

المجلة
الأوربية
الرياضة

عدد خاص

بمؤتمر الإبداع الرياضي نوفمبر ٢٠١٢

السنة الثانية - العدد الثالث - 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

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

هيئة تحرير المجلة

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ممتناري المجلة

١. د/ داخل حسن جريو

@ رئيس جامعة سابق
- حائز على جائزة رواد الفكر العربي
- مهتم بالشئون التربوية و التعليم العالي
- ومؤسس لعدد من المجالات العلمية المحكمة

أكاديمي د. أ / اوليكسي 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 عوديشو

- الامين العام المساعد للدراسات و الابحاث
في الاكاديمية الدولية لتكنولوجيا الرياضة (السويد)

مكثارية التحرير

د / أحمد فاروق عبد القادر

- كلية التربية الرياضية للبنين - جامعة حلوان (مصر)

د / محمود سيد هاشم

- كلية التربية الرياضية للبنين - جامعة حلوان (مصر)

أ / نعمان عبد الغنى

- مدير مركز المعلومات والإعلام فى الأكاديمية (الجزائر)

أ / محمد كمال جعفر

- مدير مركز الكتاب للنشر (مصر)



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 ١٤ و يكتب البحث على وجه واحد مع ترك مسافة مزدوجة بين السطور .

اسلوب كتابة البحث للنشر في المجلة :

. تترك مسافة ٤ سنتيمتر من أعلى الصفحة و ٣ سنتيمتر من أسفل الصفحة و ٣,٥ من كلا الجانبين .

. أن لا يزيد البحث عن ١٥ صفحة من حجم الورق الابيض A4 ولا يزيد عدد السطور عن ٣٤ سطراً .

. يتبع الباحث طريقة *American Psychological Association (APA)* 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 لوادة 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 ورتبتهم العلمية مع عنوان البريد الالكتروني .

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 خريط مجيد (RISSAN K MAJID)**

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شارع الهداية - حي السفارات - مدينة نصر

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

هاتف : ٢٢٧٠٤٠٩٥ فاكس : ٢٢٩٠٦٢٥٠

البريد الإلكتروني للنشر : **markazelkitab@hotmail.com**

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٩٧٨-٩١-٩٧٩٣٦١-٠٠-١



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أ. د / سامية حسن حسين

م. د / مروة حمدي نصر

أ. د / هنية محمود الكاشف

أ. د / سوزان محمد عزت

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م. د. هشام إسماعيل إبراهيم هلال

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 وبمجمال الأبحاث المنشورة - والتي تدور حول فكرة الإبداع في المجال الرياضي - نتمنى أن نقدّم أفكاراً تقديمية، ونمضى سوياً للارتقاء بمهنتنا العزيزة .

وقد اختص صدور هذا العدد بالمؤتمر العلمى الدولى للإبداع فى المجال الرياضى بالتعاون مع كل من جائزة الشيخ / محمد بن راشد آل مكتوم للإبداع الرياضى ، وقطاع التربية الرياضية بالمجلس الأعلى للجامعات المصرية .

وفى النهاية ... أود أن أشكر كل الباحثين المشاركين فى هذا العمل متمنيا أن يستمر التعاون المثمر فى الإصدارات القادمة بإذن الله .

رئيس التحرير

أ.د. محمد صبحي حسانين

نائب رئيس جامعة حلوان الأسبق

عميد كلية التربية الرياضية الأسبق

(جمهورية مصر العربية)



دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية

م . د / محمد إبراهيم الذهبي السعيد
مدرس بقسم الترويح الرياضي - كلية التربية الرياضية - جامعة المنصورة.

م . د / حسام عبد العزيز محمد جودة
مدرس بقسم الترويح الرياضي - كلية التربية الرياضية - جامعة المنصورة.

المقدمة ومشكلة البحث

يؤكد المشهد الإنساني عبر التاريخ في كل المجتمعات بتنوع واختلاف نظمها وثقافاتها وحضاراتها ومعتقدات شعوبها على وجود ظاهرة توجه الإرادة الإنسانية الفردية أو الجماعية إلى تقديم المساعدة ومد يد العون للمحتاجين طالما توافرت الدوافع الإنسانية ويمثل هذا الفعل أبسط صور التطوع في الحياة. ولقد شهدت الشعوب العربية مجموعة من التحركات الشعبية ذات الطابع الاجتماعي والسياسي من أجل الديمقراطية والعدالة الاجتماعية وهذه التحركات تدخل في نطاق المشاركة الشعبية لإصلاح وتغيير أحوال المجتمع من خلال المشاركة في أنشطة جماعية تحمل في جوهرها روح التطوع. (١٩)، (٢٠)

التطوعي هم الشباب، فحماس الشباب وانتمائهم لمجتمعهم كضيلان بدعم ومساندة التطوع، فضلاً عن أن الأنشطة التطوعية تعمل على تراكم الخبرات وقدرات ومهارات الشباب .

وتذكر سامية حسن الساعاتي (٢٠٠٣م) أن مرحلة الشباب من المراحل العمرية التي تتميز بالقابلية للنمو في النواحي الجسمية، العقلية، الاجتماعية، النفسية والتعليمية إلى جانب القدرة على الابتكار والمشاركة الفعالة في كل القضايا التي تهم المجتمع (٢٧: ٦).

فالشباب يمثل مركز اهتمام الباحثين لدوره المحوري في العملية التنموية لأي مجتمع، وتذكر هيام شاكر خليل (٢٠٠١م) نقلاً عن سيد أحمد عثمان (د. ت)، أن مسؤولية الشباب الاجتماعية تتكون من ثلاثة عناصر هي المشاركة والاهتمام والفهم. (٤٩٩: ١٣).

لذا يرى الباحثان أن مفهوم الأنشطة يتسع ليشمل أنماط المشاركة التطوعية، ومستوياتها في العمل الاجتماعي، بحيث تتميز المشاركة بالخبرة أو الجهد أو بالمال أو جميعهم.

وتُعد الدوافع من الموضوعات الأساسية في تفسير سلوك الكائن الحي، كما تُعد الدوافع نقطة البداية لأي سلوك يقوم به الكائن الحي، ويذكر أسامة كامل راتب (١٩٩٥م) أن الدافع "حالة من التوتر تثير السلوك في ظروف معينة وتوجهه وتؤثر عليه" (٢٨: ١).

ويتفق كل من محمد حسن علاوي (٢٠٠٢م) ومصطفى حسين باهي وسمير عبد القادر جاد (٢٠٠٤م) على أن سلوك الفرد لا يصدر عن دافع واحد، فغالباً ما يكون سلوك الفرد نتيجة عدة دوافع متداخلة، والدوافع ليست شيئاً

ويشير محمد إبراهيم الوليلي (٢٠٠٩م) إلى أن التطوع يرتبط ارتباطاً وثيقاً بالإطار الثقافي والاجتماعي القائم فيه ويمدّ ترسخ ثقافة التطوع ، وثقافة التطوع تُعد محصلة لعملية تنشئة اجتماعية تتم في المؤسسات الترويحية المختلفة (الجامعة، مراكز الشباب، النادي الرياضي والجمعية الخيرية) مرتبطة بغيرها من المؤسسات (الأسرة، المدرسة ووسائل الإعلام) (١٦: ٨).

ويرى أمين أنور الخولي (١٩٩٦م) أن الأنشطة التطوعية أحد أشكال المشاركة التي تقدم خدمات في سبيل مصلحة الجماعة بهدف العمل على تسهيل تنفيذ النشاط وتذليل الصعاب التي قد تواجهه دون توقع مقابل مادي. (١٣٣: ٢، ١٣٤).

ويُعرف محمد بهجت كشك (٢٠٠٤م)، التطوع بأنه "جهود يبذلها الفرد لخدمة المجتمع عن رغبة واختيار دون الحصول على فوائد مادية بدافع إنساني يتحمل مسؤولياته، ويشترك في أعمال تستغرق وقتاً وجهداً وتضحيات شخصية معتقداً أنه واجب يجب تأديته" (٢٠: ٩).

وتكمن أهمية الأنشطة التطوعية على مشاركة الأفراد في قضايا المجتمع، التأثير الإيجابي في الشباب، التقليل من أخطار العلل الاجتماعية والسلوك المنحرف داخل المجتمع وتنمية قدرة المجتمع على مساعدة نفسه عن طريق الجهود الذاتية التي يمارسها الشباب المتطوعون (٢١).

وانطلاقاً من العلاقة التي تربط بين الأنشطة التطوعية والموارد البشري، فيمكن القول بأن عماد المورد البشري المشارك للنشاط

تساؤلات البحث

(١) ما أهم دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية؟

(٢) هل توجد فروق ذات دلالة إحصائية بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفقاً لمتغير النوع؟

(٣) هل توجد فروق ذات دلالة إحصائية بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفقاً لمتغير محل الإقامة؟

(٤) هل توجد فروق ذات دلالة إحصائية بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفقاً لمتغير نوع المؤسسة الترويحية؟

الدراسات المرتبطة

قام راشد سعد الباز (٢٠٠٢م)، بدراسة بهدف معرفة مدى مشاركة الشباب ورغبتهم في العمل التطوعي، وكانت من أهم النتائج رغبة غالبية الشباب للمشاركة في العمل التطوعي وخدمة مجتمعهم، وجود علاقة ذات دلالة إحصائية بين المشاركة في العمل التطوعي وامتداد اكتساب الخبرة ووجود علاقة ذات دلالة إحصائية بين المشاركة في العمل التطوعي والرغبة في الحصول على الأجر والثواب^(٥).

واستهدفت دراسة أيمي B, Amy (٢٠٠٣م)، التعرف على النتائج الإيجابية لمشاركة المتطوعين في برامج الأقران، وكانت من أهم النتائج وجود نتائج إيجابية نتيجة لبعض المتغيرات التي تستهدف معدلات: المعرفة الواقعية (٥٧٪)، مساعدة الآخرين (٥٧٪)، الصداقات (٤٨٪)،

مادياً، وإنما هي حالة تفاعل من نوع خاص توجه سلوك الفرد ويستنتج وجودها من النشاط الذي يقوم به (١٠: ١٣٤، ١٣٥، ١٦: ١١).

ولأهمية مشاركة الشباب في الأنشطة التطوعية أكدت نتائج دراسات كل من راشد سعد الباز (٢٠٠٢م)، مارسيا ومايكل (٢٠٠٧م) F, Marcia & B, Michael وليزلي وآخرون (٢٠١٠م) H, Lesley & Other على رغبة غالبية الشباب المشاركة في التطوع وخدمة المجتمع، ووجود علاقة قوية بين المشاركة في التطوع واكتساب الخبرة، الرغبة، الدوافع الوظيفية ومعرفة الدور وتباين نسبة المشاركة باختلاف الدوافع^{(٥)، (١٤)، (١٦)}.

وفي المشاركة بالمؤسسات الترويحية توضح دراسة فهد سلطان السلطان (٢٠٠٦م)، أن متوسط مشاركة الشباب الجامعي في التطوع ضعيف جداً^(٧).

ومن خلال إطلاع الباحثان على المراجع العلمية اتضح ندرة الدراسات التي تناولت موضوع دوافع المشاركة في الأنشطة التطوعية في المجتمع المصري، وما زالت توجد تحديات كبيرة في البحث والدراسة في مجال الأنشطة التطوعية كاستثمار لأوقات الفراغ، لذا يحاول الباحثان من الدراسة الحالية التعرف على دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية.

هدف البحث

يهدف البحث إلى التعرف على دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية.

الشباب، النادي والجمعية الخيرية). وقد قام الباحثان باختيار عينة البحث بالطريقة العمدية الطبقية وبلغت (١٥٣٠) شاب بواقع (١٤٧٠) شاب للعينة الأساسية و (٦٠) شاب للعينة الاستطلاعية. وقد روعي في الاختيار المرحلة العمرية (١٨ : ٣٥ سنة) من النوعين، تنوع محل الإقامة وتعدد المؤسسات الترويحية.

أداة جمع البيانات:

استعان الباحثان في جمع بيانات هذا البحث، باستمارة استبيان (دوافع المشاركة في الأنشطة التطوعية): من تصميم الباحثان. وقد اتبعا الخطوات التالية في إعدادها:

الإطلاع على بعض أدوات جمع البيانات في الأبحاث والدراسات والكتب العلمية المرتبطة بالأنشطة الترويحية والتطوعية مثل «هيام شاكر خليل» (٢٠٠١م)^(١٢)، راشد سعد الباز (٢٠٠٢م)^(٥)، محمد بهجت كشك (٢٠٠٤م)^(١)، فهد سلطان السلطان (٢٠٠٦م)^(٧)، خالد يوسف برقاي (٢٠٠٨م)^(٣) وخليفة طالب بهبهاني (٢٠٠٨م)^(٤).

تحديد سبعة محاور تتضمن مجموعة من المفردات عن دوافع المشاركة في الأنشطة التطوعية بالمؤسسات الترويحية (الوقائي، القيمي، المهني، الاجتماعي، المعرفي، التعزيزي والبدني والصحي).

عرض الصورة المبدئية على مجموعة من الخبراء^(١) المتخصصين في مجالات الترويج وأوقات الفراغ، الإدارة الرياضية والقياس التربوي لإبداء الرأي حول مناسبة المحاور ومفردات استمارة الاستبيان عن طريق الموافقة أو تعديل

تنمية الشخصية (٣٨٪)، الإيجابية (٣٣٪)، المهارات (٢٤٪) وصنع القرار (٥٪)^(١٣).

تشير نتائج دراسة روبرت وآخرون :

G, Robert and Other

(٢٠٠٥م)، إلى أن المؤسسات التربوية والاجتماعية تلعب دوراً أساسياً في تشجيع الشباب على المشاركة في الخدمة التطوعية، وتوجد فرص متاحة للشباب للمشاركة مع آخرين مما يؤدي إلى تطوير شخصية الشباب^(١٥).

قام خالد يوسف برقاي (٢٠٠٨م)، بدراسة بهدف تحليل اتجاهات الشباب السعودي نحو العمل التطوعي، وكانت من أهم النتائج أكثر المجالات التي شارك فيها الطلاب (مجال الجمعيات الخيرية) وأهم دوافع العمل التطوعي (حب الآخرين، تقديم المساعدة وخدمة الوطن)^(٢).

وتشير نتائج دراسة كبريه ومانيللا:

Kpreya,s & Manilal,D

إلى أن أكثر الفوائد التي يكتسبها المتطوعين (التفاعل الاجتماعي، تعزيز المهارات، المكافآت الشخصية والإثراء الشخصي)^(١٨).

إجراءات البحث

المنهج المستخدم:

استخدم الباحثان المنهج الوصفي بخطواته وإجراءاته.

مجتمع وعينة البحث:

يتحدد مجتمع البحث الحالي في فئة الشباب المشاركين في الأنشطة التطوعية بالمؤسسات الترويحية (الجامعة، مركز

مدى وضوح ومناسبة صياغة المفردات لمستوى فهم العينة وإجراء المعاملات العلمية، ثم إجراء المعاملات العلمية الخاصة بإيجاد صدق وثبات استمارة الاستبيان.

الدراسة الأساسية:

بعد الاطمئنان للمعاملات العلمية الخاصة بالصدق والثبات قام الباحثان بتطبيق استمارة الاستبيان في الفترة من (٢٠١١/٩/٤م) إلى (٢٠١١/١٠/٢٧م) وبعد الانتهاء من تطبيق الاستبيان تم جمعه وتنظيمه وتفرغ البيانات وجدولتها لإجراء المعالجات الإحصائية المناسبة.

عرض ومناقشة النتائج

- عرض ومناقشة نتائج التساؤل الأول (ما أهم دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية؟).

الصياغة أو الحذف وارتضى الباحثان بنسبة موافقة على محاور الاستبيان بنسبة (٧٥٪).

بعد العرض، وافق الخبراء على محاور ومفردات الاستبيان بنسبة (٧٥٪ فأكثر) مع تعديل صياغة ستة مفردات في خمس محاور.

تم وضع قياس شدة الاستجابة لكل مفردة في الاستبيان وفقاً لميزان تقدير ثلاثي (ليكرت) وبدرجات (١، ٢، ٣) لإتاحة مساحة للشباب للتعبير عن آرائهم.

الدراسة الاستطلاعية:

قام الباحثان بإجراء دراسة استطلاعية على عينة قوامها (٦٠) شاب من خارج عينة الدراسة الأساسية ومن داخل مجتمع البحث في الفترة من (٢٠١١/٥/٨م) إلى (٢٠١١/٥/٢٦م)، واستهدفت الدراسة الاستطلاعية التعرف على

جدول (١)

ترتيب دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية (ن = ١٤٧٠)

م	الدوافع	المتوسط الحسابي	الانحراف المعياري	الوزن النسبي	الترتيب
١	الدافع الوقائي	١٢,٣٥	٢,٥٤	٨٢,٣٣٪	السادس
٢	الدافع القيمي	١٣,٦٦	١,٨١	٩١,٠٧٪	الثاني
٣	الدافع المهني	١٢,٠٣	٢,٦٩	٨٠,٢٠٪	السابع
٤	الدافع الاجتماعي	١٢,٩٩	١,٩٧	٨٦,٦٠٪	الثالث
٥	الدافع المعرفي	١٢,٨٩	٢,١٨	٨٥,٩٣٪	الرابع
٦	الدافع التعزيزي	١٣,٧٠	١,٧٩	٩١,٣٣٪	الأول
٧	الدافع البدني والصحي	١٢,٨٤	٢,٣٩	٨٥,٦٠٪	الخامس

(١) - أ.د. / آمنه مصطفى الشبكشي - أ.د. / إيمان محمد هدهود - أ.د. / سامية حسن حسين
- أ.د. / طه عبدالرحيم طه - أ.د. / ليلى عبد العزيز زهران - أ.د. / محمد عبدالعزيز سلامة
- أ.د. / محمد كمال السمودي - أ.د. / محمد محمد الحماحمي.

يوسف برقواوى (٢٠٠٨) ، ودراسة ليزلى وآخرون *H, Lesley and Other* (٢٠١٠) فى أن أهم دوافع العمل التطوعى (حب الآخرين ، ومساعدة الآخرين) التى تُعد ضمن الدوافع الاجتماعية (١٦) (١٧) .
- عرض ومناقشة نتائج التساؤل الثاني (هل توجد فروق ذات دلالة إحصائية بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفقاً لمتغير النوع؟).

يتضح من جدول (١)، أن أهم دوافع مشاركة الشباب في الأنشطة التطوعية: الدافع التعزيزي بوزن نسبي (٩١, ٣٣)٪، وقد يرجع ذلك إلى احتياجات الشباب الشعور بالمجهودات والأنشطة التي يقومون بها خاصة وأن الأنشطة التطوعية تمارس معظمها داخل جماعات لذا ترتبط بالجانب الاجتماعي. ويتفق ذلك مع دراسة كبريه ومانيللا: *Kpreya, s & Manilal, D* (٢٠٠٨) (١٨)، ويختلف ذلك مع دراسة خالد

جدول (٢)

الفروق بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفق متغير النوع (ن = ١٤٧٠)

م	الدوافع	الذكور (ن = ٨٦٤)		الإناث (ن = ٦٠٦)		فرق المتوسطين	قيمة (ت) المحسوبة
		المتوسط الحسابي	الانحراف المعياري	المتوسط الحسابي	الانحراف المعياري		
١	الدافع الوقائي	١٢,٢٢	٢,٨٣	١٢,٥٢	٢,٠٢	٠,٣٠	٢,٣٨ *
٢	الدافع القيمي	١٣,٨٢	١,٦٩	١٣,٤٢	١,٩٤	٠,٤٠	٤,١٣ *
٣	الدافع المهني	١١,٧٧	٢,٨١	١٢,٤٠	٢,٤٥	٠,٦٣	٤,٥٩ *
٤	الدافع الاجتماعي	١٣,٠٥	١,٩٤	١٢,٩٠	٢,٠٠	٠,١٥	١,٤٢
٥	الدافع المعرفي	١٢,٨٦	٢,٠٧	١٢,٩٢	٢,٣٢	٠,٠٦	٠,٤٦
٦	الدافع التعزيزي	١٣,٨٢	١,٦٦	١٣,٥٢	١,٩٣	٠,٣٠	٣,١١ *
٧	الدافع البدني والصحي	١٣,١٧	٢,٠٢	١٢,٦١	٥٩. ٢	٠,٥٦	٤,٦٠ *
	الدوافع ككل	١٢,٩٦	٢,١٤	١٢,٩٠	٢,١٨	٠,٠٦	١,٠٤

● قيمة (ت) الجدولية عند مستوى دلالة (٠,٠٥) = (١,٩٦)

يرجع ذلك إلى اتجاهات وخصائص الذكور في فترة الشباب تميل إلى الحركة والنشاط .
- توجد فروق ذات دلالة إحصائية بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفق متغير النوع في الدافع الوقائي والدافع المهني لصالح الشباب الإناث، حيث أن قيمة (ت)

يتضح من جدول (٢): وجود فروق ذات دلالة إحصائية بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفق متغير النوع في كل من الدافع القيمي، الدافع التعزيزي والدافع البدني والصحي لصالح الشباب الذكور، حيث أن قيمة (ت) المحسوبة أكبر من قيمتها الجدولية . وقد

وقد يرجع ذلك إلى اتجاهات وخصائص الشباب في فترة الشباب عامة في احتياج إلى التزود بالمعارف والمعلومات واكتساب الخبرات وإلى تكوين الجماعات .

- عرض ومناقشة نتائج التساؤل الثالث (هل توجد فروق ذات دلالة إحصائية بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفقاً لمتغير محل الإقامة؟).

المحسوبة أكبر من قيمتها الجدولية . وقد يرجع ذلك إلى اتجاهات وخصائص الإناث في فترة الشباب تميل إلى الاشتراك في أنشطة داخل جماعات الهروب من الضغوط الحياتية والعزلة الاجتماعية.

- توجد فروق غير دالة إحصائياً بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفق متغير النوع في الدافع الاجتماعي والدافع المعرفي، حيث أن قيمة (ت) المحسوبة أقل من قيمتها الجدولية.

جدول (٣)

الفروق بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفق متغير محل الإقامة

(ن = ١٤٧٠)

م	الدوافع	الحضر (ن = ٨٨٧)		الريف (ن = ٥٨٣)		فرق المتوسطين	قيمة (ت) المحسوبة
		المتوسط الحسابي	الانحراف المعياري	المتوسط الحسابي	الانحراف المعياري		
١	الدافع الوقائي	١٢,٥٧	٢,١٠	١٢,٠١	٣,٠٦	٠,٥٦	٣,٨٧ *
٢	الدافع القيمي	١٣,٧٨	١,٥١	١٣,٤٧	٢,١٨	٠,٣١	٣,٠١ *
٣	الدافع المهني	١٢,٧٧	٢,٣٦	١٠,٩١	٢,٧٨	١,٨٦	١٣,٢٩ *
٤	الدافع الاجتماعي	١٢,٩٦	١,٨٨	١٣,٠٤	٢,١١	٠,٠٨	٠,٧٤
٥	الدافع المعرفي	١٣,٤٢	١,٧٦	١٢,٠٨	٢,٥٠	١,٣٤	١١,٢٠ *
٦	الدافع التعزيزي	١٣,٨١	١,٦٤	١٣,٥٤	١,٩٩	٠,٢٧	٢,٦٨ *
٧	الدافع البدني والصحي	١٢,٩٦	٢,٢٧	١٢,٦٦	٢,٥٦	٠,٣٠	٢,٣٥ *
	الدوافع ككل	١٣,١٨	١,٤١	١٢,٥٣	١,٦٦	٠,٦٥	٧,٧٩

• قيمة (ت) الجدولية عند مستوى دلالة (٠,٠٥) = (١,٩٦)

في الحضر، حيث أن قيمة (ت) المحسوبة أكبر من قيمتها الجدولية . وقد يرجع ذلك إلى تعدد المؤسسات الترويحية (الجامعات، مراكز الشباب، الأندية والجمعيات الخيرية) في المدن عن القرى تعمل على استثارة دافعية الشباب في المشاركة في الأنشطة التطوعية.

يتضح من جدول (٣): وجود فروق ذات دلالة إحصائية بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفق متغير محل الإقامة في كل من الدافع الوقائي، الدافع القيمي، الدافع المهني، الدافع المعرفي، الدافع التعزيزي والدافع البدني والصحي لصالح الشباب المقيمين

الباز (٢٠٠٢م)،^(٥). ويختلف ذلك مع دراسة خالد يوسف برقاي (٢٠٠٨م) ودراسة ليزلي وآخرون *H, Lesley and Other* (٢٠١٠م)،^{(٦) (٧)}.

- عرض ومناقشة نتائج التساؤل الرابع(هل توجد فروق ذات دلالة إحصائية بين دوافع مشاركة الشباب في الأنشطة التطوعية وفقاً لمغفّر نوع المؤسسة الترويحية؟).

- توجد فروق غير دالة إحصائية بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفق متغير محل الإقامة في الدافع الاجتماعي، حيث أن قيمة (ت) المحسوبة أقل من قيمتها الجدولية. وقد يرجع ذلك إلى المشاركة في الأنشطة التطوعية من قبل الشباب عامة والجهود التي تبذل لخدمة المجتمع. ويتفق ذلك مع دراسة راشد سعد

جدول (٤)

الفروق بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفق متغير نوع المؤسسة الترويحية

(ن = ١٤٧٠)

م	الدوافع	التباين	مجموع المربعات	درجات الحرية	متوسط مجموع المربعات	قيمة (ف) المحسوبة
١	الدافع الوقائي	بين المجموعات	١٢١٤,٩٩٦	٣	٤٠٤,٩٩٩	٧٢,٠٧ *
		داخل المجموعات	٨٢٣٨,٠٦٥	١٤٦٦	٥,٦١٩	
		المجموع	٩٤٥٣,٠٦١	١٤٦٩		
٢	الدافع القيمي	بين المجموعات	٥٠,٩٢٩	٣	١٦,٩٧٦	٥,٢١ *
		داخل المجموعات	٤٧٧٩,٠٠٣	١٤٦٦	٣,٢٦٠	
		المجموع	٤٨٢٩,٩٣٢	١٤٦٩		
٣	الدافع المهني	بين المجموعات	٩٦٤,٣٣٠	٣	٣٢١,٤٤٣	٤٨,٦٦ *
		داخل المجموعات	٩٦٨٣,٩٦٩	١٤٦٦	٦,٦٠٦	
		المجموع	١٠٦٤٨,٢٩٩	١٤٦٩		
٤	الدافع الاجتماعي	بين المجموعات	١٧٣,٤٥٧	٣	٥٧,٨١٩	١٥,٣١ *
		داخل المجموعات	٥٥٣٦,٤٧٥	١٤٦٦	٣,٧٧٧	
		المجموع	٥٧٠٩,٩٣٢	١٤٦٩		
٥	الدافع المعرفي	بين المجموعات	٨٤٦,٧٦٣	٣	٢٨٢,٢٥٤	٦٧,٢٢ *
		داخل المجموعات	٦١٥٥,٨٢٢	١٤٦٦	٤,١٩٩	
		المجموع	٧٠٠٢,٥٨٥	١٤٦٩		
٦	الدافع التعزيزي	بين المجموعات	٤٩,٤٧١	٣	١٦,٤٩٠	٥,١٩ *
		داخل المجموعات	٤٦٥٨,٨٢٩	١٤٦٦	٣,١٧٨	
		المجموع	٤٧٠٨,٢٩٩	١٤٦٩		
٧	الدافع البدني والصحي	بين المجموعات	١٣٩١,٨٣١	٣	٤٦٣,٩٤٤	٩٦,٨٥ *
		داخل المجموعات	٧٠٢٢,١٨٣	١٤٦٦	٤,٧٩٠	
		المجموع	٨٤١٤,٠١٤	١٤٦٩		
	الدوافع ككل	بين المجموعات	٢١٧١٣,٤٧٧	٣	٧٢٣٧,٨٢٦	٧٠,٤٥ ×
		داخل المجموعات	١٥٠٦١٢,٦٤٦	١٤٦٦	١٠٢,٧٣٧	
		المجموع	١٧٢٣٢٦,١٢٢	١٤٦٩		

• قيمة (ف) الجدولية عند مستوى دلالة (٠,٠٥) = (٢,٦٠)

قيمتها الجدولية. وقد يرجع ذلك إلى أن المشاركة في الأنشطة التطوعية بالمؤسسات الترويحية أكثر تقدماً من المشاركة الفردية ولأن المؤسسات أكثر تنظيماً وأوسع تأثيراً في المجتمع.

يتضح من جدول (٤): وجود فروق ذات دلالة إحصائية بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفق متغير المؤسسة الترويحية في الدوافع ككل، حيث أن قيمة (ف) المحسوبة أكبر من

جدول (٥)

متوسطات دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفق متغير نوع المؤسسة الترويحية

(ن = ١٤٧٠)

م	الدوافع	الجامعة (ن = ٤٩٣)		مركز الشباب (ن = ٥٧٢)		النادي الرياضي (ن = ٣٢٧)		الجمعية الخيرية (ن = ٧٨)	
		المتوسط الحسابي	الانحراف المعياري	المتوسط الحسابي	الانحراف المعياري	المتوسط الحسابي	الانحراف المعياري	المتوسط الحسابي	الانحراف المعياري
١	الدافع الوقائي	١٣,٢٢	١,٩٤	١٢,٥٧	٢,٠٧	١٠,٨٣	٣,١٦	١١,٤٤	٢,٨٩
٢	الدافع القيمي	١٣,٧٣	٢,٠٨	١٣,٧٩	١,٥٧	١٣,٤٢	١,٦٦	١٣,١٥	٢,٠٥
٣	الدافع المهني	١٢,٢٦	٢,٥٦	١٢,٧٣	٢,١٤	١٠,٨٤	٣,٠٥	١٠,٤٦	٣,١٨
٤	الدافع الاجتماعي	١٣,٢٣	١,٨٦	١٢,٩٩	١,٨٠	١٢,٩٣	٢,١٦	١١,٦٤	٢,٣٨
٥	الدافع المعرفي	١٣,٣٢	١,٩٤	١٣,٣٥	١,٨٦	١١,٩١	١,٦٨	١٠,٨٧	١,٦٨
٦	الدافع التعزيزي	١٣,٧١	٢,٠٥	١٣,٨٦	١,٦٠	١٣,٣٨	١,٧٤	١٣,٧٣	١,٢٣
٧	دافع بدني وصحي	١٣,٦٦	١,٨٩	١٣,١١	١,٩٨	١١,٨١	٢,٥٨	٩,٩٢	٣,٢٨
	الدوافع ككل	١٣,٣٠	١,٦٢	١٣,٢٠	١,٢٩	١٢,١٦	١,٤٢	١١,٦٠	١,٤٤

الشباب الجامعي في التطوع ضعيف جداً^(٧).

- وجود فروق ذات دلالة إحصائية بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفق متغير المؤسسة الترويحية في الدافع القيمي، الدافع المهني، الدافع المعرفي والدافع التعزيزي لصالح مؤسسات مراكز الشباب. وقد يرجع ذلك إلى مركز الشباب كمؤسسة ترويحية تُعد هيئة شبابية تربية تسهم في تنمية الشباب باستثمار وقت فراغهم في ممارسة مختلف الأنشطة.

يتضح من جدول (٥)، - وجود فروق ذات دلالة إحصائية بين دوافع مشاركة الشباب في الأنشطة التطوعية بالمؤسسات الترويحية وفق متغير المؤسسة الترويحية في الدافع الوقائي، الدافع الاجتماعي والدافع البدني والصحي لصالح المؤسسة الجامعية. وقد يرجع ذلك إلى الجامعة كمؤسسة ترويحية توفر الفرص للشباب لاشباع مختلف جوانب الشخصية، إضافة إلى أنه تنمى هواياتهم وتشبع حاجاتهم.

ويختلف ذلك مع دراسة فهد سلطان السلطان (٢٠٠٦م)، في أن متوسط مشاركة

استخلاصات البحث

- أهم دوافع مشاركة الشباب في الأنشطة التطوعية: الدافع التعزيزي، القيمي، الاجتماعي، المعرفي، البدني والصحي، الوجداني والمهني على الترتيب.
- توجد فروق ذات دلالة إحصائية بين دوافع مشاركة الشباب في الأنشطة التطوعية وفق متغير النوع والإقامة والمؤسسة الترويحية.

التوصيات

- زيادة الاهتمام في مؤسسات التعليم بالبرامج والأنشطة التي تنمي الوعي والمشاركة لدى الشباب بالنشاط التطوعي وفوائده للفرد والمجتمع.
- الاهتمام بتنسيق العلاقات بين المؤسسات الترويحية ومنظمات المجتمع المدني في المجتمع حتى يمكن تبادل الخبرات والاستفادة من الإمكانيات المتاحة لصالح الشباب.

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الإبداع الإداري

وعلاقته بالأداء الوظيفي لدى العاملين باتحادات الرياضات المائية

أ.د.م/ مؤمن عبدالعزيز عبد الحميد

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المقدمة ومشكلة البحث

يعد دور الإبداع الإداري من الأدوار المهمة في العمل الإداري لما لذلك من نتائج إيجابية تعود بالنفع على المنظمات الإدارية والرياضية والعاملين فيها .
واتحادات الرياضات المائية هي أحد هذه المنظمات التي تقوم بهذا الدور الإيجابي حيث تعمل على رعاية الشباب في المجتمع لتقديم عدة خدمات مهنية ومجهودات ذات صبغة وقائية وإنشائية واجتماعية ورياضية تهدف إلى تكامل بناء شخصية أبنائنا وتزويدهم بمصادر المعرفة الرياضية المتخصصة وإعدادهم بدنياً ومهارياً ونفسياً ليصبحوا رياضيين نعتمد عليهم في تحقيق الميداليات في جميع المحافل المحلية والدولية .
ومن هذا الدور الذي تهدف إليه اتحادات الرياضات المائية يجب أن يكون هناك تطور للفكر الإداري الرياضي في عمليات التدريب والتعليم والارتقاء بالمستويات والمهارات وتحقيق الأرقام القياسية التي ترتبط ارتباطاً وثيقاً بما يحدث من تطور في الفكر الإداري على مستوى الدولة ككل وفي مختلف قطاعاتها .
يل يمكن القول بأن الرياضة بمجالاتها المختلفة تعكس مدى ما حققه الفكر الإداري من تطور فهي تحقق في قيمتها ما قد لا تحققه مجالات أخرى .
لذلك يرى الباحثان أن دراسة الإبداع الإداري وعلاقته بالأداء الوظيفي في المجال الرياضي سوف تثري الفكر الإداري والتراث العلمي وذلك من خلال التعرف على واقع مستوى الإبداع الإداري وعلاقته بتحسين مستوى الأداء الوظيفي للعاملين باتحادات الرياضات المائية والتعرف على الأساليب الإدارية التي تحقق مفهوم الإبداع الإداري وتعزيزه .

هدف البحث

التعرف على الإبداع الإداري وعلاقته بالأداء الوظيفي لدى العاملين باتحادات الرياضات المائية. وذلك من خلال الإجابة على التساؤلات التالية:

تساؤلات البحث

- ١- ما مستوى الإبداع الإداري لدى العاملين باتحادات الرياضات المائية؟
- ٢- ما مستوى الأداء الوظيفي لدى العاملين باتحادات الرياضات المائية؟
- ٣- ما علاقة الإبداع الإداري بالأداء الوظيفي لدى العاملين باتحادات الرياضات المائية؟

إجراءات البحث:

أولاً: منهج البحث

تم استخدام المنهج الوصفي (الدراسات المسحية) لمناسبتها لطبيعة البحث.

ثانياً: مجتمع البحث

يتمثل مجتمع البحث في جميع أعضاء مجالس الإدارة والعاملين باتحادات الرياضات المائية والأفرع التابعة لها.

ثالثاً: عينة البحث

تم اختيار عينة البحث بالطريقة العشوائية، وبلغ عددهم (١١٥) عضو مجلس إدارة وإداري باتحادات الرياضات المائية وأفرعها وهي (الاتحاد المصري للغوص والإنقاذ، الاتحاد المصري للسباحة، الاتحاد المصري للأسماك، الاتحاد المصري للشرع والانزلاق على الماء، الاتحاد المصري للتجديف

والكانوى) وقد بلغت العينة ١١٥ من اتحادات الرياضات المائية .

رابعاً: أدوات جمع البيانات :

قام الباحثان بتصميم استبيانان لأعضاء مجالس الإدارات والإداريين باتحادات الرياضات المائية وأفرعها واتبعوا الآتي في تصميم الاستبيان:

سادساً: التطبيق:

قام الباحثان بتطبيق الاستبيان على العينة المختارة في الفترة من ٢٠١٢/٧/١٥م حتى ٢٠١٢/٨/١٥م.

- المعالجة الإحصائية للبيانات:
- النسبة المئوية.
- الدرجة المقدرة.
- معامل الارتباط.
- المتوسط الحسابي.
- الانحراف المعياري.

عرض النتائج:

من خلال المعالجات الإحصائية لبيانات البحث سوف يتناول الباحثان عرض النتائج في ضوء أهداف البحث وتساؤلاته وفقاً لما يلي:

- التساؤل الأول:

١- ما مستوى الإبداع الإداري لدى العاملين باتحادات الرياضات المائية؟

من خلال تطبيق استبيانات الإبداع الإداري للتعرف على مستوى الإبداع الإداري للعاملين باتحادات الرياضات المائية كانت النتائج بجدول (١) كما يلي:

جدول (١)

الدرجة المقدرة والنسبة المئوية لاهتجابات الصينة في محاور الإبداع الإداري

(ن = ١١٥)

م	عينه البحث	محاو الإبداع الإداري		اتحاد السباحة ن = ٣٩		اتحاد القوص ن = ٢٥		اتحاد صيد الأسماك ن = ٢٠		اتحاد الشرع ن = ١٤		اتحاد التجديف ن = ١٧	
		ق	%	ق	%	ق	%	ق	%	ق	%	ق	%
١	الأصالة	١٠٦	٩٠,٥٩	٧٢	٩٦,٠٠	٥٧	٩٥,٠٠	٣٩	٩٢,٨٦	٤٧	٩٢,١٥		
٢	الحساسية للمشكلات	١٠٨	٩٢,٣١	٧١	٩٤,٦٧	٥٥	٩١,٦٦	٣٦	٨٥,٧١	٤٦	٩٠,١٩		
٣	المرونة	١٠٠	٨٥,٤٧	٦٥	٨٦,٦٦	٥٢	٨٦,٠٠	٤٠	٩٥,٢٣	٤٥	٨٨,٢٣		
٤	القدرة على التحليل	١١٠	٩٤,٠٢	٦٦	٨٨,٠٠	٥١	٨٥,٠٠	٣٣	٧٨,٥٧	٤٤	٨٦,٢٧		
	المجموع	١	٩٠,٥٩	٣	٩١,٣٣	٢	٨٩,٤١	٥	٨٨,١٠	٢	٨٩,٢١		

وعمره إبراهيم وعادل مكي (٢٠٠٩م)^(١٢)، ودراسة عز الدين راضي (١٩٩٣م)^(١١) في عدم توافر مناخ عمل مشجع على حرية الرأي والتفكير، وكذلك عدم وجود توصيف وظيفي واضح ومحدد بالاتحاد مما يؤدي إلى تدخل الاختصاصات.

- التساؤل الثاني:

- ما مستوى الأداء الوظيفي لدى العاملين باتحادات الرياضات المائية؟

من خلال تطبيق استبيانات الإبداع الإداري للتعرف على مستوى الأداء الوظيفي للعاملين باتحادات الرياضات المائية كانت النتائج بجدول (٢) كما يلي:

وأظهرت نتائج مستوى الإبداع الاستفادة من الأفكار الجديدة بطريقة علمية ومفيدة والاستفادة منها في حل المشكلات بطرق مختلفة عن التي يفكر بها الآخرون، وهذا يتفق مع نتائج دراسة تركي الحقباني (١٩٩٧م)^(١) في أن مستوى الإبداع الإداري بشكل عام متوسط بينما جاءت نتيجة محور الأصالة فوق المتوسط، ودراسة عبدالرحمن هيجان (١٩٩٩)^(١٠) في ضرورة نبذ المنهج البيروقراطي، وهذا ما اكدت عليه دراسة خالد الصيدلاني (٢٠٠٠)^(٧) في ضرورة التشجيع والتحفيز على الإبداع والابتكار، وما توصلت إليه دراسة كلا من عادل مكي وحازم كمال الدين (٢٠٠٨م)^(٩)، ودراسة

جدول (٢)

الدرجة المقدرة والنسبة المئوية لاستجابات العينة في محاور الأداء الوظيفي

(ن = ١١٥)

م	عينة البحث	محاو ر الأداء الوظيفي		اتحاد السباحة ن = ٣٩		اتحاد الغوص ن = ٢٥		اتحاد صيد الأسماك ن = ٢٠		اتحاد الشرع ن = ١٤		اتحاد التجديف ن = ١٧	
		ق	%	ق	%	ق	%	ق	%	ق	%	ق	%
١	القدرة على أداء الوظيفة	١٠٨	٩٢,٣١	٧١	٩٤,٦٧	٥٨	٩٦,٦٦	٣٩	٩٢,٨٦	٤٨	٩٤,١٢		
٢	الدقة في أداء الوظيفة	١٠٥	٨٩,٧٤	٦٥	٨٦,٦٦	٥٥	٩١,٦٦	٣٦	٨٥,٧١	٤٤	٨٦,٢٧		
٣	الإلمام والالتزام الوظيفي	١٠٦	٩٠,٥٩	٦٨	٩٠,٦٦	٥١	٨٥,٠٠	٣٥	٨٣,٣٣	٤٢	٨٢,٣٥		
٤	الإبداع والابتكار	١١٢	٩٥,٧٣	٧٢	٩٦,٠٠	٥٣	٨٨,٣٣	٣٨	٩٠,٠٥	٤٧	٩٢,١٥		
	المجموع	١	٩٢,٠٩	٣	٩١,٣٣	٢	٩٠,٤١	٥	٨٧,٩٨	٢	٨٨,٧٢		

صحيح، ودراسة عمرو إبراهيم وعادل مكي (٢٠٠٩م)^(١) ودراسة شيرين جلال (٢٠٠٦م)^(٢) التي اتفقت نتائجها في عدم وجود معايير واضحة ومحددة لاختيار القائمين بالعمل الإداري داخل الاتحادات.

- التساؤل الثالث:

- ما علاقة الإبداع الإداري بالأداء الوظيفي لدى العاملين باتحادات الرياضات المائية؟

يرى الباحثان أن ذلك قد يرجع إلى أهمية أداء الأعمال في الأوقات المحددة والقدرة على السيطرة الكاملة في جميع المواقف المختلفة أثناء العمل، وإمكانية إنجاز الأعمال دون إشراف من قبل الرؤساء والسعي لتحقيق أهداف المؤسسة، وهذا يتفق مع نتائج دراسة كلاً من «سامي سليم» (٢٠٠٨م)^(٣)، والتي أشارت إلى أن قدرة الفرد على أداء عمله من أهم مؤشرات ارتفاع مستوى الأداء الوظيفي وفاعليته والتي تؤدي إلى تحقيق أهداف المنظمة ككل، ودراسة «نانيس عبدالحافظ» (٢٠٠٣م)^(٤) والتي أشارت نتائجها إلى أنه كلما زادت فاعلية الأداء الوظيفي زادت القدرة على تحقيق أهداف المنظمة والمجتمع، والعكس

جدول (٣)

معاملات الارتباط بين مهتوى الإبداع الإداري لدى العاملين باتحادات الرياضات المائية وعلاقته بمهتوى الأداء الوظيفي

(ن = ١١٥)

الأداء الوظيفي الإبداع الإداري	القدرة على أداء الوظيفة	الدقة في أداء الوظيفة	الإلتزام والالتزام الوظيفي	الإبداع والابتكار	مجموع الاستمارة
الأصالة	٠,٩٨٦	٠,٩٧٦	٠,٩٧٧	٠,٩٧٧	٠,٩٨٠
الحساسية للمشكلات	٠,٩٩١	٠,٩٨٥	٠,٩٨٥	٠,٩٨٧	٠,٩٨٨
المرونة	٠,٩٨٨	٠,٩٨٨	٠,٩٩١	٠,٩٨٧	٠,٩٩٠
القدرة على التحليل	٠,٩٩٤	٠,٩٨٧	٠,٩٩٢	٠,٩٩٠	٠,٩٩٢
مجموع الاستمارة	٠,٩٩٤	٠,٩٨٨	٠,٩٩١	٠,٩٩٠	٠,٩٩٢

قيمة « ر » الجدولية عند مستوى معنوية ٠,٠٥ هي (٠,١٩٥)

لدى العاملين، واتفقت أيضاً مع دراسة عز الدين علي راضي (١٩٩٣م)^(١) في أن الهياكل التنظيمية والتسلسل الوظيفي والأهداف الوظيفية للاتحاد عندما تكون معروفة لدى العاملين تزيد من مستوى أداء العمل بشكل ملحوظ، واختلفت مع تلك النتيجة ما أشارت إليه نتيجة دراسة عادل مكى، وحازم كمال الدين (٢٠٠٨م)^(٢) في عدم توافر مناخ عمل مشجع على حرية الرأي والتفكير وعدم مشاركة القائمين بتطبيق القرارات في عملية صياغة تلك القرارات، ودراسة حسام رضوان (٢٠٠٠م)^(٣) في عدم وضوح تعريف للاتحاد الرياضي الأولمبي وغموض أهدافه.

ومما سبق يرى الباحثان أنه كلما كان هناك إبداع إداري لدى العاملين داخل اتحادات الرياضات المائية كلما ارتفع مستوى الأداء الوظيفي بها، ويتفق ذلك مع دراسة خالد الصيدلاني (٢٠٠٠م)^(٢) في أن هناك علاقة ارتباطية بين المناخ التنظيمي بالمنظمة والإبداع الإداري وأنه كلما توفر مناخ تنظيمي يشجع على الابتكار والإبداع كلما زاد مستوى الإبداع الإداري لدى العاملين بها، كما اتفقت نتيجة دراسة "Hannah. K. Watson" (٢٠٠٣م)^(١٦) في أن ثقافة الأداء باستخدام وسائل التكنولوجيا الحديثة تساعد في عملية الإبداع والابتكار

الاستنتاجات

في ضوء مناقشة وتفسير النتائج استنتج الباحثان ما يلي:

- (١) تحقق جميع محاور استمارة الإبداع الإداري (الأصالة ، الحساسية للمشكلات، المرونة، القدرة على التحليل) في جميع اتحادات الرياضات المائية قيد البحث.
- (٢) حصل الاتحاد المصري للغوص والإنقاذ على نسبة عالية نسبياً في مجموع محاور استمارة الإبداع الإداري ، بينما جاءت نسبتها منخفضة نسبياً في باقي الاتحادات (السباحة، صيد الأسماك ، الشراع ، التجديف) في ذات الاستمارة.
- (٣) تحقق جميع محاور الأداء الوظيفي (القدرة على أداء الوظيفة، الدقة في أداء الوظيفة، الإلمام والالتزام الوظيفي، الإبداع والابتكار) في جميع اتحادات الرياضات المائية قيد البحث.

التوصيات

في ضوء أهداف البحث وفي حدود مجتمع البحث والعينة المختارة وفي ضوء ما تحقق من نتائج يوصي الباحثان بما يلي:

- (١) التأكيد على الإدارة العليا والقيادات الإدارية بالاتحادات بتشجيع المبدعين وتحفيزهم وإيجاد نظام فعال للحوافز لزيادة الإبداع والابتكار لدى العاملين.
- (٢) إعداد وتدريب الكوادر البشرية بالاتحادات من خلال تكثيف الدورات والبرامج التدريبية ذات الصلة الإبداعية والابتكارية.
- (٣) توفير مناخ عمل مشجع على حرية الرأي والتفكير الإبداعي من خلال تفعيل مشاركة العاملين (المرفؤوسين) في طرح آرائهم وأفكارهم البناءة في الأنشطة والخدمات المقدمة بالاتحادات.

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ديناميكية تطور

الكفاءة البدنية

لطلبات

كلية التربية الرياضية
بالإسكندرية

أ.م.د. نادية رشوان عطية عمارة

أستاذ مساعد بقسم التدريب الرياضي وعلوم الحركة

كلية التربية الرياضية للبنات جامعة الإسكندرية

المقدمة ومشكلة البحث

يكرس العديد من الباحثين والعلماء

فى شتى مجالات الحياة جهودهم للبحث والدراسة

عن أهمية كل جانب من اللياقة البدنية

لأهميتها للإنسان.

فاللياقة البدنية تعبير يدل على اللياقة الوظيفية

والعقلية والنفسية والحركية.

العمل بالمجتمع الخارجى والمؤسسات التربوية المختلفة من خلال مجموعة من البرامج والمقررات التى تمنح درجة البكالوريوس فى مجال كل من التدريب والتعليم والإدارة والترويج ولكنها تفتقد لاحتياجات سوق العمل من تخصص اللياقة البدنية .

وتحقيقاً لأهداف كلية التربية الرياضية للبنات جامعة الاسكندرية والتي تهدف إلى إعداد خريجاتها إعداداً علمياً عالى الجودة من مقررات العلوم الأساسية والإنسانية والتخصصية ، وقادرة على استخدام وتطبيق الطرق الحديثة كلاً فى مجاله، لمواجهة احتياجات ومتطلبات مجالات

قد يساعد فى إعطاء تصوراً دقيقاً لمستوى التطور الكمى للكفاءة البدنية، وكذا مدى تأثير البرنامج الدراسى على الكفاءة البدنية لطالبات كلية التربية الرياضية- جامعة الإسكندرية.

ومما سبق يتضح ان الكفاءة البدنية من المؤشرات المهمة التى توضح قدرة الطالبة على الأداء وتساعد على التوجه طبقاً لقدرتها إلى البرنامج المناسب لها ، ولذا رأت الباحثة إلقاء الضوء على مدى تطور مستوى الكفاءة البدنية لدى طالبات كلية التربية الرياضية بالقياس التبعى خلال السنوات الدراسية الأربعة، خاصة وأن اختبار الكفاءة البدنية اختباراً أساسياً يجب اجتيازه ضمن شروط القبول بكلية التربية الرياضية - جامعة الإسكندرية.

هدف الدراسة :

دراسة ديناميكية تطور مؤشر الكفاءة البدنية لطالبات كلية التربية الرياضية بالإسكندرية من خلال :

- التعرف على مستوى التطور الكمى للكفاءة البدنية لطالبات كلية التربية الرياضية بالإسكندرية.

- التعرف على الفروق فى مستوى التطور الكمى للكفاءة البدنية لطالبات كلية التربية الرياضية بالإسكندرية.

- تتبع معدلات التغير فى نمو الكفاءة البدنية بعد التحاقهن بالبرامج المانحة شعبة (التعليم ، التدريب ، الترويج والإدارة).

- دراسة مستوى مؤشر الكفاءة البدنية لطالبات فى الأنشطة الرياضية التخصصية (شعبة تدريب)

وتعتبر الكفاءة البدنية من الواجبات الأساسية لعمليات التدريب فى مختلف الأنشطة الرياضية ، حيث أنها من المؤشرات الفسيولوجية المهمة لتحديد القدرة على الأداء البدنى وتتبع مستوى التقدم .

ونظراً لأهمية الكفاءة البدنية *Physical Efficiency* فى برامج الإعداد والتدريب ، لذا يتم قياسها بصفة دورية للاعب لمتابعة الحالة الوظيفية له ، للتعرف على المعوقات التى تحول دون تحقيق المستوى البدنى والمهارى المطلوب ، كما أنها تؤدى إلى وجود زيادة فى المدى الحركى يساعد على منع الإصابات وتحسن الأداء للطالبات . (٢٥ : ١٦٩) .

وتشير نتائج الدراسات العلمية فى مجال فسيولوجيا الرياضة إلى أن مؤشر كفاءة الجهازين الدورى والتنفسى هو الدليل على درجة اللياقة البدنية، والتي تعنى تحسن فى أداء الأجهزة الوظيفية بالجسم ، والإقلال من فرص الإصابة بأمراض القلب والأوعية الدموية، وزيادة المدى الحركى للمفصل وتقوية الأربطة والأوتار العاملة عليه ، بالإضافة إلى أكسدة المواد الغذائية وتحويلها إلى طاقة تخزن فى العضلات ، وتساعد على زيادة مقاومة الجسم للتعب والتوتر العصبى . (٢٦)، (٢٤، ٢٣ : ١٤)

وباستعراض الإطار المرجعى لبعض الدراسات والبحوث التى تناولت اللياقة البدنية لطلاب وطالبات كلية التربية الرياضية، يتضح أن هناك قصور واضح للدراسات الخاصة بمعدلات تطور الكفاءة البدنية لطالبات كلية التربية الرياضية، وقلة المعلومات عن تطور الكفاءة البدنية للطالبات، ولذا فإن دراسة ديناميكية تطور الكفاءة البدنية لطالبات كلية التربية الرياضية- جامعة الإسكندرية

تساؤلات الدراسة :

- ١- ماهو مستوى التطور الكمي للكفاءة البدنية لطالبات كلية التربية الرياضية بالإسكندرية.
- ٢- ماهى الفروق فى مستوى التطور الكمي للكفاءة البدنية لطالبات كلية التربية بالإسكندرية.
- ٣- ماهى معدلات التغير فى نمو الكفاءة البدنية لطالبات كلية التربية الرياضية بالإسكندرية.
- ٤- هل هناك فروق دالة إحصائية فى مستوى التطور الكمي للكفاءة البدنية فى الأنشطة الرياضية التخصصية.

إجراءات البحث :

المنهج المستخدم :

استخدم المنهج الوصفي لدراسات النمو والتطور باستخدام الطريقة الطولية المناسبة لطبيعة البحث.

عينة البحث :

عينة عمدية تمثل الطالبات المتقدمات لأداء اختبارات القبول بكلية التربية الرياضية للبنات جامعة الإسكندرية ، وقوامهن ١٩٥ طالبة متوسط أعمارهن ١٨ ، ١٩ سنة.

القياس المستخدم :

مؤشر الكفاءة البدنية باستخدام اختبار الخطوة « لهارفارد Harvard Test » (مرفق ١)، (مرفق ٢) (٢ : ٩٦)، (١٢ : ١٣٤)، (٢٥ : ١٧١) (٩ : ١٦٦) .

الأدوات والأجهزة المستخدمة :

- صندوق خشبي بارتفاع (٤٣) سم وطوله (٤٠) سم وعرضه (٣٥) سم .

- ساعة إيقاف لقياس معدل النبض خلال (٣٠) ث .

- جهاز مترونوم لتنظيم إيقاع الخطوات أثناء الصعود والهبوط .

تنفيذ القياسات :

ولدراسة ديناميكية تطور الكفاءة البدنية لطالبات كلية التربية الرياضية - عينة البحث- تم تكرار التطبيق ولعدد أربعة قياسات فى نهاية كل عام جامعى وخلال فترة الامتحانات التطبيقية بالكلية.

ونظراً لأن فى الدراسات الطولية تقاس مستويات ديناميكية التطور والنمو لدى نفس الطالبات فى مراحل مختلفة، منذ أداء اختبارات القبول وحتى بلوغهن الفرقة الرابعة للتخرج ، فقد واجهت الباحثة بعض الصعوبات التى تمثلت فى استبعاد عدد ٣٥ طالبة عبر السنوات المختلفة للقياس .

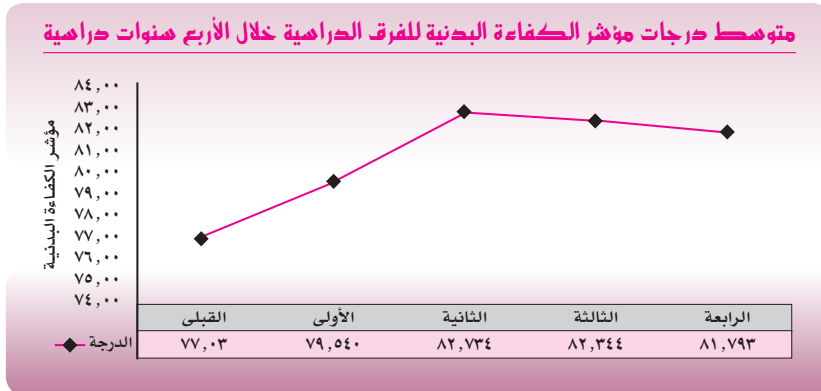
وبذلك أصبحت عينة البحث تشتمل على (١٦٠) طالبة تم القياس الثانى للكفاءة البدنية لهن فى نهاية الفرقة الدراسية الأولى خلال فترة الامتحانات التطبيقية، وهن الطالبات الملتحقات بالمرحلة الأساسية الأولى بالكلية ٢٠٠٨/٢٠٠٩ م وهى مرحلة عامة .

المعالجات الإحصائية :

اشتملت المعالجات الإحصائية على المتوسطات الحسابية والانحرافات المعيارية، ولإيجاد الاختلاف بين القياسات الخمس من الاختبار قيد البحث استخدم تحليل التباين فى اتجاه واحد On way ANCOVA واختبار أقل فرق معنوى L.S.D . وقد ارتضت الباحثة مستوى دلالة ٠,٠٥ على الأقل (١٠ : ٥٧٢) (٢٣ : ١٠٥) (٥ : ٢٠٩) (٤ : ١٠١) .

عرض ومناقشة النتائج :

شكل (١)



لدى الفرقة الثالثة كان أفضل من الفرقة الرابعة. ولمعرفة دلالة واتجاه الفروق بين المتوسطات تم إجراء اختبار شيفيه وحساب القيمة الحرجة لشيفيه كما يوضحها جدول (١).

يتضح من شكل (١) أن مؤشر الكفاءة البدنية ارتفع لدى الفرقة الدراسية الأولى عنه لدى القياس القبلي (الالتحاق بالكلية) لنفس الفرقة وأنه لدى الفرقة الثانية كان الأفضل من الفرقتين الثالثة والرابع وأنه

جدول (١)

(ن=١٦٠)

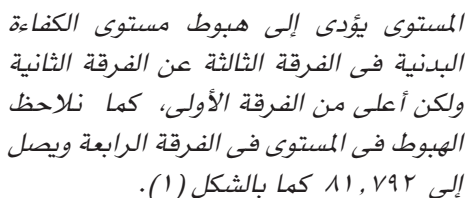
اختبار شيفيه لدلالة واتجاه الفروق بين المتوسطات

الدرجة	القبلي	الأولى	الثانية	الثالثة	الرابعة	المتوسط الحسابي	الانحراف المعياري	القيمة شيفيه الحرجة
الأولى						٧٩,٥٤٠	٧,٨١٩	
الثانية						٨٢,٧٣٤	٧,٤٥١	٠,٤٩
الثالثة						٨٢,٣٤٤	٩,٣١٨	
الرابعة						٨١,٧٩٣	١٢,٦٦١	

يتضح عدم وجود فرق دال بين درجات الفرقة الثانية والفرقة الثالثة ، كما يتضح وجود فرق دال بين درجات طالبات الفرقة الثانية والفرقة الرابعة لصالح طالبات الفرقة الثانية، وبين طالبات الفرقة الثالثة والفرقة الرابعة لصالح طالبات الفرقة الثالثة.

يتضح من جدول (١) وجود فرق دال إحصائياً بين متوسط درجات طالبات الفرقة الأولى والفرقة الثانية لصالح الفرقة الثانية، وبين الفرقة الأولى والفرقة الثالثة لصالح الفرقة الثالثة ، وبين الفرقة الأولى والفرقة الرابعة لصالح طالبات الفرقة الرابعة، كما

تحسن الأداء لطالبات قسم التدريب بتخصصاتها المختلفة
في السنة الدراية الثالثة والرابعة عنه في نهاية السنة الثانية



كما يتضح من الشكل (٢) الفروق بين الشعب مقارنة بالقياس القبلي والأربع شعب (تدريب - تعليم - إدارة - ترويح).

مناقشة النتائج:

أوضحت نتائج الدراسة أن هناك زيادة في الوسط الحسابي لمؤشر الكفاءة البدنية لطالبات الفرقة الأولى $79,450 + 7,819$ عنه من الوسط الحسابي للقياس القبلي للطالبات والذي تم استخراجه أثناء اختبارات القدرات الرياضية $77,03 + 7,06$ ، وكذلك زيادة مؤشر الكفاءة البدنية لطالبات الفرقة الثانية والذي بلغ $82,734 + 7,451$ مما يشير إلى أن البرنامج التطبيقي للفرق الدراسية الأولى والثانية أدى إلى تحسن مستوى الكفاءة البدنية ولا سيما أن البرنامج الدراسي للفرقتين الأولى والثانية يحتوي على ٢ ساعة لياقة بدنية عامة مما يعتبر قاعدة أساسية لتحسن الأداء البدني لجميع الأنشطة الرياضية الأخرى، والتي يتم التخصيص فيها للبرامج المانحة كلاً من الفرقة الثالثة والرابعة، إلا أن تذبذب

وبالنسبة لبرنامج الترويج الذى بلغت مقدار التذبذب بالسالب على ٢,٥٠٥ وكانت أقلهن انخفاضا عن شعبة التعليم وبلغ مقدار الانخفاض إلى ٠,٥١٤ وهى أقل مقدار انخفاض فى الشعب الثلاثة، وهو ما يشير إلى ضرورة إعادة النظر فى برامج الشعب الثلاثة، حيث تتفق الباحثة إلى ما أشار إليه زكى محمد حسن (٢٠١١) أن هناك العديد من الدراسات التجريبية، أشارت مجمل نتائجها إلى الأثر السلبى لضعف الكفاءة البدنية على التحصيل الدراسى والأداء الأكاديمى فالكفاءة البدنية تعنى تطوراً عضوياً سليماً ومهارة حركية، وقدرة على أداء العمل البدنى بكفاءة بيولوجية عالية (٦: ١٥، ١٦).

ولذا يتضح من الدراسة أهمية دور البرنامج الدراسى فى كلية التربية الرياضية فى تحسين مستوى الكفاءة البدنية للطلّابات.

وترى الباحثة أن دراسة وتتبع مستوى الكفاءة البدنية لطلّابات كلية التربية الرياضية يؤهلن للالتحاق فى بداية الفرقة الثالثة بالبرنامج المناسب لقدراتهن واستعدادهن للالتحاق ببرنامج المدرب الرياضى أو الإدارى الرياضى أو أخصائى الترويج أو معلم التربية البدنية والرياضة.

ويتضح أيضاً أن الطّالّبات فى برنامج التدريب بالفرقة الرابعة قد حققت أعلى مستوى لمؤشر الكفاءة البدنية وبلغ ٩٩,٦٦٠ + ٢,٣٣٨. وترجع الباحثة ذلك إلى حجم التدريب البدنى والمهارى التخصصى التى يحتوى عليه برنامج شعبة التدريب مما يؤهل الطّالّبة لمواكبة متطلبات سوق العمل بعد تخرجها من خلال إعدادها كمدرّبة رياضية فى النشاط الرياضى التخصصى.

شعب التدريب لا يلتحق بها إلا من يمارسن أو مارسن الرياضة أو أى نشاط بدنى قبل المرحلة الجامعية وهذا مما يميز شعبة التدريب عن الشعب الأخرى.

وأشارت النتائج أن الوسط الحسابى لمؤشر الكفاءة البدنية لطلّابات برنامج التدريب $٦,٢٥٣ + ٩١,٥٩٢$ يمثل أعلى قيمة بالمقارنة بالبرامج الدراسية الأخرى (الترويج - التعليم - ثم الإدارة) وترى الباحثة أن ارتفاع الوسط الحسابى لبرنامج الترويج بالمقارنة إلى برنامج التعليم قد يرجع إلى البرنامج الدراسى للطلّابات فى برنامج الترويج بوجود بعض النشاط البدنى مما يعطى فرصة أكبر للتدريب على المهارات الحركية وبالتالى زيادة مستوى الكفاءة البدنية لديهن.

ويتبين تفوق شعبة التدريب عن الشعب الأخرى وهو ما ترى الباحثة أنها نتيجة طبيعية ولكن ما يستدعى التوقف عنده هو نتائج الشعب الأخرى التى تذبذبت فى الكفاءة البدنية وحدث قصوراً وصل إلى حد السالب أى أقل من مستوى كفاءة القياس القبلى، لذا ترى الباحثة ضرورة مراجعة المقررات التطبيقية للبرامج الثلاثة لحل وتغطية هذا القصور فى البرنامج الدراسى فنجد أن مؤشر الكفاءة البدنية لشعبة تعليم فى القياس القبلى بلغت $٧٥,٤٤٧ + ٩,٠٥٦$ هبطت عن هذا المستوى فى نهاية الفرقة الرابعة إلى $٧٤,٩٣٣ + ٨,٥٢٥$ وكذلك شعبة الإدارة التى بلغت أكثر هبوطاً نزول فى مستوى الكفاءة البدنية وصلت إلى فارق $٢,٦٥٣$ أقل فى نهاية الفرقة الرابعة عن مستوى الكفاءة البدنية فى القياس القبلى.

الاستنتاجات

في ضوء نتائج البحث وفي حدود العينة والمنهج المستخدم تم استنتاج الآتي:

- ١) وجود فروق دالة إحصائية بين متوسط درجات الفرق الأولى والثانية لصالح الفرق الثانية، وبين الفرق الأولى والفرقة الثالثة لصالح الفرق الثالثة في مؤشر الكفاءة البدنية، وكذلك بين الفرق الأولى والرابعة لصالح الفرق الرابعة.
- ٢) عدم وجود فروق دالة إحصائية بين متوسط مؤشر الكفاءة البدنية بين الفرق الثانية والثالثة.
- ٣) وجود فروق دالة إحصائية بين متوسط درجات الفرق الثانية والفرقة الرابعة لصالح الفرق الثانية، وبين طالبات الفرق الثالثة والرابعة لصالح الفرق الثالثة في مؤشر الكفاءة البدنية.
- ٤) وجود تحسن في مؤشر الكفاءة البدنية لشعبة التدريب عنه في الشعب الأخرى (تعليم - إدارة - ترويح).
- ٥) وجود تحسن في مؤشر الكفاءة البدنية لشعبة التدريب في الفرق الرابعة عنه في الفرق الثالثة.
- ٦) يوجد تباين في شعبة التدريب في مستوى الكفاءة البدنية طبقاً لنوع النشاط المتخصص، حيث ظهرت فروق دالة إحصائية في أنشطة مسابقات الميدان والمضمار والسباحة وتنس أرضي، وكرة السلة، والجمباز الإيقاعي، والكرة الطائرة، والجمباز الفني مما يشير إلى أهمية دور البرنامج الدراسي بالكلية في مدى التحسن في مستوى الكفاءة البدنية للطالبات.

التوصيات

في ضوء نتائج هذه الدراسة يمكن تقديم التوصيات التالية :

- * إسناد عدد ٢ ساعة للياقة البدنية اسبوعياً للفرق الثالثة والرابعة تدرج ضمن الخطة الدراسية للبرامج العلمية الأربعة وليس لشعبة التدريب فقط وذلك عند استحداث اللائحة حيث أن الكفاءة البدنية مؤشر للتحصيل الدراسي والأداء الأكاديمي.
- * إعادة النظر في توصيف محتوى المقررات الدراسية الخاصة بشعبة التدريب وخاصة المقررات التطبيقية حتى يمكن الوصول إلى مواصفات خريج شعبة التدريب في ضوء المعايير الأكاديمية العلمية .

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لتنمية القدرات التوافقية المركبة

وتأثيره على بعض

المهارات الأساسية في

كرة السلة

للتلاميذ

أ.د. محمد إبراهيم محمود سلطان

د. أيمن عبد العزيز عبد الحميد

المقدمة ومشكلة البحث

معظم التلاميذ يجدون صعوبة في تغيير اتجاه الجسم أثناء أداء المهارات المختلفة كما أنهم يفتقدون إلى القدرات التوافقية المركبة في استخدامهم لحركات الجذع مما يؤدي إلى ارتباك أداؤهم على الرغم من أن القدرات التوافقية المركبة لها دوراً مهماً في التأثير على فاعلية الأداء لدى تلاميذ المدرسة الرياضية الإعدادية تخصص كرة السلة أثناء المباريات وفي نتيجة المباريات حيث أنها تعتبر من أهم القدرات الأساسية التي لها نسبة عالية في المساهمة في إحراز الأهداف والفوز بالمباريات وذلك عند مقارنتها مع باقي القدرات الأخرى.

هدف البحث :

يهدف هذا البحث إلى وضع برنامج تدريبي لتتمية القدرات التوافقية المركبة لتلاميذ المدرسة الرياضية الإعدادية تخصص كرة السلة والتعرف على تأثير البرنامج التدريبي على كل من :

١- بعض المتغيرات البدنية (السرعة . القوة التحمل . الرشاقة . المرونة . القدرة العضلية) لتلاميذ المدرسة الرياضية الإعدادية تخصص كرة السلة .

٢- بعض المهارات الأساسية في كرة السلة (التمريرة الصدرية - المحاوراة الجزاجية- التصويب من الثبات «الرمية الحرة») لتلاميذ المدرسة الرياضية الإعدادية تخصص كرة السلة .

٣- مستوى القدرات التوافقية المركبة لتلاميذ المدرسة الرياضية الإعدادية تخصص كرة السلة .

فروض البحث:

١- توجد فروق ذات دلالة إحصائية بين متوسطات القياسات القبلية والقياسات البعدية (لتلاميذ العينة قيد البحث) في المتغيرات البدنية لصالح وفي اتجاه متوسطات القياسات البعدية .

٢- توجد فروق ذات دلالة إحصائية بين متوسطات القياسات القبلية والقياسات البعدية (لتلاميذ العينة قيد البحث) في بعض المهارات الأساسية في كرة السلة لصالح وفي اتجاه متوسطات القياسات البعدية .

٣- توجد فروق ذات دلالة إحصائية بين متوسطات القياسات القبلية والقياسات البعدية (لتلاميذ العينة قيد البحث) في

القدرات التوافقية المركبة لصالح وفي اتجاه متوسطات القياسات البعدية .

مصطلحات البحث:

القدرات التوافقية - الأداء المهاري المركب - القدرات التوافقية المركبة

إجراءات البحث:

منهج البحث:

استخدم الباحثان المنهج التجريبي بأسلوب القياس (القبلي - البعدي) على مجموعة واحدة .

مجتمع وعينة البحث:

تم اختيار عينة البحث بالطريقة العمدية من تلاميذ المدرسة الرياضية الإعدادية بمحافظة أسيوط تخصص كرة السلة (تلاميذ الفرقة الثانية إعدادي) وبلغ حجم العينة (٢٠) تلميذاً جميعهم خضعوا للبرنامج التدريبي كمجموعة تجريبية واحدة، وقد قام الباحثان بإجراء التجانس لعينة البحث في متغيرات (السن والطول والوزن والاختبارات البدنية واختبارات المهارات الأساسية في كرة السلة واختبار القدرات التوافقية المركبة)

وسائل جمع البيانات:

- الاختبارات البدنية مرفق (١) : تم اختيار مجموعة من الاختبارات لقياس عناصر اللياقة البدنية تبعاً لصدق الاختبارات وسهولة تنفيذها وهي: عدو ٢٠متر- الجلوس من الرقود - الجري الجزاجي- ثنى الجذع أماماً أسفل - الوثب العمودي - الجري في المكان باستمرار .

- اختبارات المهارات الأساسية في كرة السلة مرفق (٢) : تم اختيار الاختبارات تبعاً لصدق الاختبارات وسهولة تنفيذها وهي : سرعة ودقة

٨ أسابيع بواقع ثلاث وحدات أسبوعية اعتباراً من السبت ٢٠١٢/٢/٢٥م حتى الأربعاء ٢٠١٢/٤/١٨م وبذلك يكون عدد الوحدات التدريبية للبرنامج (٢٤) وحدة .

القياسات البدنية:

أُجريت القياسات البدنية بعد ثمانية أسابيع من بدأ تطبيق البرنامج وذلك في أيام السبت والأحد والاثنين ٢٠١٢/٤/٢٣، ٢٢، ٢١م وذلك لجميع الاختبارات قيد البحث (الاختبارات البدنية والمهارية واختبار القدرات التوافقية المركبة) بنفس أسلوب التطبيق للقياس القبلي وتحت نفس الظروف ثم تم جمع البيانات وجدولتها لمعالجتها إحصائياً .

المعالجات الإحصائية المستخدمة:

المتوسط الحسابي - الانحراف المعياري - الالتواء - الارتباط - اختبار ت.

عرض النتائج :

التمريرة الصدرية - المحاورة الزجراجية - دقة التصويب من الثبات (الرمية الحرة) .

- اختبار القدرات التوافقية المركبة مرفق (٣) البرنامج التدريبي مرفق (٤) .

- التقنين العلمي للاختبارات والقياسات المستخدمة:

خطوات تنفيذ البحث:

القياسات القبلية: أُجريت القياسات القبلية على مجموعة البحث التجريبية وذلك لجميع الاختبارات قيد البحث (الاختبارات البدنية والمهارية واختبار القدرات التوافقية المركبة) وذلك أيام الثلاثاء والأربعاء والخميس ٢٠١٢/٢/١٦، ١٥، ١٤م.

تطبيق البرنامج:

تم تطبيق وحدات البرنامج على عينة البحث التجريبية حيث تم التنفيذ بواسطة المساعدين وتحت إشراف الباحثان ، وكانت مدة التطبيق

جدول (١) قيمة الفروق في الاختبارات البدنية ن = ٢٠

الاختبارات	الغرض قياس	القياس القبلي		القياس البعدي		قيمة « ت »
		ع	م	ع	م	
العدو ٣٠ متر	السرعة	٨,٠٠	٤٠٨.	٦,٦٧	٤١٨.	٩,١٩
الجلوس من الرقود	القوة	١٤,٤٥	١,٧٩	٢٠,٥٥	١,٥٠	١١,٧٨
الجري الزجراجي	الرشاقة	٩,٣٥	٧٤٢.	٧,٥٨	٤٥٨.	١٥,١٨
ثنى الجذع أماماً أسفل	المرونة	٢,٥٥	١,٢٣	٨,٩٠	١,٤٨	١٨,١٤
الوثب العمودي	القدرة العضلية	٤٥,٥٠	٦,٠٧	٦٣,٦٥	٢,٨١	١٣,١٢
الجري في المكان	التحمل	٢٨,٩٠	٣,٥٨	٣٨,٨٥	١,٤٢	١٢,٠٧

قيمة ت الجدولية عند مستوى دلالة ٠,٠٥ = ٢,٠٩

الاختبارات البدنية قيد البحث ولصالح متوسطات درجات القياسات البعدية حيث تراوحت قيمة (ت) المحسوبة ما بين (١٩,١٩ : ١٨,١٤).

يتضح من جدول (١) وجود فروق دالة إحصائية بين متوسطات درجات القياسات القبليّة والبعدية لأفراد العينة قيد البحث عند مستوى دلالة ٠,٠٥ في جميع

ن = ٢٠

جدول (٢) قيمة الفروق في الاختبارات المهارية

الاختبارات	الهدف قياس	القياس القبلي		القياس البعدي		قيمة « ت »
		ع	م	ع	م	
سرعة ودقة التمريرة الصدرية	التمرير	١٩,٣٥	٢,٠٨	٢٤,٧٥	١,٨٦	١٠,٠٩
المحاورة الزجراجية	المحاورة	٣٨,٩٠	٣,٠٥	٢٩,١٥	١,٩٢	١١,٤٤
دقة التصويب من الثبات (الرمية الحرة)	التصويب	٩,٩٠	١,٧٧	١٥,٨٥	١,٣٤	١٣,٢٢

قيمة ت الجدولية عند مستوى دلالة ٠,٠٥ = ٢,٠٩

جميع الاختبارات المهارية قيد البحث ولصالح متوسطات درجات القياسات البعدية حيث تراوحت قيمة (ت) المحسوبة ما بين (١٠,٠٩ : ١٣,٢٢) .

يتضح من جدول (٢) وجود فروق دالة إحصائية بين متوسطات درجات القياسات القبليّة والبعدية لأفراد العينة قيد البحث عند مستوى دلالة ٠,٠٥ في

ن = ٢٠

جدول (٣) قيمة الفروق في الاختبارات المهارية

الاختبار	القياس القبلي		القياس البعدي		قيمة « ت »
	ع	م	ع	م	
القدرات التوافقية المركبة	٨٦,٠٠	٤,٧٦	٦٥,٨٥	٢,٧٩	١٧,٢٤

قيمة ت الجدولية عند مستوى دلالة ٠,٠٥ = ٢,٠٩

في اختبار القدرات التوافقية المركبة ولصالح متوسطات درجات القياسات البعدية حيث بلغت قيمة (ت) المحسوبة (١٧,٢٤) .

يتضح من جدول (٣) وجود فروق ذات دلالة إحصائية بين متوسطات درجات القياسات القبليّة والبعدية لأفراد العينة قيد البحث عند مستوى دلالة ٠,٠٥

مناقشة النتائج:

يتضح من جدول (١) وجود فروق دالة إحصائية بين متوسطات درجات القياسات القبليّة والبعدية لأفراد العينة قيد البحث عند مستوى دلالة ٠,٠٥ في جميع الاختبارات البدنية قيد البحث ولصالح متوسطات درجات القياسات البعدية حيث تراوحت قيمة (ت) المحسوبة ما بين (١٩,٩ : ١٨,١٤).

يعزى الباحثان هذا التطور في مستوى اللياقة البدنية إلى طبيعة البرنامج وما يحتويه من تدريبات باستخدام الكرة مناسبة لإمكانات وقدرات العينة وموجهة لتنمية عناصر اللياقة البدنية حيث اشتمل البرنامج على تدريبات القوة ضد مقاومات مناسبة للمرحلة السنية، وتدرّبات ثني ومد لأقصى مدى ممكن لمفاصل الفخذ والكف والعمود الفقري باستخدام الكرة كما استخدمت تمارين السرعة الانتقالية باستخدام الكرة كما أن تكرار الأداء لعدة مرات يؤدي إلى اكتساب عنصر التحمل بأنواعه، كما تم استخدام تمارين الجري الجزاجي بالكرة وكذلك الوثب وتغيير الاتجاهات بسرعة من مستوى عالٍ إلى مستوى منخفض.

ويؤكد ذلك « مدحت صالح » (٢٠٠٥م) أن كرة السلة تعد مثالا للرياضيات ذات الإيقاع السريع وهي لعبة الرشاقة سواء بالكرة أو بدون كرة، والمبادئ الأساسية للحركة توجد في كل من المهارات الدفاعية والهجومية. (٣: ٢٤)

كما يتضح من جدول (٢) وجود فروق دالة إحصائية بين متوسطات درجات القياسات القبليّة والبعدية لأفراد العينة قيد البحث عند مستوى دلالة ٠,٠٥ في جميع الاختبارات المهارية قيد البحث ولصالح متوسطات درجات القياسات البعدية حيث تراوحت قيمة (ت) المحسوبة ما بين (١٠,٠٩ : ١٣,٢٢).

ويعزى الباحثان ذلك إلى أن تأثير البرنامج التدريبي المقترح والمخطط والمقن علمياً قد أدى إلى تحسن المهارات الأساسية في كرة السلة لدى عينة البحث ذلك نتيجة تدريبات القدرات التوافقية المتنوعة الخاصة بكرة السلة التي أثرت على فاعلية الأداء.

ويؤكد ذلك « عصام عبد الخالق » (٢٠٠٣م) (٢) بأنه كلما كانت تلك التدريبات الخاصة مشابهة في بنائها للحركة المراد تعلمها وتكوين مستوى عالي من القدرة البدنية والحركية والذي يتلاءم مع صفات الحركة الديناميكية كلما زاد تعلم وتحسن الأداء المهاري.

كما يتضح من جدول (٣) وجود فروق ذات دلالة إحصائية بين متوسطات درجات القياسات القبليّة والبعدية لأفراد العينة قيد البحث عند مستوى دلالة ٠,٠٥ في اختبار القدرات التوافقية المركبة ولصالح متوسطات درجات القياسات البعدية حيث بلغت قيمة (ت) المحسوبة (٢٤,١٧).

ويعزى الباحثان التطور في المستوى إلى أن البرنامج المقترح يشتمل على تدريبات بدنية ومهارية وتوافقية بالكرة تنمي القدرات التوافقية المركبة (قدرة رد الفعل، قدرة التوزيع، قدرة ضبط الإيقاع، قدرة التوازن، قدرة تحديد الاتجاه المكاني) لدى التلاميذ وذلك لمحاولة إنجاز العمل الحركي تحت ضغط الزمن حيث كلما قل زمن الإنجاز كلما زاد تحسن المستوى.

ويعضد ذلك « طه إسماعيل وعمرو أبو المجد وإبراهيم شعلان » بأن القدرات البدنية والتوافقية والمهارية والخططية والإرادية والأخلاقية جمعاء هي عبارة عن العوامل المحددة لمستوى لاعب كرة القدم وهي تلازمه بعضها مع البعض (١: ٩٦)

الاستخلاصات

- وجود فروق دالة إحصائية بين متوسطات درجات القياسات القبلية والبعدية لأفراد العينة قيد البحث عند مستوى دلالة ٠,٠٥ في جميع الاختبارات البدنية قيد البحث ولصالح متوسطات درجات القياسات البعدية حيث تراوحت قيمة (ت) المحسوبة ما بين (١٨,١٤ : ٩,١٩).
- وجود فروق دالة إحصائية بين متوسطات درجات القياسات القبلية والبعدية لأفراد العينة قيد البحث عند مستوى دلالة ٠,٠٥ في جميع الاختبارات المهارية قيد البحث ولصالح متوسطات درجات القياسات البعدية حيث تراوحت قيمة (ت) المحسوبة ما بين (١٣,٢٢ : ١٠,٠٩).
- وجود فروق ذات دلالة إحصائية بين متوسطات درجات القياسات القبلية والبعدية لأفراد العينة قيد البحث عند مستوى دلالة ٠,٠٥ في اختبار القدرات التوافقية المركبة ولصالح متوسطات درجات القياسات البعدية حيث بلغت قيمة (ت) المحسوبة (١٧,٢٤).

التوصيات

- استخدام البرنامج التدريبي في التدريب لتنمية وتحسين القدرات البدنية والمهارية والقدرات التوافقية المركبة لتلاميذ المدرسة الرياضية الإعدادية تخصص كرة السلة.
- أن تحتوى الوحدات التدريبية اليومية على تمارين توافقية باستخدام الكرة خاصة بالنواحي البدنية والمهارية.
- مراعاة الفروق الفردية أثناء (تقنين الأحمال) بين التلاميذ في المراحل السنوية المختلفة عند التدريب على القدرات البدنية وكذلك (إتقان وتثبيت) المهارات الأساسية في كرة السلة باستخدام البرنامج التدريبي حتى تحدث التنمية بصورة متكاملة لدى جميع التلاميذ.

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تأثير

استخدام التربية الحركية

على القدرات الإدراكية الحركية والمهارات الحركية الأساسية للأطفال الصم البكم

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بكلية التربية الرياضية - جامعة بنها

المقدمة ومشكلة البحث

يتفق كل من ادمز Adams (١٩٧٦م) ، إقبال بشير وإقبال مخلوف (١٩٨١م) ، مصطفى فهمي (١٩٩٥م) على أن فئة الصم البكم غير قادرين على المشاركة في ممارسة بعض الأنشطة الرياضية التي لا تتناسب معهم لأن فقدان الحاسة السمعية من أشد أنواع فقدان الحسي تأثيراً على سلوك الفرد لأنها التي يعتمد عليها الإنسان في معرفة ما يدور حوله وفي تكوين خبراته وتحديد علاقاته بالبيئة التي يعيش فيها، كما أن فقدان السمع من المعوقات التي تفرض سباجاً من العزلة حول الأصم كما أن فقدان هذه الحاسة يعد مشكلة بالغة الدقة تواجه المشتغلين بتأهيل وتربية المعاقين سمعياً حيث أن أمر تعليمهم وتدريبهم يعد من أصعب المجالات وأشدّها لما يتطلبه ذلك من خبرة وصبر من جانب فريق التأهيل الذي يقع عليه عبء العمل مع هؤلاء الأشخاص وإعدادهم للحياة ، حيث أن طفل الحاجات الخاصة يعاني نقصاً أو قصوراً في إمكانية أداء مناشط معينة تفقده القدرة على التكيف النفسي والاجتماعي، الأمر

تأثير استخدام التربية الحركية على القدرات الإدراكية الحركية والمهارات الحركية الأساسية للأطفال الصم البكم

الطفل وتحبب إليه المادة وتستميل ميوله الطبيعية وعواطفه وتقوي الصلة بين المدرس والطفل وتزيد من خبرات الطفل بطريقة غير مباشرة . كما أنها تعتبر نشاط خلاق شيق يجذب انتباه الأطفال ويجعلهم أكثر مشاركة وحماساً في الدرس.

ويشير كل من عبدالفتاح لطفى (د.ت)، وعنايات فرج (١٩٨٧م) إلى أن المدرسة الابتدائية تعتبر حقلاً خصباً ومناسباً لتقديم صور مختلفة من الأنشطة الحركية المحببة حيث تعتبر مرحلة التعليم الابتدائي القاعدة الأساسية لتعلم المهارات الحركية باعتبارها مرحلة تكوين واكتساب ما قد يمارسه طوال حياته. وهذه المرحلة الابتدائية من أهم المراحل في حياة الإنسان ففي هذه المرحلة تنمو قدرات الطفل وتنضج مواهبه ويكون قابلاً للتأثير والتوجيه والتشكيل وتحديد اتجاهاته في المستقبل إذ أن الاهتمام بالطفولة هو في الواقع اهتمام بمستقبل الأمة كلها كما أن إعداد الأطفال وتربيتهم هو إعداد لمواجهة التحديات الحضارية التي تفرضها حتمية التطور.

وتشير نبيلة خليفة (١٩٨١م) إلى أن خبراء نمو الطفل قد توصلوا إلى أن الإدراك والحركة لا ينفصلان عن بعضهما وأن النمو الإدراكي السليم يعتمد اعتماداً مباشراً على اكتساب القدرات الحركية وأنه إذا نقصت لدى الطفل أو إذا حرم من هذه الخبرات فسوف يشهد قصوراً إدراكياً.

ويرى الباحث أن الألعاب الصغيرة والقصة الحركية تعمل على وجود تفاعل بين الإدراك والحركة ولذلك ينمو ويتحسن الإدراك الحركي حيث يتم تعلم المهارات الحركية من خلال هذه

الذي يحرمه من أداء واجباته الأساسية دون الاستعانة بتعليم البرامج التعويضية التي تقدم له نوعاً خاصاً من الخدمات والرعاية التي تمكنه من تحقيق أقصى ما تسمح به استعداداته وإمكاناته.

ويشير محمد السيد خليل (١٩٩٦م) أن برامج التربية الحركية تظهر أهميتها في إكساب الأطفال الخبرات الإدراكية الحركية التي تساهم في نمو قدراتهم الإدراكية لاستخدام الجسم من خلال إدراك علاقته بالمكان وبالأشياء من حيث الارتفاع والانخفاض والاتساع ، والقدرة على التحكم في مركز ثقل الجسم في مظاهر التوازن الثلاثة (الاستاتيكي والديناميكي والدوراني في الهواء) ، والقدرة على القذف واللقف والتمرير والدرجة والتعطيط والدفع معتمداً على التوافق بين العين واليد والعين والقدم، والتمييز السمعي وتقليد الحركات المرئية، وإدراك الأشكال المختلفة من التشابه والتضاد، وابتكار الحركات.

ويرى محمد خطاب (د.ت) أن الألعاب الصغيرة قد تهتم بتحسين الصفات البدنية المتعددة الجوانب أو تشمل في درس خاص تطوير المهارات الحركية المرتبطة بالفعاليات الرياضية وترقيتها وهي تكون على شكل منافسات وسباقات بين الأفراد وما لا شك فيه أن درس التربية الرياضية الذي تستخدم الألعاب الصغيرة والألعاب الفكرية والترويحية تعتبر من أنجح دروس التربية الرياضية التي ترمي إلى تحقيق الأهداف التربوية الحديثة.

ويتفق كل من محمد خطاب (د.ت) ، عواطف ابراهيم و ابراهيم مطاوع (١٩٨٥م) على أن القصة الحركية تتمشى مع طبيعة

- الفروق بين المجموعتين التجريبية والضابطة في القدرات الإدراكية الحركية والمهارات الحركية الأساسية.

فروض البحث:

برنامج تربية حركية له تأثير إيجابي على تنمية القدرات الإدراكية الحركية والمهارات الحركية الأساسية لدى تلاميذ الصف الثالث الابتدائي من الصم البكم.

توجد فروق دالة إحصائية بين المجموعتين التجريبية والضابطة في القدرات الإدراكية الحركية والمهارات الحركية الأساسية لصالح المجموعة التجريبية.

المصطلحات المستخدمة:

التربية الحركية :

هي ذلك الجانب من التربية البدنية أو التربية الأساسية التي تتعامل مع النمو والتدريب لأنماط الحركة الطبيعية الأساسية باعتبارها تختلف عن المهارات الحركية الخاصة بالأنشطة الرياضية (أمين واسامة : ٤٠).

الدراسات السابقة:

قامت ليلي حامد عام ١٩٩١م بدراسة عنوانها «تأثير برنامج ألعاب صغيرة على بعض مظاهر الاضطرابات السلوكية للتلاميذ الصم والبكم»، وكانت أهم النتائج أن مقياس الاضطرابات السلوكية يمكنه قياس مدى التغيير في سلوكيات التلاميذ الصم، كما أن برنامج الألعاب الصغيرة له تأثيراً إيجابياً على تحسين سلوكيات التلاميذ الصم (١٩)، كما قامت ابتهاج عبد العال عام ١٩٩٤م بدراسة عنوانها «تأثير برنامج تربية حركية مقترح على تنمية القدرات الإدراكية الحركية وبعض مهارات الكرة الطائرة

الألعاب الصغيرة والقصص الحركية ومن هنا توجد عمليات التكيف المختلفة التي يقوم بها المؤدي تجاه متطلبات المهمة كما يدركها وهو يعتمد على تفسيراته للمعلومات الحسية المتاحة وذلك يعني أن الإدراك عامل مهم في تعديل النشاط البدني وتنميته لدى الفرد كما ثبت أنه توجد علاقة أكيدة بين الحركة وأوجه السلوك الإدراكي ، ومن خلال خبرة الباحث بالتعامل مع الصم البكم ، ومن خلال قيامه بالإشراف على مدارس التربية الخاصة وتقييم طلاب الكلية أثناء تواجدهم بمدرسة الأمل للصم في فترة التربية العملية، لاحظ أن هناك نسبة كبيرة من التلاميذ الصم البكم لا يخرطون مع زملائهم في دروس التربية الرياضية المدرسية ولا يشاركون زملائهم في أى عمل جماعي وهم بذلك يفتقرون تماماً إلى التكامل الاجتماعي والقدرة على الاتصال، وقد يرجع ذلك إلى الأسلوب المتبع معهم وهو أسلوب الشرح والنموذج ، فقد رأى الباحث ضرورة أن يكون للنشاط الرياضي الموجه والمنظم دوراً مهماً في محاولة إعادة هؤلاء التلاميذ المنعزلين إلى التعامل مع أقرانهم وإلى المشاركة في العمل الجماعي من خلال برنامج التربية الحركية متضمناً للألعاب الصغيرة والقصص الحركية لمعرفة مدى إسهام هذا النشاط الرياضي الموجه والمقصود على تنمية القدرات الإدراكية الحركية والمهارات الحركية الأساسية.

أهداف البحث:

يهدف البحث إلى التعرف على:

- تأثير برنامج تربية حركية على تنمية القدرات الإدراكية الحركية والمهارات الحركية الأساسية لدى تلاميذ الصف الثالث الابتدائي من الصم البكم.

تأثير استخدام التربية الحركية على القدرات الإدراكية الحركية والمهارات الحركية الأساسية للاطفال الصم البكم

بدراسة بعنوان تأثير برنامج تربية حركية على الإدراك الحركي والحد من الإصابات الرياضية لتلاميذ الصف الأول الابتدائي ، وكانت أهم النتائج وجود فروق ذات دلالة إحصائية بين القياسين البعدين للمجموعتين التجريبية والضابطة في متغيرات الإدراك الحركي قيد البحث ولصالح تلاميذ المجموعة التجريبية .

إجراءات البحث :

المنهج المستخدم:

استخدم الباحث المنهج التجريبي باتباع القياس القبلي البعدي لمجموعتين إحداهما تجريبية والأخرى ضابطة.

عينة البحث:

قام الباحث باختيار عينة البحث بالطريقة العشوائية من تلاميذ الصف الثالث الابتدائي بمدرسة الأمل للصم ببها حيث اشتملت على (٤٢) تلميذاً من مجتمع البحث والبالغ عدده (٥٩) تلميذاً، وتم استبعاد عدد (١٧) تلميذاً لكونهم مصابين بأكثر من إعاقة وكثيري الغياب ، كما تم استبعاد عدد (١٢) تلميذاً لإجراء الدراسة الاستطلاعية عليهم ، وبذلك أصبحت عينة البحث الأساسية (٣٠) تلميذاً تم تقسيمهم إلى مجموعتين إحداهما تجريبية والأخرى ضابطة وقوام كل منهما (١٥) تلميذاً، وقد قام الباحث بالتأكد من اعتدالية توزيع عينة البحث في بعض المتغيرات والتي قد يكون لها تأثير على المتغير التجريبي مثل النمو (السن ، الطول ، الوزن) وبعض الصفات البدنية ، حيث تراوحت قيم معاملات الالتواء ما بين (٠,٩٨ ، -٠,٩٤) مما يؤكد اعتدالية توزيع عينة البحث في هذه المتغيرات.

المصغرة لتلميذات المرحلة الأولى من التعليم الأساسي»، وكانت أهم النتائج أن برنامج التربية الحركية له تأثير إيجابي على تنمية القدرات الإدراكية الحركية لتلميذات المرحلة الأولى من التعليم الأساسي (١) ، كما قامت زوزو حامد عام ١٩٩٩م بدراسة عنوانها «فاعلية استخدام برنامج ألعاب تمهيدية مقترح على تعلم المهارات الأساسية وتحسن بعض القدرات الحركية في كرة اليد لدى الصم والبكم» ، وكانت أهم النتائج أن استخدام الألعاب التمهيدية أدى إلى تحسن القدرات الحركية المرتبطة بالمهارات الأساسية لدى المجموعة التجريبية (٧) ، كما قامت ماجدة السيد عام ١٩٩٩م بدراسة عنوانها «تأثير برنامج للقصص الحركية على بعض المتغيرات المختارة لرياض الأطفال»، وكانت أهم النتائج أن برنامج القصص الحركية له تأثير إيجابي على كل من القياسات البدنية والتكيف الشخصي والاجتماعي لرياض الأطفال (٢١) ، كما أجرى « كليرسيديا Clersida » عام ٢٠٠٢م دراسة بعنوان « برنامج التربية الحركية لأطفال ما قبل المدرسة وتأثيره على تحسين الصحة العامة » وأسفرت أهم النتائج عن أن البرنامج المقترح له تأثير إيجابي في تنمية الصحة العامة للأطفال وذلك في التخلص من الوزن الزائد عن الأطفال وتحسين الحالة الصحية لدى الأطفال (١٠) ، كما قام أحمد عبد العظيم عبد الله عام ٢٠٠٩م بإجراء دراسة بعنوان تأثير برنامج تربية حركية على القدرات الحركية ومستوى أداء بعض المهارات الأساسية لبراعم كرة القدم ، وكانت أهم النتائج أن برنامج التربية الحركية المقترح يؤثر تأثيراً إيجابياً على تحسين القدرات البدنية والمهارات الأساسية لبراعم كرة القدم ، كما قام عبدالعزيز عبدالحكيم بلاطة عام ٢٠٠٩م

وسائل وأدوات جمع البيانات:

أولاً: الاختبارات البدنية: (مرفق ١)

ثانياً : مقياس بورديو Purdue

للقدرة الإدراكية الحركية : إعداد أحمد

عمر سليمان (مرفق ٢)

ثالثاً : اختبارات المهارات الحركية

الأساسية (مرفق ٣)

رابعاً: برنامج التربية الحركية:

إعداد الباحث (مرفق ٤)

وقد قام الباحث بحساب معامل الثبات قام الباحث بإجراء التطبيق وإعادة على عينة البحث الاستطلاعية حيث تم تطبيق الاختبارات البدنية والقدرة الإدراكية الحركية واختبارات المهارات الحركية الأساسية وتم حساب معامل الارتباط بين التطبيقين حيث تراوحت قيم معاملات الارتباط ما بين ٠,٧١٤ ، ٠,٨٥١ ولحساب الصدق استخدم الباحث صدق التمايز بين مجموعتين إحداهما مميزة والأخرى غير مميزة وبعد الانتهاء من التطبيق تم حساب دلالة الفروق بين المجموعتين ٤,٢٠ ، ٨,٣٩ وهذه القيم جميعها ذات دلالة معنوية الأمر الذي يشير إلى تمتع المتغيرات قيد الدراسة بمعامل ثبات وصدق يمكن الاعتماد به .

الدراسة الأساسية:

أولاً: القياس القبلي:

قام الباحث بإجراء القياس القبلي على مجموعتي البحث التجريبية والضابطة وذلك بأن قام بتطبيق المجالات الرئيسية للقدرة الإدراكية الحركية واختبارات المهارات الحركية الأساسية وذلك بغرض إجراء التكافؤ حيث كانت تراوحت قيمة «ت» المحسوبة ما بين ١٠,١٥ ، ١,٠٩ وهى قيم غير دالة إحصائياً وبذلك تكون مجموعتي البحث متكافئتين فى المتغيرات قيد الدراسة ، ثم قام الباحث بتنفيذ تجربة البحث فى الفترة من ٢٨/١٠/٢٠١٢م حتى ٨/١٢/٢٠١٢م على المجموعة التجريبية دون الضابطة حيث تم تطبيق برنامج التربية الحركية على المجموعة التجريبية لمدة ستة أسابيع بواقع وحدتين فى الأسبوع حيث تم التطبيق فى جزء الإحماء والمخصص له خمسة دقائق ، وجزء الإعداد البدني والمخصص له خمسة عشرة دقيقة فى درس التربية الرياضية، أما المجموعة الضابطة فتم تنفيذ محتوى الإحماء والإعداد البدني المتبع فى منهاج التربية الرياضية. وبعد الانتهاء من تنفيذ التجربة قام الباحث بإجراء القياس البعدي على المجموعتين التجريبية والضابطة حيث تم قياس القدرات الإدراكية الحركية واختبارات المهارات الحركية الأساسية والتي تم قياسها قبل تنفيذ التجربة وب نفس شروط وظروف القياس القبلي، وبعد الانتهاء من التطبيق تم تعريخ النتائج فى جداول معدة لذلك تمهيدا لمعالجتها إحصائياً .

تأثير استخدام التربية الحركية على القدرات الإدراكية الحركية والمهارات الحركية الأساسية للأطفال الصم البكم

عرض النتائج ومناقشتها: أولاً: عرض النتائج:

جدول (١) المتوسط الحسابي والانحراف المعياري وقيمة (ت) بين القياسين القبلي والبعدي للمجموعة الضابطة في القدرات الإدراكية الحركية والمهارات الحركية الأساسية

المتغيرات	الاختبارات	القياس القبلي		القياس البعدي		الفرق	قيمة (ت)
		ع	س	ع	س		
القدرات الإدراكية الحركية	التوازن والقوام (درجة)	٧,٧٧	٠,٨٣	٨,١٢	٠,٩١	٠,٣٥	١,١٩
	تصور الجسم (درجة)	١٠,٢٥	٠,٩٢	١٠,٨٤	١,١٣	٠,٥٩	١,٥٧
	المزاوجة الإدراكية الحركية (درجة)	١٧,٦٧	١,١٧	١٨,٠٥	١,٢٢	٠,٣٨	٠,٩٦
	التحكم البصري (درجة)	١٠,٢٤	٠,٧٥	١٠,٦١	٠,٩٢	٠,٣٧	١,٠٤
	إدراك الشكل (درجة)	٥,٤٤	١,١٤	٥,٩٢	١,٠٦	٠,٤٨	١,٢٧
المهارات الحركية الأساسية	اختبار الجري الزجراجي	١٠,٢١	٠,٤٨	٩,٣٧	٠,٣٣	٠,٨٤	١,٧٧
	اختبار الوثب العريض من الثبات	٤٦,٨٤	٠,٧٧	٤٨,٥٥	٠,٥٤	١,٧١	٣,٣٦
	اختبار ركل الكرة	٢٢,٤٣	٠,٣٢	٢٧,٦٨	٠,٦١	٥,٢٥	٥,٧٨
	اختبار رمي ولقف الكرة	٢٦,٦٧	٠,٦٣	٣٠,٨١	٠,٨٢	٤,١٤	٦,٤٢

• دال عند مستوى ٠,٠٥

يتضح من جدول (١) وجود فروق دالة إحصائية بين القياسين القبلي والبعدي للمجموعة الضابطة في اختبارات المهارات الحركية الأساسية في حين كانت الفروق غير دالة إحصائية في القدرات الإدراكية الحركية.

جدول (٢) المتوسط الحسابي والانحراف المعياري وقيمة (ت) بين القياسين القبلي والبعدي للمجموعة التجريبية في القدرات الإدراكية الحركية والمهارات الحركية الأساسية

المتغيرات	الاختبارات	القياس القبلي		القياس البعدي		الفرق	قيمة (ت)
		ع	س	ع	س		
القدرات الإدراكية الحركية	التوازن والقوام (درجة)	٧,٨٢	٠,٩٧	١٠,٧١	١,٠١	٢,٨٩	٦,٨٠
	تصور الجسم (درجة)	١٠,١٧	١,٠٧	١٢,٨٦	١,١٢	٢,٦٩	٦,١٤
	المزاوجة الإدراكية الحركية (درجة)	١٧,٦٥	١,١١	٢٠,٤٤	١,٢٦	٢,٧٩	٦,٥٩
	التحكم البصري (درجة)	١٠,١٢	٠,٨٩	١٣,٨٧	١,٣٨	٣,٧٥	٨,٦٤
	إدراك الشكل (درجة)	٥,٤٨	٠,٩٣	٧,٥٤	٠,٨٨	٢,٠٦	٥,١٧
المهارات الحركية الأساسية	اختبار الجري الزجراجي	١٠,٢٧	٠,٢٦	٨,٤٢	٠,٣١	١,٨٥	٦,٦١
	اختبار الوثب العريض من الثبات	٤٦,٧٢	٠,٨١	٥٠,٨٣	١,١٢	٤,١١	٧,٧٨
	اختبار ركل الكرة	٢٢,٤٨	٠,٤٧	٤٣,٢١	١,٣٩	٢٠,٧٣	٨,٥٦
	اختبار رمي ولقف الكرة	٢٦,٨١	٠,٥٥	٥١,٤٢	١,٨٢	١٤,٦١	١٠,١٩

• دال عند مستوى ٠,٠٥

يتضح من جدول (٢) وجود فروق دالة إحصائياً بين القياسين القبلي والبعدي للمجموعة التجريبية في القدرات الإدراكية الحركية واختبارات المهارات الحركية الأساسية ولصالح القياس البعدي.

جدول (٣) المتوسط الحسابي والانحراف المعياري وقيمة (ت) بين المجموعتين التجريبية والضابطة في القياس البعدي للقدرات الإدراكية الحركية والمهارات الحركية الأساسية

المتغيرات	الاختبارات	التجريبية		الضابطة		قيمة (ت)
		س	ع	س	ع	
القدرات الإدراكية الحركية	التوازن والقوام (درجة)	١٠,٧١	١,٠١	٨,١٢	٠,٩١	٧,١٣*
	تصور الجسم (درجة)	١٢,٨٦	١,١٢	١٠,٨٤	١,١٣	٤,٧٥*
	المزاوجة الإدراكية الحركية (درجة)	٢٠,٤٤	١,٢٦	١٨,٠٥	١,٢٢	٥,١٠*
	التحكم البصري (درجة)	١٣,٨٧	١,٣٨	١٠,٦١	٠,٩٢	٧,٣٥*
	إدراك الشكل (درجة)	٧,٥٤	٠,٨٨	٥,٩٢	١,٠٦	٤,٤٠*
المهارات الحركية الأساسية	اختبار الجري الزجراجي	٨,٨٢	٠,٣١	٩,٣٧	٠,٣٢	٦,٥٤*
	اختبار الوثب العريض من الثبات	٥٠,٨٣	١,١٢	٤٨,٥٥	٠,٥٤	٩,٨٧*
	اختبار ركل الكرة	٤٣,٢١	١,٣٩	٢٧,٦٨	٠,٦١	٥٥,٠٩*
	اختبار رمي ولقف الكرة	٥١,٤٢	١,٨٢	٣٠,٨١	٠,٨٢	٥٥,٦٠*

* دال عند مستوى ٠,٠٥

يتضح من جدول (٣) وجود فروق دالة إحصائياً بين المجموعتين التجريبية والضابطة في القياس البعدي للقدرات الإدراكية الحركية والمهارات الحركية الأساسية ولصالح المجموعة التجريبية.

بالإضافة إلى تركيز المنهج على عناصر اللياقة البدنية بجزء الإعداد البدني والتي تؤدي بشكل آلي مما أفقدها التشويق وأثر على القدرات الحركية الأساسية ولم يؤثر على القدرات الإدراكية الحركية.

كما يتضح من جدول (٢) وجود فروق دالة إحصائياً بين القياسين القبلي والبعدي للمجموعة التجريبية في القدرات الإدراكية الحركية واختبارات المهارات الحركية الأساسية ولصالح القياس البعدي.

ويعزي الباحث ذلك إلى أن برنامج التربية الحركية وما يتضمنه من ألعاب الصغيرة

ثانياً: مناقشة النتائج:

يتضح من جدول (١) وجود فروق دالة إحصائياً بين القياسين القبلي والبعدي للمجموعة الضابطة في اختبارات المهارات الحركية الأساسية في حين كانت الفروق غير دالة إحصائياً في القدرات الإدراكية الحركية.

ويعزي الباحث ذلك إلى تأثير البرنامج المتبع مع المجموعة الضابطة والذي ينقصه المرونة والاستمرارية في الأداء إلى جانب إغفال عامل التشويق الأمر الذي يؤدي إلى تسرب الملل والفتور إلى نفوس التلاميذ

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ويتضح من جدول (٢) وجود فروق دالة إحصائية بين المجموعتين التجريبية والضابطة في القياس البعدي للقدرات الإدراكية الحركية والمهارات الحركية الأساسية ولصالح المجموعة التجريبية.

ويعزى الباحث ذلك إلى التأثير الإيجابي لبرنامج التربية الحركية والمشمول على الألعاب الصغيرة والقصص الحركية حيث يرى أنه إذا كانت الألعاب الصغيرة والقصص الحركية تعود بالفائدة على الفرد العادي فهي بالتبعية تعود بالفائدة على الفرد الأصم البكم الذي لا يختلف عن السوي في شيء سوى فقدان حاستي السمع والكلام كما أنها تثير اهتمام الأصم وتعمل على توسيع وتعميق مداركه.

وتتفق هذه النتائج مع نتائج دراسة كل من **ليلى حامد** في أن برنامج الألعاب الصغيرة له تأثيراً إيجابياً على تحسين سلوكيات التلاميذ الصم ، ونتائج **سفيانز أحمد** في وجود فروق دالة إحصائية بين المجموعتين التجريبية والضابطة في الإدراك الحركي لصالح المجموعة التجريبية، ونتائج **ابتهاج عبد العال** في أن البرنامج له تأثير إيجابي على تنمية القدرات الإدراكية الحركية لتلميذات المرحلة الأولى من التعليم الأساسي ، ونتائج دراسة **زوزو حامد** في أن استخدام الألعاب التمهيدية أدى إلى تحسين القدرات الحركية المرتبطة بالمهارات الأساسية لدى المجموعة التجريبية ، ونتائج دراسة **ماجدة السيد** في أن برنامج القصة الحركية له تأثير إيجابي على كل من القياسات البدنية والتكيف الشخصي والاجتماعي لرياض الأطفال.

وقصص حركية له تأثير إيجابي على تنمية القدرات الإدراكية الحركية والمهارات الحركية الأساسية حيث اشتمل البرنامج المقترح على حركات الجري والوثب والمشي وكان له الأثر في إمداد عينة البحث التجريبية بالخبرات الحركية اللازمة لنمو المهارات الحركية الأساسية والقدرات الإدراكية الحركية لديهم وبالتالي يمكنهم من تحديد حالة وضع واتجاه الجسم وأجزائه أثناء الحركة.

حيث يشير محمد خطاب (د.ت) إلى أن الألعاب الصغيرة من الوسائل التربوية والتعليمية المهمة والناجحة والتي تساعد الفرد في أن ينمو نمواً كاملاً متزناً عقلياً وبدنياً ونفسياً واجتماعياً فضلاً عن إسهامها بقدر كبير في تنمية القدرة الوظيفية لأجهزة الجسم.

وتتفق هذه النتائج مع ما ذكره «أحمد عبد الرحمن» (١٩٩٠) أن برنامج التربية الحركية يتيح للأطفال محاولة تجريب الواجب الحركي الموكل إليهم في بيئة ذاتية تفاعلية مبنية على الحرية الحركية بعيدة عن التقليدية في التنفيذ الحركي والمتمثل في حصة التربية الرياضية التقليدية ، يتفق ذلك مع دراسة كل من «توسكى Toskie» (٢٠٠٢) ، ودراسة «كليرسيديا Clersida» (٢٠٠٢م) على أن نمو القدرات الحركية من خلال أنشطة تعتمد على التوازن والحركات الانتقالية والتوافق والإدراك والتكيف الجسمي بالنسبة إلى الأشياء ، من شأنه أن يساعد بطريقة فعالة في حل المشكلات الحركية وتجنب الأخطاء، ومن ثم فإن برنامج التربية الحركية يعتبر أنسب البرامج التي تتناسب هذه المرحلة السنوية، حيث يساعد على تطوير القدرات الحركية لدى التلاميذ.

الاستخلاصات

- برنامج التربية الحركية له تأثير إيجابي على تنمية القدرات الإدراكية الحركية والمهارات الحركية الأساسية للتلاميذ الصم البكم.
- توجد فروق دالة إحصائية بين القياسين القبلي والبعدي للمجموعة الضابطة في القدرات الإدراكية الحركية ولصالح القياس البعدي في حين كانت الفروق غير دالة إحصائية في المهارات الحركية الأساسية .
- توجد فروق دالة إحصائية بين المجموعتين التجريبية والضابطة في القياس البعدي للقدرات الإدراكية الحركية والمهارات الحركية الأساسية ولصالح المجموعة التجريبية.

التوصيات

- العمل على استخدام التربية الحركية في جزء الإحماء والإعداد البدني لما لها من تأثير إيجابي على تنمية القدرات الإدراكية الحركية والمهارات الحركية الأساسية للتلاميذ الصم البكم.
- توجيه الاهتمام نحو إعداد كوادر علمية متخصصة لدراسة خصائص هذه الفئة في مراحل عمرية مختلفة ووضع البرامج والمناهج النفس-حركية والتي تتناسب مع الخصائص المميزة لمستويات السن والنضج.
- إجراء دراسة مماثلة على مراحل سنية مختلفة من الصم البكم.

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الصحة • • السياحة • • الثقافة والفنون

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عميد كلية التربية الرياضية للبنات
وأستاذ بقسم المناهج وطرق تدريس التربية الرياضية
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مدرس مساعد بالأكاديمية العربية للنقل البحري

المقدمة ومشكلة البحث

خلق الله الإنسان ليعمر في الأرض ويبنر بنور الجمال والفضن، ويحصد في مناخ السلم ما زرعه يداه حتى يستطيع أن يرتفع فوق مستوى الحياة العادية ويتجه صوب الكمال والرفعة ويبذل جهوداً مستمرة، وأن يمنح أفراداً نوعاً من الخبرة لتحقيق التوازن بين النفس والبدن؛ فمنذ قديم الأزل يلعب الجمال والفضن جنباً إلى جنب مع فطرة الإنسان نحو الحركة إلى السعى في شتى أركان الأرض، مستكشفاً و معمرأ تنفيذاً للتكليف الإلهي بالسعى في الأرض التي خلقها الله للإنسان إلى أن يرث الله الأرض وما عليها.



العصبية الجديدة وأيضاً تفعيل منظومة الاتصال بين هذه الخلايا وخاصة عند الأطفال حديثى الولادة وكبار السن، وذوى الاحتياجات الخاصة.

ولقد أشارت العديد من الدراسات فى مختلف فروع الصحة أن ممارسة الرياضة تؤثر بشكل رئيسى على إفراز الجسم للعديد من الهرمونات التى تعمل مجتمعة من أجل نمو الإنسان بطريقة سليمة ومتوازنة. وهنا تجدر الإشارة إلى : **هرمون النمو** إحدى هذه الهرمونات والذى له أهمية كبيرة أثناء ممارسة النشاط الرياضى لقدرته الفائقة على استهلاك الدهون المتراكمة فى الشرايين والأنسجة كمصدر للطاقة فى العضلات وبذلك

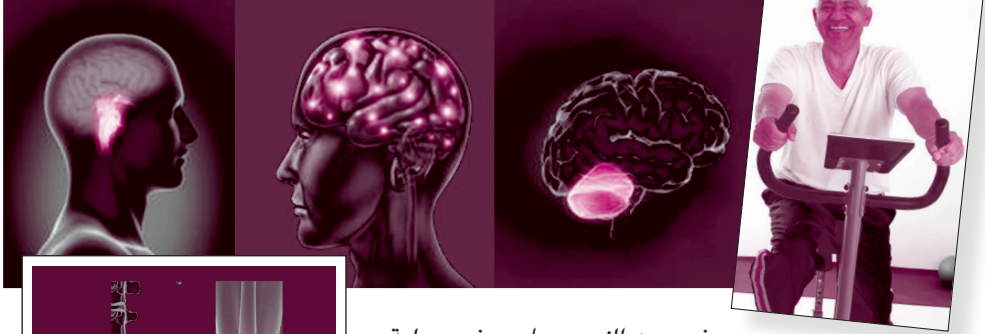
وعليه يمكن أن نشير إلى أن تحركات الإنسان منذ خلق ارتبطت بأهداف إنسانية اجتماعية فى المقام الأول ثم بأهداف اقتصادية وسياسية وثقافية فى المقام الثانى. وتمثل تحركات هذا الإنسان فى مراحلہ الأولى لبداياته البشرية أسلوباً رياضياً يعينه على مجابهة كل ما يلقى على عاتقه من مسؤوليات وتحديات والتى بدورها تعتبر من أهم وسائل الوقاية والعلاج وتعمل على الارتقاء بمستوى أدائه وحمايته من الإصابة بالأمراض.

إذا أراد الإنسان أن يعمر الأرض وأن يكون قادراً على مواجهة متطلبات الحياة عليه أن يكون متمتعاً بصحة جيدة عن طريق الاستمرار فى الحركة وممارسة الرياضة التى بدورها تكسبه اللياقة البدنية اللازمة والتى تمكنه من الحفاظ على سلامة وكفاءة مختلف أجهزته الحيوية والتى تمنحه القدرة على البقاء من أجل إرساء رسالته السماوية التى خلقه الله من أجلها.

الرياضة والصحة

الرياضة والصحة وجهان لعملة واحدة، فهناك علاقة وثيقة بين ممارسة الرياضة والصحة، إذ أن ممارسة الرياضة بشكل مناسب ومنتظم يؤدي من الناحية البدنية إلى تنمية التغيرات التى تتم فى تركيبات المخ ووظائفها عن طريق تحسين معدل تدفق الدم إليه وتعزيز نمو الخلايا



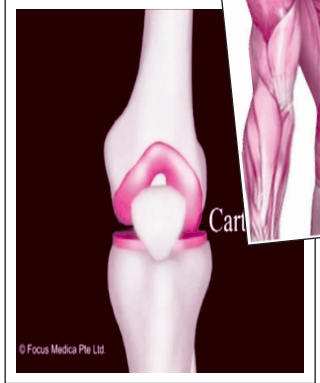
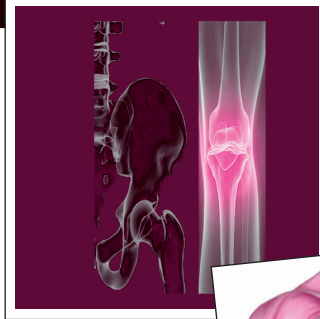


فهرمون النمو يساعد في عملية التمثيل الغذائي للأحماض الدهنية وتحويلها من الأنسجة الدهنية وإرسالها مباشرة إلى الدم.

وجدير بالذكر أن ممارسة الرياضة تزيد من إفراز هذا الهرمون ، وهنا تبرز فائدته للأنسجة الضامة والنمو العضلي مما يزيد من قوة الأوتار والأربطة والعضلات.

ويمتد التأثير الإيجابي لممارسة الرياضة ليشمل الجهاز العصبي المركزي من خلال تفعيل شبكة الخلايا العصبية وتطوير وتنقيح القدرات الإدراكية الحسية التي تشمل : البصر، السمع، التوازن، وإحساس اللمس والتي تعمل في مجملها على ضبط الإيقاع الحركي الداخلي للإنسان.

ومن هنا نجد أن ممارسة الرياضة بشكل دوري تعتبر من أهم الأدوات والوسائل التي تستخدم لتحقيق فاعلية العنصر البشري والارتقاء بمستوى أدائه. ولقد اتجهت أنظار المؤسسات الطبية العالمية نحو فوائد الرياضة حيث أوضحت نتائج تلك الدراسات أن ممارسة الرياضة بشدة متوسطة يوميا تقلل من مخاطر الإصابة بداء السكري، وضغط الدم، وأمراض القلب ، والتهاب المفاصل ، وآلام الظهر ، ونحول العظام، وتعمل جنبا إلى جنب على الحد من مخاطر بعض أنواع مرض السرطان وخصوصا سرطان البروستاتا وسرطان القولون. لم تقتصر أهمية الرياضة على الحفاظ على الإنسان بدنيا



وعصبيا فحسب بل فسيولوجيا أيضا من خلال تحسين ورفع قدرات الرئتين والقلب وزيادة قوة عضلاتهما، مما يعين الجسم على تحمل الأنشطة الجسمانية العنيفة والمجهدة.

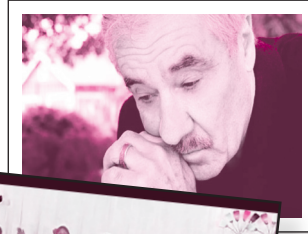


من الدراسات أن ممارسة الرياضة تساعد الإنسان على ضبط انفعالاته والتحكم في طاقاته وتساعد على التحرر من القلق الذي يصيبه من جرّاء ضغوط الحياة اليومية ، ويظهر هذا التأثير جلياً عندما يفرز هرمون الأندروفينس والذي يحارب الشعور بالإحباط والقلق ويكون مسؤولاً عن مشاعر السعادة والرضى.

الرياضة والسياحة

هناك علاقة تبادلية بين السياحة والرياضة ، فالسياحة الرياضية توفر مناخاً خصباً ، وفرصاً عدة لممارسة النشاط الرياضى عن طريق استغلال الإمكانيات الطبيعية للدول والتي تؤثر بشكل فعال ومباشر على روافدها الاقتصادية، وللسياحة الرياضية وجهان يتزاوج إحدهما بالآخر في مواسم الركود السياحي من أجل تنشيط رياضة معينة وجذب المزيد من الهواة لممارسة هذه الأنشطة، والسياحة الرياضية تتيح الفرصة لمشاهدة الأماكن التي تعد مزاراً سياحياً يكشف عن عمر الحركة الرياضية وتطورها، ولقد أثبتت عدد من الإحصاءات الرياضية الحديثة أن ٥٠٪ من رحلات السياحة الداخلية تتضمن مزيداً من المشاركة الرياضية.

خلق الله الإنسان وميزه عن سائر مخلوقاته بقدرته على التحكم في انفعالاته وغرائزه. وأشارت نتائج عدد





كبير من المنتجعات والمصايف التي تضم العديد من الأنشطة الرياضية.

الرياضة والفن

الحضارة نتيجة مباشرة للتفاعل بين العقل البشري وبين البيئة. حيث أن العقل يتفاعل مع البيئة و يسخرها بإمكاناته لصالحه فينشط ويعمل وينتج ، وتعد الفنون جميعاً مظهراً من مظاهر الحضارة في الأمم، فالعلاقة وثيقة بين الفنون وارتقاء الشعوب،

ولقد أكد المجلس الدولي للسياحة الرياضية على تشجيع الرياضة وتنشيط السياحة الرياضية، كما تم التعاون بين اللجنة العليا للألعاب الأولمبية ومنظمة السياحة العالمية على أهمية السياحة الرياضية وتنشيطها وإزالة العقبات التي تواجهها، وتتمثل السياحة الرياضية في رياضة الجولف - الفروسية - الرياضات المائية - الغطس - صيد الأسماك - التجديف - والرياضات الساحلية.

إن العلاقة التبادلية بين السياحة والرياضة أدت إلى استتباع سياسة تنويع المنتج السياحي الرياضي والارتقاء بمعدل السياحة الرياضية وعلاقتها الوطيدة بالجانب

الاقتصادي والجغرافي والصحي حيث أخذت السياحة الرياضية اتجاهاً متزايداً في مصر، مما أدى بدوره إلى الاهتمام بإنشاء القرى السياحية والشاطئية، وظهور عدد



بالجمال والابتكار، ويسعى الفرد لتنمية الفنون وتهذيبها بشتى الطرق والتي يمكن أن يفصح بواسطتها عما يجول بنفسه وخاطره ويتمكن من نقل أفكاره لغيره من الناس فى سهولة، فهو مسرح للمشاعر والأحاسيس ومظهر للتعبير عن الأفكار والآمال ومعيّار من معايير التطور والتقدم.

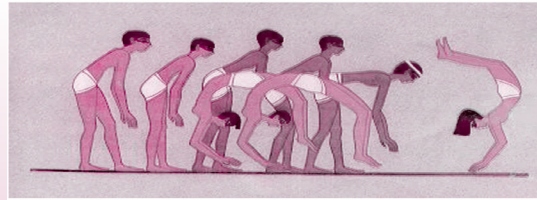


إن الدراسة التاريخية للرياضة والصحة والسياحة والفن تسهم فى استيعاب وفهم الأطوار المختلفة التى صاحبها على مر التاريخ حتى وصلت إلى ما هى عليه، كما تمكنا أيضا من الفهم العميق لماضى الشعوب وحاضرها باعتبار أن التفاعل الإبداعى بين الرياضة والصحة والسياحة والفن جميعها يعد مظهراً من مظاهر حضارة الأمم، لذلك تتسابق المعرفة مع الزمن للإبداع والتكامل فى شتى مجالات الحياة.

وترتبط أنواع الفنون بنوع الحضارة والبناء الاجتماعى واختلاف العادات والتقاليد والتراث الثقافى وكذلك نظرة الإنسان نحو الكون والحياة، فلا يستطيع الإنسان أن يحيا حياة طبيعية بعيداً عن الفن، فعن طريق الفن تتحقق المشاركة الوجدانية والتواصل بين البشر، فضلاً عن الدور الحقيقى والفعال لتحرير الإنسان من التوتر العصبى.

وعلى مر التاريخ وفى كل العصور يعتبر الفن وسيلة من وسائل التعريف بالشعوب الأخرى، فعن طريقه يستطيع الإنسان أن يعبر

عن مشاعره تجاه الآخرين وتجاه القوى الطبيعية وبعض مظاهر حضارته، كما أنه يوفر للفرد فرص التعبير عن رغباته التى تمتاز



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تأثير برنامج تدريبي باستخدام

جهاز الترامبولين

على بعض المتغيرات البيوميكانيكية

وأداء مهارة الشقلبية الخلفية

د/ شريفة عبد الحميد عفيفي

أستاذ مساعد بقسم التدريب الرياضى وعلوم الحركة
كلية التربية الرياضية - جامعة الإسكندرية

المقدمة ومشكلة البحث

إن رياضة الجمباز من الأنشطة الفردية البالغة الصعوبة، حيث يعتمد الوصول فيها إلى مستوى على من الأداء الفنى مع توفر قدرات بدنية وفسيولوجية ونفسية وعقلية لدى اللاعبين ويتطلب ذلك التعرف على المبادئ الأساسية والمواصفات التى تخدم هذا الأداء والذي يخضع إلى مدى التناسق والرباط بين عوامل القوة الخارجية التى تؤثر فى الحركة سواء فى الهواء أو على الأجهزة والقوة الداخلية التى يتم التناسق فيها بين أجزاء الجسم المختلفة . (٢:١٤)

وكان لتعدد أجهزة الجمباز واختلافاتها فى شكلها وفى متطلباتها وطبيعة الأداء عليها وجود كم هائل من الصعوبات التى يمكن أن تؤدى عليها والتى تحتاج تحليل حركى دقيق لمعرفة تفاصيل الأداء الفنى لها، مما يساعد فى وضع التدريبات اللازمة لأداء تلك الصعوبات والجمال الحركية على أجهزة الجمباز المختلفة . ونظراً لصعوبة تعليم المهارات الحركية أشار العديد من العلماء منهم جوفر دوفكس Govir Dovisky ، ماميدوف Mamidov (١٩٨٩) إلى أهمية استخدام الوسائل والأدوات والأجهزة المساعدة والإضافية فى تعلم مهارات الجمباز وخاصة فى التطبيق العملى إسهاماً فى تحسن الأداء المهارى . (٤:١٨)

ولذا نجد أهمية استخدام جهاز الترامبولين الذى يؤدى إلى تطوير قدرة اللاعبين على زيادة فترة الطيران والاستخدام الأمثل لحركات الذراعين والرجلين أثناء الارتفاع مما يؤدى إلى الهبوط الآمن .

النوع من الأجهزة لأن عملية السند التي يقوم بها المدربين أصبحت دون جدوى (٢١:٥)

وقد لاحظت الباحثة ضعف مستوى الأداء للمهارة قيد البحث فهي إحدى الدعامات الأساسية للجمباز على جهاز الحركات الأرضية فضلاً على شيوع أداء الصعوبات المتقدمة الهوائية من الشقلبة الخلفية على اليدين كمهارة سابقة لأداء هذه المهارات على جهاز الحركات الأرضية في بدايات ونهايات الجمل الحركية، والشقلبة الخلفية على اليدين ناتج حركي للتأثير المتبادل للقوى الداخلية (القوة العضلية) والخارجية (الجاذبية الأرضية . الاحتكاك) من لحظة الارتكاز بالرجلين على سطح الأرض، وهي في ذلك انتقال ديناميكي متبادل بين الرجلين إلى اليدين للرجلين مرة ثانية يتبعها الانطلاق من سطح الأرض عند أداء العديد من الدورات الهوائية الخلفية بأنواعها ومستويات صعوبتها .

فيشير كل من محمد يوسف الشيخ (١٩٨٢)، محمد إبراهيم شحاته (١٩٨٥) إلى أن الأداء المهاري الفائق لا يمكن تنفيذه بأسلوب مميز إلا إذا خضع للبحث والتحليل من أوجه منفردة في ضوء قوانين وقواعد الميكانيكا الحيوية . (١٢: ١٥٧) (١٠: ٤٦)

وترى الباحثة أن مستوى الأداء الحركي يعتمد على إمكانية الفرد في استغلال قدراته لتحقيق أهداف المهارة وفقاً لتركيبتها الحركية ومتطلباتها الحركية ، كما أن الأداء الحركي المركب لا يمكن تنفيذه بأسلوب مميز إلا إذا خضع للبحث والتحليل من أوجه متعددة في ضوء قوانين وأسس الميكانيكا الحيوية تمهيدا للوصول لأفضل النتائج .

والأداء الفني السليم للمهارة الحركية فأشار كل من أيديل أرنولد، وبريان ستوكس Eddile, Brain (١٩٨٢) إلى أن الأداء الصحيح يعطى ثقة للاعب في أداء الصعوبات الحركية ويجعلها تؤدي أكثر من مدة ولهذا يتم التدريب بصورة أفضل وأسرع . (١٦: ١٧)

وتؤكد الدراسات على أهمية استخدام الأجهزة المساعدة والوسائل المعينة في تعلم المهارات والإرتقاء بمستوى الأداء منها دراسة كوثر شواش (١٩٩٩)^(٩)، ورباب فاروق (١٩٩٩)^(٤)، ونجلاء سلامة (٢٠٠١)^(١٤)، وغيداء عبد الشكور (٢٠٠٢)^(٣٨)، وأمل محمود عبد الله (٢٠٠٣)^(٥)

فيرجع سبب تطور رياضة الجمباز في الآونة الأخيرة إلى أسباب كثيرة من بينها تطويع استخدام الأجهزة التعليمية المساعدة في تدريب الجمباز ويرجع سبب ذلك إلى معرفة القائمين بالتدريب على تأثيرها في سرعة وتحسين الأداء وتجنب الإصابات وقد أطلق عليها خبراء التدريب بأنها الثورة التكنولوجية التي طورت مستوى الإعداد البدني والمهاري للاعبين الجمباز بجانب توفير الوقت والجهد لكل من المدرب واللاعب. (٧: ١٣١)

ويؤكد سعيد عبد الرشيد (٢٠٠١) إلى أن الأجهزة المساعدة في الجمباز هي تلك النوع من الأجهزة التي تصمم بشكل هندسي وديناميكي يجبر اللاعب على أداء المهارة أو جزء منها في مسارها الصحيح، وتلعب تلك الأجهزة دوراً أساسياً في تدريب الجمباز حيث أصبحت البديل عن عملية السند المساعد التي يقوم بها المدرب خلال تعليم وتدريب المهارات، ونظراً لتعدد مهارات الجمباز وتعدد تركيبها الفني حالياً، الأمر الذي أستوجب ظهور تلك

- القياسات البعدية يومية ٢٧ ،
٢٨/١٢/٢٠١١ .

٤- وسائل جمع البيانات :

التصوير بالفيديو والتحليل البيوميكانيكي :

أ - التصوير بالفيديو :

تم تصوير المهارة بعد البحث من المستوى العمودي « زاوية ٩٠ درجة » بحيث تظهر اللاعبة بحجم مناسب يسهل تحليله بحيث تكون زاوية اللاعبة للعدسة شاملة محدود الأداء .

ب - التحليل البيوميكانيكي :

تم تحليل المحاولات ببرنامج :

« *simi motion analyses* » بمعمل كلية التربية الرياضية جامعة المنوفية ، وأمكن استخراج المتغيرات التالية :

- زمن مرحلتى الطيران الأول والثانى والمهارة ككل .

- زمن مرحلتى الارتكاز بالرجلين واليدين أثناء أداء المهارة .

- أقصى مسافة أفقية وأقصى ارتفاع لمركز ثقل الجسم .

- التغير الزاوى لمفصلى الفخذين ومفصلى الكتفين أثناء الأداء .

- السرعة المتوسطة لمركز ثقل الجسم لمرحلتى الطيران .

ج - تقييم مستوى الاداء المهارى :

قامت الباحثة بالاستعانة بلجنة من الحكام المعتمدين بالاتحاد المصري للجمباز لتقييم المهارة قيد البحث وقد تم وضع درجة الأداء المهارى من عشر درجات .

وبعد العرض السابق تلخص الباحثة مشكلة البحث في كونها محاولة علمية موجهة نحو دراسة أثر استخدام جهاز الترامبولين على تحسين بعض المتغيرات البيوميكانيكية ومستوى أداء مهارة الشقلبة الخلفية على جهاز الحركات الأرضية .

ثانيا : أهداف البحث :

١ - التعرف على أثر البرنامج التدريبي باستخدام الترامبولين على بعض المتغيرات الكينماتيكية لمهارة الشقلبة الخلفية على جهاز الحركات الأرضية .

٢ - التعرف على أثر البرنامج التدريبي باستخدام الترامبولين على الأداء المهاري للشقلبة الخلفية على جهاز الحركات الأرضية .

ثالثاً : إجراءات البحث :

١- منهج البحث :

استخدمت الباحثة المنهج التجريبي « القياس القبلى البعدى للمجموعة التجريبية الواحدة » .

٢- عينة البحث :

تم اختيار العينة بالطريقة العمدية من لاعبات الجمباز لموسم (٢٠١١ - ٢٠١٢) وقد بلغ قوام العينة (٣) لاعبات تحت ١٠ سنوات .

٣- المجال الزمنى :

تمت هذه الدراسة من ٢٢/١٠/٢٠١١ إلى ٢٨/١٢/٢٠١١ .

- القياسات القبلىة يومية ٢٢ ،
٢٣/١٠/٢٠١١ .

- البرنامج التدريبي من ٢٥/١٠/٢٠١١ إلى ٢٥/١٢/٢٠١١

أسس وضع البرنامج التدريبي :

- مراعاة الفروق الفردية بين اللاعبين وذلك بتحديد المستوى لأفراد العينة .
- التدرج فى زيادة الحمل والتقدم به والتوجيه للأحمال التدريبية المحددة .
- تشابه شكل أداء التمرينات مع طبيعة الأداء للمهارة بعد البحث .

كيفية التحكم فى الشدة والحمل :

تم التحكم عن طريق زمن الأداء للتمرين الواحد وعدد المجموعات والراحة البيئية فى الوحدة التدريبية ويكون التدرج فى الشدة من ٥٠ ٪ إلى ١٠٠ ٪ من الحد الأقصى .

٦- المعالجات الإحصائية :

- ١- المتوسط الحسابى .
 - ٢- الانحراف المعيارى .
 - ٣- اختبار (ت) .
 - ٤- النسبة المئوية (نسبة التحسن) .
- تنوه الباحثة إلى أنه قد تم إجراء التحليل للثلاث لاعبات وقيم المتغيرات البيوميكانيكية فى الجداول وهى عبارة عن متوسطات هذه المحاولات لكل من : القياس القبلى والقياس البعدى .

عرض النتائج ومناقشتها :

- ١- زمن مرحلتى الطيران الأول والثانى والمهارة ككل قيد البحث :

جدول (١) زمن مرحلتى الطيران الأول والثانى والمهارة ككل

القياس البعدى	القياس القبلى	الأزمنة
٠,٤٨١	٠,٤٠ ث	مرحلة الطيران الأول (ث)
٠,٤٠٥	٠,٣٢٣	مرحلة الطيران الثانى (ث)
١,٦٢٤	١,٤٤٣	المهارة ككل (ث)

٥- البرنامج التدريبي :**خطوات تصميم البرنامج التدريبي :**

- تحديد الخطة الزمنية لتطبيق البرنامج التدريبي .
- تحديد أهداف مرحلة الإعداد الخاصة بفترة تطبيق البرنامج التدريبي .
- توفير الإمكانيات والأدوات المستخدمة .
- التركيز على رفع مستوى الأداء المهارى عن طريق جهاز الترامبولين .

كيفية تطبيق البرنامج التدريبي :

- مدة البرنامج التدريبي (٨) أسابيع .
- تحديد عدد (٣) وحدات تدريبية فى الأسبوع الواحد .
- زمن الوحدة التدريبية (٩٠) دقيقة وتم تقسيمها إلى :
 - ❖ ٢٠ دقيقة جزء تمهيدى .
 - ❖ ٧٠ دقيقة جزء رئيسى .
 - ❖ ٢٠ دقيقة جزء ختامى .
- زمن الوحدة التدريبية فى الاسبوع = 90×3 وحدات = ٢٧٠ دقيقة .
- الزمن الكلى للبرنامج = 270×8 = ٢١٦٠ دقيقة .

نتيجة لقوة الجاذبية الأرضية فكلما زاد الوقت المتوفر لإتمام الدوران في الهواء كلما زاد ارتفاع الطائر الذي يصل إليه مركز ثقل الجسم . (٣٧:١٦)

وأن طول الفترة الزمنية للمرحلة التمهيدية تؤدي إلى إتاحة الفرصة للاعبة لبذل قوة كبيرة لإنجاز الواجب الحركي بشكل أفضل كما أنها تساهم في إمكانية زيادة المدى الحركي لمفاصل الجسم . (١٤:٦)

وبذلك فإن المرحلة التمهيدية تؤثر تأثيراً مباشراً في نجاح أداء مرحلة الارتكاز باليدين والدفع بقوة وسرعة .

٢- زمن مرحلتى الارتكاز بالرجلين واليدين أثناء أداء المهارة قيد البحث :

يتضح من الجدول رقم (١) وجود اختلاف في زمن أداء مرحلة الطيران الأول فكان من القياس القبلى (٠,٤٠ ث) ثم في القياس البعدى أصبح (٠,٤٨١ ث) ، أما بالنسبة لزمن مرحلة الطيران الثانى فكان في القياس القبلى (٠,٣٢٣ ث) ثم في القياس البعدى (٠,٤٠٥ ث) ، وزمن المهارة ككل في القياس القبلى (١,٤٤٣ ث) ثم في القياس البعدى (١,٦٢٤ ث) .

وبذلك يتضح وجود اختلافات في أزمنة الأداء للمهارة في القياس القبلى والبعدى فيؤكد بروير Broer (١٩٧٣) أن الزمن يلعب دوراً كبيراً في إتمام الحركة نظراً للجذب الثابت للأسفل الواقع على الجسم

جدول (٢)

زمن مرحلتى الارتكاز بالرجلين واليدين أثناء أداء المهارة

الأزمنة	القياس القبلى	القياس البعدى
مرحلة الارتكاز بالرجلين (ث)	٠,٣٢ ث	٠,٢٢ ث
مرحلة الارتكاز باليدين (ث)	٠,٣٣ ث	٠,٢٥ ث

وكذلك زمن الارتكاز باليدين يؤكد أن القياس البعدى (٠,٢٥ ث) فإنه أفضل من القياس القبلى (٠,٣٣ ث) حيث أن زمن الاتصال أمثل فيكون له الغلبة والسيطرة في الأداء الأمثل .

٣- أقصى مسافة أفقية وأقصى ارتفاع لمركز ثقل الجسم :

يوضح الجدول رقم (٢) أن زمن الارتكاز بالرجلين كان في القياس البعدى (٠,٢٢ ث) أفضل من القياس القبلى (٠,٣٢ ث) فإن الدفع حاصل ضرب (القوة $\times$ الزمن) فالزمن الأقل يعطى ناتج دفع أكبر ويساهم في المرحلة التالية وهى الطيران الأول الذى هدفه تحقيق مسافة أفقية كبيرة وسريعة .

جدول (٣)

أقصى مسافة أفقية وأقصى ارتفاع لمركز ثقل الجسم

القياس البعدي	القياس القبلي	الأزمنة
٢,٦٠٠	٢,١٠٤ م	أقصى مسافة أفقية لمركز الثقل (م)
٠,٤٣٢	٠,٤٦٣	أقصى ارتفاع لمركز الثقل (م)

بقلة ارتفاع مركز ثقل الجسم أثناء أداء المهارة عن القياس القبلي بزيادة ارتفاع مركز الثقل حيث كان أقصى ارتفاع للقياس البعدي (٠,٤٣٢ م) بينما في القياس القبلي (٠,٤٦٣ م) نيشير يلز ولوتجنز Wells & Lutengs (١٩٧٦) على أن ارتفاع الطيران يعتبر محكا موضوعيا لمستوى أداء المهارات التي تتطلب مرحلة أو مرحلتين من الطيران لأن ارتفاع الطيران دالة في زمن الطيران (٥٣:٢٢).

٤- التغير الزاوي لمتصلى الفخذين ومفصلي الكتفين أثناء أداء المهارة قيد البحث :

ويتضح من الجدول رقم (٣) تميز الأداء البعدي بزيادة المسافة الأفقية الكلية لمركز ثقل الجسم خلال الأداء حيث كانت (٢,٦٠٠ م) بينما كانت في القياس القبلي (٢,١٠٤ م) وهذه النتيجة تتفق مع تكنيك المهارة قيد البحث والتي تستلزم مسافة أفقية كبيرة وسريعة تحققت من خلال عزم دوران كبير ولا بد من توافر المسافة الأفقية المطلوبة بين مركز ثقل الجسم ومتمجه قوة رد الفعل للوصول للأداء الجيد من خلال انسيابية مسار مركز ثقل الجسم ، ويتفق ذلك مع نتائج دراسة تهاني حسني (١٩٨٦) (٩٣:٢) وكذلك تمايز الأداء في القياس البعدي

جدول (٤)

التغير الزاوي لمفصلي الفخذين (درجة)

القياس البعدي	القياس القبلي	التغير الزاوي لمفصلي الفخذين
١٧٢,٦٥	١٣٧,٦١٢	بداية مرحلة الطيران الاول
١٩٨,٤١	٢١٧,٠٤	نهاية مرحلة الطيران الاول
١٥٧,٦٣	١٧٤,٧٣	بداية مرحلة الطيران الثاني
١٣٤,٥٧	١١٩,٦٠٢	نهاية مرحلة الطيران الثاني

ما يحدث فى المرحلة التمهيدية، أما بالنسبة للطيران الثانى فكان هناك نقصان فى بداية الطيران وزيادة فى نهاية الطيران وهذا لصالح القياس البعدي حيث الالتزام بتكنيك المهارة .

يتضح من الجدول رقم (٤) زيادة فى بداية الطيران الأول ونقص عنه فى نهايته وهذا يؤثر تأثيرا كبيرا على مقدار الدفع المتحصل عليه الأداء فى المرحلة الرئيسية وهذا نتيجة

جدول (٥)

التغير الزاوى لمفصلى الكتفين (درجة)

التغير الزاوى لمفصلى الكتفين	القياس القبلي	القياس البعدي
بداية مرحلة الطيران الاول	١٦٢,٥٤	١٦١,٠٨
نهاية مرحلة الطيران الاول	١٢٦,٥٢	١٦٢,١٤
بداية مرحلة الطيران الثانى	١٥٨,٩٣	١٥٥,٧١
نهاية مرحلة الطيران الثانى	١٣٨,٩٩	١٣٧,٤٧

الجسم^(٨٢:١) وهذا يتفق مع ما يشير إليه سعيد عبد الرشيد (٢٠٠١) بأن التزامن الذى يتم خلال مراحل أداء المهارة يؤثر ويتأثر بحركة أجزاء الجسم المختلفة والتى تظهر من خلال التغيرات الزاوية للمفاصل المعنية للحركة، ومن ثم فإن الاهتمام بأوضاع أجزاء الجسم خلال مراحل أداء المهارة له تأثير مباشر على مستوى الأداء من الناحية الفنية والشكلية^(٢١:٦) .

٥- السرعة المتوسطة لمركز ثقل الجسم :

يتضح من الجدول رقم (٥) تقارب مقادير التغير الزاوى فيما عدا نهاية مرحلة الطيران الأول فكان هناك زيادة فى القياس البعدي نتيجة البرنامج التدريبي على جهاز الترامبولين حيث تذكر إيمان فرحات (١٩٩٧) نقلا عن خميس هاى james hay أن أهم عامل محدد للدوران فى الهواء لا يتوقف على ما يستطيع أن يفعله فى الهواء ، ولكن ما استطاع أن يفعله وهو على الأرض، وأن مسار مركز ثقل الجسم يتحدد بالدفع والتغير الزاوى لمفاصل

جدول (٦)

السرعة المتوسطة لمركز ثقل الجسم

السرعة المتوسطة	القياس القبلي	القياس البعدي
بداية مرحلة الطيران الاول (م/ث)	١,٠٨٩ م / ث	١,٩١٤
نهاية مرحلة الطيران الاول (م/ث)	١,٣٧٧	١,٩٤٣
بداية مرحلة الطيران الثانى (م/ث)	١,٢٧٣	١,٦٢٣
نهاية مرحلة الطيران الثانى (م/ث)	١,٤٦٢	١,٨٧٥

حتى يستطيع اللاعب الاستفادة من ناتج قوة الدفع لاستكمال أداء عملية الربط التالية مع أحد المهارات الهوائية وبذلك تكون الشقلبة الخلفية قد حققت الهدف الأساسي منها^(١٧:٦)، وبذلك يتضح تأثير البرنامج التدريبي على جهاز الترامبولين من تحسن بعض المتغيرات البيوميكانيكية المختارة للمهارة قيد البحث « الشقلبة الخلفية على جهاز الحركات الأرضية » وهذه النتائج تتفق مع كوثر شواس (١٩٩٩)^(٩) التي تشير إلى أن استخدام الأجهزة المساعدة تساعد اللاعب على إتقان الصعوبات ومنه التركيب الفني للمهارة وكذلك تؤدي إلى زيادة قابلية اللاعب لتحسين مستوى الأداء الحركي .

٦- مستوى الاداء المهاري :

يتضح من الجدول رقم (٦) وجود زيادة في كمية مقادير السرعة المتوسطة المحصلة في القياس البعدي وترى الباحثة أن الشقلبة الخلفية على اليمين كمهارة سابقة لأداء الدورانات الهوائية تستلزم الانطلاق من سطح الأرض بأكثر سرعة ممكنة مؤدية إلى انتقال جسم اللاعب من نقطة البداية إلى نقطة النهاية بسرعة عالية يمكن الاستفادة منها عند تحويلها في اتجاه أداء الدورات الهوائية الخلفية، وهذا يرجع إلى تأثير البرنامج التدريبي على الترامبولين حيث يذكر سعيد عبد الرشيد (٢٠٠١) أن تتابع الارتكاز بالرجلين في المرحلة التمهيديّة ثم اليمين في المرحلة الرئيسية يتبع ذلك نقل حركي انسيابي وبقوة من الرجلين والذراعين بالإضافة إلى أزمة ارتكاز قليلة نسبياً

جدول (٧) المتوسط الحسابي والانحراف المعياري لمستوى اداء المهارة

المهارة	القياس القبلي		القياس البعدي		م ف	ع ف	قيمة (ت)
	م	ع	م	ع			
الشقلبة الخلفية	٨,٠١	٠,١٥	٩,١٠	٠,١٨	١,٠٩	٠,٠٨	٣٣,٣٨

قيمة ت الجدولية (٢,٥٧) عند مستوى (٠,٠٥)

يتضح من الجدول وجود فروق دالة إحصائية لصالح القياس البعدي .

جدول (٨) النسبة المئوية لمعدل تغير مهتوى اداء المهارة

المهارة	القياس القبلي	القياس البعدي	%
الشقلبة الخلفية	٨,٠١	٩,١٠	١٣,٦١

يتضح من الجدول تحسن مهارة الشقلبة الخلفية بين القياسين بنسبة ١٣, ٦١

الشقلبة الخلفية على جهاز الحركات الأرضية وقد ساهم البرنامج في تقدم مستوى أداء اللاعبين وتتنفق هذه النتائج مع دراسة كل من محمود الحرز (١٩٩٤)^(١١) وكوثر شواس (١٩٩٩)^(٩)، وسيد عبد الرشيد (٢٠٠١)^(٦)

وترى الباحثة من نتائج الجدولين (٧، ٨) التي جاءت لصالح القياس البعدي أن ذلك يرجع إلى استخدام جهاز الترامبولين في البرنامج التدريبي والذي اشتمل على مجموعة من التدريبات هدفها رفع مستوى أداء مهارة

الاستخلاصات

من خلال نتائج البحث أمكن التوصل للاستنتاجات الآتية :

- ١ - استخدام جهاز الترامبولين أدى إلى زيادة زمن مرحلتى الطيران الأول والثانى والمهارة ككل لصالح القياس البعدى .
- ٢ - أدى البرنامج التدريبى إلى انخفاض زمن مرحلتى الارتكاز بالرجلين واليدين لصالح القياس البعدى .
- ٣ - أسهم البرنامج التدريبى باستخدام جهاز الترامبولين فى زيادة المسافة الأفقية لمركز ثقل الجسم لأداء المهارة وانخفاض مركز ثقل الجسم أثناء أداء المهارة لصالح القياس البعدى .
- ٤ - أثر استخدام جهاز الترامبولين تأثيراً إيجابياً فى التغير الزاوى لمفصلى الفخذين والكتفين لصالح القياس البعدى .
- ٥ - أدى البرنامج التدريبى إلى زيادة السرعة المتوسطة لمركز ثقل الجسم أثناء أداء مهارة الشقلبة الخلفية لصالح القياس البعدى .
- ٦ - البرنامج التدريبى أثر تأثيراً إيجابياً على رفع مستوى الأداء الحركى للاعبات مما أدى إلى وجود فروق دالة إحصائية لصالح القياس البعدى .
- ٧ - استخدام جهاز الترامبولين يؤدى إلى تحسين مستوى الأداء الفنى والمسار الصحيح للمهارة الحركية .

التوصيات

فى ضوء الاستنتاجات تمكنت الباحثة من تحديد التوصيات التى تفيد العاملين فى مجال التدريب لرياضة الجمباز الفنى كالتالى :

- ١ - تطبيق البرنامج التدريبى باستخدام الجهاز المساعد (الترامبولين) لما أثبتته من تحسن واضح فى مستوى الأداء الحركى للارتقاء بمستوى الناشئات فى رياضة الجمباز الفنى للآنسات .
- ٢ - استخدام جهاز الترامبولين أثناء التدريب لما يتيح من فرصة لتعليم الصعوبات الحركية بدون خوف أو ملل .
- ٣ - ضرورة الاستفادة من التدريبات باستخدام الأجهزة المساعدة بالصورة التى تخدم الصعوبات الحركية فى رياضة الجمباز بحيث تتمشى مع الأداء الشكلى والمسار الحركى وزمن الأداء للارتقاء بمستوى الأداء الحركى فى رياضة الجمباز .

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الضغوط المهنية

وعلاقتها بدافعية الإنجاز لدى قيادات الإدارة الرياضية

ببعض
الجامعات المصرية

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المقدمة ومشكلة البحث

لا يمكن تخيل مجتمع أو مهنة بلا ضغوط، حيث تلعب دوراً محورياً في الإنجاز، قد تدفع مستواه كشكل من أشكال الصلابة النفسية والدافعية للإنجاز وهنا يكون عائدها الإيجابي، أو قد تعيق الإنجاز بأشكاله المختلفة كنتيجة عدم قدرة الفرد علي التكيف معها أو تحملها وهنا يكون عائدها السلبي، وتعتبر الضغوط المهنية أحد أشكال الضغوط التي تواجه الفرد لما تحمله المهنة من دلائل للمكانة الاجتماعية والاستقرار المادي، ولما تحققه كذلك من فرص الإنجاز المهني بأشكاله المختلفة.

والإنسان يتعرض لكثير من المواقف قد تؤدي إلى الضغوط، كما أن وجود المعوقات في بيئة العمل تؤدي إلى الإحساس بالقصور، مما يترتب عليه الضغط النفسي وعدم الرضا، (حمدي الزرماوي ، رضا أبو سريع : ٢٥) وهنا تبدأ مشكلات التكيف، فلكل بيئة عمل ظروفها التي تجعلها أكثر تعرضاً للضغط، كما أن استمرار الضغط في ظروف معينة يمكن أن يؤدي إلى اختلال السلوك أو عدم التوافق، وباستمرار الضغط يتبعه العديد من الاستجابات الجسمية والنفسية والوظيفية غير الصحية (آمال عبد الرحمن ١٩٩١م : ٢٢٦)، (أسامة الطيب ٢٠٠٢م : ٣٢) أما عندما يذهب الضغط أبعد من المستويات المثلى فذلك يؤدي إلى استنفاد طاقاتنا النفسية.

وهناك عاملين لحدوث الضغوط، أولهما هو زيادة الحمل الكمي وهو زيادة فترة العمل وإنجازه، ويرتبط ذلك بانخفاض مستوى الدافعية وتقدير الذات المنخفض، وثانيهما زيادة الحمل الكيفي ويقصد به زيادة صعوبة العمل المطلوب إنجازه نظراً لإدراك الفرد لعدم قدرته على العمل، ويرتبط ذلك بالتوتر والقلق وانخفاض الثقة بالنفس، وكذلك عدم الالتزام بفترات راحة (محمد حسن علاوي ١٩٩٨م : ١٥) وقد يستثير الحمل الكيفي دافعية الإنجاز حيث يشكل تحدياً لمهارات الفرد الإبداعية.

تطوير الأداء المهني في التربية الرياضية، ويمكن ملاحظة ثلاثة اتجاهات في الدراسات المختلفة التي تناولت الضغوط المهنية حيث :

يتمثل الاتجاه الأول

في دراسة علاقة الضغوط المهنية ببعض المتغيرات النفسية ومنها :

- دراسة لتحديد أبعاد الضغوط المهنية لدى معلمي المدارس الثانوية، استخدم المنهج الوصفي وعينة من (٤٤٤) معلماً، ومقياس الضغوط المهنية كأداة لجمع البيانات، ومن أهم النتائج وجود ثمانية عوامل تسبب الضغوط المهنية وهي عدد ساعات العمل، السلطة، سلوك التلاميذ، الكفاءة المهنية، الروتين، العلاقات بين الزملاء، ظروف العمل والثقة بالنفس (Brewer.A، 2000).

- دراسة للتعرف على الضغوط المهنية لمعلمي التربية الرياضية بمرحلتى التعليم الأساسي والثانوية بمحافظة المنيا، واستخدم المنهج الوصفي، وعينة من (١٥٠) معلماً، وقائمة لجمع البيانات، ومن أهم النتائج وجود فروق ذات دلالة إحصائية في الضغوط المهنية بين معلمي التربية الرياضية بالمراحل التعليمية الابتدائية والإعدادية والثانوية (إبراهيم شحاتة، ٢٠٠٢م).

- دراسة للتعرف على الضغوط المهنية وعلاقتها بدافعية الإنجاز لدى معلمين ومعلمات التربية الرياضية بالمرحلتين الإعدادية والثانوية بمحافظة المنيا، استخدمت المنهج الوصفي، وعينة من (٢٠٠) معلم، وقائمة الضغوط المهنية لمعلم التربية الرياضية، ومقياس

وتؤدي دافعية الإنجاز إلى الرغبة للسعي إلى النجاح وإنجاز الأعمال والتغلب على العقبات بكفاءة، وبأقل قدر ممكن من الوقت والجهد وبأفضل مستوى من الأداء (عبد الله ابن طه الصافي، ٢٠٠٣م: ١٦).

ويعتبر النشاط الرياضي من الأركان الأساسية في برامج رعاية الشباب، ولذلك تقوم أجهزة رعاية الشباب بإعداد برامجها الرياضية التي يمكن بواسطتها توسيع قاعدة الممارسين ورفع مستويات الأداء عن طريق توفير متطلبات التدريب والمنافسة (لائحة الاتحادات الطلابية: ١٤).

وتعد أجهزة رعاية الطلاب من القطاعات التي يناط بها التعامل معهم في ظل الارتفاع في أعداد المقبولين بالجامعات، وكذلك الزيادة المطردة في الموازنة العامة للتعليم الجامعي، مما يؤكد على أهمية قطاع رعاية الطلاب (المجلس الأعلى للجامعات ٢٠٠١م: ٦)، وتعتبر الإدارات الرياضية بالجامعات هي التي تقوم بتنفيذ خطة النشاط الرياضي، والتي تتيح الفرصة لممارسة أوجه الأنشطة سواء من خلال الأنشطة الداخلية بالكلية أو من خلال منتخبات جامعاتهم (أسامة الطيب ٢٠٠٢م: ١٨٧).

ونظراً لأن موضوع الضغوط المهنية يحظى باهتمام العديد من الدول، رأى الباحثان أن إيجاد الحلول لمختلف المشكلات التي تواجه قيادات الإدارة الرياضية بالجامعات وزيادة دافعية الإنجاز لديهم ربما يؤدي إلى إعداد قيادات قادرة على العمل ويمكن أن تفرز قائد كفاء ذو شخصية قيادية ناجحة.

ولقد حظى موضوع الضغوط المهنية اهتماماً بحثياً لما له من أهمية محورية في

دراسة للكشف عن مدى انتشار الاحتراق النفسي والضغوط المهنية بين أعضاء هيئة التدريس والموظفين العاملين بمدارس وكليات التربية الرياضية، واستخدم المنهج الوصفي، وعينة من (٢٥٣) من أعضاء هيئة التدريس، ومقياس الضغوط المهنية، مقياس الاحتراق النفسي، كأدوات لجمع البيانات، ومن أهم النتائج ضغوط العمل متمثلة في الحمل الوظيفي الزائد، وفرص العمل المتاحة، وضغط الوقت المرتبط بشكل كبير بالإجهاد الانفعالي (Defrancesco & Burke, 2002).

- دراسة للتعرف على الضغوط المهنية وعلاقتها بأعراض الاحتراق النفسي لدى مدربي ألعاب القوى، واستخدم المنهج الوصفي، الأسلوب المسحي وعينة من (٤٠) مدرباً لألعاب القوى، ومقياس أسباب الضغوط النفسية، ومقياس أعراض الاحتراق النفسي للمدرب الرياضي كأدوات لجمع البيانات، ومن أهم النتائج وجود علاقة ارتباطية بين الضغوط المهنية ودرجة أعراض الاحتراق النفسي (جمال إمام، وجيهان حامد، ٢٠٠٤م).

ويتمثل الاتجاه الثالث

في دراسة علاقة الضغوط المهنية بالاتجاهات ومستويات الرضا ومنها:

- دراسة للتعرف على الضغوط النفسية والاتجاهات لدى معلمى التربية الرياضية للمرحلة الإعدادية والثانوية، واستخدم المنهج الوصفي، وعينة من (٣٦٠) معلماً، ومقياس الضغط النفسي، ومقياس الاتجاهات، كأدوات لجمع البيانات، ومن النتائج توجد علاقة ارتباطية عكسية دالة بين درجات

دافعية الإنجاز، كأدوات لجمع البيانات، ومن أهم النتائج وجود علاقة ارتباطية سلبية دالة إحصائياً بين الضغوط المهنية ودافعية الإنجاز لدى معلمين التربية الرياضية بالمرحلة الإعدادية (الزهراء رشاد، ٢٠٠٣م).

- دراسة للتعرف على العلاقة بين الضغوط المهنية لمعلمي التربية الرياضية ومدى شدة الضغوط التي يتعرض لها المعلمون، واستخدم المنهج الوصفي، وعينة من (٢٨٠) معلماً، ومقياس الضغوط المهنية لجمع البيانات، ومن النتائج هناك أربعة عوامل للضغوط المهنية « التلاميذ، المناخ المدرسي، الوقت والمشاكل المهنية » (Jakson & Gould, 2003).

ويتمثل الاتجاه الثاني

في دراسة علاقة الضغوط المهنية بالاحتراق النفسي ومنها:

- دراسة للتعرف على أسباب الضغوط النفسية وأعراضها والقدرة على مواجهتها لدى مدربي فرق كرة القدم، واستخدم المنهج الوصفي، وعينة من (٦٤) مدرباً، ومقياس أسباب الاحتراق النفسي للمدرب الرياضي، ومقياس مقدرة المدرب على مواجهة الضغوط النفسية، كأدوات لجمع البيانات، ومن أهم النتائج اختلاف ترتيب أسباب الضغوط النفسية لدى مدربي كرة القدم وكان ترتيبها « الأسباب المرتبطة بمجالس إدارات الأندية، الأسباب المرتبطة بخصائص وشخصية المدرب، الأسباب المرتبطة بوسائل الإعلام، الأسباب المرتبطة بالجمهور والمشجعين » (عمرو أبو المجد، ٢٠٠١م).

والكليات من (٦) جامعات هي (القاهرة، المنصورة، الزقازيق، طنطا، حلوان، قناة السويس، المنوفية) وبلغ قوامها (١٦٠) فرد، كما تم إختيار عدد (٢٠) فرداً للدراسة الإستطلاعية، وقام الباحثان بحساب مدى اعتدالية توزيع أفراد عينة البحث فى السن وسنوات الخبرة وجاءت جميع قيم معاملات الالتواء تنحصر بين (± 3) مما يشير إلى اعتدالية توزيع أفراد عينة البحث فى هذه المتغيرات.

أدوات جمع البيانات:

مقياسى «الضغوط المهنية لأخصائى النشاط الرياضى» ناهد محمد حسن ٢٠٠٣م، ومقياس دافعية الإنجاز إبراهيم قشقوش وطلعت منصور ١٩٧٩م كأدوات لجمع البيانات :

مقياس الضغوط المهنية: وضع للتعرف على الضغوط التى يتعرض لها الأخصائى الرياضى بالجامعة، وبلغ عدد عباراته (١٠٦) عبارة تعبر عن (٥) أبعاد هي :

الضغوط الاجتماعية: ويقصد بها العلاقة برؤساء العمل، والعلاقة بزملاء المهنة، والعلاقة بالزملاء فى التخصصات الأخرى، والعلاقة مع الطلبة والعاملين، ويتضمن هذا البعد (٢٥) عبارة.

الضغوط المادية والإمكانات البشرية: ويقصد بها المرتبات والمكافآت، البدلات والحوافز، كثافة الطلبة والجهد المبذول، ويتضمن هذا البعد (٢٤) عبارة.

الضغوط الإدارية: ويقصد بها التخطيط، الرقابة، المتابعة، التوجيه، الترقيات، سير العمل وتقسيم العمل، ويتضمن هذا البعد (٣٣) عبارة.

معلمى التربية الرياضية للمرحلة الإعدادية والثانوية فى عوامل قائمة الضغوط النفسية المهنية وأبعاد مقياس الاتجاهات نحو التدريس (نبيل محمد حسن، ٢٠٠٢م).

أهداف البحث:

يهدف البحث إلى التعرف على:

- ١- الأسباب التى تؤدى إلى الضغوط المهنية لدى قيادات الإدارة الرياضية ببعض الجامعات.
- ٢- درجة دافعية الإنجاز الإبداعى لدى قيادات الإدارة الرياضية ببعض الجامعات.
- ٣- العلاقة بين الضغوط المهنية ودافعية الإنجاز لقيادات الإدارة الرياضية ببعض الجامعات.

تساؤلات البحث:

- ١- ما هى أسباب الضغوط المهنية لدى قيادات الإدارة الرياضية بالجامعات ؟
- ٢- ما هى دافعية الإنجاز الإبداعى لدى قيادات الإدارة الرياضية بالجامعات ؟
- ٣- هل توجد علاقة ارتباطية بين أبعاد مقياس الضغوط المهنية ودافعية الإنجاز الإبداعى لدى قيادات الإدارة الرياضية ببعض الجامعات ؟

إجراءات البحث:

منهج البحث:

استخدم الباحثان المنهج الوصفى، الأسلوب المسحى.

عينة البحث:

أختيرت العينة عشوائياً من بين قيادات الإدارة الرياضية برعاية الشباب بالجامعات

الدرجة المرتفعة على المقياس إلى دافع إنجاز مرتفع، بينما تدل الدرجة المنخفضة على دافع إنجاز منخفض، ويصلح المقياس لقياس دافعية إنجاز الأفراد في المجالات المختلفة.

معامل الصدق لمقياس دافعية الإنجاز:

طبق المقياس على عينة من (٢٠) فرد من القيادات والأخصائيين بالإدارة الرياضية، وتم حساب معامل الارتباط بين درجة كل عبارة والدرجة الكلية للمقياس، والتي تراوحت ما بين (٠,٦٥٢ : ٠,٨٢١) وهى دالة إحصائياً مما يشير إلى صدق الاتساق الداخلي للمقياس.

معامل الثبات لمقياس دافعية الإنجاز:

تم حساب معامل الثبات باستخدام طريقة إعادة الاختبار (Retest, Test) على عينة قوامها (٢٠) فرد من القيادات والأخصائيين بالإدارة الرياضية من خارج عينة البحث الأساسية، ثم أعيد تطبيق المقياس بفاصل زمني (١٥) يوماً بين التطبيقين الأول والثاني، وتم حساب معامل الارتباط بين نتائج التطبيقين، والتي أشارت نتائجها إلى وجود علاقة ارتباطية دالة إحصائياً بين نتائج التطبيقين لمقياس دافعية الإنجاز مما يشير إلى ثبات المقياس.

الدراسة الأساسية: تم تطبيق مقياس الضغوط المهنية ودافعية الإنجاز على العينة وعددهم (١٦٠) فرداً من قيادات الإدارة الرياضية بالجامعات (مدراء العموم ومديري الإدارات برعاية الشباب بالجامعات وإدارات رعاية الشباب بالكليات).

الضغوط البيئية: ويقصد بها طبيعة مكان العمل وموصافاته من حيث أنه صحى أو غير صحى، وتلوث الهواء، وعوامل أمن وسلامة الموظف، ويتضمن هذا البعد (٧) عبارات.

الضغوط الشخصية:

الفردية والسمات الشخصية والعبء الزائد أو المنخفض، والطموح الوظيفى فى العمل، وإعداد وصقل مهنى، ويتضمن هذا البعد (١٧) عبارة.

معامل الصدق لمقياس الضغوط المهنية:

تم التطبيق على عينة قوامها (٢٠) من القيادات والأخصائيين العاملين بإدارات رعاية الشباب بالجامعات، ومن خارج العينة الأساسية، وأشارت النتائج إلى وجود علاقة ارتباطية دالة إحصائياً بين درجة كل عبارة من مقياس الضغوط المهنية والدرجة الكلية، مما يشير إلى صدق الاتساق الداخلي للمقياس.

معامل الثبات لمقياس الضغوط المهنية:

استخدم معامل ألفا كرونباخ للتأكد من ثبات المقياس، وأشار نتائجها إلى وجود علاقة ارتباطية دالة إحصائياً بين نتائج التطبيقين الأول والثاني، مما يشير إلى ثبات المقياس.

مقياس دافعية الإنجاز:

هذا المقياس إبراهيم قشقوش، وطلعت منصور (١٩٧٩م) لقياس دافعية الإنجاز لدى طلاب الجامعات، ويتكون المقياس من (٣٢) عبارة، تتم الاستجابة للمقياس في ضوء استجابتين هما (نعم، لا)، والحد الأقصى لدرجات المقياس (٦٤) درجة، والحد الأدنى (٣٢) درجة، وتشير

عرض النتائج:

جدول (١)

تحليل التباين بين أبعاد مقياس الضغوط المهنية لقيادات الإدارة الرياضية

مصدر التباين	مجموع المربعات	درجة الحرية	متوسط المربعات	قيمة «ف»
بين المجموعات	٣٩١,٣٥	٤	٩٧,٨٤	٣,٥٩ *
داخل المجموعات	٢٧٥٢,٩١	١٠١	٢٧,٢٦	

• قيمة « ف » الجدولية عند مستوى ٠,٠٥ هي : (٢,٤٦)

يتضح من الجدول وجود فروق دالة عند (٠,٠٥) بين أبعاد مقياس الضغوط المهنية لقيادات الإدارة الرياضية بالجامعات المصرية، الفروق بين المتوسطات باستخدام اختبار أقل فرق معنوي $L.S.D$.. وبناءً على ذلك قام الباحثان بحساب دلالة

جدول (٢)

دلالة الفروق بين متوسطات أبعاد مقياس الضغوط المهنية باستخدام اختبار أقل فرق معنوي $L.S.D$.

قيمة L.S.D	الفروق بين المتوسطات				المتوسطات	أبعاد المقياس
	٥	٤	٣	٢		
٤,٧١ *	١٨,٩٠ *	٤٧,٩٨ *	٣٣,٤٨ *	١٤,٣٦ *	٦٨,٥٢	أسباب مرتبطة بالضغوط الاجتماعية
	٣٣,٢٦ *	٦٢,٣٤ *	١٩,١٢ *	•	٨٢,٨٨	أسباب مرتبطة بالضغوط المادية
	٥٢,٣٨ *	٨١,٤٦ *	•		١٠٢,٠٠	أسباب مرتبطة بالضغوط الإدارية
	٢٩,٠٨ *	•			٢٠,٥٤	أسباب مرتبطة بالضغوط البيئية
	•				٤٩,٦٢	أسباب مرتبطة بالضغوط الشخصية

يتضح من الجدول وجود فروق دالة بين الأسباب المرتبطة بالضغوط الاجتماعية وباقي الأسباب ولصالح الأسباب المرتبطة بالضغوط الاجتماعية، وبين الأسباب المرتبطة بالضغوط المادية وباقي الأسباب ولصالح الأسباب المرتبطة بالضغوط المادية، وبين الأسباب المرتبطة بالضغوط الإدارية وباقي الأسباب ولصالح الأسباب المرتبطة بالضغوط الإدارية، وبين الأسباب المرتبطة بالضغوط البيئية وباقي الأسباب ولصالح الأسباب المرتبطة بالضغوط البيئية، وبين الأسباب المرتبطة بالضغوط الشخصية وباقي الأسباب ولصالح الأسباب المرتبطة بالضغوط الشخصية.

الضغوط المهنية

وعلاقتها بدافعية الإنجاز لدى قيادات الإدارة الرياضية
ببعض الجامعات المصرية

جدول (٣)

دافعية الإنجاز لدى قيادات الإدارة الرياضية بالجامعات المصرية

المقياس	وحدة القياس	المتوسط الحسابي	الانحراف المعياري	الوسيط	معامل الالتواء
دافعية الإنجاز	درجة	٣٩,٨٢	٥,٩٧	٣٨,٠٠	٠,٩١

يتضح من الجدول أن قيمة دافعية الإنجاز لدى قيادات الإدارة الرياضية بالجامعات بلغ متوسطها (٣٩,٨٢) بانحراف قدره (٥,٩٧) مما يشير إلى انخفاض دافعية الإنجاز لديهم، حيث تشير الدرجة المرتفعة على المقياس إلى دافع إنجاز مرتفع، بينما تدل الدرجة المنخفضة على دافع إنجاز منخفض.

جدول (٤)

معاملات الارتباط بين أبعاد مقياس الضغوط المهنية ودافعية الإنجاز لدى قيادات الإدارة الرياضية بالجامعات المصرية

الضغوط المهنية	دافعية الإنجاز
أسباب مرتبطة بالضغوط الاجتماعية	٠,٠٣١
أسباب مرتبطة بالضغوط المادية	٠,٦٢٣ -
أسباب مرتبطة بالضغوط الإدارية	٠,٥١٩ -
أسباب مرتبطة بالضغوط البيئية	٠,٠٢٦
أسباب مرتبطة بالضغوط الشخصية	٠,١١٢ -

• قيمة «ر» الجدولية عند مستوى ٠,٠٥ هي : (٠,٤٤٤)

القيادات بالإدارة الرياضية بالجامعات، مما يعرضهم إلى ضغوط نفسية شديدة.

ومما سبق يتضح أن أسباب الضغوط المهنية لدى قيادات الإدارة الرياضية بالجامعات هي كما يلي بالترتيب «الأسباب المرتبطة بالضغوط المادية، الأسباب المرتبطة بالضغوط الإدارية، الأسباب المرتبطة بالضغوط الشخصية، الأسباب المرتبطة بالضغوط الاجتماعية،

ويرجع الباحثان أسباب الضغوط المهنية لقيادات الإدارة الرياضية بالجامعات إلى زيادة الأعباء الحياتية والوظيفية والتي تقع على العاملين بالإدارة الرياضية مما يسبب ضغوطاً نفسية، كذلك المشكلات المتكررة من زملاء سواء فى نطاق العمل أو مشكلات اجتماعية أو مادية، كما أن عملية تدخل الإدارة العليا للجامعة فى عمل القيادات بالإدارة يجعلهم غير مستقرين نفسياً، ويرجعون بذلك مسؤولية الإخفاق على

الرياضية كلما انخفضت دافعيتهم نحو الإنجاز مما يؤدي إلى انخفاض مستوى أدائهم في القيام بواجباتهم الوظيفية، وتتفق هذه النتيجة مع نتائج دراسة أحمد العقاد (١٩٩٩م)، أيمن عبد الرحمن (١٩٩٩م)، أيمن أحمد عبد الفتاح (٢٠٠٠م)، بروير Brewer (٢٠٠٠م)، محمد الششتاوي (٢٠٠٠م)، عمرو أبو المجد (٢٠٠١م)، إبراهيم ربيع (٢٠٠٢م)، ديفرانسيسكو وبوركي Defrancesco & Burke (2002) طارق إسماعيل (٢٠٠٢م)، نبيل محمد حسن (٢٠٠٢م)، نرمين أحمد كمال (٢٠٠٣م)، الزهراء رشاد (٢٠٠٣م)، ناهد محمد حسن (٢٠٠٣م)، جمال إمام السيد وجيهان حامد عبد الرحمن (٢٠٠٤م)، على أنه توجد علاقة ارتباطية سلبية دالة بين الضغوط المهنية والاتجاهات ودافعية الإنجاز لدى المعلمين والمدربين والعاملين بالمجال الرياضي، كما تتفق هذه النتيجة مع ما أشار إليه لوزو وآخرون (Luzzo, at., al., 2004) أن حالات القلق والتوتر النفسي والاضطراب غالباً ما تظهر نتيجة الضغوط المهنية والذي يظهر في صورة توترات جسمية أو فسيولوجية وإنهاك عقلي مما يسبب ظاهرة الاحتراق النفسي، ومن ثم انخفاض دافعية الإنجاز (Luzzo, D.A & James, T & Luna, 2004 M, : 293).

ومما تقدم يتضح وجود علاقة ارتباطية سلبية بين أبعاد مقياس الضغوط المهنية ودافعية الإنجاز لدى قيادات الإدارة الرياضية ببعض الجامعات.

الأسباب المرتبطة بالضغوط البيئية» ، كما أن ظاهرة الضغوط المهنية من أكثر الظواهر خطورة لما لها من آثار سلبية كبيرة، والمتمثلة في الإنهاك البدني والعقلي والاحتراق النفسي، وهناك أسباب قد تؤدي إلى زيادة الضغوط وهي تكليف الفرد بالمسؤوليات والواجبات الخارجة عن نطاق عمله الأساسي، وعدم الرضا عن الراتب الشهري، وضعف الإمكانيات المادية، والعلاقة المتدنية بين العاملين ورؤسائهم، وضعف فرص الترقى، مما يؤدي في النهاية إلى قلة الدافعية وفقدان القدرة على الابتكار والإبداع في العمل، وهذا يعتبر مؤشراً على الإصابة بالضغوط المهنية (محمود عنان - ١٩٩٥م: ٦٩٧).

أظهرت النتائج أن قيمة دافعية الإنجاز لدى قيادات الإدارة الرياضية بالجامعات المصرية بلغ متوسطها (٣٩,٨٢) بانحراف قدره (٥,٩٧) مما يشير إلى انخفاض دافعية الإنجاز لديهم، حيث تشير الدرجة المرتفعة على المقياس إلى دافع إنجاز مرتفع، بينما تدل الدرجة المنخفضة على دافع إنجاز منخفض، وبذلك يتضح من نتائج البحث أن دافعية الإنجاز لدى قيادات الإدارة الرياضية بالجامعات المصرية دافعية إنجاز متوسطة.

كما أسفرت النتائج عن وجود علاقة ارتباطية سلبية دالة إحصائياً عند (٠,٠٥) بين أبعاد مقياس الضغوط المهنية ودافعية الإنجاز لدى قيادات الإدارة الرياضية بالجامعات المصرية، ويرجع الباحثان هذه النتيجة إلى أنه كلما زادت الضغوط المهنية لدى قيادات الإدارة

الاستخلاصات

- في ضوء نتائج البحث ، وفي حدود عينة البحث، تمكن التوصل إلى الاستخلاصات التالية:
- ١ - ترتيب أسباب الضغوط المهنية لدى قيادات الإدارة الرياضية بالجامعات المصرية كما يلي بالترتيب:
 - أ - الأسباب المرتبطة بالضغوط المادية.
 - ب - الأسباب المرتبطة بالضغوط الإدارية.
 - ج - الأسباب المرتبطة بالضغوط الاجتماعية.
 - د - الأسباب المرتبطة بالضغوط الشخصية.
 - هـ - الأسباب المرتبطة بالضغوط البيئية.
 - ٢ - أن قيادات الإدارة الرياضية بالجامعات ليس لديها دافعية نحو الإنجاز.
 - ٣ - وجود علاقة ارتباطية سلبية دالة إحصائياً بين أبعاد مقياس الضغوط المهنية ودافعية الإنجاز لدى قيادات الإدارة الرياضية بالجامعات.

التوصيات

- ١ - وضع منظومة متكاملة لزيادة الدافعية نحو العمل والإنجاز لانعكاسة على الهدف من وجود القيادات الإدارية بالجامعات وهو زيادة قاعدة الممارسة لطلاب الجامعات.
- ٢ - حصر وإزالة أسباب المشكلات، والضغوط المهنية، التي تعوق العاملين والقيادات بالإدارة الرياضية بالجامعات المصرية.

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THE ROLE OF **AEROBIC** and Anaerobic Training Programs on CD³⁴ STEM CELLS and CHOSEN PHYSIOLOGICAL VARIABLES

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Abstract

The purpose of this study was to reveal the role of aerobic and anaerobic training programs on CD³⁴ Stem Cells and Some Physiological Parameters. Twenty healthy male athletes aged (18-24 yrs.) were recruited for this study. Healthy low active males and BMI matched participants (n=10) aged (20-22 yrs.) were recruited as controls. Aerobic and anaerobic training programs for 12 weeks were used. VO₂ MAX pulse estimation using Astrand Rhythmic protocol. RBCs, WBCs, HB and hematocrit were estimated using coulter counter, Lactate by accuport, CD³⁴ stem cells by flow cytometer. Results: VO₂ MAX was increased significantly in case of aerobic training program compared to anaerobic one (62±2.2 ml/kg/min)

(54 ± 2.1 ml/kg/min). Haematological values increased significantly in anaerobic program compared to aerobic, RBCs (5.3 ± 0.3 and 4.9 ± 0.2 Mil./ul), WBCs (6.6 ± 0.5 and 6.1 ± 0.4 Thous/ul), HB (15.4 ± 0.4 and 14.2 ± 0.5 g/dl) Hematocrit (4.6 ± 1.2 and 4.4 ± 1.1 %), CD^{34+} stem cells count increased significantly in case of anaerobic program than aerobic (251.6 ± 21.64 and 130 ± 14.61) and sedentary (172 ± 24.10). These findings suggest that anaerobic training program provoke better adaptation to exercise and stem cell counts may differ between trained and sedentary. Circulating immature cells are likely to be involved in angiogenesis and repair process, both mechanisms being associated with strenuous exercise, knowledge of the physiological of effects of training on stem cells might be of potential clinical use.

Key words: Aerobic and anaerobic training programs, CD^{34+} stem cells, physiological parameters.

Introduction

Exercise is one of the most powerful non-pharmacological strategies, which is able to affect nearly all cells and organs in the body. In this context, a new research avenue focusing on the action of exercise on adult stem cells has emerged during the last decade. Changes in the behavior of adult stem cells from different regions, including skeletal muscle and the cardiovascular system have been shown to occur in response to exercise. In general, exercise, both acute and systematic training, has been found to stimulate increases in circulating EPCS in healthy subjects and patients with cardiovascular disease, although there are few studies that lend insight into the mechanisms and signaling that connect exercise with stem cell release and action (Witkowski, 2008)

Through its action on adult stem cells, exercise may act on the regenerative potential of tissues by altering

the ability to generate new stem cells and differentiated cells that are able to carry out tissue specific functions (Kado and Thornell 2000). Strength and power are important aspects of fitness, sport and everyday activity. However, much debate remains as to how these qualities, should be evaluated. Much of the debate originates from the definition of strength and power as well as the different terminology used across laboratories. Sale (1991) defined strength as the force exerted under a given set of conditions during a maximal voluntary contraction (MVC). Sale continued to define power as the rate at which mechanical work is performed under a specified set of conditions, or the product of force and velocity. Both definitions imply that strength and power are defined by conditions such as velocity, contraction type, posture and movement pattern specificity. That is strength

for one task may not imply for another one. Strength and power are quite often measured in contexts dissimilar to the environment in which functional strength and power are needed (Fatourous et al., 2000).

Guyton and Hall (2006) reported the effect of athletic training on muscles. They stated that muscles that function under no load, even if they are exercised for hours, increase little in strength. On the other hand, muscles that contract at more than 50% maximal force will develop strength rapidly even if the contractions are performed only a few times each day. They also added that during muscle contraction blood flow increase about 13 fold but also the flow decreases during each muscle contraction. This decrease in flow is due to the compression of intramuscular blood vessels, but the blood flow to muscles increases during contraction.

In a recent study, Burd et al. (2010) investigated the impact of two distinctly different exercise volumes on anabolic signaling myogenic gene expression, and rates of muscle protein synthesis (Mix, Myo, Sarg), specifically, they utilized a unilateral model in which subjects performed exercise at 90% 1RM until failure (90 FAIL), 30% 1RM in which the amount of external work was matched to 90 FAIL (30 WM), or 30% 1RM to failure (30 FAIL). They reached the conclusion that low-load high volume resistance exercise is more effective in inducing acute muscle anabolism than

high load low volume or work matched resistance exercise modes.

As for training induced adaptations, exercise induced neutrophilia was shown to become progressively blunted with training (Suzuki et al., 1999), but no other study tested whether circulating HPC counts may differ between trained and sedentary subjects. Circulating immature cells are likely involved in angiogenesis (Reyes et al., 2002) and repair processes (Springer et al., 2001), both mechanisms being possibly associated with strenuous exercise and progressive training. Given the large use of exercise based rehabilitation programs in several diseases, knowledge of the physiological effects of training on HPCs might be of potential clinical use.

Identification of EPCs on the cell surface expressions of various protein markers. There is no straight forward definition of an EPC marker because these cells seem to be a heterogeneous group associated with different cell surface antigen expression profiles. The most commonly described molecules that serve as biomarkers for recognition of an EPC population include CD34+, CD133, and VEGFR2. The pioneer study of Asahara et al (1999) recognized EPCs as CD34+ mononuclear cells (MNCs). Hematopoietic stem cells that serve as a source of EPCs express CD34+, however this marker is also present on the surface of mature endothelial cells (Fina et al., 1990).

Patrick and Stephane (2003) found CD^{34+} stem cell from elite triathletes to be significantly lower than in healthy sedentary subjects. They stated that the low CD^{34+} counts and neutopenia and low lymphocyte counts could contribute to the increased upper respiratory tract infections observed in these athletes. They hypothesized three explanations (1) Aerobic training could induce deleterious effect on BM by inhibition of central CD^{34+} SC growth (2) intense training could depress the mobilization of CD^{34+} SC. (3) due to aerology of the damage / repair process. They conclude that CD^{34+} SC quantification in elite athletes should be helpful for both basic science research and sport clinicians.

The aim of this study was to reveal the role of aerobic and anaerobic training programs on $CD34+$ stem cells and some physiological variables.

Material and Methods

Participants:

Twenty healthy male athletes aged 18-24 years with a training history of 4-9 years were recruited for this study. Athletes had to engage in regular exercise at least 3 days/week. Healthy low active male and BMI matched participants ($n=10$) aged -20-22 yrs. - were recruited as controls. Control subjects could not have a recent history of regu-

lar exercise. Participants were screened and asked to fill out a health and physical activity history questionnaires.

All participants were nonsmokers, non-diabetic and free of cardiovascular, lung and liver diseases. Participants did not take any medications that affect EPCs number or function. These include statins, angiotensin II receptor antagonists, ACE inhibitors; peroxisome proliferators activated receptor ($PPAR\alpha$) agonists and EPO.

Statistical Analysis

Student's t tests were used to determine the differences between athletes and control groups and between aerobic and anaerobic groups when exercise protocols data were found to not meet the assumption of normality, the non-parametric Mann Whitney U test (Wilcoxon rank sum test) was used to compare difference between groups. In these cases, for descriptive data the median (Lowest value-highest value) is displayed. Differences between groups were tested using the analysis of variance (ANOVA). For parameters with non-normal distributions non parametric Spearman correlation coefficients were used. F test was used to test 3 groups. An α level of 0.05 was used to indicate statistical significance.

Aerobic Training Program After Dr. Phil Esten (2010)

Early season phase: this training phase takes place during the first 4

weeks of an 12 week program. A typical week in to follow aerobic-paced mileage (3miles) on Monday to Wednesday with a hard up-tempo workout on Tuesday (anaerobic threshold and race pace), a softer up-tempo workout on Thursday, 20-40 minutes of easy running on Friday, a race on Saturday and Sunday off., weight training on Monday and Wednesday. During the early season phase the athletes should have one very long run every 14 days and the workouts should progress in duration every 2 weeks by 5 minutes. Intensity = HR of 140-150beats/m. Midseason phase should begin after 4 weeks and continue through week 8. During this phase, the runners should have one very long, aerobic paced run every 14 days (20-50%) longer than their run of the week. Progression every 2 weeks increase running time by 5 minutes, weight training continue on Monday and Wednesday. A big difference with this phase as compared with the early phase is that both duration and intensity of the work bouts should be at a higher level.

Final phase covers the last 4 weeks of a 12 week training program. It is important to continue with sufficient aerobic pace runs to ensure stride efficiency. By maintaining duration (minutes the 5 percent cut back per week), increasing the rest interval, and slightly decreasing the intensity of the repetitions, the runner recovers from the midseason work and performs at optimal levels.

Anaerobic Training Program After Tom Green (2003)

Training three times a day: on Monday, Tuesday, Thursday and Friday. Saturday is reserved for a single specific workout and high intensity.

-1st workout 20-45 minutes active warm-up, max velocity sprint, plyometric/bounding and a cool down of 10-15 minutes.

-2nd workout 20 minutes warm-up, main workout and general conditioning, 10-15 minutes cool down.

3rd workout weights using high load (70%IRM)

-Saturday workout is typically late morning or early afternoon.

As the season progresses the workout program gets increasingly more technical, specific and fine-tuned, intensity increased reaching 170 beats/min. After properly warmed up for 20 minutes, the first workout spends 30 minutes to an hour of work on maximum velocity sprint and/or plyometric.

The second workout throughout the week:

Monday: 30 second sprint, then 10 minutes rest, then sprinting at 80% up a hill, around 100 meters, cool down. Tuesday: warm up, standing in place – running arm swings, perform with dumbbells (5-25 Lbs) then single leg squat, with 2 minutes rest between each set. Wednesday –rest and recovery.

Thursday: warm up, the workout in place weighted arm swings 10 sets of 60 seconds on with 60 second off, and then cool down.

Friday like the workout of Monday then cool down

Saturday: workout is used for active recovery

The third workout of the day weight training progression –increase weight, sets and reps increase to allow the body to peak. As the athlete adapts to training the rate of progression can be increased

Results

Subjects characteristics:

Twenty athletes and ten low active control males participated in the study. Groups were matched for age, body mass and body height (table 1). Also for BMI, non-significant changes in basic characteristics, to compare athletes and control males.

Heart rate and $VO_{2\text{ MAX}}$ showed significant changes (Table 1), as expected athletes had a lower heart rate compared to control. Physical activity questionnaire data revealed that athletes exercised an average of 5 ± 0.5 days a week for 5 ± 0.2 years.

The control group was not engaged in regular exercise, nor did they have a recent history of physical activity.

Twenty athletes agreed to participate in a 12 weeks of training sessions of aerobic and anaerobic exercises.

Discussion

Tables 1 and 2 revealed lower values of lactate after aerobic and anaerobic training programs which mean a better fitness. Lactate is the end product of the anaerobic carbohydrate breakdown. It is the metabolite displaying the most spectacular concentration changes in muscle and blood with exercise. As a result, its measurement offers a wealth of information regarding the effect of exercise on metabolism. Lactate is usually determined in blood plasma (Mougios, 2006). Peak lactate concentration after short maximal exercise is reached after 3-5 minutes. Thus, a blood samples taken immediately after the end of exercise will not produce peak values.

Programming training based on blood lactate concentration is superior to programming based on heart rate because lactate relates directly to muscle metabolism and muscle adaptations. Thus, one could use lactate to determine training intensities at the beginning of a training program, monitor training through heart rate on a daily basis, and relate to lactate every few weeks to control the intensity. Most scientists agree that exercise intensities below 4 mmol/L are most effective in improving aerobic endurance, cardiac function and the lipidemic profile (Mougios, 2006); Greenhaff and Timmons, 1998).

Barrett et al. (2010) stated that blood consists of a protein rich fluid known as plasma, in which cellular elements are suspended: white blood cells, red blood cells and platelets. The normal total circulating blood volume is about 8% of the body mass (5600 ml in a 70 kg man). About 55% of this volume is plasma. Red blood cells, white blood cells and platelets are formed in the bone marrow, which is actually one of the largest organs in the body, approaching the size and weight of the liver. Hematopoietic stem cells (HSCs) are bone marrow cells that are capable of producing all types of blood cells. They differentiate into committed stem cells (Progenitors cells). The Hscs are derived from uncommitted, totipotent stem cells that can be stimulated to form any cell in the body. Adults have a few of these, but they are more readily obtained from the blastocysts of the embryo.

Roberts and Roberts (1997) stated that the main functions of the cellular components of blood are the transport of oxygen and carbon dioxide, blood clotting, acid base buffering, immune functions and tissue repair and destruction, and the function of plasma (liquid components) are blood clotting, circulating cellular components and their contents, heat transfer and thermoregulation, water exchange and transport, circulation of hormones, acid base buffering, circulation of metabolites, nutrients and waste products.

Burge et al. (1993) and Gillen et al. (1991) reported that acute effect of exercise on blood is to cause a release of fluid from the vascular component, which decreases the volume of plasma and blood. This fluid loss from plasma decreases plasma volume and causes hematocrit and plasma metabolite concentration to increase, which is termed hemoconcentration. In fact, a significant hemoconcentration occurs when a person moves from a supine to a vertical position. The added hemoconcentration of exercise is predominantly confined to the transition from rest to exercise. This response is followed by a more gradual hemoconcentration that occurs with increases in exercise intensity. And these changes are greater during higher blood pressure associated with resistance exercise than during more prolonged dynamic exercise.

Spriet et al. (1986) added that prolonged exercise involving sweating increased fluid loss from the body, and the degree of hemoconcentration can be evaluated by either directly measuring plasma volume or estimating relative changes in plasma volume from hemoglobin and hematocrit measurements. Also blood viscosity increases above what would be expected for hemoconcentration effects. In addition, there is destruction of erythrocyte, termed hemolysis, which increases plasma hemoglobin concentration (Zierler et al., 1992). This was in accordance with the

increased cellular changes after training programs due to hemoconcentration Table 3.

Endurance training increases the volume of blood. The ventricle can hold and contributes to its maximum stroke, ventricular thickness is usually slightly increases. The blood cells, Rbs, Wbcs, platelets and Hematocrit as well as hemoglobin are slightly increased together with stem cells SC, CD^{34+} (Tables 2, 3).

As for the adaptive response to anaerobic exercise, blood cellular components of Rbcs, Wbcs, Hct and haemoglobin numbers and contents increased together with increase CD^{34+} SC compared to aerobic one and control CD^{34+} ($25,6 \pm 21,64$) ($130 \pm 14,61$) and $170 \pm 21,10$ (Tables 2,3), this was in accordance with the results of Bonsignore et al. (2002) (2010) and, Mobius – Winkler et al., 2009.

Rothers and Roberts (1997) stated that the most important chronic adaptation increasing long term muscular endurance is an increase in number and size of mitochondria. An increased mitochondrial volume would also provide skeletal muscle with the ability to increase $VO_{2\text{ MAX}}$. However, cardiovascular adaptations are also involved in increasing $VO_{2\text{ MAX}}$ after training. Table(4) indicated an increased $VO_{2\text{ MAX}}$ after aerobic training program compared to control and anaerobic one.

Amani and Mohamed (2011) reported the effect of endurance and resistance training on CD^{34+} / CD^{45+} Stem cells, $VO_{2\text{ MAX}}$, certain physical variables and time of 1500 m. Run. They came to the results that there was a significant increase between pre and post measures in accounting of CD^{34+} / CD^{45+} Stem cells, $VO_{2\text{ MAX}}$ and time of 1500 m. run for the sake of endurance and Resistance training. They concluded that the training procedure for two months can improve physical and time together with increased stem cells among young runners.

Resistance exercise stimulates the synthesis of skeletal muscle proteins (West et al., 2009), which is expressed as muscle hypertrophy. It has recently been established that, myofibrillar (My) protein synthesis is already maximally stimulated at 60% 1RM, in the post absorptive state, with no further increase at higher load intensities (75 – 90 % 1RM) (Kumar et al., 2008).

Additionally, performance of low load contraction (20 1MR) with vascular occlusion is sufficient to induce an increase in mixed muscle (Mix) protein synthesis (Fujita et al., 2007).

Burd et al. (2010) reported that low-load high volume resistance exercise is more effective in inducing acute muscle anabolism than high-load low volume or work matched resistance exercise modes. Fifteen young men ($21 \pm$

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1 years), performed 4 sets of unilateral leg extension exercise at different loads and/or volumes. 90% of (1RM) until volitional failure (90 Fail) 30% 1RM work matched to 90% fail (30 wM), or 30% 1RM performed until volitional failure (30 FAIL).

Regular physical activity is associated with enhanced endothelial function which has been related to lower incidence of cardiovascular disease (Delp et al., 1993; Delp 1995; Hambrecht et al., 2003 Haram et al., 2006).

Bonsignore et al., (2002) suggested that increased HPCS reflect on adaptation to recurrent, exercise-associated release of neutrophils, stress and inflammatory mediators, indicating modulation of bone marrow activity to habitual running. Laufs et al. (2004), measured EPCS in mice and patients with stable CAD. Mice engaged in 3 weeks of voluntary wheel running and humans underwent a 4 week training program of bicycle ergometer endurance exercise (60- 80% of VO_{2max}), strength exercise, and walking. EPC number was significantly increased in the blood, bone marrow of mice after 7 days of exercise which persisted for the 28 days of the training program. In human the number increased $78 \pm 34\%$ compared to initial level. EPC apoptosis

was found to decrease $41 \pm 11\%$ after training. As for Steiner et al. (2005) who utilized a 12 week exercise program in patients with asymptomatic coronary artery disease (CAD). Results showed a 2.9 ± 0.4 fold increase in circulating EPCs in the exercise group. This increase was correlated with an increase in flow mediated dilation and no synthesis.

In another training study, Sandri et al. (2005) analyzed the responses of circulating (CD³⁴⁺ / KDR⁺) number and function in three patient groups, those with ischemic and training occurred for 4 weeks. Increases in CPC in all three groups were accompanied by an increase in CXCR4, and VEGF. They concluded that the ischemic exercise groups appeared to increase VEGF, which may have stimulated the increase in CPC numbers. Thijssen et al. (2006) reported no change in CD³⁴⁺ / KD⁺ cells in healthy young and older participants following 8 weeks of cycle exercise for 20 minutes 3 time per weeks at 65% of heart rate reserve. Therefore, exercise may not increase EPC number in healthy individuals. Hoetzer et al. (2007), Vasankari et al. (1998) reported that exercise may improve the number and function of EPCS while improving oxidative stress status.

Conclusions

It may be concluded that:

Knowledge of the physiological effects of training on stem cells might be of potential clinical use.

Cardiovascular adaptations are involving in increasing VO₂ max after training.

Lactate concentration was decreased in case of aerobic training and anaerobic one compared to control meaning a better fitness because lactate relates directly to muscle metabolism and muscle adaptation.

HB, RBCs, WBCs and hematocrit value were increased after anaerobic training compared to aerobic one due to stress.

CD34+ SC counts were increased in peripheral blood of anaerobic training then aerobic one and control due to stress and indicating better adaptation to exercise and modulation of bone marrow activity to anaerobic training.

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The Tables

Table (1)

Basic characteristics

Variable	Athletes N=20			Control N=10			Sig.
Age (yr)	21.6	±	1.83	20.6	±	0.89	NS
Body Height (cm)	179	±	2.78	178.8	±	1.92	NS
Body Mass (kg)	75	±	3.16	74	±	1.5	NS
BMI	22	±	1.4	23	±	2.2	NS
Heart rate (count/m)	68	±	2.3	74	±	2.1	S
VO _{2max} (ml/kg)	52	±	1.8	36	±	1.7	S
Lactate (mmol/L)	1.1	±	0.02	1.2	±	0.03	NS

Values are means ±SE P<0.05

BMI = body mass index

Table (2)

Haematopoietic stem cells for control, aerobic exercise training and anaerobic training courses of exercise for 12 weeks in the resting stages and Lactate

Variable	Control			Aerobic training			Anaerobic training		
CD ³⁴⁺ S cells	172.0	±	24.10	130	±	14.61	251.6	±	21,64
Lactate (mmol/L)	1.2	±	0.3	0.8	±	0.1	0.9	±	0.2

Table (2) : revealed a significant changes after anaerobic training compared to aerobic and control in case of CD³⁴⁺ SC (values are means ±SE P< 0.05).

Table (3)

Haematological values of Rbcs, Wbcs, HB and hematocrit (PCV) after aerobic and anaerobic training program (at rest) and control.

Variable	Control			Aerobic training			Anaerobic training			Sig
RBCs (million/ul)	4.7	±	0.9	4.9	±	0.2	5.3	±	0.3	S
WBCs (thousands/ ul)	4.8	±	0.7	6.1	±	0.4	6.6	±	0.5	S
HB (g/dL)	12.8	±	0.8	14.2	±	0.5	15.4	±	0.4	S
Hematocrit (%)	42	±	3.2	44	±	1.1	46	±	1.2	S

Table (3): Revealed a significant change between participant in aerobic program and anaerobic one in hematological value and control ($P<0.05$).

Table (4)

The variation in VO₂ max or participants healthy sedentary and after aerobic and anaerobic training programs.

Participants	VO ₂ max (mL/kg/min)		
Healthy sedentary (mL/kg/m)	36	±	1.7
Aerobic training program (mL/kg/m)	62	±	2.2
Anaerobic training program	54	±	2.1

The results are expressed as mean ± SE ($P<0.05$).

Table (4) : VO₂ MAX (mL/kg/min) results indicated an increased value between healthy sedentary participants and after aerobic and anaerobic training programs.

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The Effect
the use of Ballistic Training
Method on some Physical
Variables and the Skill
Level of Performance of the Players
Boxing

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Abstract

This research aims to identify the effect of use training Ballistic method on some physical variables for boxing players (muscle ability - speed transition - endurance power - agility), and identify the effect of the use of ballistic training method on the skill level of performance of the players boxing. Researcher use the experimental method experimental design per set using pre and post measurements. Selected sample way intentional from the players University Kafr El-Sheikh boxing and included 10 players and who is a researcher responsible for training and so to participate in the

tournament Egyptian universities boxing for the academic year 2011/2012, which was held in the period from 24/04/2012 to 23/04/2012 at the University of Cairo. Data Collection Tools: Rstamitr, A tape measure, Stopwatch rounded to the nearest, Medical 3 kg ball, Acetic rubber, Jeter weights, Free weights, Iron bar, Swedish seat, Physical tests[9,10], evaluate the level of performance skills through three arbitrators, provided that each of them a doctorate degree in training boxing where it was put a degree of 20 for each boxer according to the performance of the skill and then calculated the average score of the arbitrators and that in each of the pre and post

Key words:

Ballistic Training, Physical Variables, Players Boxing

Introduction

Due to the huge technological advance in science of sports training and development scene in the methods and training methods appeared a new method called resistance ballistic a method a training can from which coach to design an effective training program to develop the muscle Ability and speed as the nature of resistance training ballistic features that lead explosively It connects training elements between Ableomtry and weight training includes lifting weights relatively light and at high speeds[1]. And training a ballistic performance explosive resistance movements and includes gravity or extrusion tool as quickly as possible[2].

And ballistic movement has three main phases, namely:

- ✓ The first phase of the movement

is done by defibrillation dereliction which movement begins

- ✓ The Second Phase a gradient or landing phase, which depends on the wheel (the amount of movement) generated in the first phase.
- ✓ The Third Phase is the stage of diminishing speed and accompanied by constriction muscle eccentric[3].

And most athletic movements featuring stage contraction eccentric followed directly stage contraction dereliction which is called the Department of prolongation, negligence and the key to training is to maintain as much as possible on the kinetic energy to convert from stage crunch eccentric to dereliction crunch as quickly

as possible and this transformation called reference power and the ability to produce muscle strength quickly named by the rate of development, speed and strength development highways are affecting that rate[4]. And training ballistic used to overcome the lack of speed resulting from training with weights in addition to the development of working muscles and the interview and installed it also describes the movements that characterized the increased speed to the maximum extent and training includes ballistic on training (lifting weights lightweight and high speeds - paying football - medical use jacket weights) since ballistic training methods there is no cut or decrease in speed so they maintain compatibility for most games[1]. And what training is already ballistic strength development highways (explosive force) and then achieve an accuracy which builds on the strengths of highways where the speed performance of the player's skill in time and the right place and therefore training is ballistic offers typical form of access to performance sports to the fullest extent[5,6]. The activity features boxing from other distinctive dynamic work force, speed and changing motor ability. Which notes in movements boxers during payment punches or defense and sudden change to the conditions of punching different and which require the boxer to be on a high level of motor performance, which is characterized by force and speed and the ability to determine the punches by positions different play with burdens competition throughout the game[7,8]. It highlights the importance of research already being applied to a new training method

(method ballistic resistance training) in the development of some of the physical variables and devise new ways to increase the effectiveness of the performance and development of players boxing.

Aims:

1- to identify the effect of use training Ballistic method on some physical variables for boxing players (muscle ability - speed transition - endurance power - agility).

2- identify the effect of the use of ballistic training method on the skill level of performance of the players boxing.

Hypotheses:

1- There are significant differences between pre and post tests for dimensional measurement in the physical variables of boxing players.

2- no statistically significant difference between pre and post tests for dimensional measurement in the skill level of performance of the players boxing.

Materials And Methods

Approach: Researcher use the experimental method experimental design per set using pre and post measurements.

Sample Research:

Was selected sample way intentional from the players University Kafr El-Sheikh boxing and included 10 players and who is a researcher responsible for training and so to participate in the

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tournament Egyptian universities boxing for the academic year 2011/2012, which was held in the period from 24/04/2012 to 23/04/2012 at the University of Cairo.

Data Collection Tools:

Rstamitr, A tape measure, Stopwatch rounded to the nearest, Medical 3 kg ball, Acetic rubber, Jeter weights, Free weights, Iron bar, Swedish seat, Physical tests [9, 10], evaluate the level of performance skills through three arbitrators, provided that each of them a doctorate degree in training boxing where it was put a degree of 20 for each boxer according to the performance of the skill and then calculated the average score of the arbitrators and that in each of the pre and post tests.

The survey:

This study was conducted in the period from 05/02/2012 to 09/02/2012 and players on the team, Benha University and numbered 10 players and their purpose:

- ✓ Identify the difficulties they may face during measurement researcher.
- ✓ Access to the best arrangement for the measurements.
- ✓ Scientific transaction account (Validity - Reliability) of physical tests used in research.

Executive search steps:

Ballistic design a training program:

The research preparing the exercises, which are in the program ballistic proposed

depending on the survey reference to the foundations of program design and in the light of the availability of references and previous studies, program has been designed for 8 weeks, 3 units per week and is divided into three periods (initiation period - period preparation - the pre-competition period), has included the training program (payment in front of the chest - squat half - Download hoop jump - exercises using medical Balls - training using Jeter weights - exercises using ropes rubber).

1- Foundation period 3 weeks: And include creating a player to adapt to the training program and be strongly medium and relatively few breaks

2- preparation period 3 weeks: And where the training is more resistance training and focus training muscle as fast as similar to the speed of movement during the competition and be high strongly workouts and rest period relatively few.

3- the pre-competition period 2 weeks: In this period, up to the top of the power players and the ability and other physical attributes, a period of work with a high intensity and volume intra little comfort for long periods of time.

Application program:

- pre tests:

Measurement was conducted pre as follows:

- ✓ First day: Sunday 2/12/2012 physical tests.
- ✓ Second Day: Monday, 13.02.2012 assess the skill level of perfor-

mance by the arbitrators through the tournament took place between the players sample.

- The implementation of the program:

The researcher applying the proposed ballistic training program on basic research sample in the period from 02/19/2012 to 04/12/2012 and the period of application of the program 8 weeks, 3 units per week.

- post test :

After the completion of the implementation of the program researcher conducted a ballistic dimensional measurement as follows:

✓ First day: Sunday 4/15/2012 physical measurement tests.

✓ Second Day: Monday, 04.16.2012 assess the skill level of performance by the arbitrators through the tournament took place between the players sample.

Statistical treatments:

Have been carried out all statistical treatments of the data using computer packages of statistical programs where Spss Statistical analyzes included the following: arithmetic mean, median, standard deviation, coefficient of torsion, value of Mann Whitney, correlation coefficient, percentage of improvement, test (T) to calculate the significant differences,

Results And Discussion

Table (1):

Significant differences between pre and post tests and percentage improvement of the research sample Variable in the of muscle power (arms - legs) (n = 10)

Variables		UM	Pre-test		Post-test		Difference	(t)value	Improving (%)
			Mean	SD±	Mean	SD±			
Muscle ability of the arm and shoulder	push medical 3 kg ball with the right hand	Meter	8.985	0.610	10.875	0.288	1.89	11.736	21.03
	push medical 3 kg ball with the left hand	Meter	8.055	1.132	10.380	0.352	2.325	7.894	28.86
	push medical ball 3 kg Hand	Meter	4.350	0.320	4.880	0.071	0.53	5.183	12.18
Muscle ability of the leg	Broad jump of stability	Meter	2.442	0.141	2.755	0.083	0.312	8.160	12.81

* T table value on $p \leq 0.05 = 2.26$. UM = Unit of measurement; SD = standard deviation.

Table (2):

Significant differences between pre and post test measurements and percentage improvement of the research sample Variables (transitional speed - endurance power - agility) (n=10)

Variables		UM	Pre-test		Post-test		Difference	(t)value	Improving (%)
			Mean	SD±	Mean	SD±			
speed transition	30 m sprinting from the starting beginning	seconds	4.560	0.171	3.642	0.172	0.918	13.872	20.13%
endurance power	italics down drape arms	number	51.800	4.263	61.700	5.250	9.90	6.945	19.11%
agility	italics down to stand 10th	number	4.800	0.788	6.300	1.595	1.500	6.708	31.25%

* T table value on $p \leq 0.05 = 2.26$. UM =Unit of measurement; SD =standard deviation.

Table (3):

Significant differences between pre and post test and percentage improvement of the research sample In the skill level of performance (n= 10)

Variables		UM	Pre-test		Post-test		Difference	(t)value	Improving (%)
			Mean	SD±	Mean	SD±			
The skill level of performance	Degree	12.90	0.785	18.10	0.737	5.20	11.75	40.31%	20.13%

* T table value on $p \leq 0.05 = 2.26$. UM =Unit of measurement; SD =standard deviation.

Evidenced by the table 1 the existence of significant differences between the two tests pre and post for post test in ability tests muscle (arms - two men) where the value (T) calculated larger than the value (T) also demonstrates percentage improvement between pre and post tests members the research sample in variables ability muscle of the arms - the feet, where limited percentage improvement between (12.18% - 28.86%), due

researcher to the effect of the training program, which is based on regular training and hold time training as it might contained group exercises ballistic aims to develop muscle ability which contributed significantly to the increase in muscle strength among a sample search.

This is consistent with what he referred both Abdulaziz Alnmr, Nariman Khatib[11] Massad Ali Mahmoud [12]

to the athletic training organizer leads to efficient musculature is shown directly in the ability of the muscle to contract faster and more explosive during range of motion of the joint whether this power dynamic or static. Also consistent with what Abu-Ela Abdel Fattah (1997 m) to improve muscle ability as a result of regular training, especially if this training contains loads codified according to the capabilities of each player [13].

It is clear from Table 2 there are significant differences between the two measurements pre and post for measuring dimensional in variables (speed transition - bearing strength - agility) where the value (T) calculated higher than the value of (T) spreadsheet, also demonstrates ratio improvement between measurements pre and post at the same variables as confined between (19.11% - 31.25%), due researcher to the impact of the training program and addition of exercises, which rely on changing the direction as well as jump and movements of the feet and also use resistors ballistic different from acetic rubber balls medical and weights which Shares in the development of both (speed transition - endurance power - agility). And consistent with what already pointed to Alsayed Abdalmsod [14] that training programs aimed at the development of physical components, which employ a method interval training is high intensity training Recurring lead to the development of speed component types such as speed transition.

And also in line with what the Mohammad Hassan Allawi [15] that struc-

tured training program up player to score fatigue earns recipe endurance and gives property continue, fortitude and adaptation work, and the training programs that contain component fitness such as speed, strength and compatibility and balance and precision combined make the player was able to take different situations to his body as a whole and lead to the development of agility. And consistent results with the current results of studies on resistance training and ballistic performed on the various sports activities and demonstrated improved physical level as a result of exercises ballistic inhalers for the type of activity and little researcher, for example, a study [16,17,18,19]

Evidenced by the table 3 the existence of significant differences between the two measurements pre and post for measuring dimensional in the level of performance skills where the value (T) calculated is greater than the value of (T) spreadsheet, also demonstrates ratio improvement between measurements pre and post, which amounted to 40.31%, due researcher to the training program ballistic and good organization of loads physical terms include high training loads and organize periods of rest and muscle training as fast as similar to the speed of movement during the competition as well as the use of exercises ballistic variety using resistors different Ball medical and acetic rubber and who were working in the same direction neuromuscular skills, which led to an improvement in the skill level of performance with the players sample. This is consistent with what the

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Mufti Ibrahim [20] that a good physical preparation contributes to the growth and development of performance and appearance Example performance level.

Also consistent with the findings of the both [16,21,3,22, 2,19] is that the resistance program Ballistic affect performance skills in various games.

Conclusions

The Researcher Concludes the Following:

1- Training Program ballistic led to a development in the variable ability muscle (of the arms and legs) and reached its highest improved 28.86% of the ability of the muscle of the arm left while the lowest improved 12.18% and that of the ability of the muscle of the arms, and the ratio improved ability muscle of the arm right 21.03% as the percentage of improvement muscle power of leg 12.81%.

2- Use ballistic resistance training program led to an improvement in the variables (transitional speed - endurance power - agility), where the percentage improvement (20.13%, 19.11%, 31.52%), respectively.

3- Training Program leading to improved ballistic performance level skill players boxing sample.

Recommendation: The researcher recommends the following:

1- interest using ballistic resistance exercises to improve physical performance and skill of the players boxing.

2- attention to the application of other ballistic resistance programs for each skill of boxing, according to the nature of the muscle work and knowledge of the effect of that.

3- attention studies using ballistic training programs on different samples of boxing players in terms of age and sex.

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Effect of Training Program Using the Aquatic Medium

TO DEVELOP SOME PHYSICAL
CHARACTERS SPECIFIC FOR

Squash

NASCENT

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Introduction and Research Problem

Our society witnesses today a wide range renaissance in different fields and this renaissance is based on scientific research and purposeful objective study, the scientific and technological development we see now in different fields of life is considered the main cause that makes man struggles for matching with this amazing development, during this era we live the different scientific and practical aspects of life are characterized by fast development, continuous progress and innovative knowledge that are focused on everything to which man reached of hypothesis and sequential scientific facts, so both researchers see that the physical characters play an important role and they are considered one of the most important

preparation for any sport activity, also they affect the skillful performance positively achieving the research aims and balanced integration among different preparation aspects.

Aquatic trainings are considered one of the recent and common training methods currently as the aquatic physical fitness trainings are considered one of the favored training shapes and they don't need swimming skills and anybody has the desire in practicing the aquatic training can find the place to perform the aquatic physical fitness trainings. ^(4:10)

Process of subjection of man body and its internal vital systems to physical burden is considered one of the objective methods that lead to phenomenon of adaptation, and training phenomenon within various circumstances and natural circumstances "training during hot weather, training at heights, training under water, training during cold weather" is considered one of the most important methods that aim to induce change in the physical and functional level and awaking the sense of need to the nature and enjoy outdoors leading to satisfy the incentive for competition with self or others or the nature. (8:37,38).

Awareness by the importance of benefits and values of aquatic trainings increased and spread as it's considered one of the recent methods all over the world. As the aquatic trainings work as preventive medicine and physical therapy facing many of injury cases or rehabilitation after injury or surgery, or general fitness for health, loss weight, thinness and raising physical fitness level. (5:1)

Binkley-Helen adds that the training inside the aquatic medium is beneficial in increasing the musculature power;

also it affects the specific physical abilities. (14:4).

Both of Khairia El-Sokkary and Mohamed Brekaa, refer that water is considered excellent medium for general, specific physical fitness and rehabilitation and treatment because it supports movement also it decreases pains during movement for individuals of advanced sport levels through preparation stages of the training season, and decreasing pressures on the body that are resulted from practicing competition and experimental activities and its benefits are gaining power, tolerance and increasing flexibility specially joints flexibility and development of movemental range. (5:9,14)

Both of Ritchie et al, Rogers, Ma and Poehlman agree that aquatic trainings where the body faces great resistance from the water as they are considered as a way to resist the working muscles for strengthening legs' movements and enhancement of the power that is considered one of the primitive aims for tolerance development. (15:27) (16:67) (17:252)

Squash game is considered one of the games that require high physical ef-

fort according to what characterizes it of effort made it one of the heaviest activities at all so the physical preparation became one of the most important winning keys for players, scientists' opinions are multiple about the applications of specific physical characters at squash game, an Wael El-Sayed Ibrahim Kandil sees that it's according to the relative importance (breathing circular tolerance – power – thinness – flexibility – accuracy – speed – ability). (11:17)

Also Alan Marion Devid whose classification agrees with the opinion of both researchers where evaluation of the specific characters, refers to the classification which is:

Very important characters (breathing circular tolerance – fast reaction – accuracy – harmony – thinness)

Important characters (musculature tolerance – ability – flexibility)

Beneficial characters (maximum power). (13:45)

Trainings of gaining physical fitness are considered the most interesting and incentive of recovery when water relief and its fresh dynamics are added as soon as the individual accustomed to the new sense or unusual to move within the aquatic medium so the trainings gives relief and safe feelings and achieving the optimal mixing between pleasure, effective training and relief and it can't be felt on the ground as the aquatic trainings relieves the whole weight burden and prevents injuries that may occur because of crashing and away pressure from body joints as

it activates blood circulation, training effort burden increase and burning more of calories an achieving fast and effective harmony through water resistance, and aquatic trainings had an effect on many professional players due to their using with the purpose of fast recovery from injuries and enhance their physical adaptation and the statistics of playgrounds' injuries showed that most individuals can tolerate the very sever training best in water. (1:53)

Through theoretical readings and associated studies we find that water represents one third of man's weight that allows for great chance for muscles' strengthening and joints' movement without stress, and this is affirmed by sport medicine researches for athletics rehabilitation and also non athletics, that aquatic trainings help weak muscles to move when the body floats on water also the water resistance for movement works as moderate type of resistance trainings leading to recovery of the body to its vitality after cases of general weakness.

According to the nature of violent preparation for physical characters specific for squash activity especially with nascents specially during long preparation periods, also it's known that activity practice is performed in different conditions and some of these conditions may have great and unusual effect on the body and when the outer temperature is higher than skin temperature 32 degree the body begins decreasing its temperature by increasing the activity of thyroid gland.

It's shown previously that the current research is a new scientific trial to recognize training method using the aquatic medium which is suitable to some extent for the nature of young age stages which requires attraction and attention factors toward the training by interesting and competition method which leads to non leakage of boring in the hearts of players and their taking of specific training practice for specialized sport activity. Also this research works to make greater number of players participate and their prevention from injuries they may expose to during land trainings, also satisfaction tendency for adventure and discovering physical and psychological limits of the body and develop its abilities providing freedom and innovation of daily life style and feeling of the participants by vitality, and this what made both researchers to use training within aquatic medium as an alternative for used traditional trainings in development some of special physical characters for squash nascent.

Research Aims:

1- Designing training using aquatic medium to develop some special physical characters to develop the nascent's abilities and facilitate training.

2- Recognizing effect of using program within aquatic medium on some special physical characters for study variables.

Research Hypotheses:

1- Aquatic training program using affects development of some physical characters under study.

2- There are differences of statistical significance between before and after measurement for good of after measurement of study sample.

Research Terms:

1- Special Physical Characters:

"Physical efficacy facing physical, skillful, planning, organic and psychological requirements of the game". (7:197)

2- Aquatic Medium:

"It's medium different in its characters from air as the player's body parts are immersed inside the water which is either swimming pool or river or sea of calm water, the player performs all movements by both arms, legs and trunk inside the water". (Procedural Definition)

Previous Studies:

1- Yehia Saleh Yehia El-Motaimy (2009) (12) studied topic of "effect of training program mix of land and aquatic media to improve the level of some physical fitness factors and some functional variables at football deaf players" and this study aimed to recognize the effect of mixed training program to improve some physical fitness factors (tolerance, musculature power, speed, thinness, and flexibility) and functional variables (relief pulse, number of breath times, systolic and diastolic blood pressure, and skin folds thickness) on the study sample of (14) players, they are distributed in two groups: group of training within land medium and they

are (7) in number and group of mixed training (land and aquatic) and they are (7) in number and the period of suggested training program was 10 weeks by 3 training units weekly, as the experimental group is trained two days within the land medium with control group and one day within the aquatic medium. While the control group trains three units within the land medium, and the results referred to the improvement of the level of physical fitness and functional factors between before and after measurements in all variables under study for good of after measurement of training group (mix training), and the researcher recommends by application of suggested mix training program and land program through training and preparation stages, for their positive results on the physical and functional variables, and performance of comparative studies between the two media but by increasing number of training units of aquatic medium as one of training types in development of some physical fitness and functional factors as the aquatic medium has psychological and functional advantages.

2- Tamer Mohamed Talaat Othman (2006) (3) performed a study of title "effect of suggested aquatic training program to develop some factors of physical fitness specific for boxing nascents" and this study aimed to design aquatic program and recognizing its effect in specific physical characters, and research sample reached (20) boxers

during stage of one year (16:14) randomly, and experimental curriculum using is done for two groups experimental & control, and the most important results were that the training aquatic program affects specific physical characters positively and avoiding injuries of sample individuals.

3- Wesam Refaat Mahmoud Yehia (2006) (10) performed a study of title "effect of training program using the aquatic medium on improvement of level of performance of some main skills for volleyball girls nascents" and this study aimed to design aquatic program and its effect on some specific physical abilities and also on some main skills, and she used the experimental curriculum within sample of (38) nascents and used tools like references analysis, tests, questionnaire and she reached to occurrence of improvement of specific physical fitness level and also some game skills may occur.

4- And Esam El-Din Mohamed Abdel Razek (2005) (6) performed a study under title "effect of using trainings in the aquatic medium on some specific physical fitness factors for football players" aiming to design an aquatic training program and recognizing its application on a sample of (30) players at El-Santa Club and they are divided into two groups control and experimental using the experimental curriculum, and the results referred to improvement of the physical variables also there must

be benefit from the aquatic medium characteristics when raising the physical fitness rates or treatment and rehabilitation for athletics.

5- Mostafa Ibrahim Yousef (2001) (9) conducted a study of title "effect of suggested training program using the resistance of aquatic medium on the skillful performance level for Kata players at Karaté sport" and the research sample is chosen of (10:16) players and their ages were from (10-12) years old using the experimental curriculum and the most important results the effect of suggested program on physical characteristics specially of the training group.

6- Binkley (1997) (14) conducted study of title "aquatic trainings and their effect on improvement of musculature power and tolerance of American ladies of African origin" the study aimed to raise increase level of musculature power by the aquatic medium and the researcher used the experimental curriculum and the research sample reached (10) ladies of average age (70) years and the program time is (10) weeks and the most important results that the aquatic training improves the musculature power and tolerance with maintaining heart beats of American ladies.

7- Vresfinx (1991) (19) conducted a study of "aquatic sports as a means to prepare the basic stage students of swimming" and the study aimed to what extent the effect of aquatic sports as an effective means in preparation

of students to learn swimming, and the most important results that the aquatic sports helped greatly to overcome fearing of swimming learning, and improve the performance level.

8- Steers & Hoger (1990) (18) conducted a study under title of "physical fitness by aquatic sports" the study aimed to improvement of physical fitness by training within the aquatic medium and the sample composed of youth for 6 weeks and the experimental curriculum is used, the study results that the aquatic trainings affect positively on blood circulation, muscles and flexibility in addition to interesting factor and protection of the players from injuries.

Research Procedures:

Research Curriculum:

Both researchers used the experimental curriculum for appropriateness the nature of this study, by using the experimental designing for one group using before and after measurement.

Research Sample:

Study sample was chosen of squash players at Sport Heliopolis Club (12) players of ages ranged from (11:14) years with average (11.9) years, also the sample of the survey included (6) players outside the research sample and from the main community of the study so the research community reached (18) players, and the sample is chosen intentionally.

Table (1)**Sample Individuals Harmony of Growth Variables
Reflection Coefficient of Growth Variables
(age – height – weight – experimental age)****(N = 12)**

Growth Variables	Measurement Unit	C	R2	±A	L
Height	cm	160.5	160	4.83	+0.31
Weight	kgm	49.67	48.5	4.77	+0.74
Age	Year	12.9	13	0.90	-0.33
Experimental Age	Year	6.5	7	1.08	-1.39

C = Arithmetic Average

± A = Standard Deviation

R2 = Average

L = Value of Reflection Coefficient

Table (2)**Reflection Coefficient of Research Sample of Physical Variables****(N = 12)**

Physical variables	Measurement Unit	C	R2	±A	L
Oblique prostration with arms' flexion	Frequency	20.33	19.5	4.96	0.50
50 meters running	Second	8.18	8.14	0.76	0.16
1500 meters running	Minute	8.22	8.21	1.56	0.02
Forward trunk flexion from lengthwise setting	cm	11.67	10.5	5.04	0.69
Shuttle running	Frequency	9.17	9.25	0.86	-0.28
Right fist power	kgm	29.58	28	6.73	0.070
Left fist power	kgm	24.25	24.5	4.25	0.18

C = Arithmetic Average

± A = Standard Deviation

R2 = Average

L = Value of Reflection Coefficient

It's shown from table (2) that reflection coefficients of physical variables ranged between (-0.69:0.28) meaning

they are restricted between ± 3 referring to harmony of sample individuals' variables.

Data Collection Tools:

- 1- Restameter (to measure height)
- 2- Medical scale (for weight measurement)
- 3- Dynamometer (for fist power measurement)
- 4- Standard tape
- 5- Stop watch
- 6- Funnels and tools
- 7- Questionnaire forms for experts' opinions about:

First: a- Program time

b- Number of units

c- Time of each unit

Second: a- Used tests in before and after measurement and its appropriateness to measure every character.

b- Recognizing validity of used tests in aquatic medium and its appropriateness to measure every character.

c- Used tests in aquatic medium aiming to ration the aquatic program.

Study Conducting Steps:

(First) Survey

1- Frank Calculation:

Frank is calculated in aquatic medium tests by arbitrators after administration of frank calculation forms to check tests frank within aquatic medium.

2- Steadiness Calculation:

To calculate the steadiness coefficient of physical characteristics tests inside the aquatic medium both researchers used method of tests application and retest a sample of 6 players from research community and not from the sample under study of Sport Heliopolis Club Nascents on Thursday 23/5/2012, and after 3 days the second application is performed on Saturday 26/5/2012 and table (3) shows correlation coefficient between first and second application.

Table (3)

**Correlation Coefficient between First & Second Applications
In Specific Physical Characteristics Tests inside Water** (N = 6)

	Used tests within aquatic medium	Measurement unit	First application		Second application		Value of "r" correlation coefficient
			M	A	M	A	
1	Running in place (1 minute) with kneesrising	Frequency	32.33	2.16	34.17	1.72	0.84
2	Backward circling of arms under water complete circle (1 minute)	Frequency	47.83	2.86	49	2.28	0.98
3	Holding iron ruler under water	cm	25.83	1.94	26.83	1.94	0.94
4	Running opposite sign (30 seconds)	Frequency	1.83	0.75	2.33	1.03	0.86
5	Wide jumping from steadiness	cm	134.16	11.58	137.33	11.14	0.99
6	Running between obstacles in circular form	second	26.33	1.75	28	2.09	0.76

It's shown from table (3) that value (r) is more than (0.55) at significance level (0.5) referring to presence of correlative relationship of statistical significance between first and second applications in collection of specific physical characteristics that refers to tests steadiness.

Before Measurements:

- Before measurements were done in land physical tests on Wednesday 30/5/2012.

- Before measurements were done in specific physical tests within aquatic medium on Thursday 31/5/2012.

Main Study:

Suggested Aquatic Program:

1- **Objective: Improvement** of specific physical characteristics for squash nascent using aquatic medium

2- Training program characteristics:

The program took two months (8 weeks) including three training units every week and every unit took time (90) minutes.

The program included various group of different physical trainings within aquatic medium which is suitable for achieving the purpose of the program and appropriates growth for sample individuals and they are circles and swinging of both legs and arms and trunk.

3- Bases of program establishment:

Different principles of sport training are considered while establishment of the program of training burden degradation that doesn't prejudice the general objective of the program and consideration of the age stage of the

sample and energy production systems in programs and units establishment appropriating different preparation methods for training according to every stage and its objectives.

4- Training burden rationing:

Through training principles the researcher used trainings range between (70:85%) of severe intensity and performance frequencies reached between (8:16) frequencies and number of groups (4:8) groups and interval rest reached (2:4) minutes between frequencies and (6:10) minutes between groups.

Working on the program start is determined after different measurements with the most intensity in the used trainings aiming to know the numbers of every player and rationing the training burdens of the program through these numbers.

The program is applied in the period from Saturday 2/6/2012 to Wednesday 25/7/2012 of (24) training units which is the period of the program. Annex (1), annex (2)

After Measurements:

After measurements were done for land physical tests on Thursday 26/7/2012. And after measurements were done in specific physical tests within aquatic medium on Friday 27/7/2012.

Statistical Treatments:

Both researchers used the following statistical treatments: arithmetic average – standard deviation – average – reflection coefficient – Pearson correlation coefficient – (T) tests for differences significances.

Results Review & Discussion:

(First) Results Review:

Table (4)

***Differences Significance between Before & After Measurement
In Physical Tests outside Aquatic Medium for Research Sample (N = 12)***

Tests	Before Measurement		After Measurement		(T) Value
	C	±A	C	±A	
1- Musculature tolerance (oblique prostration from standing) (1 minute)	24.67	5.05	33.67	4.91	14.06*
2- Ability (wide jumping from steadiness)	1.79	0.32	1.89	0.16	3.33*
3- Fitness (orthogonal running)	16.57	0.87	14.87	1.14	13.07*
4- fast reaction (Nelson with both arms)	17.25	2.30	15.17	1.75	2.74*

Table (T) value at level (0.5) = 1.812 an it's shown from table (4) presence of statistical differences of significance as the calculated (T) value ranged from (2.74-14.06) an it is more than table (T) value.

Table (5)

***Differences Significance between Before & After Measurements
In Physical Characteristics Tests within Aquatic Medium
for Research Sample (N = 12)***

	Used tests within aquatic medium	Measurement unit	First application		Second application		Value of "T"
			M	A	M	A	
1	Running in place (1 minute) with knees rising	Frequency	32.25	2.38	38.42	3.12	11.86
2	Backward circling of arms under water (1 minute)	Frequency	45.08	3.87	49.42	4.03	8.54
3	Holding iron ruler under water	cm	25.67	2.84	21.67	2.90	10.8
4	Running opposite sign (30 seconds)	number	2.42	0.67	1.58	0.51	10.5
5	Wide jumping from steadiness	cm	128.75	7.65	140.33	6.90	12.31
6	Running between obstacles in circular form	second	26.17	3.3	22	2.52	11.27

It's shown from table (5) that calculated (T) value is more than table (T) value at significance level (0.05) referring to presence of differences of statistical significance between before and after measurements for good of after measurement in research variables.

(Second) Results Discussion:

It's shown from table (4) presence of differences of statistical significance between before and after measurements for specific physical performance variables as calculated (T) value was more than table (T) value at level (0.05) of physical characteristics referring to improvement of performance level of these characteristics due to application of aquatic medium as resistant medium to movement, that agrees with opinion of both Khairia Ahmed & Brekaa (5), Wesam Mahmoud (10), that the aquatic medium works to improve the musculature tolerance rhythmically because squash game is of the games that lead to musculature arrhythmic for corresponded musculature groups because using the stick with one hand without the other, specially with young ages, also the ability variable is mix of maximum power and maximum speed and improvement rate requires high effort to reach to the best levels of performance and working within aquatic medium may not achieve high rates of improvement of maximum power or maximum speed curve, this confirms occurrence of balanced comprehensive development for squash players safely.

Table (5) of differences significance between before and after measurements in specific physical characteristics within the aquatic medium for research sample, shows that there is observed improvement in the research variables for good of after measurement as in case of running in place test to test the musculature tolerance as the calculated (T) value reached 11.86 and it's more than

table (T) value at level (0.05) referring to that this character can be measured within and outside the aquatic medium and there is correlation between player's improvement in test application inside and outside the water as the musculature working of both legs usually is performed using large musculature group that requires overcoming greater resistance of aquatic medium so improvement rate is more in musculature burden of legs, also it's shown presence of improvement in test of backward circling of arms under the water (1 minute) as calculated (T) value 8.54 and it's greater value than the table (T) value at level (0.05) referring to improvement of musculature tolerance generally and musculature tolerance improvement of arms specially and if aquatic medium using in improvement of arms performance is lesser than legs as the arms face lesser resistance than legs due to small sized musculature groups forming the shoulder and arms which is observed in the method of long distances swimming as the swimmer depends on arms blows more than legs because they are small musculature groups face lesser resistance than legs within the aquatic medium which agrees with both Yehia Saleh (12), Beinkly (14).

Table (5) shows occurrence of differences of statistical significance between before and after measurements for good of after measurement in fast reaction variable under water, musculature ability and fitness as the calculated (T) value was more than table (T) value at level of (0.05) referring to improvement of aquatic program application, and the

water is considered natural environment and training inside the aquatic medium is affecting an effective method to increase numbers and types of available trainings for the player, so when moving arms or legs inside the water they face great resistance and can be used to strengthen the muscles and increasing the movemental range of the joint, and works as a medium calls for feeling with relax and makes the body weight free as water mass is heavier than air mass, also water resistance increase works to raise the player's efficacy physically, skillfully, mentally, socially and psychologically. This agrees with opinion of Tamer Talaat (3), Esam El-Din Mohamed (6), and Stears & Hoger (18).

From the previous it's shown that the specific physical preparation program using the aquatic medium that led to improvement of specific physical characteristics for squash nascents effectively, interesting and safely that agrees with the research objectives and achieves its hypotheses and is considered a solution for the problem facing trainers in dealing with category of young ages in long physical preparation program, as the aquatic medium is characterized by stimulating the incentive for training and push to competition with self and others and decreases tension, worry, and boring degrees by which the nascents feel.

Conclusions and Recommendations

First: Conclusions:

- 1- Supposed aquatic training program to develop some specific physical characteristics affects positively on those characteristics.
- 2- Development of level of specific physical characteristics leading to raise the performance efficacy of nascents without injuries occurrence.
- 3- The nontraditional programs help interesting, joy, competition and players' attraction using atypical methods, and improve the training physical existence percents.

Second: Recommendations:

- 1- Necessity of interesting in aquatic medium programs in dealing with nascents in long preparation programs.
- 2- Working on the research about other physical variables that can be developed by aquatic medium and share in performance development in different ages and levels.
- 3- Experimentation of using the aquatic medium on other more advanced samples to judge to what extent they are suitable for nascents categories.
- 3- Application of physical preparation using the aquatic medium shares as attractive and interesting factor leading to the competition and maintaining the players from injuries during preparation period.

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COURSE ANALYSIS OF

METHODOLOGY

and Curricula Department

at the Faculty of Physical Education
Tanta University

IN THE LIGHT OF EDUCATIONAL DEVELOPMENT :

An Analytical Study

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Abstract

The current study aims at analyzing the courses delivered at the methodology and curricula department, Faculty of Physical Education – Tanta University through classifying the nature of each course (professional – academic – cultural) and the relative importance and rank of each course in addition to specifying the educational goals of each course according to its relative importance. The researcher used the descriptive (survey) approach. Research community was all students of the faculty of physical education – Tanta University who are registered for 2011-2012 academic year (Methods of Teaching Major) and Faculty members of Methodology and Curricula Dept. sample included (160) students (100 males and 60 females) and (30) faculty members. In conclusion, Sample members agreed that (14) courses are (basically professional) with 43.75%, (7) courses are (academic) with 21.87% and (11) courses are (cultural) with 34.38%. Sample members agreed that (25) courses are important for teacher's preparation with relative importance between 51.67% and 100%. Sample members agreed that (6) courses are not important for teacher's preparation with relative importance between 37.67% and 49.44% (educational bases – methods

of teaching individual sports / motor tempo – methods of teaching aquatics – educational economics – English (3rd and 4th year) – methods of teaching combat sports / motor expression). Sample members agreed upon the importance of teaching goals for courses contributing in teacher's preparation with relative importance between 50% and 100%. Sample members agreed that teaching goals for non-important courses (educational bases – methods of teaching individual sports / motor tempo – educational economics – English (3rd and 4th year) – methods of teaching combat sports / motor expression) are not suitable with relative importance between 35% and 49.44%.

Background

Due to the complexity and characteristics of our modern world, educational systems all over the world face various problems and challenges. Most of these problems stem from the inconvenience between educational systems and the educational demands of this age (16).

From time to time, most countries seek to improve its curricula, concepts, knowledge and purposes of the basic and vital sciences that contribute in improving and preparing good citizens. Physical education is a modern science that is witnessing an increase in popularity on the educational and professional levels. It spreads quickly in schools and specialized faculties that prepare teachers of physical education technically and educationally (13).

The teacher is the basic pillar of any educational system. Any system can never achieve its goals without a well-trained intelligent teacher who understands his/her role thoroughly. In this globalization era, there is a need for a teacher who improves continually according to modern developments of this age to fulfill the learners' and social needs (7).

Curricula represent the means by which any educational system can achieve its goals in any of its stages. Curricula should be flexible, modifiable and improvable to achieve its goals accurately (14, 4)

The regulatory panel of Faculty of Physical Education – Tanta University (Methodology and Curricula Dept) indicates that each student who seeks to gain the bachelor's degree in physical education should pass thirty two courses divided into eight semesters (two semesters per academic year) with total of four academic years as specialization is from the third academic year (11).

As a member of physical education teachers' evaluation committee, Gharbia governorate, the researcher noticed major defects in the competencies of physical education teachers related to the use of available resources and dealing with educational aids. As a member of Quality of Curricula Committee, the researcher noticed a real need for re-evaluating and re-considering the courses delivered for students so that the faculty is to graduate competent physical education teachers who are capable of facing this age's challenges.

Aims:

The current study aims at analyzing the courses delivered at the methodology and curricula department, Faculty of Physical Education – Tanta University through:

Classifying the nature of each course (professional – academic – cultural)

Classifying the relative importance and rank of each course

Specifying the educational goals of each course according to its relative importance

Research questions:

What is the classification of each course according to its nature (professional – academic – cultural)?

What is the relative importance and rank of each course?

Is there any variance in the relative importance and educational goals of these courses according to the opinions of subjects' categories?

Methods:

Approach:

The researcher used the descriptive (survey) approach.

Subjects:

Research community was all students of the faculty of physical education – Tanta University who are registered for 2011-2012 academic year (Methods of Teaching Major) and Faculty members of Methodology and Curricula Dept. sample included (160) students (100 males and 60 females) and (30) faculty members.

Data collection tools:

The researcher used the following tools for collecting data:

1- Documents analysis,

2- Interviews,

3- Questionnaire

The questionnaire:

For designing the questionnaire, the researcher reviewed the related literature (8, 2, 12, 10, 9, 20, 22, 1).

The researcher used content validity and jurors' validity to calculate the validity of the questionnaire. The percentage of agreement of jurors' opinions is 100% and this indicates the questionnaire's validity. To calculate the questionnaire's reliability, the researcher used test/re-test procedure on a pilot sample of (15) students with time interval of (7) days between applications. This procedure indicates the questionnaire's reliability.

The questionnaire was applied to faculty members through regular mail, e-mail and interviews from 29-4-2012 to 24-5-2012. The questionnaire was applied to students through interviews from 27-5-2012 to 7-6-2012.

Statistical treatment:

The researcher used SPSS software to calculate frequency, percentage, relative importance, CHI2, mean standard deviation, correlation coefficient and matching test.

Results:

Table (1):

Relative importance, CHI^2 and ranking of student teachers' and faculty members' responses

Curriculum	Male Students (n=100)			Female students (n=60)			Faculty members (n=30)		
	CHI^2	Relative importance	Rank	CHI^2	Relative importance	Rank	CHI^2	Relative importance	Rank
Introduction to physical education	45.5	68.33	24	30.1	65.56	23	18.6	63.33	25
Teaching goals									
1- concept, bases and goals of Introduction to physical education	39.74	67.67	2	33.3	65.00	3	21.6	66.67	2
2- recognizing goals and purposes of physical education	42.32	66.67	4	40.3	63.89	4	29.4	66.67	2
3- recognizing phases of development	33.5	70.00	1	72.1	66.11	2	21.6	66.67	2
4- knowing how to divide sports activities	34.46	67.00	3	54.9	68.33	1	25.8	63.33	5
5- recognizing the relation between physical education and other sciences	39.5	55.00	5	36.9	60.00	5	12.2	67.87	1
History of physical education	26.96	80.67	19	21.9	81.67	17	12.6	83.33	18
Teaching goals									
1- knowing the concept of history of physical education	28.58	81.00	3	19.3	80.56	2	12.2	82.22	3
2- identifying history of sports events	45.5	85.00	1	28.3	84.44	1	18.6	86.67	1
3- identifying ancient and modern Olympics	34.64	82.67	2	17.1	78.33	3	15	83.33	2
4- the role of faculty of physical education in the modern society	15.26	68.67	5	24.4	67.78	5	7.8	70.00	4
5- recognizing the sports history of Egypt	16.88	76.00	4	17.5	69.44	4	12.2	65.56	5
6- recognizing the history of physical education (ancient – medieval – renaissance – modern)	62	46.67	6	33.1	49.44	6	12.2	51.11	6
Methods of teaching (1)	171.67	98.33	4	108.4	98.89	6	60	100.00	1
									1.62

Curriculum	Male Students (n=100)				Female students (n=60)				Faculty members (n=30)				Matching test
	CHF	Relative importance	Rank	CHF	Relative importance	Rank	CHF	Relative importance	Rank	CHF	Relative importance	Rank	
Teaching goals													
1- knowledge and concepts of methods of teaching	177.13	98.67	5	114.1	99.44	5	60	100.00	1	100.00	1	1.76	
2- characteristics of PE lesson	182.72	99.00	4	140	100.00	1	60	100.00	1	100.00	1	1.9	
3- modern methods of teaching	171.67	98.33	6	140	100.00	1	60	100.00	1	100.00	1	1.5	
4- components, aims, content and how to perform a PE lesson	200.2	100.00	1	140	100.00	1	60	100.00	1	100.00	1		
5- basics of teacher preparation	200.2	100.00	1	108.4	98.89	6	60	100.00	1	100.00	1	4.35	
6- regular formations in PE lessons	200.2	100.00	1	140	100.00	1	60	100.00	1	100.00	1	0	
Methods of teaching (2)	171.67	98.33	4	108.4	98.89	6	60	100.00	1	100.00	1	1.62	
Teaching goals													
1- how to prepare a PE lesson	177.13	98.67	5	114.1	99.44	4	60	100.00	1	100.00	1	1.76	
2- educational aids in PE lesson	200.2	100.00	1	140	100.00	1	60	100.00	1	100.00	1	0	
3- modern technologies in PE lesson	171.43	98.00	6	108.4	98.89	6	60	100.00	1	100.00	1	1.81	
4- phases of motor learning for motor skills in PE lesson	200.2	100.00	1	140	100.00	1	60	100.00	1	100.00	1	0	
5- teacher's roles in PE lesson	200.2	100.00	1	140	100.00	1	60	100.00	1	100.00	1	0	
6- developmental characteristics of various age groups	188.42	99.33	4	114.1	99.44	4	60	100.00	1	100.00	1	0.96	
7- modern technologies in PE student teachers' preparation programs	145.18	96.00	7	72.7	93.89	7	54.2	98.89	7	98.89	7	3.04	
Educational bases of physical education	100.94	41.00	27	92.5	36.11	29	21.8	45.56	31	45.56	31	9.53	
Teaching goals													
1- Knowledge related to educational bases of physical education	144.74	37.67	7	102.7	35.56	7	26.6	42.22	4	42.22	4	8.3	
2- educational aspects (cognitive – values) of physical education	129.74	39.33	6	97.2	36.67	6	22.4	44.44	3	44.44	3	7.93	

Curriculum	Male Students (n=100)			Female students (n=60)			Faculty members (n=30)			Matching test
	CHF	Relative importance	Rank	CHF	Relative importance	Rank	CHF	Relative importance	Rank	
3- aesthetic education and its components	120.14	40.67	4	70.18	37.78	1	18.2	47.78	2	6.38
4- social and educational philosophy and its relation to physical education	98.06	43.67	1	64.3	44.44	3	12.6	50.00	1	9.95
5- various philosophies and physical education	93.86	43.67	1	42.4	40.00	4	30.2	41.11	5	8.96
6- political powers and factors affecting educational systems and physical education	115.76	40.67	4	82.3	37.78	5	38.4	40.00	6	2.13
7- educational philosophy of physical education	98	43.33	3	47.5	47.22	2	43.4	37.78	7	4.28
Methods of teaching team sports	146.14	96.67	7	87.6	96.67	11	60	100.00	1	3.24
Teaching goals										
1- methods and applications of teaching team sports	171.67	98.33	1	97.6	97.78	1	60	100.00	1	2.04
2- knowledge related to methods of teaching team sports	165.84	97.33	2	92.5	97.22	2	60	100.00	1	4.63
3- basics and rules of team sports	145.18	96.00	3	72.7	93.89	3	54.2	98.89	3	3.04
Methods of teaching exercises	146.14	96.67	7	97.6	97.78	9	60	100.00	1	3.44
Teaching goals										
1- Methods of teaching athletics	171.67	98.33	2	102.7	97.78	2	60	100.00	1	3.89
2- concepts related to athletics	188.42	99.33	1	102.9	98.33	1	60	100.00	1	3.32
3- planning and performing athletics lesson	145.18	96.00	3	97.3	97.22	3	60	100.00	1	3.45
Methods of teaching track and field	155.99	97.33	6	114.1	99.44	4	60	100.00	1	5.15
Teaching goals										
1- methods of teaching track and field	188.42	99.33	1	108.4	98.89	1	60	100.00	1	1.12
2- basic concepts of track and field	145.18	96.00	3	97.2	96.67	3	43.4	95.56	3	4.79
3- planning and performing track and field lesson	171.67	98.33	2	102.9	98.33	2	60	100.00	1	1.58
Methods of teaching combat sports (men) / motor expression (women)	66.5	51.67	26	36.7	49.44	26	9.8	58.89	26	4.85

Curriculum	Male Students (n=100)			Female students (n=60)			Faculty members (n=30)			Matching test
	CHF ²	Relative importance	Rank	CHF ²	Relative importance	Rank	CHF ²	Relative importance	Rank	
Teaching goals										
1- educational importance of combat sports / methods and bases of motor expression	58.46	50.33	2	39.9	48.33	2	12.2	52.22	1	1.25
2- knowledge related to methods of teaching combat sports / the civilized bases of motor expression	62	50.00	3	44.1	48.33	2	15.2	45.56	3	4.01
3- educational and technical bases of some combat skills / educational aids of motor expression	17.84	59.33	1	30.1	50.56	1	15.8	52.22	1	4.95
English language (3 rd year)	145.46	37.00	30	102.9	35.00	31	23.4	50.00	28	33.52
Teaching goals										
1- Terminology of physical education	122.66	43.00	1	72.7	42.22	1	16.8	53.33	1	5.42
2- conversation in English about PE	130.34	41.00	2	76.9	40.56	2	26.6	47.78	2	3.4
3- knowing a new language	144.56	38.67	3	97.3	36.11	3	29.6	44.44	3	5.47
Physical education technology	122.66	71.00	20	57.7	72.78	20	22.4	71.11	23	4.87
Teaching goals										
1- theories, types and problems of educational communication	131.42	70.33	1	52.3	71.11	1	25.8	70.00	1	5
2- concepts and elements of educational technology	115.76	68.00	3	47.5	69.44	3	21.6	66.67	4	3.45
3- modern educational communication technologies	106.64	67.33	4	60.4	71.11	1	34.2	70.00	1	2.37
4- technology of teacher preparation	121.94	70.33	1	67.6	67.78	4	38.6	68.89	3	2.63
Physical education curricula	78.5	88.33	18	43.6	85.56	15	18.2	85.56	17	2.29
Teaching goals										
1- concepts and nature of PE curricula	74.48	87.33	4	39.9	85.00	5	21.6	86.67	4	0.78
2- choosing the content and educational experiences	61.46	83.67	5	51.1	91.11	2	15.8	81.11	5	14.63

Curriculum	Male Students (n=100)			Female students (n=60)			Faculty members (n=30)			Matching test
	CHP ²	Relative importance	Rank	CHP ²	Relative importance	Rank	CHP ²	Relative importance	Rank	
3- organizing content and procedures	90.32	90.00	3	54.9	90.00	3	25.4	88.89	3	0.34
4- PE curricula for various stages	100.16	92.00	2	67.9	92.78	1	54.2	98.89	1	5.18
5- educational units in PE curricula	130.06	92.33	1	58.8	90.00	3	43.4	94.44	2	5.29
6- designing and evaluating PE curricula	23.42	62.00	6	15.1	56.11	6	9.8	51.11	6	12.68
Motor learning	104.31	93.00	14	63.1	91.11	14	54.2	98.89	13	5.06
Teaching goals										
1- concept and bases of motor learning	95.69	91.33	2	44.1	85.00	4	15.8	85.56	4	13.41
2- stages of human motor development	144.74	95.67	3	76.9	93.89	3	54.2	98.89	2	2.64
3- learning motor skills	171.67	98.33	1	102.9	98.33	1	60	100.00	1	1.58
4- theories and characteristics of motor learning	144.74	95.67	3	91.9	95.56	2	43.8	96.67	3	2.45
Methods of teaching gymnastics	146.14	96.67	7	114.1	99.44	4	60	100.00	1	6.92
Teaching goals										
1- Basics of teaching gymnastics	171.67	98.33	4	108.4	98.89	3	60	100.00	1	1.65
2- methods of teaching gymnastics	194.25	99.67	1	140	100.00	1	60	100.00	1	0.9
3- Planning gymnastics lesson	182.72	99.00	3	108.4	98.89	3	60	100.00	1	1.84
4- teaching aids used in gymnastics	194.25	99.67	1	140	100.00	1	60	98.89	4	0.96
Methods of teaching individual sports (men) / motor expression (women)	144.47	37.67	29	47.5	47.22	27	9.6	53.33	27	17.76
Teaching goals										
1- the relation between music and tempo / concepts related to educational importance	145.4	37.33	3	51.6	46.67	1	12.2	52.22	1	15.76
2- the relation between tempo and movement / methods of teaching fencing and weight lifting	134.72	38.67	2	50.8	45.56	2	15.2	48.89	3	9.45
3- educational value of music / technical and educational phases of teaching fencing and weight lifting	98.54	44.33	1	67.6	42.22	3	15.2	51.11	2	3.8

Curriculum	Male Students (n=100)			Female students (n=60)			Faculty members (n=30)			Matching test
	CHF	Relative importance	Rank	CHF	Relative importance	Rank	CHF	Relative importance	Rank	
Field training (3 rd year)	200.2	100.00	1	140	100.00	1	60	100.00	1	0
Teaching goals										
1- concept and aims of field training	188.42	99.33	4	114.1	99.44	5	60	100.00	1	0.96
2- problems facing student teachers in field training	200.2	100.00	1	140	100.00	1	60	100.00	1	0
3- forming the character of student teacher	200.2	100.00	1	140	100.00	1	60	100.00	1	0
4- dealing with various environments in field training	188.42	99.33	4	140	100.00	1	60	100.00	1	1.8
5- skills of planning and performing the lesson	200.2	100.00	1	140	100.00	1	60	100.00	1	0
6- evaluation in physical education	144.74	95.67	6	63.1	91.11	6	43.4	95.56	6	3.28
Computer (3 rd year)	121.34	69.67	21	45.7	61.11	24	18.2	75.56	20	26.95
Teaching goals										
1- components of the computer	38	73.33	1	53.32	55.00	2	12.6	70.00	1	10.63
2- learning computer systems	45.5	68.33	2	46.9	66.11	1	18.6	70.00	1	2.6
3- the importance of computer in modern society	33.5	51.67	3	54.7	44.44	3	14.6	55.56	3	12.73
Motor education	130.82	69.67	21	72.3	68.33	22	21.8	64.44	24	10.65
Teaching goals										
1- concept and importance of motor education	120.14	66.33		63.7	63.89	2	18.2	65.56	3	4.51
2- motor education programs	100.16	70.67	2	46.36	70.56	4	25.8	63.33	4	8.82
3- equipments of motor education	45.14	67.00	3	17.5	63.89	2	18.6	70.00	2	3.16
4- applying motor education lessons	100.94	92.33	1	67.6	92.22	1	43.4	95.56	1	4.03
Psychological counseling	69.14	89.00	17	30.1	83.89	16	12.6	83.33	18	8.71
Teaching goals										
1- basics of psychological counseling	59.06	86.33	2	16.9	79.44	4	8.6	81.11	4	4.52
2- theories of psychological counseling	48.56	82.00	4	21.9	80.00	3	12.8	84.44	2	7.79

Curriculum	Male Students (n=100)			Female students (n=60)			Faculty members (n=30)			Matching test
	CHF	Relative importance	Rank	CHF	Relative importance	Rank	CHF	Relative importance	Rank	
3- basic information for psychological counseling	61.04	86.00	3	78.4	95.56	1	18.2	84.44	2	10.54
4- best approaches of counseling	78.26	88.00	1	27.1	82.22	2	26.6	91.11	1	5.26
Educational systems and problems	78.5	68.33	24	22.9	70.56	21	13.4	76.22	22	4.17
Teaching goals										
1- educational systems	70.94	65.67	4	30.4	64.44	4	15.2	68.89	3	2.33
2- problems of PE curricula	54.5	86.67	1	30	83.33	1	12.6	83.33	1	8.16
3- problems and capabilities of physical education	56.24	86.00	2	33.3	83.33	1	15	83.33	1	3.73
4- facing problems related to teaching PE	60.74	65.33	5	37.2	63.33	5	11.4	60.00	5	2.65
5- educational policies in Egypt	89.78	66.67	3	47.1	68.33	3	12.2	65.56	4	3.61
Injuries and first aid	144.74	95.67	12	92.1	96.67	11	54.2	98.89	13	1.64
Teaching goals										
1- concepts related to injuries	120.86	93.67	4	86.8	95.56	4	48.6	96.67	4	2.33
2- first aid	145.04	96.00	3	102.9	98.33	2	60	100.00	1	4.7
3- injuries and how to first aid them	200.2	100.00	1	140	100.00	1	60	100.00	1	0
4- prevention of sports injuries	182.72	99.00	2	92.1	96.67	3	54.2	98.89	3	3.49
Methods of teaching aquatics	131.42	38.00	28	97.3	36.11	29	54.2	34.44	32	4.5
Teaching goals										
1- basics and equipments of aquatics	18.5	55.00	1	27.1	50.56	2	48.6	36.67	2	18.47
2- methods of teaching swimming	41.54	52.00	2	21.7	52.78	1	7.8	56.67	1	2.81
3- safety in swimming	141.39	37.00	3	108.4	34.44	3	54.2	34.44	3	4.08
Field training (4th year)	200.2	100.00	1	140	100.00	1	60	100.00	1	0
Teaching goals										
1- acquiring teaching skills	200.2	100.00	1	140	100.00	1	60	100.00	1	0

Curriculum	Male Students (n=100)			Female students (n=60)			Faculty members (n=30)			Matching test
	CHF	Relative importance	Rank	CHF	Relative importance	Rank	CHF	Relative importance	Rank	
2- acquiring social skills	171.43	98.00	6	114.1	99.44	6	54.2	98.89	6	1.64
3- administering school sports activities	200.2	100.00	1	140	100.00	1	60	100.00	1	0
4- improving creativity of student teachers	182.72	99.00	4	114.1	99.44	5	60	100.00	1	1.87
5- identifying needs and desires of students	200.2	100.00	1	140	100.00	1	60	100.00	1	0
6- facing problems of field training	182.72	99.00	4	140	100.00	1	60	100.00	1	1.9
Educational economics	141.39	37.00	30	50.8	45.56	28	18.6	46.67	30	16.16
Teaching goals										
1- quality and its economics and their effects on education	45.5	65.00	1	21.9	68.33	1	22.4	71.11	1	4.23
2- Reasons for the increase of educational cost	144.74	37.67	4	91.9	37.78	2	43.4	37.78	2	1.34
3- the relation of economics and other sciences	134.72	40.00	2	97.3	36.11	4	54.2	34.44	4	7.47
4- definition, evolution and fields of economics	144.56	38.00	3	92.1	36.67	3	43.4	37.78	2	0.71
English language (4 th year)	145.46	37.00	30	102.9	35.00	31	23.4	50.00	29	35.42
Teaching goals										
1- increasing vocabulary	32.24	52.67	1	17.1	53.33	1	8.6	57.78	1	2.86
2- translation from English to Arabic	149.78	37.33	2	108.4	34.44	2	25.4	45.56	2	13.1
3- translation from Arabic to English	171.67	35.00	3	108.4	34.44	2	29.6	42.22	3	15.73
Sports sociology	87.2	90.00	16	25.2	80.00	19	31.2	93.33	15	19.62
Teaching goals										
1- basics, concepts and evolution of sociology	61.04	86.00	2	22.9	78.89	3	26.6	91.11	2	8.83
2- the relation of sociology to other sciences	60.55	85.00	3	30.4	84.44	1	23.4	90.00	3	3.82
3- social systems	98.54	91.00	1	27.1	82.78	2	34.2	93.33	1	7.58
Principles of training juniors	82.95	89.67	14	17.5	80.56	18	20.6	88.89	16	9.55
Teaching goals										
1- basics and concepts of sports training	118.57	94.33	3	36.4	84.44	4	34.2	93.33	4	16.05

Curriculum	Male Students (n=100)			Female students (n=60)			Faculty members (n=30)			Matching test
	CHF	Relative importance	Rank	CHF	Relative importance	Rank	CHF	Relative importance	Rank	
2- elements of physical fitness and how to improve it in juniors	122.77	94.67	2	47.5	88.89	3	43.8	96.67	3	8.71
3- physical characteristics of various age groups	145.18	96.00	1	92.5	97.22	1	48.8	97.78	2	1.96
4- Psychological characteristics and how to deal with juniors	104.1	93.33	4	72.7	93.89	2	60	100.00	1	12.32
Sports events administration	119.47	94.67	13	77.7	95.00	13	60	100.00	1	7.76
Teaching goals										
1- concept of sports events administration	122.77	94.67	3	87.1	96.11	3	54.2	98.89	3	3.89
2- sports administration on the international level	55.08	48.00	5	49.9	42.78	5	43.8	36.67	5	9.54
3- advantages and disadvantages of sports events administration methods	123.61	95.00	2	102.9	98.33	2	60	100.00	1	8.11
4- organizing sports events	146.14	96.67	1	140	100.00	1	60	100.00	1	9.49
5- international sports bodies	101.03	71.33	4	58.9	65.56	4	21.8	68.89	4	6.89
Health education (2) (4 th year)	146.14	96.67	7	108.4	98.89	6	60	100.00	1	5.24
Teaching goals										
1- concepts of health education	136.77	96.00	3	102.7	97.78	3	54.2	98.89	2	5.69
2- health aspects of sports activities	146.14	96.67	2	114.1	99.44	1	60	100.00	1	6.92
3- components and conditions of healthy foods for athletes	188.42	99.33	1	114.1	99.44	1	54.2	98.89	2	0.29
4- levels of health	55.08	64.00	5	47.5	69.44	5	7.8	63.33	5	6.45
5- applying health education in schools	61.08	86.00	4	24.4	82.22	4	11.4	83.33	4	5.24
Field training (2) (4 th year)	200.2	100.00	1	140	100.00	1	60	100.00	1	0
Teaching goals										
1- facing physical education problems	188.42	99.33	4	114.1	99.44	4	60	100.00	1	0.96

Curriculum	Male Students (n=100)			Female students (n=60)			Faculty members (n=30)			Matching test
	CHF	Relative importance	Rank	CHF	Relative importance	Rank	CHF	Relative importance	Rank	
2-field training for career problem solving	200.2	100.00	1	140	100.00	1	60	100.00	1	0
3-practicing theoretical knowledge	200.2	100.00	1	140	100.00	1	60	100.00	1	0
4- Knowing and facing students	200.2	100.00	1	140	100.00	1	60	100.00	1	0
Sports educational psychology	136.77	96.00	11	102.7	97.78	9	60	100.00	1	9.02
Teaching goods										
1- basics and importance of educational psychology	131.54	95.33	3	108.4	98.89	3	54.2	98.89	3	5.87
2- factors affecting development characteristics	145.18	96.00	2	114.1	99.44	1	60	100.00	1	7.12
3- learning and higher order processes in physical education	155.99	97.33	1	114.1	99.44	1	60	100.00	1	6.57
4- psychology of groups and leadership	122.77	94.67	4	97.3	97.22	5	54.2	97.78	5	8.11
5- individual differences in intelligence and personal abilities in physical education	109.62	93.33	5	97.6	97.78	4	54.2	98.89	3	7.56
6- mental and psychological health and factors leading to psychological disorders	98.33	90.67	6	92.1	96.67	6	43.4	95.56	6	5.15
Computer (4 th year)	121.45	69.67	21	45.7	61.11	24	18.2	75.56	2	26.95
Teaching goods										
1- computer systems	98.09	66.67	3	40.3	63.89	4	20.6	74.44	2	10.37
2- internet access skills	87.87	91.67	1	77.7	95.00	1	54.2	98.89	1	11.27
3- e-mails	98.09	66.67	3	46.9	67.22	3	16.8	73.33	3	5.9
4- Typing skills	93.94	67.00	2	54.3	73.33	2	26.6	72.22	4	6.51

Discussion:

Table (1) shows that the relative importance of "Introduction to Physical Education" course exceeds (63%) for all categories of the sample as matching test value were (2.1). The relative importance of teaching goals were between (55-70%), (60 – 68.3%) and (63.3 – 66.8%) for male student teachers, female student teachers and faculty members respectively. For male students, the third goal came first while the fifth goal came last. For female students, the fourth goal came first while the fifth goal came last. For faculty members, the fifth goal came first while the fourth goal came last. The relative importance of "History of Physical Education" course exceeds (80%) for all categories of the sample as matching test value were (1.65). The relative importance of teaching goals were between (46.7-85%), (49.4-84.4%) and (51.5-86.7%) for male student teachers, female student teachers and faculty members respectively. For students, the second goal came first while the sixth goal came last. For faculty members, the fifth goal came first while the sixth goal came last. The relative importance of "Methods of teaching Physical Education (1)" course exceeds (98%) for all categories of the sample as matching test value were (1.62). The relative importance of teaching goals were between (98.3-100%), (98.9-100%) and (100%) for male student teachers, female student teachers and faculty members respectively. For male

students, the fourth, fifth and sixth goals came first while the third goal came last. For female students, the second, third, fourth, and sixth goals came first while the fifth goal came last. For faculty members, all teaching goals came first. The relative importance of "Methods of teaching Physical Education (2)" course exceeds (98%) for all categories of the sample as matching test value were (1.62). The relative importance of teaching goals were between (96-100%), (93.9-100%) and (98.9-100%) for male student teachers, female student teachers and faculty members respectively. For students, the second, fourth and fifth goals came first while the seventh goal came last. For faculty members, the first, second, third, fourth, fifth and sixth goals came first while the seventh goal came last. The relative importance of "Educational Bases of Physical Education" course was weak (less than 50%) for all categories of the sample as matching test value were (9.53). The relative importance of teaching goals were between (37.7-43.7%), (35.6-47.2%) and (37.8-50%) for male student teachers, female student teachers and faculty members respectively. The relative importance of "Methods of teaching Team Sports" course exceeds (96%) for all categories of the sample as matching test value were (3.24). The relative importance of teaching goals were between (96-98.3%), (93.9-97.8%) and (98.9-100%) for male student teachers, female student teachers and faculty members respectively. For students, the first goal came first while

the third goal came last. For faculty members, the first and second, goals came first while the third goal came last. The relative importance of "Methods of teaching Exercises" course exceeds (96%) for all categories of the sample as matching test value were (3.44). The relative importance of teaching goals were between (96-99.3%), (97.2-98.3%) and (100%) for male student teachers, female student teachers and faculty members respectively. For students, the second goal came first while the third goal came last. The relative importance of "Methods of teaching Track and Field" course exceeds (97%) for all categories of the sample as matching test value were (5.15). The relative importance of teaching goals were between (96-99.3%), (96.7-98.9%) and (95.6-100%) for male student teachers, female student teachers and faculty members respectively. For students, the first goal came first while the second goal came last. For faculty members, the first and third, goals came first while the second goal came last. The relative importance of "Methods of teaching Combat Sports (men only)" course exceeds (51%) for all categories of the sample as matching test value were (4.85). The relative importance of teaching goals were between (50-59.3%), and (45.6-52.2%) for male student teachers and faculty members respectively. For students, the third goal came first while the second goal came last. For faculty members, the first and third, goals came first while the second goal came last. The relative importance

of "Methods of teaching Motor Expression (women only)" course was weak (4.9%) for all categories of the sample as matching test value were (4.85). The relative importance of teaching goals were between (48.3-50.6%), and (45.6-52.2%) for female student teachers and faculty members respectively. For students, the third goal came first while the first and second goals came last. For faculty members, the first and third, goals came first while the second goal came last. The relative importance of "English language (3rd year)" course was weak (less than 50%) for all categories of the sample as matching test value were (33.52). The relative importances of teaching goals were between (44.44-53.3%) for faculty members as the first goal came first while the third goal came last. The relative importance of "Physical Education Technology" course exceeds (71%) for all categories of the sample as matching test value were (4.87). The relative importance of teaching goals were between (67.3-70.3%), (67.8-71.1%) and (66.6-70%) for male student teachers, female student teachers and faculty members respectively. For male students, the first and second goals came first while the third goal came last. For female students, the first and third goals came first while the fourth goal came last. For faculty members, the first and third, goals came first while the second goal came last. The relative importance of "Physical Education Curricula" course exceeds (85%) for all categories of the sample as matching test value were (2.29).

The relative importance of teaching goals were between (62-92.3%), (56.1-92.8%) and (51.1-98.9%) for male student teachers, female student teachers and faculty members respectively. For male students, the fifth goal came first while the sixth goal came last. For female students, the fourth goal came first while the sixth goal came last. For faculty members, the fourth goal came first while the sixth goal came last.

The relative importance of "Motor learning" course exceeds (91%) for all categories of the sample as matching test value were (5.06). The relative importance of teaching goals were between (91.3-98.3%), (85-98.3%) and (85.6-100%) for male student teachers, female student teachers and faculty members respectively. For male students, the third goal came first while the second and fourth goals came last. For female students, the third goal came first while the first goal came last. For faculty members, the third goal came first while the first goal came last. The relative importance of "Methods of Teaching gymnastics" course exceeds (96%) for all categories of the sample as matching test value were (6.92). The relative importance of teaching goals were between (98.3-99.7%), (98.9-100%) and (98.9-100%) for male student teachers, female student teachers and faculty members respectively. For male students, the second and fourth goals came first while the first goal came last. For female students, the second and fourth goals the first and third came last. For faculty members,

the first, second and third goals came first while the fourth goal came last. The relative importance of "Methods of teaching Individual Sports (men only)" course was weak (37%) for all categories of the sample as matching test value were (17.76). The relative importance of teaching goals were between (37.3-44.3%), and (48.9-52.2%) for male student teachers and faculty members respectively. For faculty members, the first goal came first while the second goal came last. The relative importance of "Methods of teaching Motor Tempo (women only)" course was weak (47%) for all categories of the sample as matching test value were (4.85). The relative importance of teaching goals were between (42.2-46.7%), and (48.9-52.2%) for female student teachers and faculty members respectively. For faculty members, the first goal came first while the second goal came last. The relative importance of "Field Training (3rd year)" course is very high (100%) for all categories of the sample as matching test value were (0). The relative importance of teaching goals were between (95.7-100%), (91.1-100%) and (95.6-100%) for male student teachers, female student teachers and faculty members respectively. For male students, the second, third and fifth goals came first while the sixth goal came last. For female students, the second, third, fourth and fifth goals came first while the sixth came last. For faculty members, the first, second, third, fourth and fifth goals came first while the sixth goal came last.

The relative importance of "Computer (3rd year)" course exceeds (61%) for all categories of the sample as matching test value were (26.95). The relative importance of teaching goals were between (51.7-93.3%), (44.4-66.1%) and (55.6-70%) for male student teachers, female student teachers and faculty members respectively. For male students, the first goal came first while the third goal came last. For female students, the second goal came first and the third came last. For faculty members, the first and second goals came first while the third goal came last. The relative importance of "Motor Education" course exceeds (64%) for all categories of the sample as matching test value were (10.65). The relative importance of teaching goals were between (66.3-92.3%), (63.9-92.2%) and (63.3-95.6%) for male student teachers, female student teachers and faculty members respectively. For male students, the third goal came first while the second goal came last. For female students, the fourth goal came first and the third came last. For faculty members, the fourth goal came first while the second goal came last. The relative importance of "Psychological Counseling)" course exceeds (83%) for all categories of the sample as matching test value were (8.71). The relative importance of teaching goals were between (82-88%), (79.4-95.6%) and (81.1-91.1%) for male student teachers, female student teachers and faculty members respectively. For male students, the fourth goal came second

while the third goal came last. For female students, the third goal came first and the first goal came last. For faculty members, the fourth goal came first while the first goal came last. The relative importance of "Educational Systems and Problems" course exceeds (68%) for all categories of the sample as matching test value were (4.17). The relative importance of teaching goals were between (65.3-86.7%), (63.3-83.3%) and (60-83.3%) for male student teachers, female student teachers and faculty members respectively. For male students, the second goal came first while the fourth goal came last. For female students, the second and third goals came first and the fourth goal came last. For faculty members, the second and third goals came first and the fourth goal came last. The relative importance of "Injuries and First Aids" course exceeds (95%) for all categories of the sample as matching test value were (1.64). The relative importance of teaching goals were between (93.7-100%), (95.6-100%) and (96.7-100%) for male student teachers, female student teachers and faculty members respectively. For male students, the third goal came first while the first goal came last. For female students, the third goal came first and the first goal came last. For faculty members, the second and third goals came first and the first goal came last. The relative importance of "Methods of Teaching Aquatics" course was weak (less than 50%) for all categories of the sample as matching test value were

(4.5). The relative importance of teaching goals were between (37-55%), (34.4-52.8%) and (34.4-56.7%) for male student teachers, female student teachers and faculty members respectively. For male students, the first goal came first while the third goal came last. For female students, the second goal came first and the third goal came last. For faculty members, the second goal came first and the third goal came last. The relative importance of "Field Training (4th year)" course is very high (100%) for all categories of the sample as matching test value were (0). The relative importance of teaching goals were between (98-100%), (99.4-100%) and (98.9-100%) for male student teachers, female student teachers and faculty members respectively. For students, the first, third and fifth goals came first while the second goal came last. For faculty members, the first, third, fourth and fifth goals came first while the second goal came last. The relative importance of "Educational Economics" course was weak (less than 50%) for all categories of the sample as matching test value were (16.16). The relative importance of teaching goals were between (37.7-65%), (36.1-67.3%) and (34.4-71.1%) for male student teachers, female student teachers and faculty members respectively. For male students, the first goal came first while the second goal came last. For female students, the first goal came first and the third goal came last. For faculty members, the first goal came first and the third goal came last. There

is disagreement about the relative importance of "English Language (4th year)" course as the values were (37% - 35% - 50%) for male student teachers, female student teachers and faculty members respectively with matching test value were (35.42). The relative importance of teaching goals were between (35-52.7%), (34.4-53.3%) and (42.2-57.8%) for male student teachers, female student teachers and faculty members respectively. For male students, the first goal came first while the third goal came last. For female students, the first goal came first and the second and third goals came last. For faculty members, the first goal came first and the third goal came last. The relative importance of "Sports Sociology" course exceeds (80%) for all categories of the sample as matching test value were (19.62). The relative importance of teaching goals were between (85-91%), (78.9-84.4%) and (90-93%) for male student teachers, female student teachers and faculty members respectively. For male students, the third goal came first while the second goal came last. For female students, the second goal came first and the first goal came last. For faculty members, the third goal came first and the second goal came last. The relative importance of "Principles of Training Juniors" course exceeds (80%) for all categories of the sample as matching test value were (9.55). The relative importance of teaching goals were between (93.3-96%), (84.4-97.2%) and (93.3-100%) for male student teachers, female stu-

dent teachers and faculty members respectively. For male students, the third goal came first while the fourth goal came last. For female students, the third goal came first and the first goal came last. For faculty members, the fourth goal came first and the second goal came last. The relative importance of "Administration of Sports Events" course exceeds (94%) for all categories of the sample as matching test value were (7.76). The relative importance of teaching goals were between (48-96.7%), (42.8-100%) and (36.7-100%) for male student teachers, female student teachers and faculty members respectively. For students, the fourth goal came first while the second goal came last. For faculty members, the third and fourth goals came first and the second goal came last. The relative importance of "Health Education 2 (4th)" course exceeds (96%) for all categories of the sample as matching test value were (5.24). The relative importance of teaching goals were between (64-99.3%), (69.4-99.4%) and (63.3-100%) for male student teachers, female student teachers and faculty members respectively. For male students, the third goal came first while the fourth goal came last. For female students, the second and third goals came last. For faculty members, the second goal came first and the fourth goal came last. The relative importance of "Field Training 2 (4th year)" course is very high (100%) for all categories of the sample as matching

test value were (0). The relative importance of teaching goals were between (99.3-100%), (99.4-100%) and (100%) for male student teachers, female student teachers and faculty members respectively. For students, the second, third and fourth goals came first while the first goal came last. The relative importance of "Educational Sports Psychology" course exceeds (96%) for all categories of the sample as matching test value were (9.02). The relative importance of teaching goals were between (90.7-97.3%), (96.7-99.4%) and (95.6-100%) for male student teachers, female student teachers and faculty members respectively. For male students, the third goal came first while the sixth goal came last. For female students, the second and third goals came first and the sixth goal came last. For faculty members, the first goal came first and the sixth goal came last. The relative importance of "Computer (4th year)" course exceeds (61%) for all categories of the sample as matching test value were (26.95). The relative importance of teaching goals were between (66.7-91.7%), (63.9-95%) and (72.2-98.9%) for male student teachers, female student teachers and faculty members respectively. For male students, the second goal came first while the first and third goals came last. For female students, the second goal came first and the first goal came last. For faculty members, the second goal came first and the fourth goal came last.

Conclusions

The researcher concludes the following:

- 1- Sample members agreed that (14) courses are (basically professional) with 43.75%
- 2- Sample members agreed that (7) courses are (academic) with 21.87%
- 3- Sample members agreed that (11) courses are (cultural) with 34.38%
- 4- Sample members agreed that (25) courses are important for teacher's preparation with relative importance between 51.67% and 100%
- 5- Sample members agreed that (6) courses are not important for teacher's preparation with relative importance between 37.67% and 49.44% (educational bases – methods of teaching individual sports / motor tempo – methods of teaching aquatics – educational economics – English (3rd and 4th year) – methods of teaching combat sports / motor expression)
- 6- Sample members agreed upon the importance of teaching goals for courses contributing in teacher's preparation with relative importance between 50% and 100%
- 7- Sample members agreed that teaching goals for non-important courses (educational bases – methods of teaching individual sports / motor tempo – educational economics – English (3rd and 4th year) – methods of teaching combat sports / motor expression) are not suitable with relative importance between 35% and 49.44%

Recommendations

The researcher recommends the following:

- 1- Reconsidering the use, content and importance of educational courses
- 2- Excluding the non-relevant courses from teacher's preparation programs
- 3- Considering the relative closeness among courses (professional – academic – cultural)
- 4- Formulating teaching goals that help achieving the courses' content and educational outputs
- 5- Using this study as a recommended plan for amending the internal regulations of course specifications for faculty of physical education – Tanta University

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Educational programs *by using The Motor games* **and** *Social games Compound,* **and** *its effect* *in the development* *of social interaction* *in kindergarten 5-6 years*

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Abstract

This research aims to design a tool to measure social interaction at kindergarten 5-6 years and to identify the kinetic impact of the program of games and social games and the two together in the development of social interaction in kindergarten 5-6 years, The researcher used the experimental method on a sample of (75) boys and girls, Selected sample of kindergarten school sunrise Islamic Tanta, The main results Excellence program (Motor games Social games) in the development of social interaction compared with the program and the kinetic games social gaming in children

Key Words

Motor games - Social games - Compound.

Research problem:

The childhood of the most important periods in the formation of the child's personality, as is the phase of the composition and preparation of paint where the features of the child's personality in the future, and form the habits and trends and the growing trends and preparations, and bloom capacity, and consists of skills and discover, and is the spiritual values and traditions and behavioral patterns, which determined the course of child development physical, mental, psychological, social, and emotional, according to the surrounding environment has provided the elements of the educational, cultural, health and social development.

The early childhood or pre-school age of the most important periods in the life of the child because it begins to acquire a correct alignment with the external environment at this stage, and that this phase affecting the behavior of the child later, because the gain in childhood is difficult to change, and become the distinctive style of behavior and the solid foundation which will be held upon said his character in the future, a child at this stage needs to be of better organize his life and the creation of environment for the formation of attitudes environmental filled with sources of expertise the organization, and received the subject of child rearing attention of many educators and scholars throughout the ages, and saw raising children in early childhood development, according to multiple cultures and educational

philosophies and traditions of social and economic conditions, even crystallized to educational theories emphasize the importance of this stage, especially in this century. (6:48)

Bstlozzy is the first to proclaim the importance of child-rearing, growth and development by caring for and providing what they need love and compassion and teach them religious education and ethics and develop their physical, mental, and moral through activities, automatic, self, and Vrobl, who is also one of the pioneers who were interested in child-rearing has focused the importance of the role of play in children to fine tune the aspects of spiritual and moral, as well as the start of educational processes and ethical at an early age, as well as nurseries and its importance in expanding their relationships and the opportunity for children to interact dynamic with others and the opportunity for self-expression and self-confidence and the exploration of the environment and discover landmarks. (1:17)

In the opinion of the researcher that the participation of children in the process of play and in general to the kindergartens depends mainly on the free play, which is in the form of games and activities proposed by the teachers who supervise and guidance only, without the presence of a specific target, leading to counterproductive to the educational process, Moreover, the neglect of these games for the emotional, which is complementary to the field of cognitive do-

main and self - motor when you do play the free, where refers Winnicotte (2008) that play is a form the fundamental of communication for the child, as it is the finest automatically derived from life revolves in a time and place. (19: 60)

To achieve this it was necessary to organize sports programs scientific codified include a range of gaming-oriented which is working to satisfy the needs and tendencies of the child at this age, as the games become very diversity and enthusiasm of the children do not unprecedented, but every game has the privacy of unique at this stage, the mismatch What is physically, some of which will be socially, which confirms the preference for the use of one over the other, while aimed at the development of social interaction, as well as by the absence of an instrument to measure social interaction.

From the above research problem is determined using the kinetic programs games and social games and games of the vehicle as programs while ensuring access to those games, which included employed and in its natural, as well as the knowledge of the impact of the use of each of them as a measure of parenting in the development of social interaction.

Search Terms :

Motor Games :

Those games that require mobility effort by kids and working on tencithm and plance move ments and development tikvah their muscles and acquire some motor skills .

Social Games :

Activity or behari or of yhe child is playing social roles which are trying to work out old experiecves which represents akey part of the normal process of growth .

Aim of the research

This research aims to design a tool to measure social interaction at kindergarten 5-6 years and to identify the kinetic impact of the program of games and social games and the two together in the development of social interaction in kindergarten 5-6 years.

Hypotheses

1- There are significant differences in the pre measurement and post measure of social interaction in the first group game programs that were used for kinetic kindergarten children aged from 5-6 years for post measurement.

2- There are significant differences in pre measurement and post in tribal scale social interaction for the second group, which used social programs, games for kindergarten children aged from 5-6 years for dimensional measurement.

3- There are significant differences in the pre measurement and post in tribal scale social interaction of the third group used the software (Games motor + Social games) for the kindergarten age of 5-6 years for dimensional measurement.

4- There are significant differences between the three experimental groups in the measure of social interaction in

favor of the third group, which used the program (Motor games + Social games) for the kindergarten age of 5-6 years.

Researchtools :

Design a measure of social in traction with children Riyadh from 5-6 years .

Educational program using the motor games .

Educational program using the social games .

Educational program using the motor games and social games

Research Methodology:

Researcher used the experimental method using the experimental design of three experimental groups followed tribal and dimensional measurement of the appropriateness of the nature of this study.

The Research Sample:

The researcher selected sample of kindergarten school shorouk Islamic Tanta during the academic year 2011/2012 (81) boys and girls spread over three semesters, and after excluding children who have physical disabilities and chronic diseases have become the research sample (75) boys and girls, has been withdrawn (15) boys and girls and to conduct scientific tests of

transactions, and thus become a core sample (60) boys and girls were divided into three groups of equal strength of each group (20) boys and girls.

Pre Measurement:

The researcher to conduct measurements of variables tribal search on the three experimental groups in the period from 23/2/2012 to 25/2/2012 variables that were measured : order the child between his brothers in birth , chronological age , Academic achieve ment for parents who , having an (good inff – harris) , scale social interaction .

Application of the basic experiment:

Was applied three educational programs (Motor games), (Social games), (Motor games + Social games), the three research groups in the period from 28 / 2 to 25/4/2012.

Post Measurements:

The post measurement of the three experimental groups after the completion of the educational program for each group and that in the period from 26/4 to 29/4/2012 use the same measurements were used in the measurement of pre and subject to the same conditions.

Presentation and discussion of results:

Table (1)

Significant differences between pre and post measurements for the children of the first group Program, which used (motor Games)

N=114

Variables	Measurement	Pre measurement		Post measurement		Difference	Value (T)
		mean	Deviation	mean	Deviation		
Contact	Degree	30.4	2.634	32.82	2.286	2.42	3.025*
Expectation	Degree	24.6	1.018	25.71	1.136	1.11	3.172*
Awareness of the role and representation	Degree	31.2	2.807	34.12	2.316	2.92	3.498*
Symbols of significance	Degree	27.3	1.351	28.60	1.327	1.30	2.992*
College degree	Degree	113.5	7.81	121.25	7.07	7.75	3.207*

It's clear from the results of Table (1) and the presence of statistically significant differences at the level of (0.05) between pre and post measurements in social interaction with children, the first group that used motor games for dimensional measurement. Attributes the researcher to the positive impact of the program, which contributed effectively and positively in the development of social interaction, as the game-motor, which was performed on children is designed in a manner combining the competition in performance and the joy and pleasure, as well as cooperation among themselves for the performance of the game aims to win on the other team in a scientific, programmer, because "The

child loves the competition not to be of the type strain of simple, but light and punctuated by calls of form." (5:36)

The gaming motor, which carried out in the form of competitions play a major role in increasing the effectiveness of children's performance, which led to the development of social interaction they have, in line with what was said by Abdullah on physical (1994) that "social interaction winning by friction based on the activity of would promote the ideals and purposes for which the group is seeking for it, for this is conducive to the development of what psychologists call (social sense of self), and is such a self-cooperation and competition aimed

at the physical. “ (2: 148), as well as it sees Ronning (1993) that the training of children to different skills, play skills, including improving the skills of social interaction they have. (17: 88), as the Bounie (2000) that the mutual respect between children in the course of games motor and understand each of them the possibility of application of rules of the game according to what

he sees children allows both the child the opportunity to adapt to the wishes of the participants with him in play as well as the compatibility of the motivations and needs in toys and games, we find that the kinetic contribution in the formation of cooperative ethics of the child through the commitment of every child the rules of play. (9:42), and thus achieved the first hypothesis.

Table (2)

Significant differences between pre and post measurements for the children of the second group Which used the program (social gaming)
N=114

Variables	Measurement	Pre measurement		Post measurement		Difference	Value (T)
		mean	Deviation	mean	Deviation		
Contact	Degree	30.82	2.693	32.93	2.013	2.11	2.736*
Expectation	Degree	24.71	1.124	25.79	0.828	1.08	3.372*
Awareness of the role and representation	Degree	31.48	2.975	34.23	2.203	2.75	3.238*
Symbols of significance	Degree	27.44	1.398	28.70	0.746	1.26	3.466*
College degree	Degree	114.45	8.190	121.65	5.780	7.20	3.131*

It's clear from the results of Table (2) and the presence of statistically significant differences at the level of (0.05) between pre and post measurements in social interaction among children by the second group used the program for social gaming dimensional measurement. Attributes the researcher to the fact that programs social gaming, which was

performed on children was the games Contents stemming from the environment and the ocean in which they live and characterized by injecting the spirit of movement and action, thrill, fun and pleasure as well as that provided with the opportunity to practice different activities together and to gain experience and skills of personal and special

social positions of the life daily, including the communication language and the performance of a functional and professional activity and mixing with others, which leads through encouraging them to participate in those games to the development of social interaction, where the little Philips, (1996) "To learn daily living skills used by children in the framework of activities are different and diverse, including play skills lead to the development of their skills to the extent of their potential limited." (16:30)

As the child gets through the exercise of social games on the type of social education he learns patience and stamina and self-reliance and a commitment to obey the rules and orders issued by

the children. (14: 64), as well as from that point and Wafaa Mohamed Abdel-Khalek (2001) that social gaming is the guarantor of the employment capacity of kindergarten children and its potential, the source of the obligation only to lead the child all the roles to play and assume the responsibilities of the role full whether commitment to the responsibilities of the role physical (To carry the load physical) or psychological (To postpone the satisfaction of personal desires) or mental (as if the mind works in the properties of linguistic perceptions) or socially (and bear the duties of the social role) and the work to the dictates of the role of social duties. (7:24), and thus achieved the second hypothesis.

Table (3)

Significant differences between pre and post measurements for the children of the third group which used program (Motor Game+ Social Games)

N=114

Variables	Measurement	Pre measurement		Post measurement		Difference	Value (T)
		mean	Deviation	mean	Deviation		
Contact	Degree	30.30	2.134	35.14	1.013	4.84	8.931*
Expectation	Degree	24.45	1.021	26.87	0.818	2.42	8.063*
Awareness of the role and representation	Degree	31.05	2.214	36.31	1.04	5.26	9.268*
Symbols of significance	Degree	27.20	1.231	29.79	0.635	2.59	8.151*
College degree	Degree	113.00	6.60	128.11	3.57	15.11	8.778*

It's clear from the results table (3) and the presence of statistically significant differences at the level of (0.05) between pre and post measurements in social interaction with children of the group's third program was used (Motor games Social games) for dimensional measurement. Attributes the researcher to the merger, which was through the games included in the previous Programmes and Ahtute games beautiful and interesting for children in both its motor and social as well as the great diversity in their performance so that «the motor activity of the child means life, self-exploration, explore the physical and social environment surrounding the child, freedom, safety, communication,

pleasure and fun, social acceptance, as well as the motor activity contributes to the development of the child socially through the acquisition of many social skills and moral values, which leads to interaction and adaptability, cooperation and membership in a social as well as his respect for the principles and rules and authority and leadership. (4:58), this is consistent with Ivory & Mccollum (1999) to play lead to the creation of significant changes in the behavior of children, Interaction children among themselves and establish dialogue and communication and support as a team and lead to the creation of these large differences. (12:238), thereby achieving The third hypothesis.

Table (4)

Analysis of variance among the children of the three groups in the measurement of social interaction to measure the dimensional

Variables	Measurement	Sources Of Variability	Sum Of The Squares	Degrees Freedom	Average Of The Squares	Value (F)
Social interaction	Degree	Between the groups	564.9	2	282.45	8.80*
		Within the groups	1829.3	57	32.09	

Table (5)

Significant differences between the averages of the three research groups in the measurements Posteriori in social interaction

Variables	Differences between the Averages	Mean	Mean Differences			(L.S.D)
			1	2	3	
Social interaction	Motor Games	121.25	-	0.40	6.86*	3.744
	Social Games	121.65		-	6.46*	
	Motor games + Social games	128.11			-	

In light of the results of the test analysis of variance and test less significant difference (LSD) and for testing hypothesis IV and described in tables (4), (5) where indicated the existence of differences significant non-significant between the two sets of games motor and social gaming in the development of social interaction, and attributes the researcher that that the two programs and the situation in a scientific manner, as well as being Amtazan the ease and simplicity of performance, Excellence program of games motor games with character running, games, hunting down and all kind of natural, which does not adhere to the type of technician is determined not by a motion or its own way with elements of thrill and joy and fun and joy in the hearts of children, Also marked and program games social games with simple nature-free from the constraints of the situation of the players play and requires technical skill, but most of the games of the kind that plays in the form of circles or boxes in which children see each other am taken the theme, which he knew the child or to learn. Recalling Whitehead (2003) "To that learning to talk must be based primarily on the children's happiness and sense of fun and the children's interests, not good teaching is done through the formal or traditional academic methods." (18: 150), as the Morris (1992) that children are interested in games and motor activities that contribute to the major muscles of the body. (15: 215)

As can be seen also from the results of Table (5) the existence of sig-

nificant differences morale among all of the games and motor program (Motor games + Social games) in the interest of the program (Motor games + Social games), as well as the existence of differences significant morale among all of the games Social program (Games motor + Social games) in the interest of the program (Motor games + Social games), and attributes the researcher to what overwhelmed by the program (Motor games + Social games) games collected between fair competition and encourage them in the implementation of games motor, which made children are exposed to certain situations led to the promotion of positive initiative in them with greater self-confidence, as well as encourage children and encourage them loud practice and performance, which contributed to the Asttharthm about play and activity more seriously taking into account the automatic performance of self in the implementation of social gaming, since the equal opportunities in positions motor play and social position and in a balanced manner which led to the development of social interaction among children in the group (Motor games + Social games).

Afaf Abdul-Karim stresses (1995) that the positions of play provides children opportunities to interact with others Vallab allows the child to try out his options and possible solutions, Valoab simple rules and limits are given many opportunities for children to learn respect for others and play in a manner accepted socially. (3: 153)

In the opinion of the researcher that the transition of the game dynamic to the game of social and vice versa has had a significant impact and effective in the development of social interaction with children of this group, as agreed by Hdderand (1991), Harvey (1998), Bakeman

& Gottmm (2006), Kenny (2007), The child through his active and full of vitality is the development and the development of a concept or an idea of the social roles through the game try out several social roles. (11: 212) (10: 158) (8: 73) (13: 112), and thus achieved the fourth hypothesis.

Conclusions

1- The programmes contributed to the development of social interaction in children.

2- The programme of (Motor games Social games) has the development of social interaction compared with the program and the kinetic games social gaming in children.

3- There are significant differences between pre and post measurement in the three programs used in the development of social interaction in children for dimensional measurement.

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The Effect of Specific Training Program on Some Mechanical Variables of Javelin Release Phase

Ibrahim Fawzy Mustafa

Ehab Mohamed Abou El-Ward

Abstract

Abstract. This study aimed at identifying the effect of specific training on some mechanical variables of javelin release phase of students of Athletics major, Faculty of Physical Education for boys and girls, Port Said, Egypt. The research sample included 5 students selected by intentional method. Both researchers used the experimental method, applying the experimental design of one experimental group through pre and post-test. They also filmed on photo video both pre and post-tests, using a single camera-frequency 25 field/sec. The kinetic analysis is applied by using Maxtraq on line Manual Version 5.5. They, additionally, used SPSS in statistical data processing. The findings of the study resulted in illustrating the positive effect of the proposed training program on improving the performance level of javelin throw event, release angle and release velocity, horizontal release velocity, vertical release velocity, and the height of release.

Key Words

Athletics – Javelin – Specific Training – Mechanical Variables

Preface

The javelin throw event considers one of the basic competitions in athletics, which aims at throwing the javelin to the farthest possible horizontal distance. Javelin is like any projectiles influenced by the release angle, release velocity, and the height of projectile at the moment of release [1, 2]. A gap between the Egyptian record and the rest of the international records is cleared through researchers pursuing the track of digital levels to qualify athletes for the Olympics and International championships, as well as standard digital level in various international championships. This could be due to the scarcity of quality training programs that depend on the form of performance and the effect of these programs on the mechanical performance of the javelin. The researchers also noticed, during the survey of related studies in the javelin competitions, that the objectives of these studies are different. One of these studies, on one hand, concerned about evaluating kinematics variables, statistically processing, and utilizing them for the development of performance technique [3, 4, 5, 6, 7, and 1]. Another one concerned about physical characteristics of javelin players [8, 9, and 10]. While a study concerned about studying physical and body characteristics and their relationship to the digital performance level of javelin. The other one concerned about studying physical characteristics and their impacts on kinematics performance of javelin [11, 12]. Both researchers found, according to their knowledge, no study focused on the effect of specific training programs on the mechanical variables of jav-

elin release phase, and then the research problem highlights.

Research Objective. The research seeks to identify the effect of specific training on some mechanical variables of the phase of javelin release and the digital performance level of javelin.

Research Hypothesis. There are statistically significant differences between each of pre and post-tests of research sample in mechanical variables and the performance level of javelin throwing in favor of the post-test.

Research Methodology Both researchers used the experimental method, applying the experimental design of one experimental group through pre and post-test.

Research Sample. Research sample was intentionally selected of major fourth-year students. Sample size was 5 Students enrolled in the Egyptian Federation of Athletics. Each of them has performed six attempts, and failed attempt was excluded while the best right ones were chosen. Homogeneity among the members of the research sample was considered in mechanical variables under study.

Data Collection Tools.

Photo Video: Both researchers filmed video of pre and post-test in the Faculty of Physical Education for boys and girls, Said University, using Panasonic video camera with Frequency of 25 field/sec.

The Effect of Specific Training Program on Some Mechanical Variables of Javelin Release Phase

The camera was placed on a tripod on a distance of 10 M and a height of 1.5m from the ground as in the form (1).

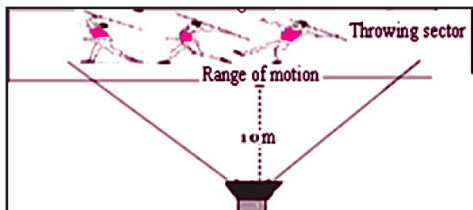


Figure (1) Scheme of the location of the camera during filming

Video Film Analysis: Kinetic analysis of skill under discussion has been conducted in both pre and post-tests, using Maxtraq on line Manual Version

5.5. Both researchers extracted the mechanical variables according to the kinetic analysis model of the skill under study as in form (3). They also calculated the torque through the equation $T = D \cdot W$. While (T) represents the torque, (W) is the body weight and (D) is the horizontal distance from the vertical line of the point of the center of the body gravity until the front pivot foot [13, 14, 15, and 16].

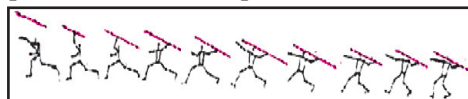


Figure (2): Sequential photos of the javelin release phase

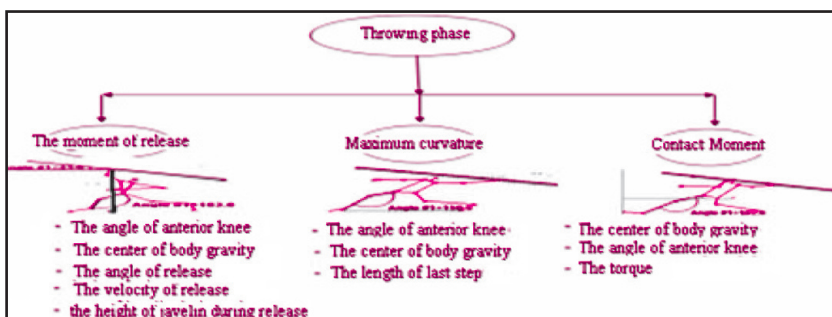


Figure (3): Schematic model of mechanical variables extracted from the kinetic analysis of the skill under study

Training Program.

The period of the program was one month involving 6 training modules per week. The time of each module was about 120 minutes.

Training loads were mostly in the maximum limits and less than the maximum.

The objective of the training program was to develop the velocity of the

javelin throw event, develop both special ability and strength, and achieve the ideal technique of courses. In addition to developing the special arm strength of Javelin thrower, improving agility and flexibility in general, accessing to optimal technique, and reducing kinetic errors during the performance.

The program involved training similar to the performance, training

to strengthen the legs' muscles, by using medical balls, training using throwing by rubber. It also included training to develop the capacity of the legs muscles, the ability of the

back and abdomen muscles, weights training, ABC training; moreover, training to develop the technique and training to develop the ability of thrower's arm.

Results

Table (1)

the significance of statistical differences of Wilcoxon signed-rank test between pre and post-test and the improvement ratio of the mechanical variables at moment of foot contact of initial javelin release phase.

n = 5

Variables	Measurement Unit	Pre-test		Post-test		Total signals		Z value	Sig. level	Progress ratio
		Q	±P	Q	±P	-	+			
Akt	Degree	163.80	7.85	169.20	3.38	-	15	-2.060	*0.039	3.30
T	n.m	2067.96	389.92	2349.51	437.98	-	15	-2.032	*0.042	13.61

* Statistically significant at the level of 0.5

Table (1) indicates the Significance of statistical differences of Wilcoxon signed-rank test of the experimental sample between pre and post-test of mechanical variables during the moment of foot contact at the beginning of javelin release phase. The calculated z value of Wilcoxon signed-rank test

ranged between -2.060 and -2.032. It was less than the tabulated z value in the angle of anterior knee (Akt), and torque (T), which indicates that there are statistically significant differences in these variables. The improvement ratio was confined between 3.30 and 13.61%.

Table (2)

the significance of statistical differences of Wilcoxon signed-rank test between pre and post-test and the improvement ratio of the mechanical variables during maximum knee flexion during javelin release phase.

n = 5

Variables	Measurement Unit	Pre-test		Post-test		Total signals		Z value	Sig. level	Progress ratio
		Q	±P	Q	±P	-	+			
Ls	cm	158.20	17.27	165.80	10.06	-	15	-2.032	*0.42	4.80
AKB	Degree	143.60	7.83	152.0	6.67	-	15	-2.041	*0.041	5.85

* Statistically significant at the level of 0.05

Table (3)

the significance of statistical differences of Wilcoxon signed-rank test between pre and post-test and the improvement ratio of the mechanical variables at moment of foot contact of initial javelin release phase.

n = 5

Variables	Measurement Unit	Pre-test		Post-test		Total signals		Z value	Sig. level	Progress ratio
		Q	±P	Q	±P	-	+			
AR	Degree	43.81	2.20	38.56	1.43	15	-	-2.023	*0.042	11.98
VR	M/sec	17.49	2.05	19.43	1.81	-	15	-2.023	*0.043	11.09
Vx	M/sec	12.59	1.26	15.18	1.34	-	15	-2.023	*0.043	20.75
VY	M/sec	12.13	1.74	12.12	1.31	10	5	-	0.50	-
LR	c.m	164	9.62	173.20	11.12	-	15	-2.121	*0.034	5.61
t	sec.	0.48	0.03	0.43	0.02	15	-	-2.032	*0.042	10.42
Record	m	50.28	1.53	53.28	1.64	-	15	-2.023	*0.043	5.97

* Statistically significant at the level of 0.5

Table (3) indicates the Significance of statistical differences of Wilcoxon signed-rank test of the experimental sample between pre and post-test of mechanical variables during the moment of javelin release phase. The calculated z value of Wilcoxon signed-rank test ranged between -0.67 and -2.121 . It was less than the tabulated z value in the release angle (AR), release velocity (VR), horizontal release velocity (Vx), the height of javelin during release (LR), the time of release phase, horizontal distance to throw the javelin (Record). This indicates that there are statistically significant differences in these variables. The improvement ratio was confined between 0 and 20.75%.

Results Discussion

The results of table (1) indicates that there are statistically significant differences in each of the angle of anterior knee during the moment of foot contact at the beginning of javelin release phase, and torque of the members of research sample in favor of post-test. The researchers concludes these results of the members of the research sample in post-test to the training program, which included training similar to the performance and also targeted the development of the core muscles to perform the skill. Both researchers also took into account the principle of individual differences of each player as each player lead training on the basis of his/her maximum force. The program includ-

ed training to strengthen the muscles of the legs, such as broadband jump, weightlifting (the snatch) and weights half squat, hops and triple jump, and ABC training, resulting in increase the strength of legs muscle, which in turn led to the ability to curb the movement during the pivot step through the extension of anterior knee. This helped the thrower to stop and control the use of the kinetic energy the player gained by approximate running and converted into potential energy during the stop and then be transferred to the kinetic energy making the javelin earn more velocity during release [10].

The program; in addition, included exercises using medical balls of different weights, exercises using throwing by rubber, weightlifting, which in turn led to an increase in the angle of knee and increase the distance of the center of body gravity of the line pivot. To do so, the torque increases and thus contributes to increase the velocity of javelin release, which refers to the increase of the velocity of javelin release, but be positively affected by increasing the torque due to increased horizontal distance between the feet of pivot and center of body gravity. Thus, this provides the player a great base that can be relied on as a counter strength to the segments of torso, hand and those throwing the javelin. And thus, they provide kinesthetic through increasing the movement of torso and hands; in addition, the thrower hands earned high peripheral velocity with increasing radius [13, 14].

The results of table (2) indicate that there are statistically significant differences in each of the angle of anterior knee and step length at the moment of maximum curvature during the javelin release phase of the members of the experimental research sample for favor of post-test. Both researchers contribute these results of the research sample in the post-test to the training program, which included exercises led to improve the ability of the legs' muscles and the ability of the muscles of the back and abdomen. Moreover, it resulted in the flexibility and the ability of the muscles involved in skill performance, which led to an increase in angle of the knee and lower the center of body gravity, leading to enlarge the pivot base and increase the length of stride. Thus, a space of time has become available contributing to the transmission of correct movement from the trunk of the throwing arm [14].

The results of table (3) indicate that there are statistically significant differences in each of the angle of release and velocity of release and velocity of horizontal release and the height of javelin during release and the time of release phase and the horizontal distance to throw the javelin of the members of the experimental research sample for favor of post-test. Both researchers attribute these results of the members of the research sample in the post-test to the training program. It involved exercises to develop performance technique and improve the special ability of thrower's arm, which helped in achieving the objective physical and mechanical mo-

tor duty. The average of javelin release angle was reduced from 43.81 degree to 38.56 degree, which approaches the optimum angle of javelin release [2].

Lower average of release angle also led to increase the velocity of the horizontal release at the expense of the velocity of vertical release, which contributed in improving the horizontal distance of javelin throw where:

It becomes clear the effect of both the release angle (θ), the velocity of release (VR), the velocity of horizontal release (V_x), the velocity of vertical release (V_y), the height of javelin during release (h), and gravity wheel (g) on the horizontal distance of the javelin (R). These procedures were developed for the experimental sample where the average of the velocity of javelin release increased in the post-test from 17.49 degree to 19.43 degree. As the continuation of the player at full velocity gained during the approach is the basic mechanical variable of the velocity of javelin release. However, some relative decline in velocity resulting from body bending to the back, the rotation of the upper part about transverse and longitudinal axes, and at the same time, increase the determination of weight as a result of increasing the length of pivot step are all variables working to reduce velocity. Therefore, the player must have the ability to control body position so that she/he can maintain the acquired

velocity of the arms of researchers in the training program taking into account these factors.

The average height of the javelin during release was from 164 cm to 173.20 cm. Both researchers attribute this improvement in the height of javelin during release to the training program. It included exercises similar to the performance technique, taking into account the mechanical principles during motor performance. As well as the program included exercises to strengthen the muscles of the legs, which in turn contributed to the increase the pivot base by increasing length of the last step. This helped the player in getting large fulcrum base that increased the muscular balance of the player [17].

The average of horizontal distance of javelin throw also increased from 50.28 m to 53.28 m. The researchers attribute the improvement in the horizontal distance of javelin throw to the training program and its components. They contribute to develop the factors that affect the horizontal distance of javelin throw such as release angle, release velocity, and release height [18, 16, and 15]. Thus, the research hypotheses are achieved indicating that there are statistically significant differences between each of pre and post-tests of the research sample in the mechanical variables and the performance level of javelin throw in favor of the post-test.

Conclusions

In light of the research sample, the accuracy of data collection tools, and results achieved by both researchers, it could be concluded the following:

- 1- Specific training program contributed in developing the completion level of javelin throw.*
- 2- Specific training program contributed in developing mechanical variables.*
- 3- There are statistically significant differences between pre and post-test of the experimental group and in favor of post-test in all research mechanical variables except vertical velocity at the moment of javelin release.*

Recommendations

- 1- Specific training program are used to develop the level of javelin throw.*
- 2- Using specific training program contributes in developing mechanical variables of different aspects of the technical performance of the javelin.*
- 3- Similar researches must be conducted on more competitions in the track and field.*

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Transformational Leadership

as an approach of creation

in the

University Activities Officials

Dr. Belal Abdel Aziz Badawy

Introduction

Transformational leadership is one of the management concepts that emerged after the second half of the fifties and received attention from the experts of management, especially when many organizations perceived the need to make essential changes in the performance method to encounter the changes in the environment. (Bass) suggested a more detailed theory to describe the transformational operations in the organizations to distinguish the transformational leadership, charismatic leadership, transactional leadership. Transformational leadership was defined as the leader that transforms the vision into reality and motivates the advocates to transfer their personal interest to the group interests (Bass). On this basis, the leaders transfer the subordinates by making them more knowledgeable of the importance and values of the job outputs and satisfy the needs and demands of the subordinates, and persuading them with the sacrifice with their individual interests for the favor of the organization. As a result, the subordinates fee confidence and respect towards the leader and become motivated to complete works more than expected .(2:33)(3:39)

Through his background experiences in the field of work and supervision of many students activities in the Youth Welfare in the university and his contact with many of the staff of youth welfare in the Egyptian universities, the researcher finds that creation is one of the factors that many staff in the youth welfare lack, which by itself has significant effect on the performance of the youth welfare staff. Therefore, the researcher tries through this research to use one of the leadership approaches, which is transformation leadership that can have a great role in the development of creation in the staff of youth welfare in the Egyptian universities.

Objective of the Research:

This research aims at identifying the effect of transformational leadership as approach of creation in the university activities officials.

Methodology of the research:

The research used the descriptive methodology because it is suitable to the nature and goal of the research.

Community and sample of the research:

The community of the research included specialists of youth welfare departments in the Egyptian universities. They were selected based on the random deliberate method from (6) Egyptian universities, namely, (Cairo, Ain Shams, Helwan, Alexandria, South Valley, Assiut) and they were (114) specialists.

Data collection tools:

Questionnaire was used as a tool for data collection according to the following steps:

The researcher analyzed the available specialized references and studies in the field of transformational leadership and creativity to reach a set of scientific information and knowledge related to the variables of the research, to define the suitable sides and sentences for them. Accordingly, (4) sides were defined. These sides include (20) sentences. In addition, five-part estimation scale was defined (strongly agree- agree- not sure- disagree- strongly disagree).

The researcher conducted some interviews with the experts ($n=4$) to review their opinion on the suitability of the parts to the subject matter of the study and the nature of sentences that belong to every side and the method of their formulation, and their view to determine the suitable scale of the form.

Scientific Treatments:

The researcher conducted reliability and stability of the questionnaire by the following scientific means:

1- Reliability

A- Content Reliability: the questionnaire was shown to a group of experts ($n=4$) in the field of recreation and sports management in the Faculty of Physical Education, Helwan University, to identify their views on the suitability of the sides to the subject matter of the study and the nature of the sentences that belong to every side and the approach of drafting them, and consulted their views on the determination of the suitable estimation scale for the form, appendix (1)

B- Internal Coherence Reliability: The internal coherence was calculated by calculating the significance of the correlation coefficient between every side and the total score of the sides of questionnaire using the Pearson Correlation Coefficient. Table (1) indicates this:

Table (1)

Correlation coefficient between the degree of every side and the total score of the questionnaire
($n=30$)

dimension	Correlation Value
Leadership attraction	0.921
Inspiration motivation	0.870
Encouragement of creativity	0.825
Humanitarian Relations	0.910

Table Value of (R) at statistic significance of (0.01) = 0.463, (0.05) = 0.361

Table (1) indicates that the value of correlation between the score of every side and the total score of the questionnaire sides is statistically significant at (0.05) which signifies the reliability of internal coherence of the questionnaire.

2- Stability

The researcher defined the stability using the half partition by Alpha Coefficient of stability according to Kuder and Richardson. The Alpha coefficient represents the average transactions arising out of the partition of the test into parts by different means. As a result, it represents the correlation coefficient between any two parts of the questionnaire form. Table (2) indicates the stability coefficient by Alpha method.

Table (2)

Alpha coefficient values for the sides of the questionnaire form
($n=30$)

Side	dimension	Alpha Coefficient Value
First	Leadership attraction	0.924
Second	Inspiration motivation	0.905
Third	Encouraging creativity	0.901
Fourth	Humanitarian Relations	0.924

Table (2) indicates the values of transactions for stability by the «Alpha» Method that vary between (0.901, 0.924). This emphasizes that the questionnaire form is acceptable in terms of stability.

Table (3)

Frequencies and Chi 2 items for the of the side of leading personality

N=114

Items	Frequencies					Total estimated scores	percentage	Chi 2
	Strongly agree	Agree	Not sure	Disagree	Strongly disagree			
A- Management leadership in the Youth Welfare in the university is characterized by:								
Personality and fluency	86	14	5	2	7	512	89.8	222.4
Confidence and trust in dealing with others	8	15	86	1	4	364	63.9	223.8
Quick crisis resolution with realistic solutions	5	18	7	84	0	296	51.9	147.5
Gaining the esteem, respect and confidence of workers	94	12	7	1	0	541	94.9	202.8
Satisfying the needs of personnel before their personal needs	6	7	79	8	14	325	57.0	174.8

Chi 2 value at (0.05) = 9.49

Table (3) indicates that the percentages of the first side sentences ranged between (51.9: 94.9%) as the agreement percentage of the following sentences increased: the sentence is

“gaining esteem, respect and confidence of the staff” in the first order, by agreement percentage of (94.9%), followed by “power of personality and fluency” in the second standing by percentage of (89.8%), while the percentages of agreement on the following sentences

increased: the sentence “reliability and confidence in dealing with the staff” as it came in the third standing by agreement percentage of (63.9%). In the four standing, the sentence “satisfying the personnel needs before their personal needs” by agreement percentage of (57%). The sentence “resolution of crises quickly and by realistic solutions” in the fifth standing by agreement percentage of (51.9%) which is the least agreement percentage.

Table (4)

Frequencies and Chi2 for the sentences of the second side inspiration motivation

N=114

Items	Frequencies					Total estimated scores	percentage	Chi 2
	Strongly agree	Agree	Not sure	Disagree	Strongly disagree			
B- Management leadership in the Youth Welfare of the University shall be able to:								
Arousing the love of challenge in the staff	2	6	7	0	99	154	27.0	233.0
Ability to indicate and communicate their expectations to the staff.	16	92	5	1	0	465	81.6	192.8
Define the objectives and comply with their achievement.	3	13	96	2	0	465	63.0	215.7
Working in the team and group spirit continuously	16	91	4	1	2	458	80.4	261.3
Our follow up and providing advice in educational methods	80	16	10	1	7	503	88.2	184.5

The Chi2 value at (0.05) = 9.49

Table (4) indicates that the percentages of the second side ranged between (27: 88.2%) as the percentage of agreement of some sentences increased as follows: “our follow up and providing advice in educational methods” was in the first standing, by agreement percentage of (8.2%), while the sentence “ability to indicate and communicate their expectations to the staff” was in the second standing by agreement percentage of (81.6%). In the third standing, the sentence “work-

ing in the team and group spirit continuously”, by agreement percentage of (80.4%) while the agreement percentage of the other sentences of this side decreased as follows: the sentence “determination of the objectives and complying with their achievement” ranked the fourth by agreement percentage of (95.6%). In the fifth standing, the sentence “stimulating the love of challenge in the staff” by agreement percentage of (27%) which is the lowest agreement percentage.

Table (5)

Frequencies and Chi 2 of the sentences of the third side, encouraging creativity

Items	Frequencies					Total estimated scores	percentage	Chi 2
	Strongly agree	Agree	Not sure	Disagree	Strongly disagree			
C- Management leadership in the University Youth Welfare works to:								
Look for the new ideas in pursuit of problem solving	1	14	10	84	5	242	42.5	150.7
Encourage the staff to provide the probable solutions	7	14	83	5	5	355	62.3	201.8
Assure the presentation of creative ideas and opinions to solve problems	10	11	83	5	5	358	62.8	200.0
Define the opportunities, threats, strengths and weaknesses and express them	5	12	9	4	84	192	33.7	207.1
Help perceive the problems and find high quality solutions to them easily and smoothly	5	57	14	2	36	335	58.8	229.4

The Chi2 value at (0.05) = 9.49

Table (5) indicates that the percentages of the third side sentences ranged between (33.7, 62.8%), while the percentage of agreement in all sentences decreased as follows: the sentence “assurance of providing the creative ideas and views for problem solving” ranked the first by agreement percentage of (62.8%). The second standing, the sentence “encouraging the personnel to provide the probable solutions” by agreement percentage of (62.3%). The sentence “helping to

perceive the problems and find high quality solutions to them easily and smoothly” ranked the third by agreement percentage of (58.8%), while the decrease of the agreement percentage of the two sentences “looking for new ideas in work to solve the problems” and “define for us the opportunities, threats, strengths and weaknesses and express them” ranked the fourth by (42.5%) and the fifth by (33.7%) respectively.

Table (6)

Frequencies and Chi 2 for the fourth side sentences, human relations

N = 114

Items	Frequencies					Total estimated scores	percentage	Chi 2
	Strongly agree	Agree	Not sure	Disagree	Strongly disagree			
D- Management Leadership in the University Youth Welfare works to:								
Attention to the staff feelings in terms of encouragement, direction and advice	4	10	94	2	4	350	61.4	279.5
Listening to the staff and paying attention to their needs and their achievements	5	21	9	77	2	292	51.2	170.2
Adopting the strategy of esteem and praise	5	17	6	86	0	283	49.6	157.7
Approval of open and direct communication with the personnel	4	7	4	98	1	257	45.1	310.8
Assignment of the difficult works to the individuals who are entitled to them	8	98	3	5	0	451	97.1	226.4

The Chi2 value at (0.05) = 9.49

Table (6) indicates that the percentage of the fourth side sentences ranged between (45.1, 97.1%) as the percentage of agreement on the sentence "assigning difficult works to the individuals entitled to them" by agreement percentage of (94.9%) in the first standing, while the percentage of agreement of the other sentences of this side decreased as follows: the sentence "attention to the feelings of personnel in terms of encouragement, direction and advice" came in the second standing by

agreement percentage of (61.4%), and the sentence "listening to the staff and attention to their needs and achievements" ranked the third, by agreement percentage of (51.2%). The sentence "adopting the strategy of esteem and praise" ranked the fourth by percentage of (49.6%), and in the fifth standing, the sentence "adoption of open and direct communication with the staff" by percentage of (45.1%) which is the least agreement percentage.

Conclusions

The results of tables (3)(4)(5)(6) indicate the following:

- 1- The percentage of agreement of the sample of the research on the sentences of the first side "leading personality" ranged between (51.9: 94.9%). From the point of view of the officers of youth welfare activities of the university, we find that the heads of youth welfare departments were able to gain the respect and esteem from the staff, and they were characterized by strong personality and fluency, while their ability to confidence and reliability in dealing with others decreased, and their provision of the staff needs before their personal needs and the ability to solve crises quickly and with realistic solutions decreased.
- 2-The percentage of the research sample agreement on the sentences of the second side "inspiration motivation" ranged between (88.2: 27%), and from the point of view of the activities officers in the University Youth Welfare indicates the distinction of the heads of youth welfare departments with the ability to follow up the staff and provide advice in educational methods, and to indicate and communicate their expectations to the personnel, and the ability to work in the team or group spirit continuously, while their ability to define the objectives and comply with their achievement and stimulation of love of challenge in the staff decreased.
- 3- The percentage of the sample agreement on the sentences of the third side "encouragement of creation" ranged between (33.7, 62.8%). On the point of view of the activity officers in the university youth welfare, we find decrease of the ability of the heads of youth welfare departments to emphasize the provision of creative ideas and opinions to solve the problems, and to encourage the personnel to provide the probable solutions, help the perception of problems and find high quality solutions easily and smoothly, and to look for the new ideas in working to solve the problems, and the ability to define the opportunities, threats, weaknesses and strengths, and to express them.
- 4- The percentage of agreement of the respondents to the sentences of the fourth side "human relations" ranged between (45.1, 97.1%). From the point of view of the activities officers in the university youth welfare, we found that the heads of youth welfare departments are characterized by ability to assign the difficult works to the individuals who are worthy of them, while their ability to pay attention to the feelings of the staff in terms of encouragement, direction, advice, listening to the staff and attention to their needs and achievements and adoption of esteem and praise and the ability to depend on open and direct communication with the staff decreased. .

Recommendations:

- Researcher recommends relevant agencies SCU and public administrations to take care of young people applying this questionnaire because of its importance in the identification of the leadership level and the extent of the application of the principles of transformational leadership and which in turn helps raise elements of creativity among employees and thus elevate performance in system care youth.
- _ Control and the development of the administrative system Youth Welfare departments at Egyptian universities.
- _ Researcher hopes that there will be training sessions for youth welfare workers appointed to work a transformational leadership style to start care activities for the aspirations of the youth of this administration.

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SLEEP

PROBLEMS

Which occur to top level players in the night BEFORE THE IMPORTANT COMPETITIONS

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Research Summary

Sleep problems are considered from healthy problems that affect individual's performance and his ability of physical and mental performance, this topic has not gotten much concern from athletic field researchers; Few laboratory studies were carried out to identify sleep's importance and its effect on mental functions disorders, attention disturbance, vision and hearing disorders and worsening mood and neurological status, which negatively affect athlete's skill and physical performance. This study aims to identify problems associated with sleep behavior which face individual and team sports players at night of important competition or matches and identify difference in this affect as per gender and sport activity.

SLEEP

PROBLEMS Which occur to top level players in the night
BEFORE THE IMPORTANT COMPETITIONS

The study used descriptive approach on a sample of 50 to level players (50% males and 50% females), representing five activities namely athletics, gymnastics, rowing, volleyball and handball, the research tools contained a questionnaire prepared by the researchers, and results for applying this form revealed the availability of negative effect of players' sleep status on their performance and there was no significant differences of this effect as per gender or sport activity. Therefore researchers recommend more studies to be carried out on this phenomenon and to find a treatment solution for it.

Introduction

One of the topics which did not get much concern in sport studies and researches is sleep problem and its habits within athletes, and how it can be a serious problem affect their performance and injury passivity, some empirical studies performed in special laboratories (e.g. Walters & peter (2002), Charles Samuels (2008)) to identify sleep importance, these studies concentrated on deprive the person under check from sleep for specific time and evaluate the effect of this deprivation, results of these studies revealed that sleep deprivation lead to mental function disturbance as concentration disturbance and disorder, headache, muscle pain, vision and hearing disorders and worse mood and neurological status which negatively affect performance (Thomas E., 2000, p. 230).

Researchers argue that sleep problems dominate athletes before impor-

tant competitions or matches is not in itself a disturbance, but it is a result of what athlete face from psychological stress and mental exhaustion. Gerald and John argue that healthy sleep habits are a good mean to get rid of disturbed sleep behavior. Behavior treatments for sleep disturbance concentrate on giving instructions help to develop healthy sleep habits (Gerald, and John, M., 2001, p. 48).

From what mentioned above about correlation between sleep and performance in general and specially sports performance; it is so important to study high level players in night of important competitions or matches where there achievement performance level is clear. Hence research problem can be defined in the following question: "Do high level players' performance affect with some sleep habits and problems at night of important competitions or matches"

Aim

Identify problems associated with sleep behavior which face individual and team sports players at night of important competition or matches and Identify difference in this affect as per gender and sport activity

Hypotheses

There are statistically significant differences between athletes as per activity regards sleep problems they face at night of important competitions

There are statistically significant differences between athletes as per gender regards sleep problems they face at night of important competitions

Keywords

Sleep Behavior:

It is a behavior conducted by the player just before deep sleep or during sleep, this behavior associates with player's personal nature, his periodic blood bio-rhythm, sleep behavior includes player sleep structure, type and response while sleeping. (Mahmoud, H. S, 2006, p7)

Dreams:

It is activity for sleep person seeks sleep reducing triggers which awake him; It is also for, the royal path to nonsense, disclosing hidden tendencies and motives. (Procedural definition by researchers)

Nightmare (annoying dreams):

It is a dream filled with fear and anxiety, followed by detailed recalling

for the dream content, this dream lived by the person and includes threats for his life or feeling safe. Nightmare cause severe annoyance and this increase with psychological and physical stress. (Yousuf, G. S. 2002, p8)

Daydreams:

Daydreaming is the spontaneous human activity of recalling or imagining personal or vicarious experiences in the past or future while awake (Mueller, E. T. and Dyer, M. G., 1985, p. 1).

It is series of thoughts and feelings which could distract mind from the present moment; using the most complex brain parts to jump to creative mental state enabling imaginary of things, hopes and ambitions in unusual positive manner. It happen while person half-awake (dreamed mood) and relaxed mid and that's why it looks like dream. (Procedural definition by researcher)

Sleep Habits

It is a behavior practiced regularly by person before sleeping or awake up, characterized by relative stability. Sleep habits are acquired by simulation or social learning. (Mahmoud, H. S, 2006, p7)

Insomnia

Miserable Quantitative and qualitative sleeping; with difficulty in start or continue sleeping and early awake up. Insomnia leads to fatigue during day; which in turn lead to disturbance in person's professional, social and psychological performance. (Abd Elkhalek A. M. 2001, p3,28)

Literature review

It is clear that sleep behavior have been in focus since long and especially in recent eras. There are numerous definitions for sleep behavior, as per these literatures sleep behavior is a state of regular and repeated rest for human being, accompanied usually with lying and absence of movement, temporary unconsciousness, low sensory level for environment stimulus nervous system is less active especially brain coating layer; so lot of high mental processes stopped; little effect on Neurobiological processes, blood pressure reduced a bit, temperature regulating centers reduced, breathing slow down, muscles relax (Abd Elqawy, S., 1995, p. 259); (Eiswy, A., 1998, p. 169).

Dream is psychological phenomena have meaning and appeared dream ambiguity could be solved by using scientific approach to understand and interpret it. Dreams are part of our life experience as anything else, it plays great role in our life, help us to understand ourselves and others, to solve our problems, and treat ourselves. So we should concern with dream interpretation as it the ideal method to understand human sole depth and understand facts which person is unaware about himself and others unaware about it (Kattan, S., 1980, p. 122).

Research Methods

Experimental approach of Research:

Researchers used descriptive approach with field scanning method as it suits research nature.

Research Society:

High levels and first class male and female players in different (individual – team) sport activities.

Research sample:

Research sample selected randomly and consisted of 50 players (25) male and (25) in athletic(15), gymnastics(10), rowing(5), volleyball (10) and handball (10).

Data collecting tools and statistical analysis:

It was necessary to design a tool suits research nature and modernity to achieve research aims; hence researchers designed a questionnaire includes group id questions and statement to get sample responses which represent their opinion, preferences and attitude towards research topic.

Researchers followed the scientific steps to design the questionnaire including getting experts evaluation (appendix I)

Due to research nature researchers uses both closed and open questions, and combining questions and opinion express as following:

- a- Questionnaire contained 6 questions personal and sport data: age, gender, training age, technical level, practiced sport activity, number of training sessions)
- b- Questionnaire also included 7 open questions allowing opinion express and increase sample interaction

c- Questionnaire included 24 closed questions to allow all questions to give equivalent responses

Questionnaire standardization

1- Validity:

Researchers used content validation to ensure questionnaire really measures its aspects, and percentage of each of them to questionnaire as a whole. Researchers referred to literature review and previous studies; used

their experience in this field. And also take into consideration some psychological experts' opinion in the questionnaire (appendix 1)

2- Reliability:

Reliability has been calculated using sample of 21 players other than main sample, using split-half method Guttman test reliability factor was 0.715 and Cronbach Alfa reliability factor was 0.761 which are high enough to confirm test reliability.

Results and Discussions

Table (1):

Comparison between sport activity and gender in questionnaire responses

Question	Activities rank mean					Kruscal Wallis test between sport activities ^(a)	Gender rank mean		Man Whitney	Test between gender(b)
	1	2	3	4	5		Female	Male	U	Z
Aspect 1: Night of competition (NOC) sleep problems										
Is your sleep normal at NOC	28.00	28.00	23.00	23.00	23.00	5.444	28.00	23.00	250.000**	-2.333
Is your sleep normal compared with other nights at NOC	25.50	25.50	25.50	25.50	25.50	0.000	25.50	25.50	312.500	0.000
I face difficulties in sleep start at NOC	27.50	25.00	22.50	25.00	25.00	2.397	26.50	24.50	287.500	-1.032
I face night anxiety with awakening at NOC	25.50	28.00	25.50	23.00	25.50	1.225	26.50	24.50	287.500	-0.700
I wake up early than normal at NOC	25.67	24.00	24.00	29.00	24.00	2.333	25.00	26.00	300.000	-0.403
I face annoying dreams at NOC	23.33	30.00	20.00	25.00	27.50	3.106	26.00	25.00	300.000	-0.288
At NOC I face sleep problems due to sleep in unfamiliar field	25.50	25.50	25.50	25.50	25.50	0.000	25.50	25.50	312.500	0.000
At NOC I face sleep problems due to feeling tension	27.50	27.50	27.50	17.50	27.50	17.043**	27.50	23.50	262.500**	-2.064

* Significant at 0.05 level ** Significant at 0.01 level.

(a) Kruscal Wallis test for median differences between Athletics, gymnastics, rowing, volleyball, and handball.

(b) Man Whitney test between for gender differences between males and females.

1- Athletics, 2- gymnastics, 3- rowing, 4- volleyball, 5- Handball

SLEEP

PROBLEMS Which occur to top level players in the night
BEFORE THE IMPORTANT COMPETITIONS

Table (1) results revealed that 90% of participants in activities under research and from both genders facing bad sleep at night of competitions comparing with other nights, namely difficulty in sleep, interrupted sleep periods, there were significant differences in Man Whitney U test in favor of females (250.000); this could be interpreted by high psychological stress on female athletes which lead to night sleep disorder; this results is consistent with results of Abd Elghany, K.M. (1998), Abd ELkhalek, A. M. (2001), Andrade Miriam and Menna Barretes (2003) Who concluded that females are suffering sleep problems more than males, also with Atia, S.I (2001) who confirmed that female athlete face lot of psychological stresses represent conflict states affecting her sleep quality.

High performance level and achievement motivation within athletes in study sample may cause sleep habits disorder, prevent good sleep. This because they look to the important competition as a fight to get the first position and supersede others in order to get care and appreciation from coach and country senior leaders who concern with sport competitions results, attending it specially international ones, and also what associate with this from appreciation and bonuses to players specially in case of winning. This in turn affects emotion responses from sleep start to actual performance. This result is consistent with Alawy, M. H. (2002) who argued that sport competition may have

some negative affects due to achievement motivation, so it is characterized by violence, intolerance, athletes' emotion disorders, fighting to be the best, which in turn cause tension, anxiety and negatively affect player or sport team behavior and performance.

- Feeling tension was one of main reasons of bad sleep at night of competition, Kruscal Wallis test revealed significant difference (17.043) between different activities' players, also feeling tension were more within females than males as Man Whitney U test revealed significant difference (265.500). These results are in consistent with what concluded by Ghanem, M.H. (2000) who stated that sleep habits for players are important and significantly related with achievement performance; and [layers should adopt sleep habits help them to reduce their tension and make them more relax; sleep habits may be good tool to start good sleep or a tool preventing it.

- Bad sleep affected performance level, there were significant difference between sport activities (Kruscal Wallis = 12.820) reasons were none availability of specific strategy for good sleep with significant difference between sport activities (Kruscal Wallis – 19.883) and between genders in favor of females (Man Whitney U = 125.000). some taken reading as a method for getting good sleep with no significant difference between sport activities while there were significant differences in favor of males (Man Whitney U = 250.000), there

were also significant differences in using TV between sport activities players (Kruskal Wallis= 12.544) and between genders in favor of males (Man Whitney U = 225.000).

- Results revealed that top level players in sport activities under research participated in competition last season as per following descending order (volleyball – handball – rowing – athletic – gymnastics); differences were significant (Kruskal Wallis = 43.114), with significant differences in favor of male (Man Whitney U = 23.000), they faced bad sleep state in most of these competitions with significant difference between activities (Kruskal Wallis = 37.366) and significant difference in favor of males (Man Whitney U = 59.500). Sleep at night of competition was not better than other days with significant differences between activities (Kruskal Wallis = 23.685) and significant difference in favor of males (Man Whitney U = 147.500); also their sleep was not usual like other days with significant difference between activities (Kruskal Wallis = 32.748) and significant difference in favor of male (Man Whitney U = 69.000). This results could be interpreted for differences between sport activities player by that players in team sports may follow or compulsory follow unified sleep habits, as well as the player get psychological support and cooperation from his team fellows which contribute in reducing psychological stresses and even physical injuries, while individual sports players follow

individual or specific module of sleeping which may be affected by player's tension and anxiety which in turn cause sleep habits disorder, so sleep problems within team sports player are lesser than those within individual sports players. These results are in consistent with Abd Elmohsen, Y. (2009) confirmation that sleep problems have various complications, e.g. tension, anxiety, nervousness, slow response for environmental stimulus, and giddiness, and there are individual differences between persons due to the biological clock which give alarm at sleep time and after get sleep and rest required and more important than sleep hours is sleep depth and the quietness and rest extent it gives to the sleeper.

- Results also revealed significant differences between sport activities players in facing dreams related to fear from injury between sport activities players (Kruskal Wallis = 35.411), and significant differences in favor of males (Man Whitney U = 124.000), and in remembering dreams there were significant differences between sport activities players (Kruskal Wallis = 12.571) and in favor of males (Man Whitney U = 160.500)

- There were significant differences between sport activities players in facing nightmares (Kruskal Wallis = 25.187)

- There were significant differences in facing dreams related to specialized sport activity between sport activities players (Kruskal Wallis = 22.842) and in favor of males (Man Whitney U = 86.500)

SLEEP

PROBLEMS Which occur to top level players in the night
BEFORE THE IMPORTANT COMPETITIONS

- There were significant differences in increased dreams related to specialized sport activity in high intensity training period between sport activities players (Kruskal Wallis = 29.400) and in favor of males (Man Whitney U = 125.000). This could be interpreted by explaining nightmares reasons, which usually happen due to the effect of physical and psychological stress, and there are many psychological stresses rest on shoulders of top level athlete. Yousuf, G. S. (2002) argue that nightmares increase during physical and psychological fatigue. These results also in consistence with Krakow-Barry et al (1999) results who concluded direct and significant correlation between changing sleep habits and nightmare occurrence.

- There were significant differences in facing daydreams between sport activities players (Kruskal Wallis = 13.261) and in favor of males (Man Whitney U = 152.000)

- There were significant differences in facing bad daydreams between sport activities players (Kruskal Wallis = 10.392) and in favor of females (Man Whitney U = 212.500)

- There were significant differences in availability of directed specialized exercises to improve performance between sport activities players (Kruskal Wallis = 23.239) and in favor of females (Man Whitney U = 112.500)

- There were significant differences in benefiting from media as guide to possibility of training during daydreams between sport activities players (Kruskal Wallis = 19632) and in favor of males (Man Whitney U = 150.000)

These results could be interpreted by ignoring using daydreams in training. Daydreams is mental psychological skill need training and teaching through practice under psychological specialist supervision, Brain could use daydreams for repeat, amend and display motor skill, which increase athlete's concentration and good performance. This result is in consistent with Khatab, A.A. (2009) who argued that daydreams help to athlete to control his negative emotions and turn it to positive ones. It also prevents attention dispersion and increase concentration on motor skill and helps athlete to build self trust through concentrating on motor skills and repeats it so many times without errors, the relation between daydreams, intention concentration, skill performance and cognitive achievement.

Researchers in the opinion that positive daydreams are lead to creativity and solve problems faced by athletes. It also helps to get psychological comfort, get off anxiety and tension. Hence enforce neural links, develop memory and attention concentration on distinct performance.

Conclusions

- ✓ Females were exposed more to sleep problems disorder at night of important competitions.
- ✓ Sleep disorder are more within individual sports players than team sport players
- ✓ 90% of study sample were suffering from sleep problems comparing their usual sleep in other days.
- ✓ Tension is one of the most important problems faced by top players at night of important competitions.
- ✓ There is no specific strategy adopted by players to get good sleep at night of important competitions and this was more in females.
- ✓ Dreams related to fear from injury was more in athlete males than females.
- ✓ Dreams about specialized sport increased within males.
- ✓ Bad daydreams faced more by athlete males.
- ✓ There was little usage of media to indicate possibility of using daydreams in training and this is more in males

Recommendations

- ✓ 1- Using the designed questionnaire to identify sleep problems faced by athletes at night of important competitions or matches.
- ✓ 2- Designing a guiding rule to follow healthy sleep habits in order to get good sleep.
- ✓ 3- Preparing treating programs for correcting sleep behavior disorders within athletes with concentrating on female athletes before important competitions or matches.
- ✓ 4- Creating healthy sleep environment.
- ✓ 5- Giving more concern to relaxations and breathing exercises, autosuggestion and mental training and to overcome athletes sleep problems like tension or anxiety at night of important competitions or matches.
- ✓ 6- Giving the athlete the real self-concept, ability to self-talk in order to give self achievement motivation and getting benefit from daydream stage.
- ✓ 7- Introducing guiding programs in reading, audio and visual media to teach healthy habits and behaviors in sleep for athletes.
- ✓ 8- Using directed training during daydream with help from coach and psychological specialist
- ✓ 9- More studies to be conducted in sport field about sleep behavior and its relation with: sport injuries, physical efficiency, psychological skills, achievement level for different age stages.

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Appendix 1

List of Experts

(Alphabetically arranged)

- | | |
|-----------------------------|---|
| 1 Dr. Ahmed Elcentrecy | Sport psychology emeritus professor, Faculty of physical education for men, Helwan University |
| 2 Dr. Mohammed Hassan Alawy | Sport psychology non-emeritus professor, Faculty of physical education, Helwan University |
| 5 Dr. Muhsen-Al-Nahriry | Sport psychology emeritus professor, Faculty of physical education for girls, Alexandria University |
| 3 Dr. Mustafa Bahy | Sport psychology emeritus professor, Faculty of physical education for men, Menia University |
| 4 Dr. Riyad Al-Menshawry | Sport psychology emeritus professor, Faculty of physical education, Tanta University |



The effect of speed change in uphill on some biomechanical parameters and physiological Variables of the 10 km men's walker

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Helwan University*

Introduction



The purpose of this study was to examine the physiological and biomechanical changes occurring in a subject after Three months (POST) training on the program. Sample 6 trained male competitive walkers volunteered as subjects for this study, 3 training sessions on uphill (treadmill with angel of 2, 3, 5, for speed sessions) Applied per week plus 3 training sessions on a track. Pre test at 13-14 /2/2011, start the program at 18/2/2011 until 9/6/2011 and post test at 8-9/6/2011, The investigating period was in the pre competition season, The investigation included an aerobic training and an aero-anaerobic training program for 3 months . To control the metabolic cost, Hart rate, VO2max, Vital capacity and the blood lactate concentration was determined. Data Analysis: Use Dartfish v4.5 program to calculate angel of support, angel of attack, angel of

push and stride length . Statistical analyses. Z-tests were used to compare the differences between pre- and post-training and Correlation coefficients between biomechanical and physiological variables with Performance time, probability level of 0.05 was accepted as significant. The physiological parameters which changed significantly after training program were improved vital capacity which proves the economy of walking performance technique, improved Vo2 max, and blood lactate level. The uphill improves angle of push, angel of attack, angel of support for subject of the research, contributes in the improving of performance technique and performance time for walkers.

Introduction:

Generally There are two techniques of walking adopted by most of the race walker Mexican style and European style. The Mexican style of walkers have high frequency and low stride length and their single support start with heel sole of the foot. The front support phase is almost performed flat footedly. The knee is also bent at contact time. While arms action are also restricted at angle slightly above the waist level. The hip tilt is very less while center of gravity is also very low.

The definition of speed walking has been changed three times during the recent 15 years, which has certain influence on its technique. The first change brought about the revolution of technique, producing the modern high-speed walking technique. The second change just stayed at the change of writing, which had no influence on technique. The third change had also no influence on the "stride" walking technique. The forecast of the future development of walking speed technique was made. High-speed walking will also be the developing direction of walking speed technique in the future.

Due to the nature of the race walking movement which is characterized by difficulties in the movement of the pelvis either to the front, back, up or down, as well as the alternative movement of the shoulders with pelvic to the front, back, up and down, and also the movement of knees during the support phase which required full extension of the knee joint as well as the attack angle and support of the foot. Race walking also requires efficiency of the Cardio vascular system to endure the race distance and perform without losing either the performance level or record level which is crystal clear when observing many national and international competitions when an athlete is subjected to disqualification from the race because of the violations caused by a defect in motor performance or as a result of decreasing in the physiological efficiency of the athlete which may lead to violate the rules and get disqualified.

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with pelvic to the front, back, up and down, and also the movement of knees during the support phase which required full extension of the knee joint as well as the attack angle and support of the foot. Race walking also requires efficiency of the Cardio vascular system to endure the race distance and perform without losing either the performance level or record level which is crystal clear when observing many national and international competitions when an athlete is subjected to disqualification from the race because of the violations caused by a defect in motor performance or as a result of decreasing in the physiological efficiency of the athlete which may lead to violate the rules and get disqualified.

Therefore, we can say that each stride is divided into two phases until one foot reaches its initial position. When analyzing the movement of walking, we find that the athlete is in the support phase on one of his foot, followed by a forward swing movement of the lead leg so that the lead leg lands on the ground. At this moment, the feet land on the ground then the rear foot push to support on the front foot. It is noted that we can see with the naked eye that the support duration lasts longer than the swing phase due to the long duration of support phase. (27:108)

We find that the feet of the race walking athlete, during walking, are on a permanent contact with the ground either with one foot or feet together. If we analyze the walking movement from the motor side, we find that it consists of several cycles, continuously repeated during the progress of the athlete while each cycle is divided into two motor phases

confined between two similar positions, where each position is intervene with a series of successive movements.

The average frequency of an average individual is 115 to 125 strides per minute, and thus foot support vary from double to three times of the duration of foot support while the average speed of race walking athlete is up to 190 to 200 steps so the feet support period is reduces or may disappears and turn into flight process as in the case of running events. (27: 109) (22: 175)

The arms and shoulders movement play an important role in the progressing of race walking, thus the race walking coaches should take care of the exercises of the upper part of the body beside the lower part, especially on weightlifting exercises. (21: 110, 111)

VO_{2max}. well-accepted concepts (Bassett & Howley, 2000) have emerged related to endurance exercise performance velocity and the first component issue is the level of aerobic metabolism that can be maintained during a race . This is usually achieved during relatively large muscle group exercise and represents the integrative ability of the heart to generate a high cardiac output, total body myoglobin, high muscle blood flow and muscle oxygen extraction, and in some cases the ability of the lungs to oxygenate the blood (Bassett & Howley, 2000)(4).

The heart rate is the best physiological measurements to determine the physiological response during training and one of the vital signs which regulate the intensity of training and rest periods. (15:109) (19:43)

Coaching is one of the sciences that take care of the preparation of the athlete from the physical, physiological and psychological aspects to reach the highest levels and to obtain top places in the international championships.

Both "Mohammad Hassan Allawi and Abul Ela Ahmed Abdel Fattah" (1984) indicated that the regulated training lead to physiological changes on all organs of the body and leads to the progress of the level of athletic performance whenever it is positive (12: 24 - 27).

Throughout the experience of the researcher as a former international athlete and a current coach of the research sample in 10 km race walking, so the researcher design regulated training programs for the athletes in order to improve the Race Waking Technique (foot placement, angle of attack for the foot, angle of Support, angle of push and stride length, as well as the walking economy (race pace)), Performance time, beside identifying the impact of the regulated training program on some physiological Variables of the athlete who is the research sample.

Objectives:

The research aims to design a training program for 10 km race walking athletes to identify the following:

1- The effect of the suggested training program to develop of some biomechanical parameters (angle of attack, push, support stride length, efficiency - performance).

2- effect of the suggested training program on developing of the performance level.

3- The effect of the suggested training program on development of some physiological parameters (Hart rate - the maximum oxygen consumption (VO_{2max}) - blood lactate - Vital Capacity).

Research Questions:

1- Does the suggested training program affect the development of some biomechanical and physiological changes?

2- Does the suggested training program affect the development of the performance?

Methodology:

Data Collection: Subjects. 6 trained male competitive walkers volunteered as subjects for this study 3 training sessions on up hill (treadmill with angel of 2, 3, 5 Degree, for speed sessions) Applied per week plus 3 training sessions on a track. Pre test at 13-14 /2/2011, start the program at 18/2/2011 until 9/6/2011 and post test at 8-9/6/2011, The investigating period was in the pre competition season, which include an aerobic training and an anaerobic training program for 3 months. All athletes were given the order to preform compliant to the competition rules. Further more, to control the metabolic cost, Hart rate, VO_{2max} , Vital capacity and blood lactate concentration were calculated. Data Analysis: Use Dartfish v4.5 program to calculate stride length, angel of (support, attack and push). Statistical

analyses. Z-tests were used to compare the differences between pre- and post-training and Correlation coefficients between biomechanical and physiological parameters according to time Performance, probability level of 0.05 was accepted as significant.

Table (2)

Physiological Parameters of post-training sessions

Measurement	Rest		after effort	
	Mean	± SD	Mean	± SD
Hart rate (p/m)	67.43	±4.32	160.65	±5.65
Blood Lactate Concentration (mmol/L)	1.63	±0.37	5.17	±0.43
	Pre		Post	
VO _{2max} (ml kg ⁻¹ min ⁻¹)	51.24	±4.55	57.66	±4.56
Vital capacity (L)	3.70	±0.52	4.23	±0.59

Results And Discussion

Table 2 & 3. The results indicate heart rate as shown, that average pulse rate at rest 67.43 p/m and average pulse rate after effort 160.56 p/m, decrease of blood lactate levels is due to that the suggested training program contributed in the increasing efficacy of cardiovascular and muscles, increasing disposing of lac-

tic acid accumulated during performance. This comply with results of Drake, A., Cox, V., Godfrey, R., Brooks, S. (2005) (11) "Salem Hassan Salem" (1996) (25) "Atef Sayed Ahmed" (1999) (2) "Osama Ibrahim Hassan" (1999) (23) "Atef Sayed Ahmed" (2003) (3) as they mentioned that sports training affects on capacity of cardiovascular system, capacity of lungs, improving level of movement and time performance.

Table (3):

Deference Between pre- and post-training sessions for physiological Parameters

Measurement	Ranks	N	Mean Rank	Sum of Ranks	Z	P
Blood Lactate Concentration (mmol/L)	-	0	0.00	0.00	2.201*	.028
	+	6	3.50	21.00		
VO _{2max} (ml kg ⁻¹ min ⁻¹)	-	0	0.00	0.00	2.201*	.028
	+	6	3.50	21.00		
Vital capacity (L)	-	0	0.00	0.00	2.207*	.027
	+	6	3.50	21.00		

Table (1):

Physical characteristics of the subjects

Measurement	Mean	± SD
Age (years)	17.50	1.527±
Height (cm)	196.00	3.61 ±
weight (kg)	57.77	± 7.47

Results And Discussion

Table 2 &3. The results indicate heart rate as shown, that average pulse rate at rest 67.43p/ m and average pulse rate after effort 160.56 p/ m, decrease of blood lactate levels is due to that the suggested training program contributed in the increasing efficacy of cardiovascular and muscles, increasing disposing of lactic acid accumulated during performance .This comply with results of Drake, A., Cox, V., Godfrey, R., Brooks, S. (2005) (11) "Salem Hassan Salem"1996"(25) "Atef Sayed Ahmed"(1999)(2) "Osama Ibrahim Hassan"(1999)(23) "Atef Sayed Ahmed"(2003)(3) as they mentioned that sports training affects on capacity of cardiovascular system, capacity of lungs, improving level of movement and time performance.

The results indicated that training sessions has led to increase efficacy of cardio vascular system as percentage of improvement vital capacity has reached (14.40%), VO_{2max} (12.54%) after applying program which indicate increasing the physiological efficacy which contributed in the improving of their achievement record. "Khairiah Ibrahim El syokary Mohamed El sayed Abed elhalim,(1997)(18: 155-153) Yoshida, T., Udo, M., Chida, M., Ichioka, M., Makiguchi, K., & Yamaguchi, T. (1990) (31) as they mentioned that VO_{2max} is one of important influencing parameter in results of long distance competitions specially walking as it depends on aerobic capacity, efficacy of cardiovascular system and VO_{2max} is affected by training, as more elevated the level of the better VO_{2max} results.

Table (4):

biomechanical parameters post-training sessions

Measurement		Pre		Post		$\Delta\%$
		Mean	SD	Mean	$\pm$ SD	
Angel of Support (Degree)	R	26.17	± 4.70	32.44	± 1.98	23.96
	L	28.23	± 6.11	32.68	± 1.25	15.76
Angle of push (Degree)	R	57.41	± 2.10	61.89	± 0.72	7.80
	L	56.72	± 3.28	61.31	± 0.97	8.10
Angle of attack (Degree)	R	68.16	± 1.64	72.36	± 0.42	6.16
	L	68.44	± 1.07	72.34	± 0.49	5.71
stride length (m)		1.45	± 0.10	1.88	± 0.16	29.43
Race Pace (m:min)		3.22	± 0.32	3.54	± 0.29	9.82
Performance time (m:s)		49.34	± 1.35	48.05	± 1.27	2.61

Table (5):

The deference between pre- and post-training sessions for biomechanical parameters

Measurement		Ranks	N	Mean Rank	Sum of Ranks	Z	P
Angel of Support (Degree)	R	-	0	0.00	0.00	2.207*	.027
		+	6	3.50	21.00		
	L	-	0	0.00	0.00	2.22*	.026
		+	6	3.50	21.00		
Angle of push (Degree)	R	-	0	0.00	0.00	2.201*	.028
		+	6	3.50	21.00		
	L	-	0	0.00	0.00	2.201*	.028
		+	6	3.50	21.00		
Angle of attack (Degree)	R	-	0	0.00	0.00	2.201*	.028
		+	6	3.50	21.00		
	L	-	0	0.00	0.00	2.201*	.028
		+	6	3.50	21.00		
Stride length (m)		-	0	0.00	0.00	2.22*	.026
		+	6	3.50	21.00		
Race Pace (m:min)		-	0	0.00	0.00	2.201*	.028
		+	6	3.50	21.00		
Performance time (m:s)		-	6	3.50	21.00	2.201*	.028

Table (6):

Correlation coefficients (r) The relationship between 10 km performance and biomechanical and physiological Parameters

Measurement		r ²
Hart rate (p/m)		0.754
Blood Lactate Concentration (mmol/L)		0.571
VO ₂ max (ml kg- min)		0.843*
Vital capacity (L)		0.857*
Angel of Support (Degree)	R	0.912*
	L	0.956*
Angle of push (Degree)	R	0.730
	L	0.843*
Angle of attack (Degree)	R	0.886*
	L	0.861*
stride length (m)		0.828*
Race Pace (m:min)		0.989*

Table 4 &5 .The results indicate to training using uphill (use 2, 3 ,5 degree) during speed sessions has led to improve angel of support, attack, and push to get them almost to an angel which enable them to move smoothly. This comply with what has been mentioned by “Talha Hossam El din and others”(1998)(28 : 203) as he mentioned that amount of the produced movement is descending when power is in opposite direction of movement, while it is ascending when produced power is in correct direction of movement, This comply with what has been mentioned by “Talha Hossam El din and others”(1994)(3 :101) “Burkett,

B., Smeathers, J. and Barker, T. (2003) (8) that moving forward depend on offering sufficient and enough pushing for movement.

This differences may be due to that subject of the research used up hill (different angels) to improve pushing and amount of produced movement from ankle joint to increase feet pushing, helps in increasing muscular power for gastrocnemius muscles, it also increases time of feet pushing which helps the athlete to increase moving speed, also increase moving range of the joint. This comply with what has been mentioned by "Atef Sayed Ahmed" (1999) (2) in developing muscular power of muscles that help in elevating achievement record of walker, This comply with what has been mentioned by "Salem Hassan Salem" (2002) (Atef Sayed Ahmed) (2003) (3) "Gagnon J.L. (1997) (14) in improving movement performance of walking, improving body angels which led to improve technique of race walking..

The improvement of technique has led to improve performance time and race pace which indicate to increasing efficiency. This comply with (Drake, A., Cox, V., Godfrey, R., Brooks, S. (2005); Maggio, Nicola, (2008), Williams KR (2007) (30), Zifchock, R.A., Davis, I. and Hamill, J. (2006) (13)

Table 6. There was correlation between performance race walk and parameters analyzed. VO_{2max} and Vital capacity had statistically significant correlations ($p < 0.05$), however VO_{2max} is strongly affected by race walking economy (Bassett and Howley, 2000, Saunders et al. 2004) (4) so it may be unwise to dismiss importance of VO_{2max} in the other athletes. VO_{2max} has been found to increasing about 12.54 % in athletes following endurance training, highlighting large genetic component to this measure (Bouchard et al. 1999) (5), largely via its economy component. The efficacy of investigating training response, VO_{2max} to race walking training is worthy of research; moreover the role of race walking biomechanics parameters in race walking economy warrants investigation despite no correlations between race walking performance and economy in the present studies.

There was correlation between performance race walk and parameters analyzed angle of support, attack and push, stride length and race pace for performance had statistically significant correlations ($p < 0.05$) so that component importance to Vertical oscillation of center of mass Explained 19 % of variance in race walking economic (Drake, A., Cox, V., Godfrey, R., Brooks, S. (2005) (11)

Conclusion

- ✓ The parameters which changed significantly after training program were improved vital capacity which proves economy of walking performance technique, improves VO_{2max} , blood lactate level and vital capacity .
- ✓ Use of uphill (different angels) improves angle of push ,attack, support for subject of research, contributes in improving of performance technique for walker.
- ✓ The maintenance of efficient walking technique is crucial to successful racing performances and the reduction risk of injury.
- ✓ In competition, race walker have to demonstrate ground contact and knee straightening stable, although the coordination of the body segments varies comes from optimal technique for race walking.

Recommendations:

- ✓ A correct race walking technique permits to integrate physiological aspects with energy cost (economy race walking).
- ✓ The training program must be include an aerobic training and an anaerobic training session .
- ✓ Use strategy in the race depend on pace to get performance time .
- ✓ The optimal technique is crucial to successful racing performances and reduction the risk of injury.
- ✓ Use of uphill with a different angels to improve angle of push ,attack, support with speed.

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THE IMPACT OF

Using E-Courses At The Level Of

KNOWLEDGE ACQUISITION

And The Trend Towards E-learning

For The Students Of

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Research problem and Its importance

Since the e-courses comprise many usages to facilitate the process of teaching and learning, and since these usages range from simple technological means to more complex or advanced ones to allow the opportunity of education for students anywhere, at any time, according to their own abilities and their speed in education, thus we can achieve the principle that a student can learn how to learn (12: 155-167).

Both Mohammad Mostafa (1999) and Mahdi Salem (2002) see that the use of computers in education helps to create an active

educational environment whereby a learner becomes a positive participant . In addition to the need of Faculty members` conviction with using educational technologies , and the formation of positive attitudes towards its uses in the teaching process , as the use of educational technology in university teaching leads to improve teaching and increase its effectiveness . (9: 62) (10: 161).

Both Porstorf and Lowe (2006) indicate to the importance of developing the attitudes towards e-learning which has become the commonest method of education in universities and various educational institutions as it presents curricula and different educational programs. It is also important to recognise the learners' perceptions and their convictions for this type of education and its effectiveness. (15: 46)

Through the above, it is emerged the urgent need to identify the impact of using electronic courses at the level of knowledge acquisition and the trend towards e-learning for the students of Damietta Faculty of Physical Education to let lecturers do their utmost.

Research objectives:

The research aims:

1- Identifying the impact of using both traditional method and e-course on the level of knowledge acquisition for the control group and the two experimental groups.

2- Identifying the differences among each of the control group and the two experimental groups on the level of knowledge acquisition.

3- Identifying the differences of improvement percentage among the control group and the experimental groups on the level of knowledge acquisition.

4- Identifying the differences in the trend towards e-learning among the control group and the two experimental groups.

Hypotheses:

1- There are statistical indicative differences between the averages of pre and post - measurements for the control group and the two experimental groups at the level of knowledge acquisition in favor of the post measurement.

2- There are statistical indicative differences between the averages of post measurements of the control group and the two experimental groups in the level of knowledge acquisition .

3- There are differences in the percentage of improvement between the control group and the two experimental groups at the level of knowledge acquisition.

4- There are statistical indicative differences in the trend towards e-learning between the control group and the two experimental groups.

Research Procedures

Research Methodology:

Both researchers have used the experimental method with experimental design for three groups: one of them is control and the other two are experimental.

Society and research sample:

The society of research has been selected from the first-year-students from Faculty of Physical Education in Damietta-Mansoura University for the academic year 2011– 2012(first semester). Their number has been (63) students. The students have been divided into (15) for the survey and (48) students for basic study. The stu-

dents have been divided into three groups, (16) students for each: the Control group who has been taught through traditional manner (lecture), the first experimental group who has been taught only through the electronic course and the second experimental group who has been taught through a combination of a lecture style and an electronic course.

Homogeneity of the sample:

The researcher conducted homogeneity among the members of the research sample (Table 1) in the variables of age, IQ and the level of academic achievement (the score of Secondary Education Certificate).

Table (1)

Arithmetic Average , standard deviation, mediator and torsion coefficient for members of the research sample in variables (academic achievement – IQ)
($n_1 = n_2 = n_3 = 16$)

<i>Variables</i>	<i>Level Of knowledge Acquisition</i>	<i>Standard deviation</i>	<i>Mediator</i>	<i>Torsion coefficient</i>
<i>Level Of knowledge Acquisition /score</i>	259.33	38.95	249	0.16
<i>IQ /percentage</i>	36.8	3.50	35.4	1.2

It is clear from table (1) that all coefficients of torsion for members of the research sample in variables of age , academic achievement and IQ all range between (0.16: 1.46) and are located between (± 3), which indicates to the homogeneity of the members of research sample.

Sample equivalence :

The researcher conducted the equivalence by dividing the research sample into three equal groups randomly so that one of them was controller and the others were experimental (16 students for each group), then the equivalence was conducted between them according to measurements illustrated in Table (2)

Table (2):

Indicative differences between the control group and the two experimental groups (Age - academic achievement – IQ) ($n1 = n2 = n3 = 16$)

Variable	Groups	Degrees of freedom	Sum of squares	Squares average	“F” Value
Age	Between groups	2	0.24	0.118	0.193
	Inside groups	45	27.46	0.61	
	Total	47	27.70		
Level Of knowledge Acquisition	Between groups	2	231.30	115.64	0.078
	Inside groups	45	67081.38	1490.70	
	Total	47	67312.67		
IQ	Between groups	2	12.67	6.33	0.66
	Inside groups	45	690.31	15.34	
	Total	47	702.98		

«F» tabular value at indication level (0.05) = 3.21

It is clear from table (2) that there is no statistical indicative differences in both age , academic achievement and IQ for the three groups as the calculated value of (F) is less than its tabulated value at the incorporeal level (0.05).

Tools of Collecting Data

- 1- Reference Survey.
- 2- High IQ test prepared by Mr. Khairi (2000). (Attachment 1)
- 3- Students' attitudes measurement towards e-learning (2007) prepared by NELC. (Attachment 2)
- 4- knowledge Test (2010) prepared by the present researchers. (Attachment 3)
- 5- E- Course (Introductory and His-

tory of Physical Education) by M. Gazar (2010). (Attachment 4)

Survey:

The researchers conducted the survey on a sample of (15) students from the same research society and outside the original sample of research in order to determine the scientific transactions related to the measurements used in the search.

Scientific transactions:

Consistency measurement:

The researchers have found the Consistency (test application and reapplying it) for each of the knowledge test and the measurement of the trend towards e-learning (15-day interval between the two applications) as follows

Table (3):

The Correlation coefficient between the first and second application for the test of knowledge acquisition and the Trend measurement towards E-learning
(N = 15)

Test	1 st application		2 nd application		Correlation coefficient r	Alpha coefficient α
	Mean	SD	Mean	SD		
knowledge acquisition	17.94	6.29	18.19	6.68	0.88	0.94
Trend towards E-learning	57.86	5.26	57.26	6.35	0.83	0.90

"r" tabular value at indication level (0.05) = 0.43

Table (4):

The Correlation coefficient among the averages of the odd and even phrases For the test of knowledge acquisition and the Trend measurement towards E-learning
(N = 15)

Test	odd phrases		even phrases		Correlation coefficient r	Alpha coefficient α
	Mean	SD	Mean	SD		
knowledge acquisition	7.93	3.92	8.07	4.15	0.93	0.86
Trend towards E-learning	29.67	3.92	25	3.66	0.92	0.93

"r" tabular value at indication level (0.05) = 0.43

Statistical treatments:

Statistical treatments have been dealt by using (SPSS) through the following statistical treatments: (Average - standard deviation - improvement percentage - Correlation coefficient –

CronBach's Alpha coefficient - variance analysis - LSD - Z test).

Results and discussion:

Discussing the results of the first hypothesis.

Table (5):

Indicative differences between the pre- measurement and post- measurement for the control group and the two experimental groups at the level of knowledge acquisition
(n1= n2= n3= 16)

Group	pre- measurement		post- measurement		Ranks Average	Sum of Ranks	«Z» value
	Mean	SD	Mean	SD			
control group	16.31	5.38	25.81	3.58	8	120	3.41*
1 st experimental	16.81	5.47	29.56	3.92	8	120	3.41*
2 nd experimental	16.62	4.72	32.69	4.45	8.5	136	3.52*

"Z" tabular value at indication level (0.05) = 2.13

It is clear from table (5) and that there are statistical indicative differences between both pre-measurement and post-measurement for the three groups at the level of knowledge acquisition in favor of the post measurement, as the values of calculated (Z) are larger than the tabulated value at the 0.05 level of indication.

The researchers attribute the progress of control group as a result of teaching the Scientific Course using traditional style (lecture style) which has contributed in increasing the level of knowledge acquisition among students. They also attribute the progress of the two experimental groups as a result of the effectiveness of Electronic Course and its impact as a result of the existence of pictures and video files and the flash inside its content, in addition to the communication between the learner and the teacher or among learners themselves through many ways such as a chat room, e-mail and forums, as well as the increase of achievement rates and students' motivation for academic achievement as a result of the use of the electronic course.

This result is consistent with what has been confirmed by both Alaa Sadeq and

Mahdi Salem that computer works to create an active educational environment, where students can collect information, knowledge and varied mental abilities easily and more clearly than traditional methods (5 : 17) (10 : 161)

The present study is also consistent with the results of studies carried out by Alnabawy Salama, Mohamed Zaghloul, Gupta and others (2004) which referred to the ability of e-learning to meet the students' individual and educational needs. In addition to the effectiveness of using computer programs in achieving knowledge Objectives as they organize information and knowledge in a good way which helps the learner to restore and retrieve the knowledge information again when he needs it. (2) (7:416) (14 : 491)

It is clear from the previous details that the results of the first hypothesis have already been discussed and which clearly states that "there are statistically indicative differences between the averages of pre and post measurements for the control group and the two experimental groups at the level of knowledge acquisition in favor of the post measurement."

Discussing the results of the second hypothesis

Table (6):

Indicative differences between the averages of post-measurements of the control group and the two experimental groups at the level of knowledge acquisition
(n 1 = n 2 = n 3 = 16)

groups	Freedom degrees	sum of squares	Average of squares	"F" value
Between groups	2	379.17	189.58	11.85
Inside groups	45	719.81	15.99	
Total	47	1098.98		

"F" tabular value at indication level (0.05) = 3.21

It is illustrated through Table (6) that there are statistically indicative differences between the level of knowledge acquisition

of the three groups as the value of the calculated (F) is larger than its tabulated value in the incorporeal level (0.05)

Table (7):

The least incorporeal difference between the averages of pre and post measurements of the control group and the two experimental groups at the level of knowledge acquisition (n1= n2=n3= 16)

Groups	Average	SD	Difference Averages			LSD
			control group	1 st experimental group	2 nd experimental group	
control group	25.81	3.58	-----	3.75*	6.87*	4.53
1 st experimental group	29.56	3.92	-----	-----	3.13*	
2 nd experimental group	32.69	4.45	-----	-----	-----	

* indication at incorporeal level (0.05)

It is clear from Table (7) that there are statistical indicative differences between both of the control group and the first experimental group at the level of knowledge acquisition in favor of the first experimental group as the difference among the averages is larger than the value of LSD at the incorporeal level (0.05).

It is also clear that there are statistically indicative differences between both the control group and the second experimental group at the level of knowledge acquisition in favor of the second experimental group as the difference between the averages is larger than the LSD value at the incorporeal level (0.05).

There are also statistically indicative differences between both of the first experimental group and the second experimental group at the level of the knowledge acquisition in favor of the second experimental group as the dif-

ference among the averages is larger than the LSD value at the incorporeal level (0.05).

The researchers attribute these results to the efficiency that characterizes the electronic course due to the use of various multimedia in design as well as the availability of multiple means of communication between the learner and the teacher as well as among all the learners themselves (chat room - Forums - e-mail), as well as the availability of various methods of assessment and the diversity of educational activities. Additionally, the use of electronic course increases achievement rates as a result of the increase of students' motivation towards the academic achievement in general.

This is consistent with what has been mentioned by Nabil Mohammed (2011), Hanan khalil (2008), Mohammad Zain Elddin (2006), Gupta (2004) and others that students consider e-

learning as an additional positive means for traditional methods of education. Furthermore, students' motivation towards e-learning leads to increase the rates of knowledge acquisition because the environment of electronic course is characterized by flexibility. In addition to the use of Electronic Course helps in increasing the level of knowledge acquisition because of the high quality of its design, the use of different style of presentation, the interaction with the scientific content and with the teacher and the participants in the learning pro-

cess and also the possibility of displaying the programmed educational material many times without feeling bored or embarrassed. (11 : 16) (3 : 132) (8 : 68) (14 : 492)

It is clear from the previous details that the results of the second hypothesis have already been discussed and which states that "there are statistically indicative differences between the averages of the post-measurements of the control group and the two experimental groups at the level of knowledge acquisition".

Discussing the results of the third hypothesis

Table (8):

Improvement Percentage for the control group and the two experimental groups at the level of knowledge acquisition (n 1 = n 2 = n 3 = 16)

Group	Befor	After	Difference	Improvement Percentage
control group	16.31	25.81	9.50	37%
1 st experimental group	16.81	29.56	12.75	43%
2 nd experimental group	16.63	32.69	16.06	49%

From table (8), it is apparent that there are differences in the improvement percentages between the control group and the first experimental group at the level of knowledge acquisition in favor of the first experimental group. It is also clear that there are differences in the improvement percentages between both of the group control and the second experimental group at the level of knowledge acquisition in favor of the second experimental group, and there are also differences in the improvement percentages between both

the first experimental group and the second experimental group at the level of knowledge acquisition in favor of the second experimental group.

Researchers attribute this result to the use of e-courses which have clearly contributed in increasing the level of knowledge acquisition among the students of the two experimental groups, especially the second experimental group that combined between e-course and lecture style.

And this is consistent with the find-

ings of the study conducted by Gupta et al (2004) that 79% of the students prefer to use e-learning as a catalyst or something extra beside traditional lectures while 7% of students prefer e-learning to traditional lectures. It is indicated that students have high levels of perceptions for the importance of e-learning and their ability to use modern technology is improved. This leads

to the increase of the students' preferences to integrating e-learning with traditional education in the education process. (14 : 491)

What is discussed above refers to the results of the third hypothesis, which states that "there are differences in the improvement percentages between the control group and the two experimental groups at the level of knowledge acquisition."

Discussing the results of the fourth hypothesis

Table (9):

Indicative differences between the control group and the experimental groups Towards e-learning
($n_1 = n_2 = n_3 = 16$)

Group	Freedom degrees	sum of squares	Average of squares	"F" value
Between groups	2	324.67	162.33	3.95
inside groups	45	1849.32	41.10	
Total	47	2173.98		

«F» tabular value at indication level (0.05) = 3.21

It is clear from Table (9) that there are statistically indicative differences in the trend towards e-learning of the

three groups as the value of the calculated (F) is larger than its tabulated value at the incorporeal level (0.05).

Table (10):

The least incorporeal difference between the averages of the post-measurements of the Control group and the two experimental groups In the trend towards e-learning
($n_1 = n_2 = n_3 = 16$)

Groups	Average	SD	Difference Averages			LSD
			control group	1 st experimental group	2 nd experimental group	
control group	53.81	8.07	-----	5.75*	5.25*	4.27
1 st experimental group	59.56	4.24	-----	-----	0.50	
2 nd experimental group	59.06	6.34	-----	-----	-----	

It is clear from table (10) that there are statistically indicative differences in the trend towards e-learning among the control group and the first and second experimental groups. It is indicated that the difference among the averages is larger than the LSD value at the incorporeal level (0.05). However, there are no statistically indicative differences between each of the first experimental group and the second one as the difference between the averages is less than the value of LSD in the incorporeal level (0.05).

The researchers attribute this result to the high quality of e-course design and its different display style including various multimedia elements such as (pictures - Videos- flashes), as well as the possibility of displaying the content several times at any time, in addition to effectiveness that characterizes the E-courses as they use modern technological means, as well as the possibility of

interaction which is available between the learner and the learning material.

And this result is consistent with the findings of Gupta and others (2004) that there are increased rates of students' attitudes and their positive comments on the e-learning from 7.2% to 32.7%. (14: 492)

This comes close to the results of studies carried out by Kassem Al-Shanak, Hassan Domi (2010) Zakaria Lal (2010) which proved that the use of electronic courses and educational software programs have a positive effect on students' attitudes towards e-learning. (6 : 262) (4 : 215)

What have already been discussed above shows the results of the fourth hypothesis, which states that "there are statistically indicative differences in the trend towards e-learning between the control group and the two experimental groups."

Conclusions

The researchers have reached the following conclusions:

- 1- the increase of the level of knowledge acquisition among students in the control group as a result of the use of the method followed in teaching (lecture style).*
- 2- the Increase of the level of knowledge acquisition among students in the two experimental groups as a result of the use of electronic courses in teaching.*
- 3- the excellence of the second experimental group upon the other two groups (the control group and the first experimental group) in the level of knowledge acquisition as a result of the integration between the traditional method (lecture style) and e-courses.*
- 4- There are differences in the improvement percentage in the level of knowledge acquisition among the three groups in favor of the second experimental group.*
- 5- There are differences in the trend towards e-learning among the three groups in the favor of the two experimental groups..*
- 6- There are no differences in the trend towards e-learning between the two experimental groups.*

Corresponding authors

In light of the outcome of the research results, the researchers recommended the following:

- 1- the need to combine between the traditional methods and e-courses in the educational process in the faculties of Physical Education.*
- 2 - the need of paying attention to the design and production of e-courses under the supervision of specialists in the field of sports and programming or through cooperation with the National Center for e-learning of the Supreme Council of Universities.*
- 3- Conducting further researches and studies about the use of e-courses in the different fields of sports and physical education.*

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The Effect **Information on** **STRATEGIC DECISION MARKETING** **IN THE EGYPTIAN SPORTS** **FEDERATIONS**

Dr. Dina kamal mahmoud

Introduction and research problem

***Information** has unprecedented interest in the current era (era of the information revolution) for its importance and vital rule in different fields and activities, as it became one of the most important sources in the administrative process. Information technology helped society in different fields and still give more and more till now ^(5:3).*

Marketing research is one of the marketing functions that were found to help solve problems which face the marketing activity within the facility by following the scientific method in the research rather than relying on guesswork, marketing and personal experience which represent one of the basic activities of workers in any area, marketing is not limited to goods only but it includes all the tangible and intangible products such as services and ideas ^(1:11).

With the complexity of the activities of the sports federation and its Arab, African, international competitive federation, the importance of the strategic management is increased and its need

for an information system helps in determining the mission of the sports organization and its objectives, developing strategic plans then strategic decisions which achieve competitive advantage. Organizing strategic information are systems support or form the competitive strategic of the activities of sports organization, it is characterized with its basic ability of changing the method of work performance supported by the system, and this is done by its contribution to achieve the objectives of the organization ^(5:2) .

The researcher did not found any studies have addressed identifying

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using strategic information system in supporting marketing decisions in Egyptian sports federations, which induce the researcher to study the *fact of using strategic information system in Egyptian sports federations* and its rule in supporting information officials and the data that support marketing decisions to the fullest.

Study objectives:

The study aims at assess the extent of using strategic information system in supporting marketing decisions in Egyptian sports federations.

Study questions:

In the light of the study's aim, the researcher put the following questions:

1- What is the current status of the

strategic information system of supporting marketing decisions?

2- What are the variables and available strategic and environmental information in the current information system to support the marketing decisions?

3- What are the requirements that should be taken into consideration in the strategic information system to support the stages and marketing decisions-making?

4- What is the effectiveness of information system in achieving the objectives of sports federation to support marketing decisions?

5- What are the considerations which shall be taken into account when evaluating and monitoring marketing decisions?

The plan and procedures of the study:

Study Methodology:

The researcher used the descriptive approach (survey method) which is appropriate to the nature of the study.

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Community and sample:

The study community is represented in the members of the boards of the Egyptian sports federations consists of (46) federations, the sample was chosen in the intentional way from (Football, Basketball, Volleyball, Handball, Fighting, Boxing, Judo, Taekwondo, Squash, Badminton, weightlifting) and the members consists of (60) members of the mentioned federations.

Study Tools:

A questionnaire of using the strategic information system in supporting marketing decisions in the Egyptian sports federations.

Which is a form prepared by the researcher; the axes of the questionnaire were represented in the following:

- ✓ The current situation of the strategic information system in supporting marketing decisions.
- ✓ Variables and available strategic and environmental information in the current information system.
- ✓ The requirements that should be taken into consideration in the strategic information system.
- ✓ The effectiveness of information system in achieving the objectives of sports federation to support marketing decisions.
- ✓ The considerations which shall be taken into account when evaluating and monitoring marketing decisions.

The researcher developed a pentad balance to correct the questionnaire. The statements have been corrected as follows:

Strongly agree (5) degrees, agree (4) degrees, to a certain extent (3) degrees, disagree (2) degrees, strongly disagree (1) degree.

Scientific transaction of the questionnaire:

The researcher calculated the scientific transactions of the questionnaire as follows:

a- Validity:

The researcher used the following way to calculate the validity of the questionnaire:

(1) Judges validity:

The researcher presented the questionnaire in its initial form (annex 3) to a group of experts in the field of sports management, the group consisted of (7) experts (annex 1) to express opinions on the suitability of the questionnaire whether in its axes, axes phrases, and how these phrases are appropriate to each axes they represent. The percentage of the experts' opinions on the questionnaire statements were between (43%: 100%), and so (8) phrases were deleted for getting less than 70% of the experts' agreement, then the final image was (60) phrases (annex 4).

(2) Validity of internal consistency:

The researcher applied the validity of internal consistency on a sample

consisted of (15) individuals from the research community and from outside the original sample of the research. The correlation coefficients between each phrase degree and the total degrees of the axes it belongs to were (0.64:0.93), the correlation coefficient between the degrees of each phrase and the total degrees of the questionnaire were (0.63:0.91), the correlation coefficient between the total degrees of each axes and the total degrees of the questionnaire (0.95:0.91) which are a statistically correlation coefficient refer to the questionnaire internal consistency.

b- Stability:

The researcher used alpha Cronbach coefficient to calculate the stability by applying it on a sample consisted of (15) members from the research community and from outside the original sample, alpha Cronbach coefficients of the questionnaire axes ranged from (0.96:0.93), alpha Cronbach coefficient of the total degrees of the questionnaire (0.96) which are a statistically correlation coefficient refer to the stability of the questionnaire.

Discussing and explaining the results:

Table (1)

The relative weight and the ratio average of the responding to the questionnaire axes

(N=60)

	<i>Axes</i>	<i>Average weight</i>	<i>Ratio average of responding</i>
<i>1</i>	<i>The current situation of the strategic information system in supporting marketing decisions.</i>	<i>2478</i>	<i>0.63</i>
<i>2</i>	<i>Variables and available strategic and environmental information in the current information system.</i>	<i>2634</i>	<i>0.63</i>
<i>3</i>	<i>The requirements that should be taken into consideration in the strategic information system.</i>	<i>2262</i>	<i>0.63</i>
<i>4</i>	<i>The effectiveness of information system in achieving the objectives of sports federation to support marketing decisions.</i>	<i>2325</i>	<i>0.60</i>
<i>5</i>	<i>The considerations which shall be taken into account when evaluating and monitoring marketing decisions.</i>	<i>1414</i>	<i>0.59</i>
<i>6</i>	<i>The total degree of the questionnaire</i>	<i>11113</i>	<i>0.62</i>
<i>Minimum trust limit = 0.70</i>			
<i>Maximum trust limit= 0.90</i>			

Table (1) shows the following:

The average of responding was between (0.63:059), the total percent of the questionnaire was (0.62) as the percentage of all the axes were less than the minimum limit which indicate that it was not achieved in the actual fact of using strategic information system in supporting marketing decisions in the Egyptian sports Federations.

The researcher attributes that result to the deficiencies in the use of strategy information system in sports federations. The system does not contain enough information to help in decision making as well as the lack of integrity in the information provided, the lack of comprehensive and not presenting it appropriately, unquantifiable, and difficulty in the transfer of the information. Also, the used programs are not multiple and the non-availability of active communication network and the information system currently in place within the sports federations are not provided with economic, politic, law environment as well as the information related to sports organization, competitive markets, strength and weak points and the information related to the element of efficient and quality.

In addition to the poor availability of the requirements which support the power of strategic information system inside federations through developing a clear strategic plan that can be followed for the federations to be promoted. Also, the high management

does not fully support the importance of information and not to take into account the surrounding variables, as it does not provide the necessary effective for the Egyptian federation to achieve their goals which shall support marketing decisions through improving effectiveness and efficiency and enabling management to devote more time for strategic tasks and the ability to exchange information on a regular basis an identifying all the available alternatives and choose the best and provide more accurate reports through the streaming of the provided information.

Moreover, the process of evaluating, following, and controlling strategic decisions are not perfectly done, as there is a serious deficient in identifying whether the decision that have been issued have been successfully done or there were many obstacles that have prevented applying those goals. The process of evaluating and controlling is one of the important processes which shall be taken into account due to the offered information help the high management to identify its problem and in trying to avoid those problems in the future which will help the federations to develop the sports organizations.

“Samir abu El Fotoh Saleh” (1996) (2) indicates in his study the importance of strategy information system in supporting the strategic management and to perform its basic functions at the highest level of efficiency and effectiveness whether these functions were represented in the process

of performing strategic planning or in the process of decisions making.

“Nadia Habib Ayoub” (2006) (4) indicates in her study the importance the availability of the properties of strategic information.

The study of “Molloy& Schwemk, G” (1995) indicates that the use of in-

formation systems lead to more rapid, convenient, and accurate information needed to solve the problems, storing and retrieving the information through database which based on information system leads to increase the quality of administrative decisions and the speed in making them.

Conclusions

In the light of the results of the study the researcher find the following conclusions:

- 1. There are deficiencies in using strategic information system in supporting marketing decisions in the Egyptian sports federations.*
- 2. There are many obstacles in the current status in using strategic information system in supporting marketing decisions.*
- 3. Lack of environmental and strategic variables and information in the current information system of the sports federations which impede supporting marketing decisions.*
- 4. Applying requirements are not taking into account which must be taken into consideration in the strategic information system.*
- 5. Ineffectiveness of information systems in achieving the goals of sports federations in supporting marketing decisions.*
- 6. Unavailability of the consideration to be taken into account when evaluating and controlling marketing decisions.*

Corresponding authors

In the light of the results of the study the researcher find the following recommendations:

- 1. The need to provide information and data related to marketing decisions which have a clear and very important impact in the success of the federations' objectives.*
- 2. Raise the scientific and practical level of the workers in the sports federations and training them on how to use such systems through providing them with specialized training courses.*
- 3. Providing many computers to the sports federations and connected them with the international information network for exchanging the information between the federation and its branches easily.*
- 4. Encouraging the senior leadership on using the modern technology as it is considered as the future of the administrative work in the modern era.*
- 5. The inclusion of a study course of strategic information system in the faculty of physical education and how to apply it in order to prepare a generation can cope with these innovations which emerged on the sports arena.*
- 6. Convening conferences and seminars to help the workers of the federation to recognize the importance of strategic information system in the Egyptian sports.*

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Effectiveness of a Program for Psychological Guidance and Counseling to Reduce the Level of Alienation and Develop Compatibility

AND ACADEMIC ACHIEVEMENT
OF STUDENTS AT THE FACULTY OF
PHYSICAL EDUCATION

in Port Said

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Abstract

The study aims to identify the effectiveness of a program of psychological guidance and counseling in reducing the level of alienation and developing compatibility and academic achievement among 1st year faculty students, Faculty of Physical Education in Port Said; whose academic achievement is low. The researcher used the experimental method by designing four groups; two of them were experimental, and the other two were control (male students and female students). The study population has been selected by using the intentional way of first-year students. 23 students were selected for the pilot study and 40 for the basic study randomly assigned to four groups; two experimental and two control groups (male students and female students) by 10 for each group. The used data collection tools were the level of psychological alienation, psychological compatibility test, the IQ test; economic and social

standards form, the equation of Grade-Point Average (GPA) to calculate academic achievement. The most important results reached were that the program of psychological guidance and counseling had a positive effect on reducing the level of alienation and developing the compatibility and academic achievement among the students of the two experimental groups (male students and female students).

Key words

Psychological guidance and counseling, alienation, psychological compatibility, academic achievement.

Introduction:

Faculty student faces many social and psychological problems such as the feeling of alienation and psychological incompatibility, especially in the first years to the study as a result of moving to a new study and social community, in addition to his inability to adapt to academic pressured events. That may lead to frustration, isolation, and lack of meaning, aggressiveness, non-adherence to standards, rebel against the self, and society and the low level of cognitive processes, thinking, and decision-making and all that is negatively reflected at the level of their academic achievement. [1, 2, 3, 4].

The psychological guidance and counseling are two sides of the same coin as it is a conscious, ongoing, and planned process and aims at developing the psychological personal and social aspects and help in overcoming stress and respond correctly. [5]

The results of related studies indicate that there is a strong correlation

between psychological alienation, psychological compatibility, and academic achievement. The lower the level of alienation is, the higher the level of compatibility is, which reflected positively on the academic achievement of students. [1, 4, 6, 7, 8]

The results from the studies also indicate to the positive impact of the programs of psychological guidance and counseling in promoting personal, psychological, social, mental, and academic aspects of undergraduate students. [9, 10, 11, 12, 13]

The researcher noted by checking the first semester's result of the first-year students in Faculty of Physical Education, Port Said, that their level of academic achievement is low, which makes researcher conduct interviews with a number of male and female students to clarify the reason leading to this result. Thus, he has reached the following conclusions, Lack of desire and motivation among some students to attend faculty, The large number of cur-

riculum and its difficulty in light of the new regulation, Low capacity to deal and communicate with others, Limited participation in student activities and lack of access to adequate opportunity to show the capabilities and talents.

These reasons may be the cause of their sense of alienation, psychological and social isolation, inability to compatibility and the negative impact on the level of their academic achievement. The researcher is therefore prompted to undertake a program of psychological guidance and counseling for the first division students in order to identify its impact in reducing the level of psychological alienation and developing psychological compatibility and level of their academic achievement. The researcher has formulated the following hypotheses to verify the objectives of the study.

Method:

The researcher used the experimental method by designing four groups; two of them are experimental, and the other two are control (male students and female students). He also conducted pre and post-tests for each.

Study Population:

Study population was intentionally selected from first-year students, at the Faculty of Physical Education in Port Said in the academic year 2011/2012, whose level of academic achievement is low. The total number of the students was 63 students; 33 male students and 30 female students.

Sample:

23 Students were randomly selected for the the pilot study from the study population. Thus, the basic sample became 40 male and female students divided into four groups, 10 students for each one, consisting of two experimental and control groups (male students and female students).

The researcher conducted homogeneity and ensured the moderation of data distribution under the curve for the study population as a whole in the following variables (chronological age, intelligence, the economic and social level, and the aspects of psychological alienation, the aspects of psychological compatibility, the level of academic achievement). Table (1) indicates that skew coefficients of the study sample were limited between (± 3), proving the moderation of data distribution under the curve and the homogeneity within the study population as a whole in these variables.

He also conducted equivalence between the experimental and control groups (male students and female students) in the previous variables, by finding significant differences between the two study groups (male students and female students). It is clear from Table (2) that there are no statistically significant differences between the experimental group and the control group (male students and female students) in these variables as the Mann-Whitney computed value U is larger than the tabular value U indicating that the groups are equivalent.

Table (1)

Statistical characterization of the whole study population in the variables of chronological age, intelligence, the economic and social level, psychological alienation, psychological compatibility, and the level of academic achievement

<i>Variables</i>		<i>Arithmetic Mean</i>	<i>M</i>	<i>SD</i>	<i>Skew Coefficient</i>
<i>Chronological Age</i>		<i>18.17</i>	<i>18</i>	<i>0.90</i>	<i>0.56</i>
<i>Intelligence</i>		<i>36.5</i>	<i>36</i>	<i>3.72</i>	<i>0.40</i>
<i>Economic and Social level</i>		<i>43.62</i>	<i>44</i>	<i>2.68</i>	<i>-0.42</i>
<i>The aspects of psychological alienation</i>	<i>Lack of meaning</i>	<i>38.30</i>	<i>38</i>	<i>1.22</i>	<i>0.73</i>
	<i>Social Isolation</i>	<i>42.12</i>	<i>42</i>	<i>0.45</i>	<i>0.80</i>
	<i>Lack of ability sense</i>	<i>37.23</i>	<i>37</i>	<i>2.75</i>	<i>0.25</i>
	<i>Reification</i>	<i>42.74</i>	<i>42</i>	<i>1.85</i>	<i>1.2</i>
	<i>Non-adherence with the standards</i>	<i>34.47</i>	<i>34</i>	<i>3.95</i>	<i>1.11</i>
	<i>Rebellion</i>	<i>32.56</i>	<i>32</i>	<i>4.30</i>	<i>0.39</i>
	<i>Total scale of psychological alienation</i>	<i>227.42</i>	<i>27</i>	<i>2.50</i>	<i>0.50</i>
<i>The aspects of psychological Compatibility</i>	<i>Social compatibility</i>	<i>35.70</i>	<i>65</i>	<i>4.50</i>	<i>0.46</i>
	<i>Personal Compatibility</i>	<i>51.20</i>	<i>51</i>	<i>1.50</i>	<i>0.4</i>
	<i>Emotional compatibility</i>	<i>42.12</i>	<i>42</i>	<i>2.18</i>	<i>0.16</i>
	<i>Health Compatibility</i>	<i>48.63</i>	<i>48</i>	<i>1.10</i>	<i>1.71</i>
	<i>Family Compatibility</i>	<i>400.20</i>	<i>40</i>	<i>0.70</i>	<i>0.85</i>
	<i>Compatibility mode</i>	<i>12.50</i>	<i>12</i>	<i>1.95</i>	<i>0.76</i>
	<i>Total of psychological Compatibility test</i>	<i>259.85</i>	<i>260</i>	<i>3.20</i>	<i>-0.14</i>
<i>Academic Achievement Level</i>		<i>1.17</i>	<i>1.15</i>	<i>4.18</i>	<i>0.014</i>

Table (2):

The Significance of differences among the four experimental and control groups (male students and female students) in the variables of chronological age, intelligence, and the economic and social level, the aspects of alienation and psychological compatibility, and academic achievement

The variables	Significant differences for male students are $n1 = n2 = 10$					Significant differences for female students are $n1 = n2 = 10$				
	Rank Sum		Number of Ranks		Mann-Whitney computed value U	Rank Sum		Number of Ranks		Mann-Whitney computed value U
	Exp.	Con.	Exp.	Con.		Exp.	Con.	Exp.	Con.	
Chronological Age	103	107	52	48	48	120	90	35	65	35
Intelligence	97.5	112.5	57.5	42.5	42.5	105	105	50	50	50
Economic and Social level	108	102	47	53	47	114.5	95.5	40.5	59.5	40.5
Lack of meaning	100.5	109.5	54.5	45.5	45.5	106	104	49	50	49
Social Isolation	107	103	48	52	48	109	101	46	54	46
Lack of ability sense	105.5	104.5	49.5	50.5	49.5	92	118	63	37	37
Reification	103.5	106.5	51.5	48.5	48.5	90.5	119.5	64.5	35.5	35.5
Non-adherence with the standards	116	94	39	61	39	112.5	97.5	42.5	57.5	42.5
Rebellion	120	90	35	65	35	109.5	100.5	45.5	54.5	45.5
The Total scale of psychological alienation	102	108	53	47	47	105	105	50	50	50
Social compatibility	112.5	97.5	42.5	57.5	42.5	92	118	63	37	37
Personal Compatibility	90.5	119.5	64.5	35.5	35.5	89.5	120.5	65.5	34.5	34.5
Emotional compatibility	118	92	37	63	37	104	106	50	49	49
Health Compatibility	3109	101	46	54	46	118	101	46	54	46
Family Compatibility	118	92	37	63	37	90.5	119.5	64.5	35.5	35
Compatibility mode	106	104	49	50	49	106	104	49	50	49
Total of Compatibility test	95.5	114.5	59.5	40.5	40.5	100.5	109.5	54.5	45.5	45.5
Academic Achievement	97.5	112.5	57.5	42.5	42.5	97.5	112.5	57.5	42.5	42.5

The value of U at 0.05 = to 25

Data collection tools:

- ✓ Interview (individual, group)
- ✓ The Measure of Psychological Alienation, prepared by Mohamed Alyakyira (1997) [10]
- ✓ Psychological Compatibility test prepared by Sami Mettawa (1991) [14]
- ✓ Form of the economic and social level prepared by Kamal Dessouki and Mahmoud Bayoumi (1984). [8]
- ✓ IQ test prepared by Ahmed Zaki Saleh (1988). [8]
- ✓ The level of academic achievement by calculating the quarterly average. It is the sum of points obtained by the student in one semester divided by the total credit hours for these courses.

Proposed Psychological Guidance and Counseling Program:

A- The program aims to:

Reduce the level of psychological alienation, loneliness and social isolation, Develop psychological and social compatibility for students, Develop the ability to face and solve problems appropriately, Acquire social relations skills and social adjustment, Control different feelings and emotions and expressing them properly, Satisfy personal, psychological, and social needs, Develop the ability to cope with stress.

B- Time and Content of the program:

Time and content for the program have been identified through the experts' opinion in the field of psychology, literature review of related studies, and the scientific literature on programs of psychological guidance and counseling. [13, 10, 11, 12, 15], the program was applied for 12 weeks. The number of meetings per week was two private sessions with both male and female students on condition that days, Sundays and Wednesdays, are allocated for male students and Monday and Thursday for female students. The number of meetings per a group therefore becomes 24 sessions; the time per session ranges between 55 - 60 minutes. The researcher conducted the collective method in the process of guidance and counseling, taking into account some of the individual cases. The researcher has used three methods in the implementation of the program content, namely, (collective and individual discussions, lectures and workshops, role-playing games, and educational, social, and recreational activities).

Pilot Study:

The researcher conducted the pilot study on a representative sample of the study population from outside the basic sample. Its number was 23 male and female students in order to conduct scientific treatment for tools and methods of data collection from 02/01/2012 to 09/02/2012.

Basic Study:

The researcher conducted pre-tests on the basic sample consisting of 40 male and female students from 12/02/2012 to 15/02/2012. The guidance and counseling program was applied on both experimental groups from 19/02/2012 to 05/10/2012. Post-tests were made from 13/05/2012 to 16/05/2012 for the measure of psychological alienation and psychological compatibility test, while academic achievement was conducted after the completion of the monitoring results.

The researcher used the following statistical treatments:

Arithmetic Mean, median, standard deviation, and skew coefficient (for statistical characterization) and Spearman rank correlation coefficient, Wilcoxon Signed Ranks Test for the significant differences between pre and post-test, and Mann-Whitney test for significant differences between two groups and the percentage of improvement.

Results:

Table (3):

The significant differences between pre and post-tests of both experimental and control groups in the variables under study

The variables		Significant differences for male students are n = 10				Significant differences for female students are n = 10			
		Number of Ranks		Rank Sum		Wilcoxon Value W		Number of Ranks	
		+	-	+	-	+	-	+	-
The aspects of psychological alienation	Lack of meaning	Zero	10	Zero	55	Zero	55	Zero	10
	Social Isolation	Zero	10	Zero	55	Zero	55	Zero	10
	Lack of ability sense	Zero	10	Zero	55	Zero	55	Zero	10
	Reification	Zero	10	Zero	55	Zero	55	Zero	10
	Non-adherence with the standards	Zero	10	Zero	55	Zero	55	Zero	10
	Rebellion	Zero	10	Zero	55	Zero	55	Zero	10
The Total scale of psychological alienation		Zero	10	Zero	55	Zero	55	Zero	10
The aspects of psychological Compatibility	Social compatibility	10	Zero	55	Zero	*Zero	10	Zero	55
	Personal Compatibility	10	Zero	55	Zero	*Zero	10	Zero	55
	Emotional compatibility	10	Zero	55	Zero	*Zero	10	Zero	55
	Health Compatibility	10	Zero	55	Zero	*Zero	10	Zero	55
	Family Compatibility	10	Zero	55	Zero	*Zero	10	Zero	55
	Compatibility mode	10	Zero	55	Zero	*Zero	10	Zero	55
Total of Compatibility test		10	Zero	55	Zero	*Zero	10	Zero	55
Academic Achievement		10	Zero	55	Zero	*Zero	10	Zero	55

**Wilcoxon tabular value W at 0.05 = 8*

Table (4):

Significant differences between pre and post-tests for the control group (male students and female students) in the variables under study

The variables	Significant differences for male students are n = 10				Significant differences for female students are n = 10			
	Number of Ranks		Rank Sum		Wilcoxon Value W		Ranks Sum	
	+	-	+	-			+	-
The aspects of psychological alienation	3	7	25	30		25	6	4
							21	34
	5	5	15	40		15	7	3
							28	27
	1	9	10	45		10	4	6
							35	20
	4	6	21	34		21	8	2
Non-adherence with the standards	8	2	36	19		19	5	5
							18	37
	6	4	21	34		21	6	4
							21	34
Rebellion								
The Total scale of psychological alienation	7	3	32	23		23	3	7
							25	30
The aspects of psychological Compatibility	5	5	18	37		37	9	1
							45	10
	7	3	30	25		25	2	8
							18	37
	6	4	20	35		20	5	5
							37	18
	8	2	48	7		* 7	8	2
Health Compatibility							48	7
								* 7
	5	5	40	15		15	8	2
							37	18
Family Compatibility	6	4	40	15		15	5	5
							18	37
Compatibility mode								
Total of Compatibility test	2	8	18	37		18	6	4
							20	35
Academic Achievement	7	3	49	6		* 6	9	1
							53	2
								* 2

*Wilcoxon tabular value W' at 0.05 = 8

Table (5):

The Significant differences between the two experimental and control groups (male students and female students) of the post-tests in the study variables:

Variables	Significant differences for male students are $n1 = n2 = 10$					Significant differences for female students are $n1 = n2 = 10$				
	Rank Sum	Value of Ranks	Mann-Whitney computed value U	Rank Sum	Value of Ranks	Rank Sum	Value of Ranks	Mann-Whitney computed value U	Rank Sum	Value of Ranks
	+	-	+	-	+	+	-	+	-	+
The aspects of psychological alienation	59.5	150.5	95.5	4.5	-	64	146	91	9	-
	56.5	123.5	98.5	1.5	-	66.5	143.5	88.5	11.5	-
	70	140	85	15	-	72.5	137.5	82.5	17.5	-
	64	146	91	9	-	60	150	95	5	-
	72.5	137.5	82.5	17.5	-	59.5	150.5	95.5	4.5	-
	66.5	143.5	88.5	11.5	-	58	152	97	3	-
The Total scale of psychological alienation	60	150	95	5	-	60.5	149.5	94.5	5.5	-
The aspects of psychological Compatibility	152	58	3	97	-	151.5	58.5	3.5	96.5	-
	151.5	58.5	3.5	96.5	-	151	59	4	96	-
	143.5	66.5	11.5	88.5	-	145.5	64.5	9.5	90.5	-
	103.5	106.5	51.5	48.5	-	97.5	112.5	57.5	42.5	-
	102	108	53	47	-	105.5	104.5	49.5	50.5	-
	145.5	64.5	9.5	9.5	-	140	70	15	85	-
Total of Compatibility test	149	61	6	94	-	151.5	58.5	3.5	96.5	-
Academic Achievement	151	59	4	97	-	145	65	10	90	-

The value of U at 0.05 = 23

Discussions

Table (3) indicates that there are statistically significant differences between the pre and post-tests for both experimental groups (male students and female students) for favor of the post-test where Wilcoxon calculated W values are smaller than tabular W value. The researcher attributed these results to the positive impact of the psychological guidance and counseling program which was applied to the members of the experimental group (male students and female students), which helped to reduce the sense of social isolation, rebellion, and lack of ability sense to self-realization and increase motivation, interaction, social communication. Thus the level of psychological alienation and psychological compatibility are improved. It also helped the students to get rid of the stress and burden of study and became more able to concentrate in addition to the ability to manage and organize time and increase the motivation to reach the best level of academic achievement. This is consistent with the results that pointed to the positive impact of psychological guidance and counseling program in reducing the level of alienation among university students. [8,9,10, 11,12,13,14]

Table (4) indicates that there are statistically significant differences between the before the pre and post-tests of both control groups (male students and female students) in the variable of academic achievement, after health compatibility. The researcher attributed this improved academic achievement for students of the control group to the desire to improve their scientific level despite their suffering of symptoms of mental and physical stress as a result of study pressures. It also indicates that there were differences between both pre and post-tests of the control group (male students and female students) for favor of post-test in health compatibility aspect. The researcher attributed this to the

positive impact of the faculty courses, which contains scientific aspects leading to health and physical benefit.

Table (4) also indicates that there are no statistically significant differences between the pre and post-tests of both control groups (male students and female students) in the psychological alienation and social, the personal, emotional, and family compatibility and the total scores of psychological compatibility, where the calculated W values is greater than the tabular W value. The researcher attributed that the control group is not subject to the psychological guidance and counseling.

Table (5) indicates that there are statistically significant differences between both experimental and control groups (male students and female students) in the variables of psychological Alienation aspects and the total amount of the measure and social, personal, emotional, academic compatibility and the total scores of the test and academic achievement in favor of both experimental groups. The Man Whitney calculated values U are smaller than the tabular value U , which indicates the existence of differences.

In this regard, the researchers confirms that and psychological guidance and counseling programs are building process designed to help individuals understand themselves and develop their abilities to solve problems and address them. [2, 5, 15]

Table (5) also indicates that there are no statistically significant differences between both experimental and control groups (male students and female students) in post-tests, both aspects of health and family compatibility. The Mann-Whitney calculated U values are greater than the tabular U value..

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Effects of
a Sports March Using Bench
Step and Free Exercises
on Blood Fats and Body
Composition Components
of Student
of Faculty of Physical Education

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Abstract

The current research aims at identifying the effects of a sports march using the stepping box and free exercises on some blood fats and physical structure components for students of the faculty of physical education. The researchers used the quasi-experimental approach on a randomly chosen sample (n=48) from the third year students of the faculty of physical education – Tanta University. The researcher used a centrifuge (3000 hertz/min) for separating blood serum, an electronic suction tube and (Tanita Body Composition Analyzer Sc-330st) to analyze body composition. Results indicated that:

1. *The sports march with stepping box and free exercises, calibrated according to physical load variables, had positive effects on total cholesterol level (CHOL), high density fatty proteins (HDL), low density fatty proteins (LDL) and tri-glyceried (TG) for the research sample.*
2. *The sports march with stepping box and free exercises, calibrated according to physical load variables, had positive effects on body composition components (weight – Fat percentage – fat mass – total body weight [TBW] – water ratio – Body Mass Index [BMI] – muscle mass – Metabolic Rate [BMR]) while bone mass did not show any statistically significant differences.*

Background

Countries all over the world, including Egypt, concentrate on sports marches as it relates to festivals, events and national sports championships. These marches are considered very important to show the advance of nations in an effective way and the extent to which these nations care for youth.

Atiat Khattab (1997) and Laila Zahran (1997) identify sports marches as a set of physical movements prepared and formed according to educational, physiological, motor and aesthetic principles, and are performed by a large group of individuals simultaneously accompanied by expressive music or songs. It is performed in front of audience or spectators to express the real level of performers and their sports development (23,9).

Fathy Ebraheem (2008), Atiat Khat-tab et al (2006), Enaiat Farag & Faten Al-Batal (2004) and Salah El-Din Soliman (2001) agreed that the exercises used in

sports marches depend on the type and nature of movements used. It is formed with positions and movements of physical exercises, either basic or purposive, or artistic exercises with elite level of motor performance. It can be performed with or without tools or on various stable or mobile equipments through using modern innovative tools (1, 15, 11, 5).

Afaf Shehata and Norhan Soliman (1997) indicated that the Bench Step is one of the tool used in exercises and has various effects on the physical, physiological and biochemical aspects of the body as these exercises are performed while sufficient amount of oxygen is available to perform metabolism to produce the energy necessary for continuous muscular work. Bench Step exercises depend on the movements of stepping up and down the box with effective control of performance with and against gravity according to scientific bases and in accompaniment with music (14).

Biological and biochemical rules indicate that human body systems and its functions are clearly affected by physical loads used in exercises as these exercises lead to biochemical and physiological changes according to the indications of affecting the vital organs of the body and to the direction of the load used (12).

Blood fats increase is one of the risk factors of heart disease. Most body cells, especially the liver, produce cholesterol internally. Exterior resources of cholesterol are various foods and the variance in human individuals' abilities to metabolize and transfer cholesterol. This leads to increasing cholesterol levels in plasma, which in turn leads to fat disposition on arterial membranes (4).

Ayman Al-Hosainy (1997) indicates that refraining from sports activities, including marches exercises, leads to the increase of total cholesterol in blood. This lead to imbalance between LDL (proteins that tend to cling to arterial membranes) and HDL (proteins that resist clinging to arterial membranes and decrease cholesterol levels) (7)

Bahaa El-Din Salama (1999) and Rowell (1996) indicated a positive correlation between cholesterol and regular physical exercises as the later works on improving HDL/LDL ratio and is considered an agent for decreasing heart diseases risk factors (20, 26).

Body formation is divided into three main categories: body size – body structure – body composition. Body size includes measurements of weight, height, size and surface area. Body structure includes measurements of parts of the

skeleton. Body composition includes measurements of body components like fats, muscles, bones, fluids ... etc. each of these measurements is very important for general health and sickness. It gains maximum importance for athletes as it affects their sports performance greatly (17,2).

Blood fats represent boredom on all functional systems and body components. This decreases the individual's effort and affects his/her motor activity. Sports marches have a direct effect on improving the ratios of LDL and HDL and thus help maintaining the student's health (19). Although there are major developments in the field of exercises and sports marches, there are still several aspects that need more research to be explored and clarified. These are related to body systems' reaction and timing in the face of tolerating sports marches' exercises.

Through review of literature, Fatema Saad (2003) indicated that the recommended program of exercises has positive effects on blood fats and body formation in addition to other physiological variables of female students in faculty of physical education (10). Al-Saeed Al-Adl (2005) indicated that teaching the physical preparation part of PE lesson using sports marches has a positive effect on improving some physiological elements (flexibility – muscular strength – endurance – VO₂max – vital capacity of lungs – body fat – fat weight – body weight) for high school students (3). Mohamed Lasheen (2010) indicated that practicing sports activities improves blood fats and body formation (24)

Through review of literature, the researchers found a need to perform this research as the related literature is not sufficient.

Aim:

The current research aims at identifying the effects of a sports march using the stepping box and free exercises on some blood fats and physical structure components for students of the faculty of physical education.

Hypotheses:

1. There are statistically significant differences between the pre- and post- measurements of the experimental group on some blood fats variable in favor of the post measurement.

2. There are statistically significant differences between the pre- and post- measurements of the experimental group on body formation variable in favor of the post measurement.

Methods:

Approach:

The researchers used the quasi-experimental approach (one-group design) with pre- and post- measurements.

Study limitations:

This research is limited to:

- ✓ Students of the 3rd year – faculty of physical education – Tanta University.
- ✓ Measurements were taken in the Physiology Lab - faculty of physical education – Mansoura University.
- ✓ The researcher was performed in 2011 – 2012

Subjects:

Subjects were randomly chosen (n=48) from the third year students of the faculty of physical education – Tanta University. The following table shows sample homogeneity:

Table (1):

Mean, SD, median and Sqewness of the sample on all research variables (n=48)

Variable	Measurement	Mean	SD±	Median	Sqewness
Height	Cm	175.95	5.85	176	0.11-
Age	Year	20.66	1.85	20.20	1.03
Systolic BP	Mm/m	117.06	1.29	117	1.99
Diastolic BP	Mm/m	76.93	0.88	77	0.89
CHOL	ml.g	193.751	3.925	194.560	-.18
HDL	ml.g	44.920	1.444	45.000	.19
LDL	Kg	103.10	1.20	103.00	0.23
TG	ml.g	3.50	1.85	93.50	0.00
Weight	Kg	75.18	1.94	75.10	0.59
Fat percentage	%	11.24	0.60	11.45	-.77
Fat Mass	Kg	9.14	1.03	9.15	0.60
Muscle Mass	Kg	73.33	1.48	73.20	-.21
TBW	Kg	46.55	1.44	46.50	-0.23
TBW	%	61.93	2.30	62.30	-.14
Bone Mass	Kg	3.11	0.23	3.20	-0.92
BMR	Kg	8224.80	42.77	8359	-2.64
BMI	Kg	26.87	1.56	26.93	-.00

Table (1) indicates that all sqewness values are between (3±) and this indicates sample homogeneity.

Tools and Equipments:

- ✓ A medical balance for measuring weights
- ✓ A restameter for measuring heights
- ✓ Bench step
- ✓ Blood pressure electronic device
- ✓ Centrifuge (3000 hertz/min) for separating blood serum
- ✓ An electronic suction tube
- ✓ Tanita Body Composition Analyzer Sc-330st to analyze body composition.

Pilot Study:

The researchers performed a pilot study on a pilot sample (n=25) from the same research community and outside the main sample from 22-9-2011 to 30-9-2012 to verify the following:

- ✓ Calibrating the research equipments
- ✓ Identifying total duration of the sports march
- ✓ Identifying the total number of students in each formation
- ✓ Identifying the total number of exercises in each formation
- ✓ Identifying the best formations and arranging these formations according to its importance
- ✓ Identifying the suitable music for each formation
- ✓ Calibrating the exercises loads

The pilot study revealed that:

1. All research equipments are valid
2. Total duration of the march is (20) minutes
3. Identifying the total number of students in each formation
4. Number of exercises for each for-

mation are: first formation (4) – second formation (11) – third formation (14) – fourth formation (10) – fifth formation (5) – sixth formation (19) – seventh formation (8) – eighth formation (7).

5. Best formations are arranged according to its importance as follows: trains – two attached triangles – rows – four circles – diagonal trains (X) – progressive circles with rays and rows from corners – (W) shape trains – three overlapping circles.

Exercises design:

In designing the sports march, the researchers reviewed related literature (9, 23, 14, 22, 5, 11, 1, 3). The researchers considered the progression principles and included exercises from the exercises curriculum of the 3rd year. The researchers used the bench step, pyramid formations and free exercises.

Research Experiment:

Pre-measurements:

The researchers measured all research variables from 1-10-2011 to 2-10-2011 as pre-measurements.

The sports march:

The sports march was divided into (24) units from 3-10-2011 to 28-12-2011 for 3 months (12 weeks – 2 units per week). The researchers considered the following:

- ✓ Each unit begins with warm-up
- ✓ Unit content is introduced twice a week through exercises lesson
- ✓ Most exercises were repeated for several times
- ✓ During the third month, the researchers introduced music
- ✓ March loads are progressive
- ✓ Basic principles of loads (intensity

- volume – rest) are considered
- ✓ Load intensity was (60% - 90%) of the individual level
- ✓ The march included three main parts: a) entrance : forward run in trains and moving into two attached triangles, b) main part (content of exercises), c) exit: from both sides of the field.

Post-measurements:

The researchers took the post-measurements on all research variables from 29-12-2011 to 30-12-2011.

Statistical Treatments:

The researchers used SPSS software to calculate the following: mean – median – skewness – (t) value – variance rate (%) – torsion.

Table (2)

difference significance between the pre- and post- measurements of the experimental group on blood fats variables

(n=48)

Variables	Measur- ement	Pre-		Post-		Means difference	Difference SD	(t)	Variance rate (%)
		Mean	SD±	Mean	SD±				
CHOL	ml.g	193.75	3.93	189.19	4.13	4.56	0.68	21.34*	2.35
HDL	ml.g	44.92	1.44	46.80	1.55	1.88	0.34	17.57*	4.19
LDL	ml.g	103.10	1.20	94.64	1.51	84.6	1.56	17.44*	8.20
TG	ml.g	93.50	1.58	87.60	1.51	5.90	1.29	14.50*	6.31

Significance on 0.05 = 2.04.

Table (2) indicates statistically significant differences between the pre- and post- measurements for the sample on all blood fats variables. (t) Values ranged between 14.5 and 21.34 in favor of the post-measurements as variance rates ranged between 2.35 and 8.2. the researchers think that these differences are due to the positive effects of the recommended sports march that included various free exercises with all its different formations and positions, in addition to pyramid formations and bench step exercises for all body parts. These exercises are done in presence of sufficient amount of oxygen to metabolism through moving up and down the bench step with total control over performance with and against gravity. This has positive effects

on biochemical changes for the research sample over all blood fats. The researchers think that the decrease of CHOL, LDL and TG and the increase of HDL have positive effects on the physical load variables for the sports march as changes were not limited to consumed calories and improving fats mobility and metabolism. Instead, it includes changes in blood proteins. This indicates the importance of physical activity as Terry Herbert (1994) and Donald (1993) indicated that the increase of HDL prevents risk factors of heart diseases and arteriosclerosis of coronary arteries through fighting LDL sticking to the artery membranes and improving cholesterol transfer to liver where its is metabolized and secreted (25, 8).

This is also in agreement with Mohamed Abdo (2000) in that aerobic training programs help balancing body fats through muscular cells instead of being disposition in fatty cells or exertion through the liver. The program, calibrated according to physical levels and loads of students increases the activity of LPL enzyme, responsible for TG and plasma fats. This leads to decreasing TG

and total fats to a fixed threshold that can be maintained through diet and exercises (16).

This is also in agreement with Mostafa Atwa (2012), Mohamed Lasheen (2003) Fatema Saad (2003), Soha Abdullah (2007) and Wallace et al (2000) in that blood fats levels can be improved through aerobic exercises (18, 24, 10, 13, 27).

Table (3)

difference significance between the pre- and post- measurements of the experimental group on body formation variables

(n=48)

Variables	Measur- ement	Pre-		Post-		Means dif- ference	Difference SD	(t)	Variance rate (%)
		Mean	SD±	Mean	SD±				
Weight	Kg	75.18	1.94	72.33	2.19	2.85	0.56	13.82*	3.79
Fat percentage	%	11.24	0.60	4.22	41	7.02	0.23	96.52*	62.46
LDL	Kg	9.14	1.03	4.91	1.18	4.23	0.35	38.66*	46.29
Fat Mass	Kg	73.33	1.48	74.20	1.49	0.87	0.04	56.95*	1.19
Muscle Mass	Kg	46.55	1.45	45.88	1.47	0.67	11	20*	1.44
TBW	%	61.93	2.30	61.59	2.38	0.34	0.17	6.27*	55
TBW	Kg	3.11	23	3.11	0.23	0.00	0.08	0.00	0.00
BMR	Kg	8224.8	42.78	8345.8	42.78	121	14.87	6.02*	1.45
BMI	Kg	26.87	1.56	24.91	1.69	1.96	18	35.07*	7.31

Significance on 0.05 = 2.04.

Table (3) indicates statistically significant differences between the pre- and post- measurements for the sample on all body formation variables except for bone mass. (t) Values ranged between 6.02 and 96.52 in favor of the post-measurements as variance rates ranged between 0.55 and 62.46. The researchers think that these differences are due to the regular training on the sports march exercises and formations according to physical loads of each exercise.

This is in agreement with Ali Gala El-Din (2004) who indicated that human body formation and body systems do not perform separate functions. Instead, there are close relations and mutual reactions among various body parts, organs and systems (21). This is also in agreement with Al-Saeed Al-Adl (2005) teaching the physical preparation part of PE lesson using sports marches has a positive effect on improving some physiological elements for high school students (3).

Al-Desouqy Ammar (2004) indicated that aerobic / anaerobic exercises can be used for building and strengthening body muscles as they increase general metabolism and consume more calories, compared to sedentary state as decreasing body weight through decreasing food intake may only lead to consume muscle fats. Aerobic

exercises maintain muscles and increase its mass and this leads to maintain good shape and decreases obesity (6).

This is also in agreement with Fatema Saad (2003) and Mohamed Lasheen (2012) who indicated that sports activities have positive effects on body formation components (10, 24).

Conclusions

The researchers concluded that:

1. *The sports march with stepping box and free exercises, calibrated according to physical load variables, had positive effects on total cholesterol level (CHOL), high density fatty proteins (HDL), low density fatty proteins (LDL) and tri-glyceried (TG) for the research sample.*

2. *The sports march with stepping box and free exercises, calibrated according to physical load variables, had positive effects on body composition components (weight – Fat percentage – fat mass – total body weight [TBW] – water ratio – Body Mass Index [BMI] – muscle mass – Metabolic Rate [BMR]) while bone mass did not show any statistically significant differences.*

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The researchers recommend that:

1. *Teaching sports marches for students of faculties of physical education according to physical load variables as it has positive effects on improving blood fats and body composition.*

2. *Doing more similar research efforts on other age groups and variables.*

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The effect of *a Fencing Program on* **Psychological Safety**

AND WITHDRAWAL BEHAVIOR OF THE HEARING IMPAIRED

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Research Summary

The research aims at:

- 1- Establishing a measurement to psychological safety on people having hearing disability.*
- 2- Designing and applying a fencing educational program to know its effect on:*

Psychological safety, reducing the withdrawal behavior and learning some fencing skills such as (the steady position, the extrovert movement, stepping forward, retreating, stepping with the extrovert movement, retreating with the extrovert movement).

The researchers used the experimental method on a group consisting of 15 student in addition to 10 more to perform the scouting research.

- *When the research was applied it resulted in differences in the before and after measurements on the main research sample in psychological safety, the withdrawal behavior and fencing skills in the favor of the after measurement.*

Introduction and the Study Problem

Psychological safety is a basic need which people always seek to satisfy. People get their feeling of safety through self confidence in a supportive environment that satisfies their need for achievement, help them in facing frustrations and incompetence and respect their wishes. This need is in all the stages of life and its satisfaction is crucial. According to Maslow, safety needs come after the physiological needs (food, water, etc.) and meeting them leads to reassurance and danger is avoided (18:25).

The hearing disabled have the same feelings as the abled people; they only lack the ability to hear and speak. Therefore, they need to feel psychologically safe in their silent world; a world where they are treated as strangers and are isolated. The only reaction they can do is to withdraw to a world of their own where they miss safety (4:66).

The hearing disabled tend to hold comparisons with others and come to the conclusion that they are different and

feel incompetent in situations that are not problematic to others. They are often shy as their impairment distorts their image so they hide it and get away from others or spite them and that hurts their psychological well-being (17:72).

The limited interaction imposed by interacting only with a few people who can use the sign language, isolation from the social life with other members of society and inability to explore the surrounding environment increase the negative effect of hearing impairment on the psychological and emotional aspects and their relationships with others. They do not feel safe or secured and withdraw and isolate themselves from society (20:87). That concurs with what Adel Abdallah (2004) and Abd Al Ruhman Soliman (2001) mentioned that the deaf isolate themselves from ordinary people minimizing their interaction chances due to the absence of a common language and, therefore, become more inclined to withdraw and isolate (8:198) (6:115).

The absence of psychological safety results in disturbed behaviors including

withdrawal. Withdrawal is a maladjusted behavior; that is it isolates the child from others (7:81).

Ramadan Al Qadafi (1994) states that the hearing disabled tend to isolate themselves and stay alone as a result of the difficulty they face in expressing their feelings. That affects their emotional stability and feeling of safety negatively (21:142).

Sport activities are the corner stone of the educational curriculum of the hearing impaired. These activities have an effective role in developing their potentials and communication skills contributing to maintaining their mental health through self-actualization and treatment of some behaviors including withdrawal and fear of confrontation (18:330).

The researchers believe that fencing is one of the sports that could help this group have psychological safety and stop their withdrawal behavior. Fencing is a sport that builds confidence, increases chances of interaction with others, develops personality and decreases undesirable behaviors like withdrawal. Additionally, it depends on the visual stimuli more than the auditory ones which makes it easy to practice for the hearing impaired. It, therefore, develops their feelings, ideas, feeling of psychological safety and interaction with peers in life situations without withdrawal. For these reasons and the behavioral benefits for the hearing impaired and for believing in the right of this group to practice fencing, the researchers decided to investigate the effect of a fencing program on psychological safety

and withdrawal behavior of the hearing disabled.

Purpose of the Study

The current study aims to:

1. develop a psychological safety scale for the hearing impaired.
2. develop an educational program for fencing and identifying its effect on:
 - a. the psychological safety of the hearing impaired (the study sample).
 - b. decreasing the withdrawal behavior of the hearing impaired (the study sample).

Procedures

I. Approach

The one group pre-test and post-test design of the experimental approach was used.

II. Sample:

The sample was intentionally taken from Al Amal School for the Deaf and Dumb in Sharqia, Egypt during the school year (2011-2012). The 36- student sample included fifth and six graders with a (40-60 decibels) hearing impairment. Ten students participated in the pilot study and eleven students were ruled out: five students had an acute hearing impairment (91 decibels) and 5 students had a high psychological safety. Fifteen students participated in the experimental group. The following tables show the consistency of the sample in all the study variables.

Table (1):

The statistical description of the sample in all the variables

N=25

<i>variables</i>	<i>Measuring unit</i>	<i>Mean</i>	<i>Medium</i>	<i>Deviation</i>	<i>kurtosis</i>
<i>Age</i>	<i>year</i>	<i>12.32</i>	<i>12.0</i>	<i>0.98</i>	<i>0.12</i>
<i>Height</i>	<i>cm</i>	<i>151</i>	<i>150.0</i>	<i>9.24</i>	<i>0.28</i>
<i>Weight</i>	<i>kg</i>	<i>49.60</i>	<i>50.0</i>	<i>1.95</i>	<i>0.94</i>
<i>Hearing score</i>	<i>decibel</i>	<i>53.68</i>	<i>55.0</i>	<i>5.55</i>	<i>-1.02</i>
<i>intelligence</i>	<i>degree</i>	<i>67.04</i>	<i>67.0</i>	<i>2.09</i>	<i>0.03</i>
<i>Socioeconomic status</i>	<i>degree</i>	<i>68.24</i>	<i>69.0</i>	<i>2.22</i>	<i>0.05</i>

Table (1) shows that kurtosis value fell within (± 3) range which indicates the consistency of the sample in these variables.

Table (2):

The statistical description of the sample in the withdrawal scale

N=25

<i>variables</i>	<i>Measuring unit</i>	<i>Mean</i>	<i>Medium</i>	<i>Deviation</i>	<i>kurtosis</i>
<i>Withdrawal behavior</i>	<i>degree</i>	<i>24.40</i>	<i>26.50</i>	<i>4.15</i>	<i>-0.57</i>
<i>Internal psychological safety</i>	<i>degree</i>	<i>31.86</i>	<i>30.0</i>	<i>2.6</i>	<i>0.39</i>
<i>External psychological safety</i>	<i>degree</i>	<i>29.84</i>	<i>30.0</i>	<i>2.5</i>	<i>-0.66</i>
<i>Total psychological safety</i>	<i>degree</i>	<i>62.36</i>	<i>62.0</i>	<i>2.4</i>	<i>0.34</i>

Table (2) shows that kurtosis value fell within (± 3) range which indicates the consistency of the sample in these variables.

Table (3):

The statistical description of the sample in the basics skills of fencing

N=25

<i>variables</i>	<i>Measuring unit</i>	<i>Mean</i>	<i>Medium</i>	<i>Deviation</i>	<i>kurtosis</i>
<i>saluting</i>	<i>degree</i>	<i>1.24</i>	<i>1.0</i>	<i>0.65</i>	<i>0.83</i>
<i>The guard position</i>	<i>degree</i>	<i>1.47</i>	<i>1.50</i>	<i>0.46</i>	<i>-0.34</i>
<i>Advance (Marche)</i>	<i>degree</i>	<i>1.51</i>	<i>1.5</i>	<i>0.43</i>	<i>0.57</i>
<i>retreat</i>	<i>degree</i>	<i>1.36</i>	<i>1.5</i>	<i>0.47</i>	<i>-0.41</i>
<i>Development</i>	<i>degree</i>	<i>1.23</i>	<i>1.25</i>	<i>0.52</i>	<i>-0.05</i>
<i>Advance with development</i>	<i>degree</i>	<i>1.40</i>	<i>1.5</i>	<i>0.50</i>	<i>0.15-</i>
<i>retreat with development</i>	<i>degree</i>	<i>1.11</i>	<i>1.0</i>	<i>0.49</i>	<i>0.04</i>

Table (3) shows that kurtosis value fell within (± 3) range which indicates the consistency of the sample in these variables.

III. Data collection tools

- ✓ Restameter to measure height and weight.
- ✓ Hearing test from the school record.
- ✓ Beginners Fencing weapons (Foil designed by one of the researchers)
- ✓ Socioeconomic status form.
- ✓ Porteus Intelligence Test (maze).
- ✓ The Psychological Safety Scale for the Hearing Impaired (by the researchers).
- ✓ Withdrawal Behavior Scale by Adel Abdullah.

Fencing Skills Evaluation:

Fencing skills were evaluated by a committee of university professors majored in fencing. Each skill was rated on a seven-point scale.

Steps of developing The Psychological Safety Scale for the Hearing Impaired:

1- Identifying the main dimensions:

The researchers reviewed the relevant literature and interviewed a lot of specialists in the field in order to decide a form that includes the preliminary dimensions. The form included four dimensions with a concept of each of them. It was shown to a group of specialists in developmental psychology, sport psychology and hearing impairment and they were asked to identify the most important dimensions, add other suitable dimensions and determine the most suitable scale. The results showed their opinions about the order of dimensions and their importance to the hearing impaired children. The researchers chose the dimensions that had more than 90 % agreement.

Table (4):

Experts Agreement on the Scale's dimensions

<i>Dimension</i>	<i>Experts opinions</i>	<i>Agreement percentage</i>
<i>Internal psychological safety</i>	<i>Accepted</i>	<i>100%</i>
<i>External psychological safety</i>	<i>Accepted</i>	<i>100%</i>
<i>Social appreciation</i>	<i>Accepted</i>	<i>80%</i>
<i>Self- confident</i>	<i>Accepted</i>	<i>85%</i>

Table (4) shows the percentage of the experts' opinions about the dimensions. The researchers chose the dimensions that had more than 90 % agreement: internal psychological safety and external psychological safety. They had the highest raters' validity.

2- Identifying the items for each area:

Identifying the main dimensions of the scale, the researchers set the items for each dimension based on its analysis. The researchers also made use of the previous measures in the field in that step.

Each training unit includes

Table (5):

Dimensions and items for each area

<i>n</i>	<i>Dimensions</i>	<i>Items number</i>
<i>1</i>	<i>Internal psychological safety</i>	<i>20</i>
<i>2</i>	<i>External psychological safety</i>	<i>21</i>
<i>3</i>	<i>Total psychological safety</i>	<i>41</i>

Table (5) shows the dimensions of the scale and the number of items per each dimension.

3- Procedures of developing the educational fencing program:

Experts were consulted about the content of the program, its period, numbers of units per week, daily time of the unit and the basic skills. The following table shows the total period of the program, the units and the time of each unit.

Table (6):

<i>Total time</i>	<i>Total number of units</i>	<i>Number of units per week</i>	<i>Time for each unit</i>
<i>3 months</i>	<i>12</i>	<i>1</i>	<i>60 min</i>

The Preliminary Part (Warm up) (10 min): This part was meant to be fun, quick and easy.

The Main Part (40 min): It includes training on the basic skills of fencing in an encouraging way that focuses on group participation and decreasing the withdrawal behavior.

Conclusion (10 min): It includes simple games that help the body systems go back to normal.

Application Steps:

1. Pre-measurement: The variables in the main sample were measured before the program.

2. Implementation of the fencing program: The program was applied over a period of three months.

3. Post-measurement the variables in the main sample were measured after the program.

Statistics

Mean, medium, standard deviation, kurtosis, correlation coefficient, percentages, Cronbach's alpha coefficient, internal consistency.

Table (7):

Significance of the differences and improvement ratio between the Pre-measurement & Post-measurement on the Psychological Safety Scale with its dimensions and the withdrawal behavior of the study sample.

N=15

N	Dimension	Pre-measurement		Post measurement		T-test value	Improvement ratio
		M	SD	M	SD		
1	Internal psychological safety	33.66	2.82	53.93	3.84	16.64	37.58%
2	External psychological safety	29.86	2.94	50.33	2.58	20.22	40.67%
3	Total psychological safety	63.53	3.83	104.20	5.55	23.32	39.03%
4	Withdrawal behavior	27.48	1.01	20.03	2.71	9.9	%37.19

Table (7) shows that the statistically significant differences in the scale with all its dimensions and the Withdrawal Behavior Scale were for the post-measurement. The improvement percentage was (37.19% : 40.67%).

Table (8):

Significance of the differences and improvement ratio between the Pre-measurement & Post-measurements of the basic skills of fencing

N=15

N	variable	Pre-measurement		Post measurement		T-test value	Improvement ratio
		M	SD	M	SD		
1	Saluting	1.08	0.55	3.66	1.26	7.24	70.49%
2	The guard position	1.51	0.41	3.70	0.70	10.35	29.19%
3	Advance(Marche)	1.58	0.52	3.80	1.04	7.32	58.42%
4	Retreat	1.36	0.45	3.86	0.93	9.32	64.76%
5	development	1.10	0.55	3.66	0.89	9.39	69.94%
6	Advance with develop.	1.35	0.61	4.0	0.77	7.36	66.25%
7	retreat with develop.	1.43	0.59	3.31	1.19	5.45	56.79%

Table (8) shows that the statistically significant differences in fencing basic skills were for the post-measurement. The improvement percentage was (29.19 % : 70.49 %).

Discussion

Table 7 shows statistically significant differences between the pre-measurement and the post measurement in all the dimensions of the Psychological Safety Scale and the Withdrawal Behavior Scale for the post measurement. The differences reflect improvement in the psychological safety and decrease in the withdrawal behavior. The researchers attribute the improvement to the activities and training sessions of the fencing program that help build self-confidence. It is also due to the positive effect of fencing on self-control, movement control, leadership, bravery. The hearing impaired, therefore, feel psychologically safer externally. That feeling arises from feeling of belonging and receiving care, encouragement and support from others. The nature of impairment that imposes psychological loneliness; introversion and poor self-confidence makes the person get their feeling of safety from others and belonging to them. Henceforth, the internal safety is achieved through feeling of external safety. Fall (13) states that psychological safety arises from warm relationships with others. Suheir Kamel (23) and Abd Al Aziz Al Shakhs (1) confirm that the hearing impaired constantly seek to satisfy their needs and get the feeling of being appreci-

ated and loved by others. They need to be psychologically safe to achieve adjustment. They should, therefore, be given chances to do efforts to fulfill that need. If they fail to do so, their frustration results in withdrawal and loneliness. Learning fencing teaches them cooperative learning and constant purposeful movement. Al Sayed Ali And Fayqa Badr (10) confirm that undesirable behaviors could be replaced by desirable ones through training the child in educational situations. Othman Faraag (19) also states that learning a new behavior or experience modifies behaviors. Table 8 shows statistically significant differences between the pre-measurement and the post measurements of the basic skills of fencing for the post measurement which proves the effectiveness of the suggested program. The researchers believe that that improvement is a logical outcome for the attractive, fun and exciting atmosphere of application. Additionally, improvement happened because of the gradual way of training: the trainer did not move from a skill to another until the skill was performed correctly first. Sabaah Ali Saqr (22) states that the hearing impaired can learn fencing skills and the training effect can be transferred to motor behavior.

Conclusions

In the light of the hypotheses, objectives and within limitation of the study sample and results discussion, the following can be concluded:

- 1. The scale prepared by the researchers measures the psychological safety of the hearing disabled students.*
- 2. The educational program suggested by the researchers had a positive effect on the psychological safety (external e³ internal) and teaching the fencing basic skills to the hearing disabled students who participated in the study and decreased their level of withdrawal behavior.*

Recommendations

Based on the results and the limitations of the study, the researchers recommend:

- 1. Using the scale prepared by the researchers with the hearing disabled to facilitate developing programs for the withdrawal behavior on sound scientific basis.*
- 2. Using the suggested program for this group as it has a positive effect on the psychological safety and withdrawal behavior.*

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Mental Toughness

and Relationships to Strategies of Psychological Performance of

TENNIS

Competitive Players

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Abstract

This research aims to know the differences between tennis competitive players in determinants of mental toughness and strategies of performance according to differences in age groups, knowing the differences between tennis competitive players, correlation between determinants of mental toughness and strategies of performance, the research was applied on a sample of (30) players as basic samples for the research, (10) players representing the age groups under 16 years- under 18 years- men, the test of attitudes toward sports competition that measure the mental toughness, translated to Arabic and codified on

the Egyptian environment by Mohammed Hassan Alawai and Ahmed Salah Al-Din (2008) was used, the test of strategies of performance of Alan Goldenberg which is modified and translated to the Egyptian environment by Osama Abd Al-Rahman and Magda Ismaiel (2007), the researchers used the suitable statistical methods, the most important results found by the researchers is that there is statistically significant differences in the determinants of mental toughness between tennis competitive players in the age groups under 16 years- under 18 years- men in favor of men, also there is statistically significant differences in strategies of performance between competitive players.

Research Objectives:

Knowing differences between tennis competitive players in determinants of mental toughness and strategies of performance according to the differences in age groups. Knowing the relationship between determinants of mental toughness and strategies of performance.

Research procedures:

Research methodology :

The researchers used the descriptive method that suit the nature of this research.

Research community and sample :

The research sample is represented in (42) players selected from represents the tennis competitive players for the age groups (under 16 years- under 18 years- men) participating in local championships organized by the Egyptian Tennis Federation, (ITF) and Future championships organized by International Federation during the sports year 2011-2012,, the researchers excluded (6) players from the three age groups, (2) from under 16 years, (2) from under 18 years and (2) from men, as they did not complete their research documents, so the sample become (30) player. Table No. (1) shows the control of the research community.

Table (1):

Description of research community and sample

n=30

<i>Sample</i>	<i>Basic sample</i>	<i>Excluded players</i>	<i>Real sample</i>	<i>Pilot study</i>
<i>Boys under 16 years</i>	<i>12</i>	<i>2</i>	<i>10</i>	<i>3</i>
<i>Boys under 18 years</i>	<i>12</i>	<i>2</i>	<i>10</i>	<i>3</i>
<i>Men</i>	<i>12</i>	<i>2</i>	<i>10</i>	<i>3</i>
<i>Total</i>	<i>36</i>	<i>6</i>	<i>30</i>	<i>9</i>

Data collection tools:

- Inventory of mental toughness.
- Test of strategies of performance.

Results:

Table (2):

Arithmetic mean, Standard deviation for tennis players (under 16 years, under 18 years, men) in determinants of mental toughness

(n1 = n2 = n3 = 10)

No	Age groups Determinants	Under 16 years		Under 18 years		Men	
		M	+S.D.	M	+S.D.	M	+S.D.
1	Ability to face pressures	11.20	1.40	12.40	1.37	13.30	0.74
2	Self confidence	7.20	1.32	9.80	1.03	11.40	0.84
3	Focus of attention	7.30	1.77	8.50	1.34	10.80	0.92
4	Speed of return to normal state	9.00	1.163	9.80	0.66	12.20	1.32
5	Motive of achievement	9.10	1.17	9.70	0.95	10.90	1.06
6	Total degree	43.80	4.00	50.2	3.56	58.60	11.65

Table (3):

Analysis of variance for the three age groups (under 16 years, under 18 years, men) of tennis players in determinants of mental toughness n = 10

No	Determinants	Source of data	Sum of squares	Degree of freedom	Average of squares	F value
1	Ability to face pressures	Between groups	5.40	2	2.70	1.65
		Inside groups	44.10	27	1.63	
2	Self confidence	Between groups	41.87	2	20.93	16.82*
		Inside groups	33.60	27	1.24	
3	Focus of attention	Between groups	0.07	2	0.03	8.12*
		Inside groups	54.60	27	20.02	
4	Speed of return to normal state	Between groups	40.07	2	20.03	9.11*
		Inside groups	59.40	27	2.20	
5	Motive of achievement	Between groups	0.87	2	0.43	0.44
		Inside groups	26.50	27	0.98	
6	Total degree	Between groups	152.47	2	76.23	6.68*
		Inside groups	308.20	27	11.41	

Table (F) value at level of significance 0.05 = 3.35

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Table (4):

Significance of differences between the three age groups (under 16 years, under 18 years, men) for tennis players in determinants of mental toughness n = 10

No	Determinants	Age group	Arithmetic mean	Differences of means			LSD
				Under 16 years	Under 18 years	Men	
1	Self confidence	Under 16 years	7.20		2.60*	1.60*	1.23*
		Under 18 years	9.80			3.20*	
		Men	11.40				
2	Focus of attention	Under 16 years	7.30		1.2	3.5*	1.92*
		Under 18 years	8.50			2.3*	
		Men	10.80				
3	Speed of return to normal state	Under 16 years	9.00		0.80	2.40*	1.64*
		Under 18 years	9.80			2.20	
		Men	12.20				
4	Total degree	Under 16 years	43.80		3.70	5.40*	3.74*
		Under 18 years	50.2			1.70	
		Men	58.60				

Table (5):

Arithmetic mean, Standard deviation for tennis players (under 16 years, under 18 years, men) in strategies of performance n1 = n2 = n3 = 10

No	Strategies	Age groups		Under 16 years		Under 18 years		Men	
				M	+S.D.	M	+S.D.	M	+S.D.
1	Putting objective (training)			11.40	1.35	12.50	1.58	14.60	1.07
2	Self talking (training)			11.60	1.51	13.40	1.65	17.40	0.97
3	Relaxation (training)			9.50	1.08	11.90	0.88	13.70	0.95
4	Mechanism (training)			9.90	0.88	11.90	0.88	12.90	1.20
5	Activity (training)			9.95	1.07	11.60	1.07	12.70	1.32
6	Emotional control (training)			10.60	0.97	12.95	0.97	13.90	1.27
7	Imagination (training)			10.30	1.06	11.70	1.16	15.00	1.89
8	Attention control (training)			8.70	1.06	10.50	0.85	12.90	1.37
9	Putting objective (competitive)			10.80	1.32	11.20	1.32	14.20	0.79
10	Self talking (competitive)			10.20	1.48	11.40	1.35	13.90	1.45
11	Relaxation (competitive)			9.90	0.99	10.70	1.34	13.30	1.49
12	Mechanism (competitive)			8.70	1.30	9.60	1.26	11.10	0.99
13	Activity (competitive)			9.90	1.10	11.20	1.23	13.70	1.34
14	Emotional control (competitive)			9.10	1.29	10.60	0.97	13.10	0.99
15	Imagination (competitive)			9.20	1.48	10.80	1.32	14.90	1.20
16	Attention control (competitive)			8.60	1.17	9.80	1.03	12.70	1.16

Table (6):

Analysis of variance for the three age groups of tennis players under research in strategies of performance *n = 10*

No	Determinants	Source of data	Sum of squares	Degree of freedom	Average of squares	F value
1	Putting objective (training)	Between groups	42.87	2	21.43	8.90*
		Inside groups	65.00	27	2.41	
2	Self talking (training)	Between groups	54.60	2	27.30	10.28
		Inside groups	71.70	27	2.66	
3	Relaxation (training)	Between groups	31.40	2	15.70	15.47*
		Inside groups	27.40	27	1.01	
4	Mechanism (training)	Between groups	22.07	2	11.03	11.55*
		Inside groups	25.80	27	0.96	
5	Activity (training)	Between groups	24.27	2	12.13	8.53*
		Inside groups	38.40	27	1.42	
6	Emotional control (training)	Between groups	80.00	2	40.00	42.86*
		Inside groups	25.20	27	0.93	
7	Imagination (training)	Between groups	58.40	2	29.20	20.58*
		Inside groups	38.30	27	1.42	
8	Attention control (training)	Between groups	48.47	2	24.23	21.67*
		Inside groups	30.20	27	1.12	
9	Putting objective (competitive)	Between groups	58.40	2	29.20	16.85*
		Inside groups	46.80	27	1.73	
10	Self talking (competitive)	Between groups	52.27	2	26.13	13.47*
		Inside groups	52.40	27	1.94	
11	Relaxation (competitive)	Between groups	41.60	2	20.80	13.66*
		Inside groups	41.10	27	1.52	
12	Mechanism (competitive)	Between groups	34.87	2	17.43	12.86*
		Inside groups	36.60	27	1.36	
13	Activity (competitive)	Between groups	55.27	2	27.63	19.58*
		Inside groups	38.10	27	1.41	
14	Emotional control (competitive)	Between groups	61.67	2	30.83	26.26*
		Inside groups	31.70	27	1.17	
15	Imagination (competitive)	Between groups	61.40	2	30.70	16.16*
		Inside groups	51.30	27	1.90	
16	Attention control (competitive)	Between groups	39.47	2	19.73	16.44*
		Inside groups	32.40	27	1.20	

Table (F) value at level of significance 0.05 = 3.35

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Table (7):

Significance of differences between the three age groups (under 16 years, under 18 years, men) for tennis players in strategies of performance (training) n = 10

No	Determinants	Age group	Arithmetic mean	Differences of means			LSD
				Under 16 years	Under 18 years	Men	
1	Putting objective (training)	Under 16 years	10.40		1.10	2.90*	1.72
		Under 18 years	11.50			1.80*	
		Men	13.30				
2	Self talking (training)	Under 16 years	10.60		1.80*	3.30*	1.80
		Under 18 years	12.40			1.50	
		Men	13.90				
3	Relaxation (training)	Under 16 years	9.50		1.40*	2.50*	1.11
		Under 18 years	10.90			1.10	
		Men	12.00				
4	Mechanism (training)	Under 16 years	9.90		1.00	2.10*	1.08
		Under 18 years	10.90			1.10	
		Men	12.00				
5	Activity (training)	Under 16 years	9.60		1.00	2.20*	1.32
		Under 18 years	10.60			1.20	
		Men	11.80				
6	Emotional control (training)	Under 16 years	10.60		2.00*	4.00*	1.07
		Under 18 years	12.60			2.00*	
		Men	14.60				
7	Imagination (training)	Under 16 years	10.30		1.40*	3.40*	1.32
		Under 18 years	11.70			2.00*	
		Men	13.70				
8	Attention control (training)	Under 16 years	8.70		1.80*	3.10*	1.17
		Under 18 years	10.50			1.30*	
		Men	11.80				

Table (8):

Significance of differences between the three age groups (under 16 years, under 18 years, men) for tennis players in strategies of performance (competition) n = 10

No	Determinants	Age group	Arithmetic mean	Differences of means			LSD
				Under 16 years	Under 18 years	Men	
9	Putting objective (competitive)	Under 16 years	9.80		1.40	3.40*	1.46
		Under 18 years	11.20			2.00*	
		Men	1.30				
10	Self talking (competitive)	Under 16 years	10.20		1.20	3.30*	1.54
		Under 18 years	11.40			2.00*	
		Men	13.40				
11	Relaxation (competitive)	Under 16 years	8.90		0.80	2.80*	1.29
		Under 18 years	9.70			2.00*	
		Men	11.70				
12	Mechanism (competitive)	Under 16 years	7.70		0.90	2.60*	1.31
		Under 18 years	8.60			1.70*	
		Men	10.30				
13	Activity (competitive)	Under 16 years	9.90		1.30*	3.30*	1.31
		Under 18 years	11.20			2.00*	
		Men	13.20				
14	Emotional control (competitive)	Under 16 years	9.10		1.50*	3.50*	1.20
		Under 18 years	10.60			2.00*	
		Men	12.60				
15	Imagination (competitive)	Under 16 years	9.20		1.60*	3.50*	1.52
		Under 18 years	10.80			1.90*	
		Men	12.70				
13	Attention control (competitive)	Under 16 years	8.60		1.20	2.80*	1.21
		Under 18 years	9.80			1.60*	
		Men	11.40				

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Table (9):

Correlation coefficient between basic determinants of mental toughness and domains of strategies of performance for tennis players (under 16 years- under 18 years- men)
n = 30

No	Strategies of performance \ Toughness determinants	Ability to face pressures	Self confidence	Focus of attention	Speed of return to normal state	Motive of achievement
1	Putting objective (training)	0.732*	0.687*	0.425*	0.282	0.039
2	Self talking (training)	0.750*	0.642*	0.521*	0.119	0.054
3	Relaxation (training)	-0.544*	-0.595*	-0.379*	-0.170	-0.153
4	Mechanism (training)	0.510*	0.421*	0.409*	0.009	0.053
5	Activity (training)	0.764*	0.540*	0.431*	0.166	0.158
6	Emotional control (training)	0.571*	0.546*	0.339*	0.147	0.151
7	Imagination (training)	0.597*	0.443*	0.485*	0.002	0.055
8	Attention control (training)	0.797*	0.444*	0.605*	0.199	0.166
9	Putting objective (competitive)	0.649*	0.673*	0.437*	0.566*	0.462*
10	Self talking (competitive)	0.509*	0.638*	0.431*	0.687*	0.045
11	Relaxation (competitive)	-0.392*	-0.483*	-0.391*	-0.230*	-0.104
12	Mechanism (competitive)	0.520*	0.595	0.394*	-0.059	0.059
13	Activity (competitive)	0.482*	0.660*	0.522*	-0.016	0.194
14	Emotional control (competitive)	0.705*	0.654*	0.505*	0.732*	0.122
15	Imagination (competitive)	0.723*	0.713*	0.494*	0.244	0.125
16	Attention control (competitive)	-0.571*	-0.524*	-0.425*	-0.013	-0.032

Table (r) value at level of significance 0.05 = 0.377

Discussion:

It is shown from Tables No. (3), (4), (5) the presence of statistically significant differences at level of (0.05) between tennis competition players in the age groups under 16 years, under 18 years, and men in determinant of self confidence in the three age groups and the men achieved the highest level of self confidence in comparison to both groups under 16 years and under 18 years, the researchers attributed this to that the player in men team has more training experience and more participation in competitions and from exposure to many situations in which they make mistakes or failure which make them acquire certain level of self confidence characterizing them from the lower age groups.

In this respect, scientists ensured that one of the most important characteristics of the sports player who is characterized by mental toughness is owning a level of confidence that is not changed as a result of failure or mistakes, through competition pressures in the low confidence that do not serve quality of performance, while the high confidence will participate in helping the sports player on training and exerting the maximum effort in competition. (4)

The researchers attributed the shown differences in this determinant to that focus of attention in tennis is done by player ability to focus his attention

on suitable symbols in the environment of tennis which is the ball that is one of the most important symbols in tennis and following it accurately, although that we found that most of players mostly of lower ages observe generally without care to the issue of accuracy, also there are other symbols of importance which is observation of the movements of the opponent, the direction of movement of the racquet before striking the ball to expect the speed and direction and place of drop of the ball, also the differences that appeared between the three age group under research returned to that some players focus their attention on some non related symbols, the results of the current research are in agreement with the results of other researchers that there are many symbols in tennis environment that not related and must not focus upon including the shouts of the audience, the previous bad strikes, the behavior of the opponent, the current result, the events of the day before the match, wrong declaration of ball drop outside the court, and any other thing that distract thinking and attention. (10)

The results of the current research is in agreement with what the researchers mentioned that the problems of focus of attention in sports juniors include their busyness with thinking in their future from the expected results for certain actions that could occur which affect negatively concentration. (11)

The results of scientists study ensured the most important of which

are the results that coaches considered concentration is one of the most important components of the mental toughness. (9)

The same tables (3), (4), (5) showed that there is not statistically significant differences at level of (0.05) in the determinant to speed of return to normal state between the three age groups and the group of men is higher in the level of speed of return to normal state than the lower age groups. The researchers attributed that to the speed of return to normal state in tennis is a mental skill that depends on the player ability to forget mistake committed like making mistakes in serve or mistake in return of serve which push the player to struggle to face these mistakes during competition, this depends on the previous experts of the players from participation in competitions through which he is exposed to like these situations which make him more patient and persistent which is shown by differences between the three groups in determinant of speed of return to normal state which the researchers attributed to experts of men players in competitive participation to pass this more than the lower age groups which showed the significant difference in their favor and this is ensured by scientists. (4)

From the previous presentation of the determinants of mental toughness for tennis competition players shown in results of this research, we found that the results of this research in determinants of the mental toughness agrees

with what is mentioned in results of studies (9), (3), (12), (5) which shown that there is differences in mental toughness between sports players according to the difference in type of practiced sports activity.

It is shown from Tables (6), (7), (8), (9) the presence of statistically significant differences at level of significance 0.05 between tennis competition players of the three phases (under 16 years- under 18 years- men) in means of dimensions of strategies of performance and men achieved higher level in dimensions of strategies of performance for training and dimensions of strategies of performance for competition represented in putting objective (training), putting objective (competition) between players (under 18 years- under 16 years) in favor of the players under 18 years and between men and players under 18 years in favor of the men players due to the training experiences and number of years of practice and participation in competitions more effectively than the lower age groups, the researchers sees that putting objective is one of the most important factors that must care to when design programs for psychological skills as the level of objectives varies for players according the classification of players according to experiences and number of years of practice and ensure also on important of approximation of objectives to achieve the required interaction.

Also evident from the previous tables that there are statistically signifi-

cant differences at level of 0.05 in the dimension of self talking (training) and (competition) and the men achieved the highest level of self talking than the lower age groups under 16 years and under 18 years, and the age group under 18 years is higher in the dimension of self talking than the age group under 16 years, the scientists ensured that the positive self talking is positively correlate with matches results and added that self talking reflects clearly the level of self efficiency which is first I could perform (15), the researchers sees that self talking is one of the requirements of tennis as self talking is vital in the fields of training and competition. The player ability to recruit positive self talking is a decisive factor that affects directly the performance of different sports skills.

Also the tables showed that there are statistically significant differences at level of 0.05 in dimension of relaxation (training) and relaxation (competition) with differences in favor of the men in the dimension of relaxation, also there are differences in favor of the player under 18 years than players under 16 years, the researchers explained that relaxation leads to reduction in effect of response under nervous pressure and help to reach the optimal level of tension and prevent accumulation of nervous pressure by working to reach lower level of baseline tension and reaching degree of deep relaxation in which tension is lower than the baseline level. (13)

Also the previous tables showed the presence of significant differences at level of 0.05 in the dimension of activity (training) and (competition) in favor of the men players than the lower age groups under 16 years and under 18 years. The researchers attributed these differences in favor of men that the players in men group show activity and arousal during training due to the aggression in them to participate in one of the important sports competition which could help them to improve their order on the local level or on the international level as the activity is related to what the player tries to achieve of objectives put through training.

The tables showed the presence of statistically significant differences at level of 0.05 for the dimension of emotional control (training) and (competition) in favor of the players in the three age groups and the higher level in favor of players under 18 years than players under 16 years and for men players than players under 18 years. In this respect, the researcher mentioned that the player who is characterized by more emotion appears in a level less than his real level. (11)

From the tables it is showed that there are statistically significant differences at level of 0.05 in favor of the players in the three age groups in the dimension of imagination (training) and (competition). The researchers attributed the presence of significant differences between players in the dimensions of imagination that the player trained on

skills of imagination that depends on formation of image about performance or imagination of performance of his competitor in certain match or imagination of his performance of certain skill successfully or a match then recall these information to use in competitive situation based on previous experiences that could be training or competitive experiences.

The researcher mentioned that kinetic imagination like (imagination of sequence of serve) is a result of perception of the serve of the other or also of his serve, and storing these sensory perceptions in brain with frequent description of them with term and this psychological and imaginary fixation for these kinetic- sensory perceptions is considered an important condition in mastering capture of picture and rehearsal of its content with deep thinking and using it in studied actions. (14)

From the tables also it is evident the presence of statistically significant differences at level of 0.05 in the dimension of control of attention (training) and (competition) in favor of the three age groups with significant differences in favor of the men. The researchers attributed this to that control of attention is the feeling of player that there is situations that control him and is outside of his control including degree of winds, court floor, lines, direction of sun and its reflection on player's eye, bad weather, wrong judge decisions, all these circumstances could not be controlled by the player but he could con-

trol the level of anxiety and emotional states as they are psychological skills that could be learnt and as the men players has passed educational and training experiences for many years so they are able to control attention more clearly so showed differences in their favor in this dimension.

The results of this research is in agreement with studies (8), (3), (7), (12), (5) which proved the presence of significant differences in strategies of performance according to different types of sports activities and age groups.

It is shown in Table No. (1) that there are (42) positive correlation, (9) negative correlation between determinants of mental toughness and determinants of test of strategies of performance and these correlation ranged between (-0.379) and (0.797), these positive trends appeared as follows: putting objective, self talking, mechanism, activity, emotional control, imagination, control of attention (training), ability to face pressures, self confidence, focus of attention, putting objective, self talking, mechanism, activity, emotional control, imagination, control of attention (competitive), ability to face pressures, self confidence, focus of attention, speed of return to normal state, motive of achievement, negative correlation as follows: relaxation (training), relaxation (competition), control of attention (competition), ability to face pressures, self confidence, focus of attention.

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