2.10

Table (3) indicates statistically significant differences between the post- measurements of the experimental and control groups on all the researcher variables in favor of the experimental group.

Table (4):

Variance Difference between the post- measurements of the control and experimental groups on teaching skills and teaching anxiety scale

<i>N</i>	<i>Variables</i>	<i>Control</i>	<i>Experimental</i>	<i>Variance differences (%)</i>
1-	<i>Teaching skills</i>			
-	<i>Lesson planning and preparation</i>	<i>1.52%</i>	<i>147.81%</i>	<i>146.30%</i>
-	<i>Goal setting (educational & behavioral)</i>	<i>7.05%</i>	<i>257.41%</i>	<i>250.36%</i>
-	<i>Lesson presentation</i>	<i>4.55%</i>	<i>319.49%</i>	<i>314.94%</i>
-	<i>Variation of stimuli and learners' motivation</i>	<i>6.11%</i>	<i>277.43%</i>	<i>271.32%</i>
-	<i>Classroom management</i>	<i>2.19%</i>	<i>289.30%</i>	<i>287.11%</i>
-	<i>Preparing lesson location</i>	<i>5.19%</i>	<i>241.29%</i>	<i>236.10%</i>
-	<i>Using teaching aids</i>	<i>11.67%</i>	<i>769.09%</i>	<i>757.42%</i>
-	<i>Lesson continuity</i>	<i>7.33%</i>	<i>648.03%</i>	<i>640.70%</i>
-	<i>Evaluation</i>	<i>11.52%</i>	<i>269.23%</i>	<i>257.71%</i>
-	<i>Principles & Methods of teaching</i>	<i>4.54%</i>	<i>164.81%</i>	<i>160.27%</i>
-	<i>Total</i>	<i>5.49%</i>	<i>286.69%</i>	<i>283.20%</i>
2-	<i>Teaching anxiety scale</i>	<i>1.68%</i>	<i>12.70%</i>	<i>11.02%</i>

Table (4) indicates statistically significant differences in variance between the post- measurements of the experimental and control groups on all the researcher variables in favor of the experimental group.

Discussion:

Table (1) indicates no statistically significant differences between the pre- and post- measurements of the control group on all research variables. The researcher thinks that this lack of significance is due to the weakness of the traditional (regular) teaching method used with the control group. This traditional method leads to time waste which in turn is reflected in the lack of teaching skills improvement, compared to the recommended program.

Table (2) indicates statistically significant differences between the pre- and post- measurements on all the researcher variables for the experimental group in favor of the post-measurements. The researcher thinks that this improvement is due to the use of cooperative teaching as it provides student teachers with correct psychological and educational bases that help them use learning resources effectively and prepare the learning environment according to sound bases. Cooperative learning helps student teachers to bear their responsibilities about teaching gradually and systematically and this improves their professional behavior. This is in agreement with Mary Baumberger- Henry (2005), Sarah et al (2007) and Abdulah et al (2011) (30, 31, 24).

Table (3) indicates statistically significant differences between the post- measurements of the experimental and control groups on all the researcher variables in favor of the experimental group. This is due to the use of cooperative learning as it helps student teachers to use human resources effectively and this is in agreement with various studies (30, 25, 26, 27, 28)

The researcher thinks that these results are due to the planning process of the lesson and team delivery of the content that helps improving student teachers' teaching abilities and competencies. This led the experimental group to surpass the control group.

Table (4) indicates statistically significant differences in variance between the post- measurements of the experimental and control groups on all the researcher variables in favor of the experimental group. The researcher thinks that this improvement is due to cooperative teaching used with the experimental group. It helps decreasing teaching anxiety and makes student teachers more familiar with teaching procedures. This improves their competencies as future teachers. This is in agreement with various studies (21, 30, 31, 24, 25, 28).

Conclusions:

According to the research results, the researcher concludes the following:

1. The cooperative teaching strategy is effective in improving teaching competencies of female student teachers.
2. The cooperative teaching strategy is effective in decreasing teaching anxiety of female student teachers.
3. Cooperative teaching is more effective than the traditional methods in increasing teaching competencies and decreasing teaching anxiety of female student teachers.

Recommendations:

The researcher recommends the following:

1. Using cooperative teaching strategy in preparing female student teachers of faculties of physical education.
2. Encouraging cooperative and team work in lesson planning and delivery in physical education.
3. Training female student teachers using modern technologies to improve their teaching competencies.
4. Forming work groups for female student teachers during field training to exchange knowledge and experiences among them.
5. Choosing suitable teaching methods that provide opportunities for effective contribution in lesson activities.
6. Providing student teachers with considerate supervision to help them understand the practical reality through putting a clear strategy to improve their professional development.

References

Arabic References:

- 1- Abd El-All, Sahar M.: *A recommended strategy for improving teaching skills of female student teachers in track and field. PhD thesis, Faculty of Physical Education for Women – Alexandria University – Egypt, 2006, PP: 86-91*
- 2- Abo Harga, M. & Zaghoul, M.: *Methods of Teaching and Field Training for Physical Education, Dar Heraa Press – Al-Minia – Egypt, 1991, PP:11-17*
- 3- Abo Harga, M.; Zaghoul, M. & Radwan, R.: *Encyclopedia of Field Training for Physical Education. Markaz Al-Ketab Press – Cairo – Egypt, 2000, P:103*
- 4- Al-Baghdady, Mohamed R.: *Towards a modern strategy for preparing student teachers of basic education stage in the light of educational preparedness variables. Conference of teacher preparation in the light of educational improvement strategy, part one, Faculty of Education – Al-Minia University, 1990, PP:88-91*
- 5- Al-Kholy, Amin A.: *Teacher's Guide for Physical Education – 7th grade. Ministry of Education – Cairo – Egypt, 1997, PP: 93-98*
- 6- Allawy, Mohamed H.: *Sports Psychology, 8th ED. Dar Al-Maaref – Cairo – Egypt, 1992, PP:279-280*
- 7- Al-Marshoud, Gawhara S.: *Effects of a recommended program on improving stress management skills for female students of faculty of education – Al-Quaseem – Borida. PhD thesis, Faculty of Education for Women – Quaseem – Borida, KSA, 2004, PP: 61-62*
- 8- Al-Sharkawy, Nesreen M.: *Computer-Based Systematic Approach and its effects on learning teaching skills for female student teachers. PhD thesis, Faculty of Physical Education – Mincfia University – Egypt, 2007, PP: 91-95*
- 9- Ata, Reem N.: *Identifying teaching competencies of student teachers in track and field. Master thesis, Faculty of Physical Education for Women – Alexandria University – Egypt, 2005, PP: 18-19*
- 10- Basiony, Amany R.: *A recommended educational program using directed discovery and its effects on learning some fencing skills for female students of faculty of physical education. Master thesis, Faculty of Physical Education – Al-Minia University – Egypt, 1998, PP: 74-75*

11- Esmaeel, Jihan H. & Allithy, Jihan M.: *self concept and its relation to achievement motivation of female student teachers. Journal of Faculty of Physical Education – Tanta University – Egypt, 2005, P:53*

12- Ez El-Din, Abo Al-Naga: *P.E. Teacher. Dar Al-Nashr Cairo – Egypt 2001 P:1*

13- Freud, Sigmund: *Anxiety. Translated by Mohamed O. Nagaty, Dar Al-Shorouk – Cairo – Egypt, 1983, PP: 277-280*

14- *Master thesis, Faculty of Physical Education for Women – Helwan University – Egypt, 2005, PP: 58-59*

15- Mohamed, Mostafa A.: *Educational Technology. “Arabic Studies”, Markaz Al-Ketab Press – Cairo – Egypt, 1999, P:87*

16- Othman, Mostafa, S.: *A perspective for modernizing our educational aids with micro-technology. Rose Al-Yousef Press, Cairo – Egypt, 1994, P:226*

17- Saleh, Shaima A.: *Performance feedback and its effects on improving teaching competencies for female student teachers.*

18- Seleem, Sohair E.: *Effects of cooperative learning on improving reading comprehension skills of scientific texts in English for Secondary school students. 6th annual conference for distinguished Arabic education for facing renewed challenges. Faculty of Education – Helwan University – Egypt, 1998, P:7*

19- Sharaf, Abd El-Hameed: *Educational technology in Physical Education. Markaz Al-Ketab Press – Cairo – Egypt, 2000, P:24*

20- Taha, Amira M.: *Effective Teaching strategy for teacher preparation and its effects on improving teaching competencies for student teachers of physical education. PhD thesis, Faculty of Physical Education– Mincfia University – Egypt, 2008, PP: 41-45*

21- Yousry, Al-Zahraa D.: *Effects of cooperative teaching on the effectiveness of academic learning duration for PE lessons. Master thesis, Faculty of Physical Education for Women – Helwan University – Egypt, 1999, PP: 38-39*

22- Zaghoul, Mohamed S. & Kamel, Yousef M.: *Effects of using multi-media on some volleyball skills. Journal of Sports Science and Art, Faculty of Physical Education for Women – Helwan University, Egypt, 1995, P:59*

References

23- Zaghoul, Mohamed S. & Kamel, Yousef M.: *The role of curriculum content and method of teaching on acquiring some ethical and social values for primary school students in KSA*, *Scientific Journal of Physical Education and Sports, Faculty of Physical Education for Women – Alexandria University, Egypt, 1996, P:16*

English References:

24- Abdullah M. Abu-Tineh; Samar A. Khasawneh & Huda A. Khalaileh: *Teacher self-efficacy and classroom management styles in Jordanian schools. Management in Education October 2011 vol. 25 no. 4 175-181*

25- Ayana N. Kee: *Feelings of Preparedness Among Alternately Certified Teachers: What Is the Role of Program Features?* *Journal of Teacher Education January/February 2012 vol. 63 no. 1 23-38*

26- David W. Johnson & Roger T. Johnson: *Cooperative Learning and Social Interdependence Theory. Social Psychological Applications to Social Issues, 2002, Volume 4, 9-35*

27- Douglas E. Mitchell & Lisa S. Romero: *The Politics and Practice of Alternative Teacher Certification. Educational Administration Quarterly August 2010 vol. 46 no. 3 363-394*

28- Dowda, Marsha; Sallis, James F.; McKenzie, Thomas L.; Rosengard, Paul & Kohl III, Harold W.: *Evaluating the Sustainability of SFARK Physical Education: A Case Study of Translating Research into Practice. Research Quarterly for Exercise and Sport, Volume 76, Number 1, March 2005, pp. 11-19(9)*

29- Kevin Morgan; Kieran Kingston & John Sproule: *Effects of different teaching styles on the teacher behaviors that influence motivational climate and pupils' motivation in physical education. European Physical Education Review October 2005 vol. 11 no. 3 257-285*

30- Mary Baumberger-Henry: *Cooperative learning and case study: does the combination improve students' perception of problem-solving and decision making skills?* *Nurse Education Today: Volume 25, Issue 3, Pages 238-246, April 2005*

31- Sarah M. Lee; Charlene R. Burgeson; Janet E. Fulton & Christine G. Spain: *Physical Education and Physical Activity: Results from the School Health Policies and Programs Study 2006. Journal of School Health, Volume 77, Issue 8, pages 435-463, October 2007.*

The effects of recreational Ai Chi exercises

on bone mineral density among **POSTMENOPAUSAL** **Women**

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Introduction

World Health Organization (WHO) (2004) indicated that osteoporosis has been recognized as an established and well-defined disease that affects more than 75 million people in the United States, Europe and Japan. Osteoporosis causes more than 8.9 million fractures annually worldwide, of which more than 4.5 million occur in the Americas and Europe. The lifetime risk for a wrist, hip or vertebral fracture has been estimated to be in the order of 30% to 40% in developing countries – in other words, very close to that for coronary heart disease. Osteoporosis is not only a major cause of fractures, it also ranks high among diseases that cause people to become bedridden with serious complications. These complications may be life threatening in elderly people. In the Americas and Europe osteoporotic fractures account for 2.8 million disability-adjusted life years (DALYs) annually, somewhat more than accounted for by hypertension and rheumatoid arthritis, but less than diabetes mellitus or chronic obstructive pulmonary diseases. Collectively, osteoporotic fractures account for approximately 1% of the DALYs attributable to non-communicable diseases. (15)

On Bone Mineral Density Among Postmenopausal Women

Throughout life, our body keeps a balance between the loss of bone and the creation of new bone. Menopause—the time when menstrual periods end, which usually happens around age 51—dramatically speeds up bone loss. It is associated with a constellation of physical changes. Some of these changes are directly attributable to the loss of estrogen, including hot flashes, bone demineralization and vaginal dryness. However, a matter of controversy, an increased incidence of cardiovascular disease and dementia seem to be associated with both menopause and aging. Furthermore, other conditions, such as breast cancer, are associated primarily with aging but certainly are impacted by ovarian hormones. (14)

It has become important for the treatment of any pathology consider the repercussions of disease on the quality of life of individuals. Exercise, calcium and vitamin D supplementation can help protect women from bone loss. By engaging in regular weight-bearing exercise, women lose less bone than those who are sedentary (Puntilla, et al.2001). Supplementing a woman's diet with at least 1200 mg of calcium daily can help protect her from menopausal bone loss. Adequate vitamin D levels are also crucial for calcium homeostasis. Cholecalciferol (vitamin D3) 1000 IU or more should be taken daily to assure adequate vitamin D stores. This is particularly important for women who do not have sufficient sunlight exposure (at least 15 minutes per day to non-sun screened skin) and women over 60 years of age (3).

Oriental medicine believes that the balance of Yin and Yang is fundamental for quality of life. Ai Chi is a good foundation for creating balance for both body and mind, as well as feeling the smooth movement of life energy. Through Clinical Ai Chi (EASY), we will consciously connect with the universal energy of Yin and Yang by inviting it into our bodies and minds.

The method Ai Chi (AC) was created by Jun Konno in Japan in 1996 from the combination of Tai-Chi and Qi Gong concepts with Watsu techniques, and is performed standing in shoulder-depth warm water using a combination of deep breathing and slow, broad movements of the arms, legs, and torso. (9)

AC is a physical activity performed in the water that originated for health, self-defense and spiritual growth. Graceful movements, slow tempo, relaxed yet dynamic in beautiful natural postures. It is recommended as a perfect activity for the elderly due to its low or moderate intensity, its health benefits, its calm and non-competitive character, the fact that it does not require specific equipment and its enormous flexibility with regard to time devoted to practice and where it can be performed (11).

Ai Chi is a water-based total body strengthening and relaxation progression that bridges East and West philosophies, and integrates mental, physical, and spiritual energy. It is believed that the physiologic and therapeutic effects provided an Ai Chi method would allow an improved metabolism and blood circulation, increasing oxygen consumption, which will

benefit these patients, calming the mind and reducing stress and insomnia, provided them a better quality of life (1).

Chinese physicians have long prescribed Ai chi as physical therapy as "gymnastic medicine," in combination with herbs, acupuncture, and acupressure to provide a holistic treatment for disease. The often-amazing results of proper practice suggest that, in some way not fully known to Western science, Ai chi can indeed relieve many chronic ailments and impart longevity (2).

The researcher believed that AI CHI offers a comfortable workout without stress to the joints, the risk of injury associated with walking, jogging, tennis, and other land based exercise. The effect of periods of the menstrual cycle and interrupted the efficiency physical and functional various body organs and thus to achieve in the daily business due to physiological changes accompanying one of the important elements in the ring physiology and sports especially with regard to female older because of their effect on bone density and exposure bones to the types of fragility. Therefore, the aim of this study to investigate the effects of the recreational Ai Chi exercises on bone mineral density and certain physical variables for Menopausal women.

Materials and Methods

Experimental Approach to the Problem:

Two groups (experimental and control), performed a pre and post-training designed intervention in flexibility, balance,

strength tests and bone mineral density (BMD) recorded. The experimental group (EG) (15 women) trained 1 hour per day 3 times a week on Ai chi training for twelve weeks. The control group (CG) (15 women) continued their daily life, while the experimental group completed the AI Chi training program to see whether this type of training modality would have a positive or negative or no effect on flexibility, balance, strength and bone mineral density.

Samples:

The sample consisted of 30 female (51 ± 4.36 years old; 165 ± 4 cm height; and 81 ± 5 kg weight), workers in Helwan university. Subjects were required to read and complete a health questionnaire and informed consent document; there was no history of coronary heart disease, diabetes or recent surgery.

Training Protocol:

The 12-week in-season training program consisted of (3) session per week, total (36) session

1) Special Considerations for Ai Chi practice

- ✓ Maintain adequate core temperature of participants. Water movements are performed approximately 4 times faster than comparable land movements.
- ✓ Position in mid-rib cage to chest depth water to allow for stabilization.
- ✓ Optional wearing of water shoes for improved traction, footing, grounding and protection.

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2) Movements Techniques for Ai Chi

- ✓ Works with spring loaded joints
- ✓ Uses only the amount of energy needed to execute movements, adds the quality of relaxation.
- ✓ Works from a lower center of gravity, softening knees.
- ✓ Creates circular movements to work intrinsic muscles, gently expanding the range of motion.
- ✓ Shift and transfer body weight as you move to integrate leg power.
- ✓ Develops coordination of arm and hand motions to the whole body, moving as if your spine was a third arm.
- ✓ Moves from the center, using the abdominal muscles. The center is the energy source.

Ai Chi Exercises:

- ✓ Brush Knee Push
- ✓ Part the Wild Horses Mane
- ✓ Double Cloud Waving Hands
- ✓ Single Cloud Waving Hand
- ✓ Five Animal Qigong
- ✓ Five Element Qigong
- ✓ Lifting Pressing Water
- ✓ Single Whip
- ✓ Sweep The Sea

Testing Procedures:

Subjects were assessed before and after a 12-week training program

Tests followed a general warm-up that consisted of running, calisthenics, and stretching.

BMD measurement. Regional BMD was measured by a bone densitometer (QDR-1000®, Hologic Inc., Waltham, Massachusetts, USA) using dual-energy x-ray absorptiometry. DXA scans are used primarily to evaluate bone mineral density. DXA scans can also be used to measure total body composition and fat content with a high degree of accuracy comparable to hydrostatic weighing with a few important caveats. However, it has been suggested that, while very accurately measuring minerals and lean soft tissue (LST), DXA may provide skewed results because of its method of indirectly calculating fat mass by subtracting it from the LST and/or body cell mass (BCM) that DXA actually measures. The measured regions were lumbar spine (L2, L3, L4) and the femoral regions of the left leg, neck (NECK), trochanter (TROCH), ward's triangle (WARDS). The region "lumbar spine" (L2-L4) is defined by the mean value of L2, L3 and L4; the coefficient of variation was < 1.5percentage.

Static strength test (LS) (BS). A Takei leg and back dynamometer was used to measure the static leg and back strength. The subjects stood on the dynamometer platform and crouched to the desired leg bend position, while strapped around the waist to the dynamometer. At a prescribed time, they exerted a maximum force straight upward by extending their legs. They kept their backs straight, head erect and chest high. Three trials were allowed to the subjects and the best

score was taken. Subjects had a rest between the trials.

Sit and Reach Flexibility Test (SRFT). This test involves sitting on the floor with legs stretched out straight ahead. Shoes should be removed. The soles of the feet are placed flat against the box. Both knees should be locked and pressed flat to the floor - the tester may assist by holding them down. With the palms facing downwards, and the hands on top of each other or side by side, the subject reaches forward along the measuring line as far as possible. Ensure that the hands remain at the same level, not one reaching further forward than the other. After some practice reaches, the subject reaches out and holds that position for one-two seconds while the distance is recorded. No jerky movements. The score is recorded to the nearest centimeter at the distance reached by the hand.

Balance Board Test (BBT). The participant is instructed to stand on the platform with toes pointed outward (15°)

and heels 15 cm apart. The participant must try to keep the platform balanced for a period of 30 seconds. The timer stops when the contacts touch the floor. After one practice trial, the best score of three trials is recorded. The score is the total time that neither contact touches the floor, expressed in counts (one count = 0.3 s; 100 counts = 30). Thus the maximum score is 100 (for 30 seconds), and higher scores indicate better performance.

Statistical analysis

All statistical analyses were calculated by the SPSS statistical package. The results are reported as means and standard deviations (SD). Differences between two groups were reported as mean difference \pm 95% confidence intervals (meandiff \pm 95% CI). Student's t-test for independent samples was used to determine the differences in fitness parameters between the two groups. The $p < 0.05$ was considered as statistically significant.

Results

Table (1):

Age and Anthropometric Characteristics of the Groups (Mean \pm SD)

Group	N	Age [years]	Weight [kg]	Height [cm]	BMI [kg/m ²]	menstruation status
Experimental	15	52 \pm 3.2	87 \pm 8.9	169 \pm 7.1	23.5 \pm 1.8	6.23 \pm 2.8
Control	15	51 \pm 4.9	90 \pm 7.1	163 \pm 5.2	23.3 \pm 2.1	5.89 \pm 3.1

Baseline measurements showed homogeneity in age, anthropometric variables, and menstruation status between the Experimental and control groups.

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Table (2):

Mean \pm SD for BMD measurements, (LS), (BS), (SRFT) and (BBT) in the experimental group.

Variables	Experimental			T SIGN
	pre	post	change%	
Fem Neck	0.334 \pm 0.005	0.349 \pm 0.010	4.49	Not sign
Troch	0.324 \pm 0.004	0.333 \pm 0.02	2.78	Not sign
L2-L4	0.456 \pm 0.003	0.471 \pm 0.008*	3.29	sign
LS	53.79 \pm 5.29	56.68 \pm 6.03	5.37	Not sign
BS	42.09 \pm 5.39	44.69 \pm 6.34	6.18	Not sign
SRFT	5.11 \pm 1.12	7.25 \pm 2.27*	41.88	Sign
BBT	6.55 \pm 1.14	8.25 \pm 1.57*	25.95	Sign

Table 2. Showed significant differences were shown between pre-and post-training scores for all variables in the experimental group ($P \geq 0.05$) in L2-L4 BMD, SRFT and BBT. Add to no significant differences were shown in the other variables. And the highest improvement in Sit and Reach Flexibility Test (SRFT) 41.88%.

Table (3):

Mean \pm SD for BMD measurements, (LS), (BS), (SRFT) and (BBT) in the control group.

Variables	Experimental			T SIGN
	pre	post	change%	
Fem Neck	0.331 \pm 0.002	0.330 \pm 0.004	0.30	Not sign
Troch	0.325 \pm 0.005	0.322 \pm 0.008	0.92	Not sign
L2-L4	0.456 \pm 0.003	0.452 \pm 0.002	0.88	Not sign
LS	54.23 \pm 4.09	55.06 \pm 5.11	1.53	Not sign
BS	41.22 \pm 5.26	42.39 \pm 5.78	2.83	Not sign
SRFT	5.01 \pm 0.87	5.19 \pm 1.02	3.59	Not sign
BBT	6.47 \pm 1.04	6.44 \pm 0.98	0.46	Not sign

Table 3. No significant differences were shown between pre-and post-training scores for all variables in the control group ($P \geq 0.05$).

Table (4):

Mean ±SD for BMD measurements, (LS), (BS), (SRFT) and (BBT) in the control and experimental groups

Variables	Control	Experimental	T SIGN
	Post	post	
Fem Neck	0.330 ± 0.004	0.349 ± 0.010	Not sign
Troch	0.322 ± 0.008	0.333 ± 0.02	Not sign
L2-L4	0.452 ± 0.002	0.471 ± 0.008	sign
LS	55.06±5.11	56.68±6.03	Not sign
BS	42.39±5.78	44.69±6.34	Not sign
SRFT	5.19±1.02	7.25±2.27	Sign
BBT	6.44±0.98	8.25±1.57	Sign

Table 4. Showed a significant difference between pre-and post-training scores for all variables ($P \leq 0.05$) except static strength (LS , BS) Fem Neck and Troch for the experimental group .However no significant differences were shown between pre-and post-training scores for all variables in the control group ($P \geq 0.05$).

Discussion

The main findings from this study were the significant Increases in BMD measurements, (SRFT) and (BBT) in the experimental group, which proved the Ai chi-exercises efficacy.

There are a number of potential explanations for these findings.

Ai chi-exercises are a low-impact activity, it is a good exercise for older people who may have joint degeneration and other physical problems. In addition, it practiced in the water that in fact produces weight-bearing force and thus helps maintain and often increase

bone density (9). Moreover, it is recommended for anyone who has difficulty with land-based exercise. According to Harush, and Rotstein, (2004) the water exercise could effect on bone density among Postmenopausal Women.(5)

Ruth Sova, (2012) indicated that Ai Chi was created to help aquatic practitioners (including aquatic exercise instructors, personal trainers, and aquatic therapy and rehabilitation practitioners) and students enjoy the water in a flowing yet powerful progression. An efficient exercise program increase oxygen and caloric consumption through correct form and positioning in the water,

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a perfect relaxation technique for highly stressed, over-challenged clients, and is ideal for creating improved range of motion and mobility. (11)

In addition, Flexibility and core (abdominal) strength are the benefits most mentioned by aquatic exercise instructors. The trunk stabilization/balance and pain management benefits of the program are the two most frequently cited by aquatic therapists. Clients' comments include "a soothing experience," "mind and body relaxation," and "a symphony for my body." Such benefits increase with practice (4). As a person becomes more familiar with the program, relaxation will be improved, with a focus on the smallest movement of the hand, wrist, or eyes, and improved mental alertness. Water lessens edema in the

joints, which allows clients to improve range of motion and mobility. (7). The soft, round flowing motions strengthen core muscles while providing a soothing experience, and the circular movements create harmony, based on a principle of yielding to, rather than resisting the natural flow. The flowing movements of Ai Chi can increase metabolism and blood circulation. Studies show that simply breathing while submerged to the shoulder in the water can increase oxygen consumption from 7 to 25 percent. This, in turn, increases caloric consumption. (12)

It is concluded that the recreational Ai Chi technique improved the balance, flexibility and bone mineral density for hip and backbone but no change in the strength in the elderly independent.

References

- 1- Alonso AC; Vieira PR, Macedo OG. Assessment and proprioceptive re-education, In: Greve JMD. *Tratado medicina de reabilitação*. São Paulo: Roca; 2007. p. 997-1004.
- 2- Chang RY, Koo M, Yu ZR, Kan CB, Chu IT, Hsu CT, Chen CY. (2008). The effect of tai chi exercise on autonomic nervous function of patients with coronary artery disease. *J Altern Complement Med*. Nov;14 (9):1107-13.
- 3- Dawson-Hughes B., Harris SS, Krall EA, Dalla GE: Effect of calcium and vitamin D supplementation on bone density in men and women 65 years of age or older. *N Engl J Med* 1997; 337:670-676
- 4- Devereux K, Robertson D, Briffa NK. (2005). Effects of a water-based program on women 65 years and over: a randomized controlled trial. *Aust J Physiother*. 51(2):102-8.

References

5- Harush, D. and Rotstein, A. (2004). *The Effect of a Water Exercise Program on Bone Density among Postmenopausal Women*. Thesis for a Master Degree, University of Haifa, Palestine.

6- Helena Johansson (2011). *estimation of risk in the field of osteoporosis*, Institute of Medicine at Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden.

7- Howe TE, Rochester L, Jackson A, Banks PM, Blair VA. (2007). *Exercise for improving balance in older people*. *Cochrane Database Syst Rev*. (4):CD004963.

8- Konno J. (1997). *Ai chi: a symphony for my body*. *Physical Therapy Products*. ;2:46-8.

9- Márcia C., Angélica C., Tatiana M., Anna C., Claudia F. (2010). *Ai Chi: aquatic relaxing effects on functional performance and quality of life in elderly*. *Fisioter. mov. (Impr.)* 2010, vol.23, n.3, pp. 409-417.

10- Puntila E, Kroger H, Lakka T, Tuppurainen M, Jurvelin J, Honkanen R. 2001 *Leisure-time physical activity and rate of bone loss among peri- and postmenopausal women: a longitudinal study*. *Bone* 29(5): 442-6

11- Ruth Sova (2004). *Ai Chi*, <http://www.ruthsova.com/aichi.htm>.

12- Takeshima N, Rogers ME, Watanabe E, Brechue WF, Okada A, Yamada T. (2002). *Water-based exercise improves health related aspects of fitness in older women*. *Med Sci Sports Exerc*. ;34(3):544-51.

13- *The National Institutes of Health Osteoporosis and Related Bone Diseases National Resource Center* (2010). www.niams.nih.gov/Health_Info/Bone/Osteoporosis/overview.asp

14- *The world health report 2004: changing history*. Geneva, World Health Organization, 2004.

15- *World Health Organization* (2004). *WHO scientific group on the assessment of osteoporosis at primary health care level, Summary Meeting Report Brussels, Belgium, 5-7 May 2004*.

Construction of psychological stress

sources scale for **BOWLING** *players*

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The research aims to construction of psychological stress sources scale for bowling players, and to identify differences in the sources of psychological stress between the Egyptians and Arabs bowling players.

Where descriptive method was used on a sample of 48 athletes who participated in the Sinai International Championship fourteenth 2012

There was extracted 9 dimensions of the scale:

“psychological stresses associated with personality, psychological stresses associated with colleagues, psychological stresses associated with competition, psychological stress associated with the public / media, psychological stress family-related / friends, psychological stresses associated with the arbitration, psychological stress associated with the administration, psychological stress associated with the coach, psychological stress associated with the nature of the training”,

includes 71 statement have been verified the validity and reliability scale and prepare tables standards and levels of its own, as results revealed no statistically significant differences for all dimensions of scale, as well as the total scale with except dimensions stress associated with arbitration and stress associated with the coach for the benefit of Arab players, though located in the middle level.

Introduction And Research Problem

Stress is most often seen to occur when an outcome is important to a person but they perceive an imbalance between the demands placed upon them and their ability to cope with these demands. Taking this view it can be seen that it is not the environment (21: 255).

The transactional model of stress, originally proposed by Lazarus (1966) suggests that the stress process consists of four stages: Stage "1" Environmental Demand, Some sort of physical or psychological demand is made of an individual. Stage "2" Individual's appraisal/perception of the environmental demand, this could be viewed as the amount of 'threat' the individual perceives. Not all people will see the same demand with the same degree of threat. Stage "3" Physiological and/or psychological response, if an individual perceives the demands to outweigh their resources to cope then they are likely to experience increases in arousal ,state anxiety, muscle tension and negative changes in attention. Perceived coping resources are therefore integral to the stress response. Stage "4" Behavioral consequence, this stage refers to the actual behavior the individual exhibits in response to the environmental demand. It may be that an increase in state anxiety causes a decrement in performance, or the individual may have

skills for managing the increase in state anxiety and therefore performance remains unchanged or improves (11:227) (21:259).

Competition can cause bowlers to react both physically (somatic) and mentally (cognitive) in a manner which can negatively affect their performance abilities that have been worked so hard to develop during training. Stress, arousal and anxiety are terms used to describe this condition.. They must accept that the stress coming from part of the competition experience will be a good source for improving there performance. (23).

Through the scientific surveys of related studies researcher reached the following:

First: there are many studies of stress sources for the different sporting activities players, such as the study of Ghada Yousef 2010 (8), Walid Fathy 2006 (15), Mohamed Ibrahim 2005 (10), Gamal Abdel Nasser 2001 (5),

Ahmed Mahmoud 2001 (2), Adel Hosny 2001 (7).

Second: Studies examined the effect of some psychological variables to the results of the bowling players, such as the study of Hend Soliman & Rasha Ashraf 2006 (14), Michael Paiva 2006 (20), Hill, K.L; Borden, F 1995 (25).

Despite the fact that the phenomenon of psychological stress in sports have been studied, have also been preparing scales of their own, and because the bowling has a special nature, modernity and the scarcity of scientific studies on bowling, researcher realized to prepare specific psychological stress sources scale of the bowling players as the important stage to objectively identify the sources and levels of stress sources, and then confront and evaluate whether the

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level of Egyptian and Arab bowlers, as well as propose fundamental axes that must be of interest to the coach and sports psychologist in the psychological

program Setup for bowlers, thus impacting positively on the face of the phenomenon of withdrawal from the bowling and performance upgrades to compete on the regional and international level.

Research Objectives:

1-Construction of Psychological Stress Sources Scale for Bowling Players.

2-Identify differences of Psychological Stress Sources between the Egyptians and Arabs bowling players.

Methods

Participants and procedures

The survey sample included 20 pilot participants Egyptian bowlers registered at the national team. While the study sample included 48 bowlers, 30 Egyptians and 18 of the Arab bowlers from Jordan, Iraq and Kuwait. The study was done during the Sinai International Championship fourteenth 2012.

The following illustrate demographic of the sample in terms of age and level of bowlers scour.

Table (1)

Demographic data

Properties	Sample	Unit	Egyptian bowler (N=30)			Arab bowler (N=18)		
			Mean	SD	Skew.	Mean	SD	Skew.
Age		year	23.87	10.28	1.35	37.00	8.55	0.43
level of bowlers scour		scour	190.93	11.27	0.33	216.67	21.01	1.94

Design and materials:

1- Review of psychometric assessment and analysis of previous studies associated with the study subject.

2- Survey of "9" experts in measurement and evaluation sports psychology and bowling with an exploratory open-ended question.

3- The experts' input was analyzed to determine the degree of agreement and the internal validity of the proposed scale.

4- Based on the results of the experts' input analysis, the scale was modified and administered to the pilot participants. Data from 20 of the pilot participants were used to establish the internal validity of the scale while data from the other 20 was used to establish the scale reliability.

5- The scale was administered to the rest of the participants "48 bowlers" in order to establish the normative data.

Statistical analysis of the pilot data:

1- Validity Scale

(a) Content validity

The researcher surveyed experts'

opinions with personal interviews in order to extract a dimension for measuring Sources of bowlers stress and the same for the scale items. they suggest merging two dimensions "competitor and competition", suggestive amendment was done, the results has to extracted 9 dimensions include 128 items based bowlers respond them through Triple scale estimate.

(b) The internal consistency:

The researcher calculates the Correlation coefficients between items of each dimension and between each dimension and total score. There were 17 item in the first dimension from 35 item, 9 items in the second dimension from 15 item, 5 items in the third dimension from 10 items, 3 items in the fourth dimension from 6 items, 6 items in the fifth dimension from 8 items, 3 items in the sixth dimension from 7 items, 11 item in the seventh dimension from 14 item, 7 items in the eighth dimension from 13 item and 10 items in the ninth dimension from 20 item correlation coefficients were statistically significant ($p < 0.05$) and all of which fulfill the conditions of internal consistency with the overall degree.

Table (2)

Correlation coefficients between dimensions and the total score

Scale Dimensions	# of items	Correlation
1-psychological stresses associated with personality	17	*0.914
2-psychological stresses associated with colleagues	9	*0.714
3-stresses associated with competition	5	*0.543
4-psychological stress associated with the public / media	3	*0.735
5-psychological stress family-related / friends	6	*0.726
6-psychological stresses associated with the arbitration	3	*0.600
7-psychological stress associated with the administration	11	*0.500
8-psychological stress associated with the coach	7	*0.537
9-psychological stress associated with the nature of the training	10	*0.490

N = 20

2- Reliability Scale:

(a) Split-half method:

Data collected from the 20 pilot participants was used to calculate

reliability coefficients by using Split-half method, which reflects the internal consistency validity, as shown the following table.

Table (3)

Scale reliability by Split-half method

Scale Items	As a whole		Odd words		Even words		Split-half Correlation	Spearman - Brown coefficient	Guttman coefficient
	Mean	SD	Mean	SD	Mean	SD			
71 Items	120.00	19.67	60.36	9.90	63.86	0.945	0.945	0.837	0.902

N = 20

The validity coefficients of the scale by split-half method, Spearman - Brown 0.837 and Guttman coefficient 0.902, reflect high reliability of the scale.

(b) Test-retest method:

Test-retest with a time lag of 8 days between tests was applied to the other half of the pilot participants (20 players).

The correlation coefficients of the repeated tests of all items ranged between 0.832 . 0.916, while the correlation coefficient of the scale as

a whole was 0.922. All correlation coefficients were statistically significant ($p < 0.05$), which reflects high reliability of the scale.

Standards and levels of scale:

The researcher applied the scale in its final form on a sample of 48 bowler of both sex "Egyptian & Arab "in order to build the standards and levels of the scale. The following table shows the mean values, standard deviation, and variation degrees of the basic study sample on the key dimensions and the total degree of the scale.

Table (4)

Descriptive statistics for research sample on psychological stress sources scale for bowling players

Scale Dimensions	# of items	Mean	SD	Skew.
1-psychological stresses associated with personality	17	30.750	6.557	0.304
2-psychological stresses associated with colleagues	9	17.000	3.679	0.417
3-stresses associated with competition	5	8.333	1.506	0.101
4-psychological stress associated with the public / media	3	5.208	1.487	0.598
5-psychological stress family-related / friends	6	10.208	2.388	0.467
6-psychological stresses associated with the arbitration	3	5.500	1.701	0.135
7-psychological stress associated with the administration	11	22.500	4.829	- 0.235
8-psychological stress associated with the coach	7	12.000	3.222	- 0.064
9-psychological stress associated with the nature of the training	10	16.792	4.063	0.412
Total	71	128.292	18.380	- 0.035

N = 48

The estimated levels of the scale:

We used the data collected by the application of the scale in its final form on the basic study sample in order to build scale standards by calculating the standard T-scores and percentile scores

of the raw data of the scale. The raw data and the normative scores were distributed on five estimated levels reflecting the self-motivation for the athletes through their response to items of multi-dimensional self-motivation scale.

Table (5)

Psychological Stress Sources Scale for bowling players

Scale Dimensions		Fair	Average	High
1-psychological stresses associated with personality	Raw score	17 – 28	29 – 40	41 – 51
	T-score	29.031-45.806	47.331-64.106	65.631-80.881
2-psychological stresses associated with colleagues	Raw score	9 – 14	15 – 21	22 – 27
	T-score	28.252-41.845	44.563-60.874	63.592-77.184
3-stresses associated with competition	Raw score	5 – 8	9 – 12	13 – 15
	T-score	27.873-47.787	54.425-74.339	80.977-94.253
4-psychological stress associated with the public / media	Raw score	3 – 4	5 – 7	8 – 9
	T-score	35.148-41.874	48.599-62.049	68.775-75.500
5-psychological stress family-related / friends	Raw score	6 – 9	10 – 14	15 – 18
	T-score	32.374-44.939	49.127-65.881	70.069-82.635
6-psychological stresses associated with the arbitration	Raw score	3 – 4	5 – 7	8 – 9
	T-score	35.303-41.182	47.061-58.818	64.697-70.575
7-psychological stress associated with the administration	Raw score	11 – 18	19 – 26	27 – 33
	T-score	26.185-40.681	42.752-57.248	59.319-71.744
8-psychological stress associated with the coach	Raw score	7 – 11	12 – 16	17 – 21
	T-score	34.483-46.897	50.000-62.414	65.517-77.931
9-psychological stress associated with the nature of the training	Raw score	10 – 16	17 – 23	24 – 30
	T-score	33.285-48.052	50.513-65.280	67.741-82.508
Total	Raw score	71 – 118	119 – 166	167 – 213
	T-score	18.83-44.4	44.94-70.52	71.06-96.09

To achieve second research objective, researcher applied the scale with its final form on a sample of volunteers involved championship Sinai

International Bowling. In order to study the differences between the Egyptian and Arab players,

Table (6)

Significant Differences for Psychological Stress Sources between Egyptian and Arab bowling players

Scale Dimensions	# of items	Egyptian (n=30)		Arab (n=18)		Mean difference	T.test
		Mean	SD	Mean	SD		
1-psychological stresses associated with personality	17	30.93	7.55	30.44	4.63	0.489	0.248
2-psychological stresses associated with colleagues	9	17.13	4.27	16.78	2.51	0.356	0.321
3-stresses associated with competition	5	8.47	1.43	8.11	1.64	0.356	0.788
4-psychological stress associated with the public / media	3	5.00	1.23	5.56	1.82	-0.556	1.261
5-psychological stress family-related / friends	6	10.27	2.69	10.11	1.84	0.156	0.216
6-psychological stresses associated with the arbitration	3	5.13	1.66	6.11	1.64	-0.978	*1.988
7-psychological stress associated with the administration	11	22.67	5.26	22.22	4.14	0.444	0.306
8-psychological stress associated with the coach	7	11.00	2.73	13.67	3.36	-2.667	*3.003
9-psychological stress associated with the nature of the training	10	16.47	4.55	17.33	3.14	-0.867	0.712
Total	71	127.07	19.96	130.33	15.72	-3.267	0.592

*T test indexed in the abstract 0.05= 1.645

Results revealed no statistically significant differences for all dimensions of the scale, as well as the total scale with except dimensions stress associated with arbitration and stress associated with the coach for the benefit of Arab players, though located in the middle level.

The researcher claim the differences resulting between Egyptian and Arab bowlers in arbitration that was located in the middle level to Egyptian players accustomed to there judgment in all local tournaments, While Arab players depends on technological devices on arbitration and used to modify the results by himself if something goes wrong in its own lane. This is contrary to international law and which Listed need

for a judgment which oversees all of the tournament, and based upon, there are some players feel annoyed by the presence of judgment next hot play.

As for the sources of stress associated with the coach researcher has noted statistically significant differences for Arab bowlers, and was located in the middle level indicating increased stress than Egyptian bowlers, which may be due to the adoption of the Arab teams fully foreign coach and who cares about the results more than performance, and lack of attention to psychological preparation programs adequately, as the psycho and the player's mental Bowling is a key element to success in this sport is what is known as the mental Game.

Conclusion

There was extracted 9 dimensions of the scale: "psychological stresses associated with personality, psychological stresses associated with colleagues, psychological stresses associated with competition, psychological stress associated with the public / media, psychological stress family-related / friends, psychological stresses associated with the arbitration, psychological stress associated with the administration, psychological stress associated with the coach, psychological stress associated with the nature of the training", includes 71 statement have been verified the validity and reliability scale and prepare tables standards and levels of its own, as results revealed no statistically significant differences for all dimensions of scale, as well as the total scale with except dimensions stress associated with arbitration and stress associated with the coach for the benefit of Arab players, though located in the middle level.

Recommendations

Recommendations can be made for the current study at the theoretical level and practical level as follows:

A) Theoretical level:

- 1- Prepare more psychological scales and questionnaires for bowling players due to the scarcity of specialized scientific studies for the bowling.*
- 2- Prepare Arab knowledge structure of bowling, due to the lack of specialized scientific references for this sport and relying on some localized brochures to the law of the game and basic skills.*
- 3- Prepare mental training programs and psychological preparation of the bowling players following the scientific method.*

B) Practical level:

- 1- Need to disseminate scale prepared for the bowling players in order to be applied periodically to take advantage of them to identify the extent of pressures currently, or how he approached them to cope with the phenomenon of withdrawal from the practice of bowling.*
- 2- Use the standards in assessing the value of sources and levels of stress for bowlers.*
- 3- Emphasis on the importance of psychological preparation for bowling players through programs designed specifically for this purpose.*

References

1. Ibrahim Abed Rabbo Khalifa, Safaa Jaber Shabeen, Rasba Mohamed Ashraf, Zabra Abdel Moneim al-Shargawi, Hend Soliman Ali Hassan, Walid Jaber Ahmed, Ayman Mustafa Taba (2008): "Sports Psychology - foundations and theoretical principles and trends of contemporary" Press Helwan University, Cairo.

2. Ahmed Mahmoud Bader (2003): "Attributes motivation and its relationship to the psychological stress of handball players" Ph.D. thesis, Faculty of Physical Education for Boys, Zagazig University.

3. Osama Kamel Rateb (2001): "The Psychology of Sports" ed 4, Dar Eifecr Alaraby, Cairo.

4. Osama Kamel Rateb (1991): "Concern competition - pressure training - combustion Sports" Dar Eifecr Alaraby, Cairo.

5. Gamal Abdel Nasser Mohamed al-Sayed (2001): "Stress associated with sports competition at Youth Sports - Comparative study of evolutionary" Master Thesis, Faculty of Physical Education for Boys, Helwan University.

6. Saad Abdul Rahman (2003): "Psychometrics - Theory and Practice" ed 4, , Dar Eifecr Alaraby, Cairo.

7. Adel Hosni (2001): "Construction scale to identify the psychological stress of the basketball players" Journal of Assiut Arts and Sciences of Physical Education, second part.

8. Ghada Yusuf Abdul Rahman Ahmad (2016): "Stress and achievement motivation of players and players athletics in light of the sex and type of competition" the Conference of Physical Education and Sports challenges of the third millennium, Faculty of Physical Education for Boys, Helwan University.

9. Leila Ahmed Farbat (2001): "Measurement and Testing in Physical Education" book publishing center, Cairo.

10. Mohamed Ibrahim Mohamed Ahmed Khalil (2005): "Stress and its relationship to motivation processing with the short distance swimmers" Ph.D. thesis, Faculty of Physical Education, University of Tanta.

11. Mohammad Hassan Allawi (2012): "The Psychology of sports and sporting practice" Elmadany Press, Cairo.

12. Hassanein Mohamed Sobhi (2001): "Measurement and Evaluation in Physical Education and Sport" the first part, the Arab Thought House, Cairo.

13. Mohamed Nareddin Radwan (2006): "The entrance to the measurement of physical education and sport" book publishing center, Cairo.

14. Hend Soliman Ali Hassan, Rasha Mohamed Ashraf (2007): "Strategies of thinking & Concentration attention and its relationship with results of championship with international bowling players" scientific journal of Physical Education and Sports - Department of Sport Psychology Conference, Faculty of Physical Education for Boys, Helwan University.

15. Walid Fatih Mahmoud Sadeq (2006): "An analytical study of the sources of pressure related to the daily lives of national teams players of some sports activities of individual and collective" Ph.D. thesis, Faculty of Physical Education for Boys, Helwan University.

16. Charlene A. Traub, Joun L. Marten, Ruth E. Tandy (1998): "Bowling" 8th ed., MCGraw-Hill Companies, USA.

17. Hill, K.L; Borden, F (1995): "The effect of attention cueing scripts on competitive bowling performance". International Journal of sport psychology.

18. John Jowdy (2002): "Bowling Execution" Human Kinetics, USA.

19. Martens, Rainer, (1987): "Coaches Guide to Sports Psychology" Human Kinetics, USA.

20. Michael Paiva (2006): "An Examination of the Relationship Between Mental Skills Training and Bowling Performance" "A Dissertation Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy, Capella University

21. Shaw, D. F., Gorely, T., Corban, R. M. (2005): "Sport and Exercise Psychology" BIOS Scientific Publishers, USA.

<http://www.bowlingfans.com>

<http://www.bowlingmentor.com>

http://www.bowlingmentor.com/Stress_Management.html

www.topendsports.com/psychology/

THE IMPACT
OF THE PROGRAM
OF THE DETECTIVE ACTIVITIES

on the development of **HEALTH
AND
PHYSICAL FIELDS**

And The Attitude Towards Students With
Deaf And Dumb Disabilities

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***Research problem
and its significance***

The Scout Movement is considered an educational, voluntary, non-political movement, which is intended for boys and young people and is available for all people without distinction in origin, sex or creed, in order to contribute to the upbringing and the development of young people to achieve maximum degree of upgrading their spiritual, mental, social and physical abilities as individuals and responsible citizens in their communities, national and global. The movement is based on three principles: duty to God, duty to others, duty to self, and is exercised in accordance with the method of scouting, which is a progressive self-education system for boys and young adults.

Gamal Al-Shafei (2003) sees that Education scouting and school camps provide the best answers to the needs of pupils' basic purposes of the comprehensive development and balanced personality as they help them to acquire food culture that appropriate to help him how to choose his food and willingness not too bad in sporting activities and the activities of risk, and recommend competitive spirit and commitment to exercise good health habits, along with some skills of first aid. These programs replete with a marathon of behavioral activities (social behavior, the behavior of participation, conduct competitive, risk-taking behavior, exploration behavior, physical expression behavior , taste behaviors, delegated experience) based on the physical and psychological characteristics that reflect varying forms of psychological satisfaction.

Fawzi Farghali (2006), and *Gamal Al-Shafii (2003)* confirm on the link between educational experiences in the curriculum Scout attitudes and external cases that exist in the environment that must be chosen by the designer of Scout curriculum to suit the characteristics of growth and the needs of the boy . They contain scout curriculum on eight fields (religious field - national field - Scout field - the social field - the environmental field - the

scientific field - the field of health and physical - Arab and international field), and these fields represent the main sources of experinces and activities in the Scout curriculum in general , they vary according to variation of stages of Scout Movement exercises (buds - Cubs -Scouts -Advanced Scout - phones), and the application of these programs have multiple methods.

Farhan Abu Zeid (2004) notices that the Scout activities is considered a set of some educational directed practices that satisfy the needs of the individuals and improves their different skills and knowledge , and benefit them . Scout activities contribute generally in the development of young people , physically , intellectually, socially and spiritually.

Gamal Al-Shafei (2003) shows that the field of health and physical is one of the Scout curriculum fields that is used to educate young people and raise them upon health, physical and knowledge activities to take care of themselves, their bodies, and their personal and social lives, and also to be good citizens . Also , to encourage Scouts to get sporting badges identities, especially that contribute to raising the level of fitness.

Ebada Ahmed (2002) refers that hearing disability is the most difficult

disabilities sensory affecting humans which have a lost the ability to speak and talk next to deafness total and so it is difficult for the deaf to acquire speech and language or learning different skills, and thus Disability audio cause of the disabled suffer more than others, and those which the child is born of most disabilities influential on the individual in the future. Valsama is the primary way to learn the language and to communicate with others and therefore hinders social interaction, learning and cognitive and intellectual production and integration with the information and the full use of the capacity of the mental and creative individual.

And see all of Abla Hanafi (2001), Ibrahim Abbas (2003 m) deafness reduce the chances of contact this category socially and prevent acquiring social skills required than the consequent emotional problems such as deformation self-concept and autism and concentration on self and non-self-confidence, aggressiveness and isolationism and topoor psychological adjustment and conduct disorder and crisis emotional and motor, and it should not be a distinction between individuals, whether they are heterosexual or other individual is unable to physically or weak visually or acoustically or was

deaf mute has the right to be covered physical education care and care which enables it to enjoy life parallelin with his peers without disabilities, including offers of his educational services or rehabilitation, and educational services are important in the preparation of private individuals and determine their level in dealing with the environment, because these individuals are doing all educational services that qualify them for that, and therefore this important must be the absolutely necessary for the Deaf dumb as those services provided to them you need to type and style consistent with the level of disability and is responsible for creating the right learning environment for the provision of educational services is seeking for their education and rehabilitation so as not to be subjected to a new psychological and educational problems.

Through the work of researchers in the field of teaching university and supervise the training ground for students Faculty of Physical Education and through their experience in the field of education Scout associations Deaf Mute noticed a lack of scientific studies and research dealing with the development of the health aspects and the physical and accept disability and linked activity Scout to

know the impact of activities scout in development balanced for this category of students, prompting the researchers to study the impact of the program of activities detective on the development of physical health and attitude towards disability deaf and dumb students in the eastern province.

Objective of this research

The research aims to identify the impact of the program of activities detective on the development of health and physical and attitude towards disability deaf and dumb students.

Hypotheses

- Scout program of activities has a statistically significant positive effect on the development of the health and physical domain and the trend towards disability for the deaf and dumb students.

-The presence of statistically significant differences between the experimental and control groups in the dimensional measurement of the area of health and physical and the trend towards disability in favor of the experimental group.

Previous studies

Conducted Ahmed Assem (1994) study entitled foundations educational Scouting and resulted in the most important results for contributing Scout Movement

in preparing a good citizen and a focus on composition leaders successful has conducted Mohammed Fayek (1995) study entitled some problems Scouting youth centers in Egypt, and the most important results lack of evidence and publications shortage in the number of cadres Scout shortage in the number of participants in activities scout no programs scout available non-existence of tools and capabilities, also conducted Abdulsalam Hussein (1998) study entitled Evaluation of the educational role of the Scout Movement, and was the most important results put visualization proposed for the advancement of motion scout and develop alternatives to overcome the problem solving the Scout Movement, has conducted Shafer Spring (2005) study entitled Effect software Heber Media on the achievement Scout for some physical education teachers Gharbia Governorate The main results courses and rehabilitation programs for leaders Scout schools and clubs and using tutorial, also conducted Amin al-Husseini (2008) study on the effect of the exercise of some Scouting activities on the acquisition of moral values for middle school students were the most important results that the proposed program of scouting activities led to increased rates of improvement in the moral values of the experimental group.

Search procedures

The method used

Researchers used the quasi-experimental approach to design two groups, one experimental and the other control using pre and post measurements.

The research sample

Represents the research community pupils deaf mute preparatory phase, the selected sample search randomly strength (60) students who represent a percentage of (55.5%) of the original community of (108) students tied the school for the academic year 2011/2012 m school deaf and dumb of the Department of West Zagazig educational Directorate of Education, Sharqia evenly distributed between the experimental and control groups and the strength of each group (30) students as well as (10) pupils sample reconnaissance, has conducted researchers homogeneity of the sample search in variables age, height, weight and some physical attributes and tests of skill under discussion.

Methods of collecting data

1 - measure te health and physical domain (Attachment 1)

2 - tests of skill in football (Attachment2)

3 - scale trend towards disability - and

take positive phrases (3-2-1) and negative phrases (1 - 2 - 3) (Attachment 3)

4 - Scout program activities (Attachment 4)

The researchers conducted a scientific transactions of physical and skill tests and trend towards disability scale coefficients ranged between 8.48 honesty, 20.53, and stability coefficients between 0.891, 0.984, a statistically significant values of all.

Baseline study

The researchers conducted measurement Tribal Group Search experimental and control where scale was applied field health and physical and tests of skill and scale trend towards disability in order to ensure equal Group Search in these variables ranged values "v" tabular between 1.02, 1.24 values that all non-statistically significant then the researchers apply the program of activities scouting the experimental group and the program used with the control group, for a period of ten weeks and by two units weekly and time unit 60 BC, 40 BC Games Scout activity Scout, and that in the period from 02/22/2012 till 05/01/2012 AD after Closing from the application of the program was applied dimensional measurements on two groups of experimental and control research, where the same variables were measured that were made in tribal measurement.

Table (1)

Significant differences incident and progress ratios between pre and post measurements of the control group in the variables under study

n = 30

Field	Test	Before		After		Minece	Value	Percent
		main	S.d	main	S.d			
Health	Personal behavior	8.56	0.56	8.93	0.63	0.43	1.62	5.02
	Individual activities	7.31	0.97	7.52	0.74	0.21	1.25	2.87
	Group activities	3.16	1.02	3.69	0.92	0.53	1.33	16.77
Physical	Personal behavior	2.33	0.88	2.41	0.86	0.08	1.17	3.42
	Individual activities	7.54	1.19	8.01	0.73	0.47	1.08	6.23
	Group activities	5.21	0.92	5.67	0.91	0.46	1.41	8.82
Skill	Dribbling the ball in time	1.66	0.29	3.01	0.57	1.35	4.34*	81.23
	Running with the ball between menus	32.81	1.16	30.92	0.61	1.89	5.45*	5.76
	Correction on the net	18.89	1.22	23.81	1.03	4.92	7.78*	26.04
The trend towards disability	Throw the farthest distance	10.51	0.85	13.01	0.44	2.50	6.95*	23.79
	Hit the ball to the head in time	25.33	3.18	32.81	2.08	7.48	8.81*	29.53
		33.39	1.23	37.49	1.48	4.19	1.56	12.55

Evidenced by the table (1) and no statistically significant differences between pre and post measurements of the control group in all tests soccer skills under study and for dimensional measurement, while not statistically significant differences in the health field and physical and the trend towards disability.

Table (2)

Significant differences incident and progress ratios between pre and post measurements of the experimental group in variables under study

n = 30

Field	Test	Before		After		Minece	Value	Percent
		main	S.d	main	S.d			
Health	Personal behavior	8.91	0.82	17.57	1.12	8.66	5.32*	67.19
	Individual activities	7.04	0.97	18.88	1.03	11.84	6.51*	168.18
	Group activities	3.54	1.19	12.41	1.24	8.87	4.76*	250.56
Physical	Personal behavior	2.08	0.79	7.68	0.99	5.60	4.65*	269.23
	Individual activities	7.88	0.94	17.44	1.41	9.56	5.14*	121.32
	Group activities	5.36	1.13	18.61	1.08	13.25	7.32*	247.20
Skill	Dribbling the ball in time	1.59	0.32	6.08	0.96	3.49	8.13*	282.39
	Running with the ball between menus	32.66	1.26	25.50	0.50	7.16	8.01*	21.92
	Correction on the net	19.05	1.57	43.81	1.74	24.76	15.56*	129.97
The trend towards disability	Throw the farthest distance	10.23	0.72	21.07	0.89	10.84	11.31*	105.96
	Hit the ball to the head in time	25.76	2.51	43.24	2.40	17.48	13.48*	67.86
		34.01	1.54	63.49	1.28	29.48	9.54*	86.68

Evidenced by the table (2) and there were statistically significant differences between pre and post measurements of the experimental group in all the variables under study and for dimensional measurement.

Table (3)

Moral incident differences between experimental and control groups in the dimensional measurement of the variables under study

n 1 = n 2 = 30

Field	Test	Experimental		Controller		Value
		main	S.d	main	S.d	
Health	Personal behavior	17.57	1.12	8.93	0.63	36.20*
	Individual activities	18.88	1.03	7.52	0.74	48.23*
	Group activities	12.41	1.24	3.69	0.92	30.41*
Physical	Personal behavior	7.68	0.99	2.41	0.86	21.64*
	Individual activities	17.44	1.41	8.01	0.73	31.98*
	Group activities	18.61	1.08	5.67	0.91	49.34*
Skill	Dribbling the ball in time	6.08	0.96	3.01	0.57	12.60*
	Running with the ball between menus	25.50	0.50	30.92	0.61	30.73*
	Correction on the net	43.81	1.74	23.81	1.03	44.23*
	Throw the farthest distance	21.07	0.89	13.01	0.44	36.31*
	Hit the ball to the head in time	43.24	2.40	32.81	2.08	14.69*
The trend towards disability		63.49	1.28	37.49	1.48	17.56*

Evidenced by the table (3) the presence of statistically significant differences between the experimental and control groups in the dimensional measurement of all the variables under study in favor of the experimental group.

Discussion of Results

Evidenced by the table (1) and no statistically significant differences between pre and post measurements of the control group in all tests soccer

skills under study and for dimensional measurement, while not statistically significant differences in the health field and physical and the trend towards disability . Where it is clear that there is a positive impact of the program traditional approach, but less so in the field of health and physical education program proposed using activities scout, while there are no statistically significant differences between the measurement pre and post testing trend towards

disability, due researchers these findings to influence the traditional method (used), which depends on the teacher explained that does not depend on scouting activities, which led to a slight improvement in the field of health and physical and football skills under study while lacking this improvement in the trend towards disability.

Both the Mustafa Fahmy Secretary (1995), Abla Hanafi (201 m) to the child special needs suffer shortages or defect in the possibility of performing certain activities inspecting the ability to adapt social and psychological, which deprives him of his duties core without the use of learning compensatory programs that offer has a special kind of care and services that enable it to achieve the maximum extent of their preparations and potential, Valasabh deaf reduce the chances of contact this category socially and prevent acquiring social skills required than the consequent emotional problems such as deformation self-concept and autism and concentration on self and non-self-confidence The aggressive and isolationism and poor psychological adjustment and behavior disorder, emotional crises and kinetic.

It is clear from the table (2) and there were statistically significant differences between pre and post measurements of the experimental

group in all the variables under study and for dimensional measurement. The researchers attributed these results to the effectiveness of the proposed program of scouting activities, which has been applied, and contained units of Scout activities and games for the field of physical and health contributed to modify the trend towards disability for the deaf and dumb students.

This is consistent with both Farhan Abu Zeid (2004 m), Gamal El-Din Shafei (2003) that the activities Scout not systematically have a positive effect in the development of young people in general, physically and intellectually, socially and spiritually, and health and physical as areas curriculum Scout means educating young people in and education through health and physical activities and motor knowledge to assume their responsibility towards themselves, while providing opportunities for interesting activities and to participate in motor sports competitions which contribute to raising the level of fitness, and provide opportunities for training to provide first aid for simple cases .

As shown in Table (3) and there were statistically significant differences between the experimental and control groups in the dimensional measurement of all the variables under study in favor of the experimental group. Due researchers this result to the program of

activities scouting proposed contributed suspicion significant in the development of health and physical and the trend towards disability for pupils deaf and dumb to sample experimental which reflected the impact on their behavior, where they all sorts of desired behavior which him the satisfaction of others and appreciation for them, in addition to that the involvement of students in the proposed program contributed to the development of desired health behaviors and physical practices aimed, as it is the people of undesirable health behaviors that hurt others or harass also sought to apply the area Scout in his daily life which has had the greatest impact on the amendment trend towards disability.

This is consistent with both the Secretary Anwar Kholy and Gamal

Shafei (2000 m), Jamal Shafii (2003 m), Fawzi Farghali et al (2006 m) in the breeding programs toilet in Education scout school replete with a marathon of activities behavioral to provide the best answers to the needs of pupils basic purpose of the overall development and balanced personality as they help him to acquire food culture appropriate to help him choose his food as gain the ability and willingness not too bad in sporting activities and the activities of risk, and recommend the spirit of competition and the obligation to exercise good health habits, and the curriculum Scout contain a range of activities scouting you the help Scouts for the development of their physical and mental, social and spiritual balance and coverage commensurate with the reality of each cub or mobile or Scouts

Conclusions

- Scout program of activities has a statistically significant positive effect on the development of the health and physical domain (personal behavior - Individual activities - collective activities) and basic skills in football under research and modify the direction toward disability.

- And there were statistically significant differences between pre and post measurements of the control group on basic skills tests for football under discussion, while the differences were not statistically significant in the health field and physical and the trend towards disability.

- And found statistically significant differences between the experimental and control groups in the dimensional measurement of the area of health and physical and skill tests in football and the measure of the trend towards disability in favor of the experimental group

Conclusions

- The use of the program of activities scouting prep school students of deaf and dumb because of a statistically significant positive effect on the development of the health and physical domain (personal behavior - Individual activities - group activities) and basic skills in football under research and modify the direction toward disability.

- The need to give courses in the Boy Scouts of physical education teachers

- Conduct a similar study on other areas of the Scouts and the different samples

References

- 1 - **Ibrahim Abbas Zobairy:** Educational disabled and gifted education systems, Knowledge House, Cairo, 2003, p 8.
- 2 - **Abmed Assem Tantawi:** educational foundations of the Scout Movement, Journal of the Faculty of Physical Education, University of Tanta, No. XX, 1994.
- 3 - **Arab Scouts Organization:** the foundations of curriculum development scout, educational Scout laboratory, educational newsletter, Cairo, 2006.
- 4 - **Secretary Kholy and Jamaluddin Shafie:** contemporary physical education curriculum, Arab Thought House, Cairo, 2000, pp. 97.
- 5 - **Secretary Abdul Hai Al-Husseini:** the effect of the exercise of certain activities scouting to acquire moral values for middle school students, Master Thesis, Faculty of Physical Education, University of Mansoura, 2008
- 6 - **Jamaluddin Shafie:** raising the toilet and the Scout Movement (string references in the physical education and sports), the Arab Thought House, Cairo, 2003, pp. 14, 15, 27, 208, 209.
- 7 - **Shaber jingle spring:** the impact of software Hiebermedia on Scout collection of some physical education teachers Gharbia Governorate, Master Thesis, Faculty of Physical Education, University of Tanta, 2005.
- 8 - **worshiping Ahmed worship:** the effectiveness of the training program for student teachers to design and produce interactive educational programs and the development of innovative thinking, Journal of the Faculty of Education, University of Assiut, Volume XVIII, Issue VIII, 2002, p 11.
- 9 - **Abdul Salam Ahmad Hussein:** providing educational role of the Scout Movement, PhD, Faculty of Education for Boys, Helwan University .1998
- 10 - **Abla Hanafi Osman:** psychological characteristics of a special needs child, the Egyptian General Book, book Development Center, 2001, pp. 6-7.
- 11 - **Farhan Abu Zayd Jaber Ghellab:** Scout activity calendar for the preparatory phase in Assiut, Faculty of Physical Education, Assiut University, 2004, p 7.

References

12 - Fawzi Mohammed Farghaly: The educational role of the Scout Movement, the Arab Scouts Organization, Secretariat, 2000, p 1

13 - Fawzi Mohammed Farghaly and raised Mubammad Sebaey and Salah Din Abbasi:

A Guide curricula Scouts, the Arab Scout Organization, the Secretariat, Press the Arab International Scout Centre, Cairo, 2006, pp. 123.

14 - Mohammed Fayek Ismail: some problems Scouting youth centers in the Arab Republic of Egypt, Master Thesis, Faculty of Physical Education for Boys, Zagazig University, 1995.

15 - Mustafa Fahmy: areas of psychology, the psychology of ordinary children, Journal of Psychology, the second number, Library of Egypt, 1995.