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President’s Message

Greetings to All;

As we move forward into the 2013 year, it is hard to believe that it is already March. I hope each of you are able to use the very valuable activity ideas, teaching points, games, fitness concepts and contacts you made at the convention. I need to thank the 2012 - 2013 Board and Council for their efforts, time, energy, and enthusiasm at the meetings as well as doing the work necessary to create the professional development projects to make us a stronger profession. The association has continued to move forward with upgrades in the electronic journal (thanks Tyler), workshops around the state (thanks Jason, Elizabeth, Holly) and we are using the ListSERV to communicate better with our membership. I hope you have an opportunity to visit the OAHPERD webpage as there are many changes as well as several added resources for members to use.

“We” know the value of physical activity and the lifelong benefits that can be realized from participating in a regular program. Each of us needs to start working to convince the decision makers of the importance of what we do with students, clients, costumers and patrons. Think beyond the gymnasium, parks and fields giving students and parents health-enhancing tasks that will keep them focused on life-long healthy living. Educate your parents, administrators and school board members about the importance of our programs in the fight against hypokinetic diseases such as heart disease, high blood pressure, obesity and diabetes. Give specifics about your program goals, frequently. Recruit physicians to speak at special programs about healthily-living and with parent groups in support of your programs. Post the position papers and activity guidelines in prominent places so visitors to your program can read about the national recommendations. Be a vocal advocate as you cite the research as well as supporting the fact that active people are more productive throughout their long life. Share your curricula, let parents know what their children are actually learning in your program.
President's Message continued...

Finally, look to engage the professional development opportunities offered by OAHPERD as well as other organizations that provide creative opportunities. Teacher must always seek to learn new roles and teaching strategies that have the potential to ultimately improve student achievement.

- Mark your calendar for the 2013 ANNUAL CONVENTION, October 7 & 8, 2013 @ UCO.
- Make an effort to nominate colleagues for OAHPERD Awards. The information is on the webpage http://www.oahperd.org/
- Let area Vice Presidents know about your professional development needs for convention sessions.
- Get involved in OAHPERD. The association can be stronger with your contributions.
- Be visible and an outspoken advocate about the "Benefits of Physical Activity."
- Share your activities with all community members, including parents, so they know how participants are being challenged, growing and learning.
- Transform your classrooms, activity areas, gymnasium, dance studios and playgrounds into a "learning center" by posting vocabulary, performance expectations, achievement goals, assessment documents and the rubrics you use as a teaching "tool".
- Stress that you are working hard to create lifelong learners who will truly understand the value as well as the benefits of being physically active.

I wish you a rewarding spring and thank you for all you do to strengthen our collective HPERD professions.

Bob Christenson

Photo courtesy of the City of Stillwater
Editor’s Message

The Journal Editing process has been a good one thus far. I would like to thank all of you who have provided great feedback. The overwhelming positive response to the journal is appreciated by me and Nicole. Some interesting statistics about this April issue is that it has been distributed to 1,065 current enrollees to our Listserv as well as other organizations at the National level. In the short time between the December issue and the April issue, I have had many out of state inquires and increased state and national readership. This show great development and represents a model for other state organizations. This is all because of the work that you do for your schools and OAHPERD. For that I say thank you! This is a very exciting time in OAHPERD’s history and thank you for your continued support.

Thank you

Tyler Tapps
Executive Director’s Message

As most of you know, this year’s national convention in Charlotte will be our last where AAHPERD is structured as an Alliance. The membership has voted to make us a single organization and will become effective the Monday following this meeting. This means that if you were to walk into the building in Reston, you would not see an office for NASPE, one for NAGWS, or any of the associations that once comprised our Alliance. AAHE is in the final stages of their exit strategy to transition from AAHPERD to a new organization of defined health professionals. AAHE’s move has been in discussion phases for several years. Many questions remain regarding the districts, the Alliance Assembly, and a possible name change. AAHPERD has scheduled town hall meetings at the national convention for states and districts in order to hear from the membership.

The Executive Directors of all of the states and “current” districts will meet three times in Charlotte. In the first meeting, we will open a discussion of the DRAFT AAHPERD Bylaws that have been released and dated February 25th. Meeting two will be a continued discussion on these proposed Bylaws and the LDC meeting in Las Vegas in June. The final meeting is a breakfast where we will have a presentation from the New York Road Runners regarding their school running program.

President-Elect Canada-Phillips and I will be attending the annual President-Elect’s Leadership Development Conference June 18-21 in Las Vegas. This conference used to be sponsored by AAHPERD but has been sponsored by the state and district Executive Directors for the past three years. This is a professional development experience for the Elect’s and the ED’s have an opportunity to exchange information as well. An update on JRFH is always on the agenda at this meeting.

OAHPERD is preparing for the fall conference on the campus of UCO and we are expecting record attendance, much like we experienced last year. The larger the conference, the more professionals and students we can impact and our finances increase as the numbers go up. Please plan to attend.

Mark L. Giese
Executive Director
Health Educator of the Year

This award will be given to a health educator in each of the following school levels:

- Health Education Professional of the Year Award - School (K-12)
- Health Education Professional of the Year Award - College/University

The purpose of this award is to encourage and recognize outstanding teaching and professional involvement by educators/professionals in the area of Health Education.

The candidate must be someone who:

1. Has major responsibility for teaching, programming, or administering effective health education programs.
2. Has at least five years experience in the category where they are applying.
3. Serves as a positive role model epitomizing the values and desired outcomes of health education.
4. Utilizes various teaching strategies and incorporates innovative learning experiences based on developmental social and psychological needs of students and/or clients.
5. Shows interest in and sensitivity to the needs of students, clients and fellow professionals.
6. Assumes responsibility for his/her professional growth and evidences professional commitment through membership and involvement in local, state and national health organizations.
7. Currently a member of OAHPERD, AAHPERD, AAHE, and must attend the SDAAHPERD convention.

Please send the following information:

Name:
Place of Employment: Address:
Phone #:
E-mail:

Send nominations to Samantha Summers at samantha-summers@utulsa.edu
The Virginia Peters Higher Education Award

Criteria

The applicant/nominee must be an educator who:

1. Prepares Oklahoma public and private physical education teachers;
2. Oversees, directs and/or advises student teachers in the field of physical education;
3. Serves as a positive role model epitomizing personal health and fitness enjoyment of activity, and sensitivity to the physical and emotional needs of all students;
4. Utilizes various teaching methodologies and plans innovative learning experiences;
5. Is a current OAHPERD member, regularly attends and/or presents at state conventions/workshops;
6. Is a current member of AAHPERD and NASPE and has attended and/or presented at Southern District AAHPERD and/or National Conventions.
7. Nominees shall attach documentation for each of the criteria. Additionally, a letter of recommendation from a department chair or dean should be attached.

Please return the nominations with an accompanying vitae to Trey Cone at tcone@uco.edu
Recreation Professional of the Year

For the purposes of this award, a Recreation Professional is defined as a person who has major responsibility for teaching recreation pre-professional/professionals of conducting recreation programming and/or administration in an educational, public, or private recreation setting.

The candidate must be someone who:

1. Serves as a positive role model epitomizing the values and desired outcomes of recreation.
2. Demonstrates enthusiasm for the recreation profession and his/her role in it.
3. Shows interest in, and sensitivity to the needs of students, clients, and fellow professionals.
4. Utilizes various methodologies and implements creative, innovative, safe and effective courses/recreation programs based on:
   a. The developmental, social, and psychological needs of students and clients.
   b. The philosophies, purposes, needs and resources of the sponsoring institution.
5. Assumes responsibility for his/her professional growth and evidences professional commitment through membership and involvement in local, state, and national recreation organizations.
6. Is a current member of AAHPERD and must attend the Southern District Convention.

Please send the following information:

Name:
Place of Employment: Address:
Phone #:
E-mail:

Send nominations to Chad Stangl at stangl@nsuok.edu.

Photo courtesy of the City of Stillwater
Elementary “Physical Education” Teacher of the Year

For the purpose of this award, a Physical Educator is defined for the purposes of this award as a person who has major responsibility for teaching physical education in grades designated (PK-5) for each award.

The candidate must be someone who:

1. Has taught a minimum of six years at the school level designated by the award.
2. Serves as a positive role model epitomizing the personal health and fitness, enjoyment of activity, sportsmanship, and sensitivity to the needs of his/her students.
3. Utilizes various teaching methodologies and plans innovative learning experiences.
4. Conducts a balanced and sequential curriculum.
5. Evidences professional commitment through membership and involvement in local, state, and national physical education organizations.
6. If selected, and wishes to be moved on to the district and national competition, is a current member of AAHPERD and NASPE and must attend the AAHPERD District and possibly the National Convention.

Please send the following information:
Name: Place of Employment:
Address:
Phone #: 
Middle School “Physical Education” Teacher of the Year

For the purpose of this award, a Physical Educator is defined for the purposes of this award as a person who has major responsibility for teaching physical education in grades designated (6-8) for each award.

The candidate must be someone who:

1. Has taught a minimum of six years at the school level designated by the award.
2. Serves as a positive role model epitomizing the personal health and fitness, enjoyment of activity, sportsmanship, and sensitivity to the needs of his/her students.
3. Utilizes various teaching methodologies and plans innovative learning experiences.
4. Conducts a balanced and sequential curriculum.
5. Evidences professional commitment through membership and involvement in local, state, and national physical education organizations.
6. If selected, and wishes to be moved on to the district and national competition, is a current member of AAHPERD and NASPE and must attend the AAHPERD District and possibly the National Convention.

Please send the following information:

Name: Place of Employment:
Address:
Phone #:
E-mail:

Send nominations to: Jason Hasty at jhasty@putnamcityschools.org.
Secondary “Physical Education” Teacher of the Year

For the purpose of this award, a Physical Educator is defined for the purposes of this award as a person who has major responsibility for teaching physical education in grades designated (9-12) for each award.

The candidate must be someone who:
1. Has taught a minimum of six years at the school level designated by the award.
2. Serves as a positive role model epitomizing the personal health and fitness, enjoyment of activity, sportsmanship, and sensitivity to the needs of his/her students.
3. Utilizes various teaching methodologies and plans innovative learning experiences.
4. Conducts a balanced and sequential curriculum.
5. Evidences professional commitment through membership and involvement in local, state, and national physical education organizations.
6. If selected, and wishes to be moved on to the district and national competition, is a current member of AAHPERD and NASPE and must attend the AAHPERD District and possibly the National Convention.

Please send the following information:
Name: Place of Employment:
Address:
Phone #:
E-mail:

Send nominations to: Jason Hasty at jhasty@putnamcityschools.org.
Adapted Physical Education Teacher of the Year

The Oklahoma Association for Health, Physical Education, Recreation, and Dance is seeking nominees for the annual Adapted Teacher of the Year award.

For the purposes of this award, an adapted physical educator is defined as a person assigned at least 50% of his/her teaching responsibility:

1. In providing direct and/or consultative services to individuals with disabilities ages birth to adult.
2. In providing appropriate instruction, support, and modifications to individuals with disabilities ages birth to adult.

The candidate must be someone who:

1. Conducts an appropriate physical education program as reflected in the students’ IEP and generally accepted standards of practice for APE.
2. Utilizes various teaching methodologies and plans innovative learning experiences to meet the needs of all students.
3. Serves as a positive role model epitomizing personal health and fitness, enjoyment of activity, and sensitivity to the physical and emotional needs of all students.
4. Participates in professional development opportunities.
5. Is a current OAHPERD member.

Self-nominations are welcomed and encouraged. Please send the following information to:

Name:
Place of Employment: Address:
Phone #:
E-mail:

Send nominations to Chris Carden at carden@nsuok.edu.
Betty Abercrombie Scholar Award

Call for Nominations

The Betty Abercrombie Scholar Award is designed to (1) promote and stimulate scholarly productivity among professionals representing health, physical education, recreation, leisure, dance and sport, and (2) recognize scholars who have made and continue to make noteworthy contributions to the scholarly enterprise.

The following criteria are used by the selection committee. The individual selected:

1. must be a member of AAHPERD and OAHPERD.
2. should have achieved a commendable record evidenced by creative productivity to enhance the profession of health, physical education, recreation and dance.
3. shall be currently involved in the scholarship of promoting the fields of health, physical education, recreation and dance through various meaningful contribution such as:
   a. Articles in refereed journals
   b. Scholarly contributions to books
   c. Scholarly presentations to professional meetings
   d. Acquisition of grants
   e. Officer of professional organization
   f. Major projects
   g. Professional development
   h. Development of curricular and instructional activities
   i. Contributions to the profession including research
4. must be willing to assume responsibilities so designated for a period of one year to include:
   a. making a presentation at the annual OAHPERD Convention the following year.
   b. Serving as chair of the selection committee for the following year.

Nominations (you may nominate yourself) with accompanying vitae should be submitted to Kathy Hixon at hixon@nsuok.edu.
OAHPERD Honor Award

Any member may submit names for consideration for an Honor Award. Resume supporting the nomination should be included.

Qualifications:
1. Must have served a minimum of ten (10) years in Oklahoma.
2. Must be a member of the National Association in their special field of interest.
3. Must be a member of OAHPERD for five (5) years preceding the award.
4. Must demonstrate ethical professional practices.
5. Must show prominence in some of the following:
   a. Excellence in teaching
   b. Outstanding administrative achievement
   c. Contribution to research and professional publications
   d. Leadership in state, district, and national professional associations
   e. Meritorious service within the professional

Please send nominations for the OAHPERD Honor Award to Donna Cobb at dcobb@uco.edu
Emma W. Plunkett Undergraduate Scholarship Award Chair

The candidate must:

1. Be of Junior or Senior level standing planning to graduate in May.
2. Be a current member of OAHPERD.
3. Have a minimum of a 3.0 GPA on a 4.0 scale
4. Be a resident of Oklahoma

Application Checklist

☐ All required information is included.

☐ Academic Progress:

☐ Institution; Degree Program; Major; Academic Advisor; Faculty Endorsement; Hours Required for Degree; Hours completed (College only); Expected Graduation Date; Cumulative Grade Point Average at Certifying Institution; Academic Honors; Awards; Intramural or Varsity Sports; Active Professional Memberships; Offices Held; Other Organizations; Offices Held; Scholarships; Related Work Experience.

☐ Application is signed by a faculty advisor or department head or a letter of endorsement is included as an attachment verifying GPA.

☐ Application is accompanied by the following:

☐ Transcript w/ letter of endorsement or official transcript w/ university seal
Helen Corrubia Undergraduate Scholarship Award Chair

The candidate must:

1. Be of Junior or Senior level standing planning to graduate in May.
2. Be a current member of OAHPERD.
3. Have a minimum of a 3.0 GPA on a 4.0 scale
4. Be a resident of Oklahoma

Application Checklist

- All required information is included.
  - Academic Progress:
    - Institution; Degree Program; Major; Academic Advisor; Faculty Endorsement; Hours Required for Degree; Hours completed (College only); Expected Graduation Date; Cumulative Grade Point Average at Certifying Institution; Academic Honors; Awards; Intramural or Varsity Sports; Active Professional Memberships; Offices Held; Other Organizations; Offices Held; Scholarships; Related Work Experience.
  - Application is signed by a faculty advisor or department head or a letter of endorsement is included as an attachment verifying GPA.
  - Application is accompanied by the following:
    - Transcript w/ letter of endorsement or official transcript w/ university seal
Karen J. Dowd Undergraduate Scholarship Award Chair

The candidate must:

1. Have completed a minimum of 60 hours of college credit.
2. Be a current member of OAHPERD.

Application Checklist

☐ All required information is included.

☐ Academic Progress:

☐ Institution; Degree Program; Major; Academic Advisor; Faculty Endorsement; Hours Required for Degree; Hours completed (College only); Expected Graduation Date; Cumulative Grade Point Average at Certifying Institution; Academic Honors; Awards; Intramural or Varsity Sports; Active Professional Memberships; Offices Held; Other Organizations; Offices Held; Scholarships; Related Work Experience.

☐ Application is signed (if mailed) by a faculty advisor or department head or accompanied by a letter of endorsement including a statement verifying the GPA is correct.

☐ Application is accompanied by the following:

☐ Official transcript (with letter of endorsement or if mailed official university seal) (All courses, Grades and GPA must be readable)

☐ Present vitae or resume

☐ Paper (minimum of 500 words) reflecting the applicant’s personal and professional philosophy.
Valerie Colvin Graduate Scholarship Award Chair:

The candidate must be someone who:

Be a Master’s degree candidate
Have completed a minimum of 15 hours
Have a minimum GPA of 3.5 in an Oklahoma institution (based on 4.0 maximum)
Be a current member of OAHPERD

Application Checklist

☐ Form is completed by computer or in ink and signed by:
  ☐ Student
  ☐ Faculty advisor or dept/area chair letter of endorsement
☐ Form is completed and accompanied by:
  ☐ Academic Progress: Institution; Degree Program; Major; Academic Advisor; Faculty Endorsement; Hours Required for Degree; Hours completed (College only); Expected Graduation Date; Cumulative Grade Point Average at Certifying Institution; Academic Honors; Awards; Intramural or Varsity Sports; Active Professional Memberships; Offices Held; Other Organizations; Offices Held; Scholarships; Related Work Experience.
  ☐ Transcript with faculty endorsement or university seal and all grades with GPA shown (Must include all undergraduate work and graduate work) (When scanned, courses, grades and GPA must be readable)
  ☐ Current vitae or resume
  ☐ Description of Future Plans and Goals (150 words or less)
Hoops For Heart gives students several great opportunities: helping kids with special hearts; learning the benefits of physical activity, healthy eating and avoiding tobacco; and raising funds for research and programs to fight heart disease and stroke. Besides having fun, students will learn basketball skills, supporting the National Association for Sport and Physical Education (NASPE) Standards of Physical Education and the American Association for Health Education (AAHE) Standards. Join millions of kids in serving others, saving lives and supporting research — hold a Hoops For Heart event!

**DID YOU KNOW?**

- Obesity and physical inactivity are major risk factors for cardiovascular disease.
- On average, American children and adolescents spend nearly 4 hours watching television every day.
- Obesity among our nation’s youth has tripled in the last two decades.
- Overweight adolescents have a 70 percent chance of becoming overweight adults.
- A number of studies have demonstrated that increased physical activity is linked to better school performance.

Call 1-800-AHA-USA1 or visit americanheart.org/hoops to get your school involved.
Oklahoma Association for Health, Physical Education, Recreation and Dance

GRANT APPLICATION and GUIDELINES

The OAHPERD Grant Program is back. The Board and Council has budgeted $2500.00 for creative programs that serve HPERD programs in Oklahoma as a result of the awe-inspiring success of the Jump Rope for Heart//Hoops for Heart programs in the state. The purpose of this GRANT PROGRAM is to support quality program development, encourage innovative instructional ideas, as well as support the growth of existing programs. A maximum of $500.00 per grant may be awarded per application. Professional members are encouraged to think creatively and apply for a grant to serve the learners in your program.

Applicant / Grant Requirements:

1. The Grant Application must be typed; information must be complete and transmitted electronically.
2. The grant "project leader" must be a current member and have been an OAHPERD member for at least 1 year prior to applying for a grant.
3. Building Administrator and "Immediate Supervisor" of the project site must approve the grant application.
4. The grant application must be completed and submitted electronically to the OAHPERD Executive Director.
5. A Final Report is required.
6. If a grant is awarded, the "Project Leader" must submit an article for publication in the OAHPERD Journal describing the impact on the program and a presentation at the next annual convention.

Guidelines:

1. Projects must relate to health, physical education, recreation or dance and impact the "Learners" in the state of Oklahoma.
2. Priority will be given to recent JRFH/HFH event sites; projects designed to benefit "learners-participants" of differing abilities; new projects; projects with the biggest "learner" impact and projects that are easily duplicated in another site.
3. Applications will be accepted starting 10/15 of each year for the OAHPERD budget year beginning 11/1 and will remain OPEN until funds are allocated. The deadline for accepting new grant applications each year will be 3/1.
4. All project funds must be spent within one year from the date of notification and receipts submitted or unexpended funds returned.
5. Completed applications are submitted electronically to the Executive Director. If funds are available, the Executive Director will forward the application to the OAHPERD Grant Committee (If no funds are available, the Executive Director will notify the applicant). The Grant committee will consist of President-elect and the 4 Vice Presidents (Health, Physical Education, Recreation and General).
6. The OAHPERD Grant Committee will recommend to the Executive Director (who will notify the project leader) full funding; modified funding; rejection or return the application with the Grant Committee's recommendation for modifications.
7. Purchases, once the project is approved and notification completed, may be completed with a Purchase Order specifying a "Ship/Deliver to School" address and "Bill to OAHPERD" address. Reimbursement for all other items will be completed after receipts are presented to the Executive Director.
8. OAHPERD funds may be spent on equipment, testing aids, software, instructional materials and curricular development materials. Grant money MAY NOT be used for salary, honorarium, food, travel, rental items, accommodations, membership fees or convention registration.
9. All materials purchased with OAHPERD grant funds become the property of the school, school district or agency.
General Project Information:

Project Title:

Name (Project Leader):
Home Phone Number:
Cell Number:
Street Address:
E-Mail Address:
City:
School/Agency:
School Phone Number:
Street Address:
Fax:
City:
E-Mail Address:
Zip Code:

Additional Personal Working on the Project:

Immediate Site Supervisor:
Work Telephone Number:
E-Mail Address:

________________________________________________________________________________________________________________________________________________________________________________________________________
Project Title:

Provide a Clear Description of the Proposed Project:

Desired objectives of the Project:

Participant outcomes of the Project:

How Will This Project Meet the Needs of The Target Learners?

How many Learners Will Participate? AGES of the PARTICIPANTS:

Create an Estimated TIME LINE for the Life of the Project: (Planning, Introduction of the Project Activities, Learner Engagement in the Activities and When do you Anticipate Completion of the Project.)

Is this Project (check the correct line) ______ A New Project

________ Expanding an Existing Project

________ One-Time Event

List the amount of Funding being Requested (Up To $500.00):

Identify Exactly How Funding Will Be Spent (Specific budget expenditures):

<table>
<thead>
<tr>
<th>Items Number</th>
<th>Item Description</th>
<th>Quantity</th>
<th>Cost</th>
<th>Total Cost</th>
</tr>
</thead>
</table>

Are there any Matching Funds Being Provided by the School/Agency?

Provide a project evaluation to Monitor the SUCCESS of Your Project:

Is there Potential for this Project to Exist after OAHPERD Funding is Completed?

Additional Information You Would Like to Share About the Project?

Additional questions regarding the OAHPERD Grant Program or budget questions can be directed to Dr. Mark Giese, OAHPERD Executive Director at Northeastern State University.

Completed applications should be sent electronically to: giese@nsuok.edu

<table>
<thead>
<tr>
<th>Action Taken: Funded</th>
<th>AMOUNT FUNDED: $</th>
<th>___ Convention Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modified</td>
<td></td>
<td>___ Journal Article</td>
</tr>
<tr>
<td>Rejected</td>
<td>______ Receipts for All Purchases have been submitted</td>
<td></td>
</tr>
<tr>
<td>Returned for Modification</td>
<td></td>
<td>___ Final Report</td>
</tr>
</tbody>
</table>
OAHPERD STRATEGIC PLAN
2011-2012

OAHPERD Board and Council,

Please review the Strategic Plan in the subsequent pages and compare to your reports for our next meeting. If you are meeting a goal, have met a goal and/or are extending the strategic plan please make note of it in your report and provide a copy of your report (electronic or hardcopy) to Stephanie Canada-Phillips. Feel free to communicate with me at any time between B&C meetings. For reference, the OAHPERD mission statement is embedded in the footnote of each page and please ignore the DRAFT watermark.

Thank you for your time and effort.

Stephanie Canada-Phillips
scanada@ecok.edu
405-227-8251
<table>
<thead>
<tr>
<th>STRATEGIC GOAL #1</th>
<th>To increase advocacy efforts.</th>
</tr>
</thead>
</table>

**Relationship to OAHPERD mission/vision**
- To acquire and disseminate accurate professional information at all levels to provide opportunities for professional services beyond the local level.

**Effect on Member Services**
- Promotion of opportunities for members to be professionally active.

<table>
<thead>
<tr>
<th>Implementation Objectives/Strategies</th>
<th>Indicator of Success</th>
<th>Person/Division/Council/Group Responsible</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Development of a communication network between colleges, universities, K-12 schools and other collegial/service organizations (such as Schools for Healthy Lifestyles, OK Fit Kids Coalition, Governor’s Council, State Department of Education)</td>
<td>Targeted constituencies utilize use of questionnaire to see if information was received or communication network. Development of criteria for model programs</td>
<td>Physical Education Division Research Council Advocacy Committee</td>
<td>Ongoing</td>
</tr>
<tr>
<td>1.2 Develop a mechanism to showcase model health &amp; physical education K-12 programs throughout Oklahoma (i.e. NASPE STARS criteria, PEP Grant criteria, JRFH/Hoops participation in schools, Schools for Healthy Lifestyles).</td>
<td>-Re-established PE coordinator position at the SDE Development of brochure</td>
<td>Advocacy Committee Physical Education Division Health Division</td>
<td>Ongoing</td>
</tr>
<tr>
<td>1.3 Develop an OAHPERD brochure for dissemination at various events.</td>
<td>Disseminate brochure at: -convention -workshops/informational booths sponsored by OAHPERD -other appropriate avenues</td>
<td>Committee Members</td>
<td>2011</td>
</tr>
</tbody>
</table>
### STRATEGIC GOAL #2

**To Increase funding for programs, special initiatives, projects**

<table>
<thead>
<tr>
<th>Relationship to OAHPERD mission/vision</th>
<th>• Increases available revenues to enhance all aspects of the Association’s ability to fulfill both the vision and mission (e.g. funding for new programs, supporting current initiatives, keeping dues to a minimum)</th>
</tr>
</thead>
</table>
| Effect on Member Services | • Quality and quantity of overall services will increase (e.g. increase in state workshops and better use of web page)  
• Increases diversification of revenue sources that directly affect member services |

<table>
<thead>
<tr>
<th>Implementation Objectives/Strategies</th>
<th>Indicator of Success</th>
<th>Person/Division/Council/Group Responsible</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Apply for one grant/year</td>
<td>Grant funded</td>
<td>Grant Committee</td>
<td>Annually</td>
</tr>
<tr>
<td>2.2 Continue relationship with the SDE</td>
<td>Monetary award to fund workshops (no charge to attendees)</td>
<td>President and ED</td>
<td>Annually</td>
</tr>
<tr>
<td>2.3 Continue relationship with AHA</td>
<td>JRFH/Hoops programs funded at current levels or higher</td>
<td>President and ED</td>
<td>Annually</td>
</tr>
<tr>
<td>2.4 Diversify income into new programs</td>
<td>Implement special Workshops (exs: PTA, area coordinators…)</td>
<td>Ex. Director Board and Council</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.5 Utilize a professional who can help identify funding sources for non-profit organizations (NSU–Schoonover)</td>
<td>Apply for/receive funding</td>
<td>Ex. Director</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.6 Seek sponsorship for banquets/socials</td>
<td>Receive sponsorships</td>
<td>Ex. Director Board and Council</td>
<td>2011 Convention (Annual)</td>
</tr>
<tr>
<td>STRATEGIC GOAL #3</td>
<td>To increase and diversify membership and services</td>
<td></td>
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<td>-------------------------------------------------</td>
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<tr>
<td>Relationship to OAHPERD mission/vision</td>
<td>• Increasing and diversifying members and services helps OAHPERD promote and model the benefits of healthy lifestyles and high quality programs in schools and communities, which in turn increases the well being of all Oklahomans.</td>
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</table>
| Effect on Member Services | • Provides a forum for professional development to increase access to knowledge, improve skills, and encourage sound professional practices  
• Provides for a diversity of needs and interests in member services  
• Provides opportunities to learn from experienced professionals and network with a diverse membership  
• Provide opportunities for continual learning and professional growth  
• Provides more efficient, timely access to information, products, membership inquiries, and conventions |

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<tr>
<th>Implementation Objectives/Strategies</th>
<th>Indicator of Success</th>
<th>Person/Division/Council/Group Responsible</th>
<th>Timeline</th>
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</thead>
</table>
| 3.1 Promote OAHPERD to allied organizations with cross memberships  
- Schools for Healthy Lifestyles  
- Governor’s Council  
- Fit Kids Coalition  
- Turning Point  
- OICA (Oklahoma Institute for Child Advocacy  
- SHL (Strong and Healthy)  
- Oklahoma 5320 Initiative | Increase in membership numbers from allied organizations | Board and Council | Ongoing |
| 3.2 Expand types of presentations at OAHPERD convention | - Diversity of presentations at convention (all divisions included)  
- Offer more choices for Exercise Science attendees | Board and Council | Ongoing (Convention) |
| 3.2A Expand quality student presentations at OAHPERD Convention | - Cash incentives provided for student research presentations and quality out of state presentations | Board and Council | Ongoing (Convention) |
| 3.3 Provide professional development certificates and CHES credits at convention | - Professional development certificates and CHES credits available to attendees at convention | Vice Presidents | Convention each year |
| 3.4 Disseminate information regarding convention and professional development and other opportunities to membership utilizing the journal and newsletter. | A variety of up-to-date information sent to the membership via journals and newsletters Icon on webpage for lesson plan submission; Section in Journal for LPs | Journal Editor Ex Director Board and Council Webmaster for Webpage Journal Editor for Journal | Ongoing  
Webpage – Ongoing Journal – prior to Journal deadlines |
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<tbody>
<tr>
<td>3.4A Submit lesson plan ideas to Webpage and/or Journal</td>
<td></td>
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</table>
### STRATEGIC GOAL #4

**To create a more efficient/responsive organizational structure and governance system**

#### Relationship to OAHPERD mission/vision
- By creating a more efficient and responsive organizational structure and governance system, it enables OAHPERD to become a more dynamic and efficient force in fulfilling our mission/vision of promoting organization of school, community, and state programs of health, physical education, recreation and dance, including opportunities and excellent programs in these areas.

#### Effect on Member Services
- More responsive to members and societal needs and concerns.
- Enhances OAHPERD’s ability to act efficiently, appropriately, and in a timely fashion to address current issues in health, physical education, recreation, and dance.

### Implementation Objectives/Strategies

<table>
<thead>
<tr>
<th>Implementation Objectives/Strategies</th>
<th>Indicator of Success</th>
<th>Person/Division/Council/ Group Responsible</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Summary of timelines for new officers, including a training</td>
<td>Training completed and incoming officers showing an understanding of timelines and duties. Make changes upon recommendations of committee after review</td>
<td>President, VP’s</td>
<td>Ongoing each new year as new officers start</td>
</tr>
<tr>
<td>4.2 Have constitution committee review all offices and board structure; update Key Manual of References on a regular basis</td>
<td>Make recommendations to the Board based on the NC after review of each candidate’s qualifications</td>
<td>Constitution committee</td>
<td>Ongoing</td>
</tr>
<tr>
<td>4.3 Nominating committee (NC) will review applications of candidates to ensure they meet the qualifications for each Board/Council office.</td>
<td></td>
<td>Nominating committee; ED</td>
<td>Annually</td>
</tr>
</tbody>
</table>
STRATEGIC GOAL #5

To plan for resources and special initiatives and make them available to the membership.

Relationship to OAHPERD mission/vision
- To aid in the development and promotion of effective programs for all ages at all levels and to advance the standards of teaching, research, and leadership.

Effect on Member Services
- Provides opportunities for shared information regarding quality programming, research, and effective teaching.

<table>
<thead>
<tr>
<th>Implementation Objectives/Strategies</th>
<th>Indicator of Success</th>
<th>Person/Division/Council/Group Responsible</th>
<th>Timeline</th>
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</thead>
<tbody>
<tr>
<td>5.1 Sponsor state/area workshops throughout the state, CEU's may be offered (i.e., Professional Development, Share, Summer, BK2School, JRFH/Hoops)</td>
<td>Workshop attendance, Workshop notices on webpage, Facebook</td>
<td>Board and Council following (5.11) calendar and organizational chart</td>
<td>Ongoing</td>
</tr>
<tr>
<td>5.1A Identify needs for workshops, plan tentative workshop calendar, (name B/C group responsible</td>
<td>Tentative Workshop Calendar with name of B/C group responsible</td>
<td>B/C group named in/on calendar</td>
<td>Completed at Fall Retreat Mtg</td>
</tr>
<tr>
<td>5.1B Communicate plans within OAHPERD by cc: of actions up line on organizational chart</td>
<td>Board aware of plan progress Communicate up/down organizational chart</td>
<td>Board/Council</td>
<td>Ongoing</td>
</tr>
<tr>
<td>5.1C Utilize electronic modes as well as traditional paper modes to inform members of activities and workshops</td>
<td>OAHPERD activities published in many modes: on webpage, email SDE listservs, Journal, letters (via mail)</td>
<td>Name B/C group responsible for activity send info to: webmaster, social network manager, list serve admin, VP's, Journal editor, Ex Director</td>
<td>In timely advance of activity</td>
</tr>
<tr>
<td>5.1D Evaluate workshops for future planning and report to Board (i.e., Survey participants)</td>
<td>Workshop planners utilize evaluation/survey from previous workshop to better plan current one</td>
<td>B/C group named in calendar – report to their VPs</td>
<td>After Workshop</td>
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</table>

Change to: Develop/Collate professional materials, and information from associated resources (i.e., AHA/AAHEPRD & Professional Organizations) and

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<tr>
<th>Indicator of Success</th>
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<th>Timeline</th>
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<tbody>
<tr>
<td>Grant awarded; return of award recipients to convention to present</td>
<td>Change to: VPs, Past Presidents, President-Elect</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
<td></td>
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<tr>
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<tr>
<td>5.3</td>
<td>Implement Physical Education Enhancement Grant (PEEG)</td>
<td></td>
</tr>
<tr>
<td>5.3A</td>
<td>Keep members informed of Grant opportunities that are of interest to OAHPERD professionals</td>
<td></td>
</tr>
<tr>
<td>5.4</td>
<td>Provide convention presenters’ and exhibitors’ handouts and contact information on website</td>
<td></td>
</tr>
<tr>
<td>5.4A</td>
<td>Sell convention handouts to convention registrants in form of book/CD (for cost)</td>
<td></td>
</tr>
<tr>
<td>5.5</td>
<td>Provide casual and formal opportunities for members to meet, share ideas, and dialogue with each other</td>
<td></td>
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<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.3</td>
<td>Grant Section on Website with links to available grants; posted on OAHPERD Facebook page and on SDE Listserv</td>
</tr>
<tr>
<td>5.3A</td>
<td>Website has section for this info</td>
</tr>
<tr>
<td>5.4</td>
<td>A copy of presenters’ handouts available to each convention registrant for production cost</td>
</tr>
<tr>
<td>5.5</td>
<td>Increased member involvement in OAHPERD activities. Online social network page utilized by members. Opportunities are available such as Share Workshops (casual time at workshops), are meet and greet socials, and member/student/alumni socials at convention</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Item</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant Committee</td>
<td>Board notify Webmaster, Social Network Manager, Journal editor, SDE Listserv Administrator</td>
</tr>
<tr>
<td>Convention manager or give to webmaster</td>
<td>Convention manager</td>
</tr>
<tr>
<td>Board and Council</td>
<td>Board and Council or Social Network Committee</td>
</tr>
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</table>

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<thead>
<tr>
<th>Timeframe</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convention</td>
<td>Ongoing &amp; B/C meetings</td>
</tr>
<tr>
<td>Ongoing</td>
<td>Convention Ongoing and After Convention</td>
</tr>
</tbody>
</table>
### STRATEGIC GOAL #6

**To increase efficiency and effectiveness of the use of electronically based technology to enhance membership services.**

**Relationship to OAHPERD mission/vision**
- This offers increased avenues of communication among members as well as with partnership groups of Health & Fitness organizations throughout the state.

**Effect on Member Services**
- Technology provides more efficient access to member services information and should help disseminate information in a more rapid and efficient manner.

<table>
<thead>
<tr>
<th>Implementation Objectives/Strategies</th>
<th>Indicator of Success</th>
<th>Person/Division/Council/ Group Responsible</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 Post information regarding state, district, and national activities on webpage and/or in Journal</td>
<td>Successful compliance and involvement in OAHPERD, SDAHPERD, and AAHPERD</td>
<td>Webmaster &amp; Journal Editor</td>
<td>Ongoing</td>
</tr>
<tr>
<td>6.2 Post B&amp;C reports/minutes and motions to be approved on web site prior to meetings so that membership may view and make comments and/or delete reports at meetings to allow more time for discussion</td>
<td>Membership access to reports, minutes, and motions on the web site</td>
<td>Webmaster &amp; Journal Editor</td>
<td>Ongoing</td>
</tr>
<tr>
<td>6.3 Communicate announcements of such things as meetings, conferences, grant applications through email/web site</td>
<td>Increase in involvement</td>
<td>Executive Committee, Webmaster</td>
<td>Ongoing</td>
</tr>
<tr>
<td>6.3A Utilize web page for posting announcements and communicating with members and the Board/Council</td>
<td>Increased interest and membership in related organizations</td>
<td>Webmaster</td>
<td>Ongoing</td>
</tr>
<tr>
<td>6.4 Extend to membership links to other related organizations.</td>
<td>Access to a listserv</td>
<td>Webmaster</td>
<td>Ongoing</td>
</tr>
<tr>
<td>6.5 Research and implement access to a listserv</td>
<td>Listserv</td>
<td>Webmaster</td>
<td>Ongoing</td>
</tr>
<tr>
<td>6.6 Post membership and convention proposal applications on the OAHPERD web site in order to streamline the process</td>
<td>Receiving membership and convention proposal applications online indicating an increase in accessibility for the membership and presenters.</td>
<td>Webmaster &amp; Convention Planner</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
| 6.7 Update OAHPERD’s web site on a regular basis | -More members utilizing the web page for services  
-Picture gallery created, list serve created, online convention registration available, Wiki available, discussion forum available  
Development of those aspects of the OAHPERD.org website by the webmaster | Ex Director  
Webmaster  
Board and Council | Ongoing |
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<tbody>
<tr>
<td>6.8 Website development includes resources for teachers and collegial members. Information about quality OAHPERD topics, practices, upcoming events, and research efforts provided.</td>
<td>Website Committee (a representative from each division and council comprises the website committee)</td>
<td></td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
OAHPERD Journal Peer-Review Guidelines for Authors

Manuscripts involving practical applications for the HPERD readership are priority. Manuscripts that are informational and that involve scholarly research are also encouraged, but must address practical application. You may also submit manuscript materials pertaining to OAHPERD news, statewide news, national news and other items which are not peer-reviewed. The author guidelines in this document apply only to peer-reviewed manuscripts.

Submission Deadlines:
Spring Journal (mid-April): Deadline for peer-reviewed manuscripts February 1st, all other items March 1st
Fall Journal (mid-September): Deadline for peer-reviewed manuscripts July 1st, all other items August 1st.
Winter Journal (mid-December): Deadline for peer-reviewed manuscripts October 1st, all other items November 1st.

Basis for Acceptance of a Manuscript for Publication:
1) Significance to the HPERD profession
2) Accuracy of the material
3) Originality of material
4) Clarity of material
5) Validity of material
6) Compliance with OAHPERD guidelines for submission

Preparation of the Manuscript:
- Manuscripts must be submitted using Microsoft Office Word
- Preferred length of manuscripts submitted, including tables, graphs, references, etc., is 5-12 double-spaced, typed pages using 12 point font. Longer manuscripts will be returned to the author without review. Shorter manuscripts of interest to the readership are appropriate to submit and will be reviewed.
- Manuscripts should be written in third person.
- American Psychological Association (APA) format should be used throughout the manuscript.
- Keep direct quotations, especially lengthy ones, to a minimum (see APA style for formatting)
- Insert line numbering in the manuscript as it is helpful in communicating location if there are questions or corrections to be made. (Microsoft Word = File, Page Setup, Layout, Line Numbering, Check Line Numbering Box, Continuous, Apply)
OAHPERD Journal Peer-Review Guidelines for Authors—Page 2

Submitting the Manuscript:
- E-mail manuscript and author(s) information in separate files as attachments to the OAHPERD journal editor, Dr. Tyler Tapps (tyler.tapps@okstate.edu). There should be no identifying information in the manuscript itself, as they are blind reviewed. In the e-mail include a statement indicating the manuscript has not been submitted (simultaneously) or published elsewhere.
- There should be no identifying information in the manuscript itself, as they are blind reviewed. In the e-mail include a statement indicating the manuscript has not been submitted (simultaneously) or published elsewhere.
- Include all original (not resized) photos, artwork, and illustrations
- Photos, artwork, tables, illustrations, and other additions to text should be captioned and placed in the document file where they should be located in the published article. They may also be sent on a separate page or in a separate file as long as it is clear where they should be placed. (In some cases they may need to be moved due to publication considerations.)

Review of the Manuscript:
- OAHPERD’s journal advisory board is made up of five members appointed by the journal editor, with the journal editor serving as chair.
- Each manuscript submitted for peer review will be sent by the editor to advisory board members. Each manuscript will be reviewed by at least three advisory board members.
- If the editor determines that the manuscript topic falls outside the expertise of board members, an outside reviewer from the field may be solicited.
- All peer reviews will be blind. The editor will not send the authors’ names or personal information with the manuscript to the journal advisory board.
- The journal advisory board may provide corrections with regard to grammar or spelling without notifying the author as long as it does not change the meaning of the content. However, the lead author will be notified and asked to make corrections, if the errors are numerous or there are significant revisions required in order for the manuscript to be published. If the manuscript is considered of great or vital interest to the readership and the changes/corrections needed are not deemed to be overwhelming, members of the journal advisory board are encouraged to assist the author(s) in developing the manuscript. The lead author will be notified regarding status of their manuscript.
- If a manuscript is selected for the journal, it will be published in the earliest available issue. (Manuscripts may be pushed to a later journal due to space and printing constraints. The lead author will be notified.)
- If a manuscript is found to be partially or completely plagiarized: 1) it will not be published, 2) the author(s) will receive a formal letter, 3) the author(s) place of employment will receive a copy of the letter, and 4) the author(s) will be ineligible for OAHPERD publication for a minimum of 3 years.
- Authors should contact the journal editor (Tyler Tapps) with concerns or questions regarding issues dealing with the manuscript they have submitted. Members of the journal advisory board should not be contacted regarding manuscript submission.
Assessment and Analysis of Skill Related Health Concepts in Physical Education and Coaching

Jess Florence
Oklahoma State University

Tim Baghurst
Oklahoma State University

Abstract

Skill related health concepts are an important part of an adolescent’s development. Not only are they important for the overall health of the future adult, they also serve as key determinants in athletic success. However, as a physical educator or coach it is important to determine whether any teaching or coaching imparted is improving these skill related health concepts. Typically, this is accomplished through pre and posttests whereby some intervention or training occurs in-between. Average scores are calculated, and a conclusion is made using these averages. Unfortunately, averages are not the best method for determining improvement, and more complex statistical analysis provides better evidence whether interventions are successful. In the present article, an overview of the importance of developing skill related concepts in adolescents is provided in addition to a step-by-step guide on how to statistically test whether interventions are successful. Using statistical analysis will provide the educator or coach with more robust arguments to support or change training or teaching methods.
Why Assess Skill Related Health Concepts

Athletics has become one of the biggest financial markets in our culture today. From little league to professional levels there is an increasing interest in sports, competition, and athletics. The number children participating of youth sport programs have increased significantly. According to Hilgers (2006), “there are an estimated 41 million American kids playing competitive youth sports” (paragraph 4). In nearly every sport there has been a significant increase in the past 10 to 20 years. For example, soccer participation has increased by 2.5 million in 15 years and in those same 15 years the number of children who signed up for youth football has nearly doubled from approximately 130,000 to 260,000 participants. Non-traditional and extreme sports participation such as skateboarding, mountain biking, and snowboarding have also seen an increase in participation during recent years (Hilgers, 2006).

With this particular increase in sport and athletic competition many parents are interested in helping their child become an elite athlete and experience success in a specific sport. However, although a focus on one sport is common, this may not be the best method for developing an elite athlete. Instead, research suggests that the elite development is acquired through participation in a variety of sports during early adolescence where an emphasis is on enjoyment as a key component (Côté, 1999). In fact, Balyi and Hamilton (2004) report that “scientific research has concluded that it takes 8 to 12 years of training for a talented player/athlete to reach elite levels. This is called the 10-year or 10,000 hour rule and translates to more than three hours of practice every day for 10 years” (p.1). It is possible that parents familiar with these findings attempt to begin deliberately practicing as early as possible believing that practicing sooner will equal an earlier, elite level ability. Unfortunately, such actions fail to consider factors such as motivation, burnout, or other personal interests.
Instead of focusing on developing an elite level athlete, physical educators need to direct their efforts toward enjoyment of lifetime physical activity. According to the National Association for Sport and Physical Education (NASPE), physical educators should be trying to instill behaviors in their students that will promote life-long physical activity which will help fight the obesity epidemic. One way that NASPE suggests that physical educators do this is by assessing their students’ skills-related physical fitness levels and working to improve those skill levels. If students can become more skilled at specific sports then they will be more inclined to participate in physical activity outside of class time (Mason, 2009). Balyi and Hamilton (2004) suggest certain “windows of opportunity” that children possess at certain age levels. The first window is one of “accelerated adaptation to speed” which occurs in girls and boys between the ages of 6-8 and 7-9 respectively. This is the optimal time for them to develop agility, quickness, and change of direction which is applicable to many sports and activities. A second window of opportunity occurs during the preadolescent years that highlight speed and explosive strength, or power (Lloyd, 2012). These windows of opportunities are very crucial times for children to develop these physical skills. Lloyd and Oliver (2012) point out that not utilizing these critical opportunities may limit the development of the athlete and may lead to a decreased full potential.

**What Skills are Included?**

In order to address the goals of NASPE and develop specific skills that will ultimately reduce obesity, the long-term athlete development (LTAD) model should be encouraged (Mason, 2009). Long-term athlete development breaks down a person’s life-span into six categories and specifies how, what, and when to train/develop in those particular stages. The present article focuses on the early levels of development and training, such that could be found in an elementary physical education class setting. Balyi and Hamilton (2004) call the first category of
the “FUNdamental” stage which ranges from ages 6-9 and the “Learning to Train” stage which ranges from 9-12. These stages of development should span grades one through six and focus on skill-related concepts.

Skill-related health concepts are the underlying skills which are needed in sport competition and include speed, agility, power, coordination, and reaction time. Skills such as these are not only important for use in sports, but they are also very beneficial in everyday life. Helping students feel more confident at playing a variety of recreational sports will in turn make them more likely to be physically active (Mason, 2009). Many adults are approached with the opportunity to participate in recreational activities, and if they had already developed these skills they would be much more likely to participate and enjoy the activity (Balyi, 2004). These skill-related components provide a foundation of basic movement principles.

The LTAD model suggests that these early stage children should be given a very good overall development of fundamental movement skills where these concepts should be developed through fun games, activities, and lessons (Balyi, 2004). Therefore, the purpose of this assessment is to determine skill-related fitness levels of elementary students. By determining such levels the physical education teacher will become more knowledgeable about what areas of skill-related fitness each student needs to better develop.

What Tests to Include and Why

Physical Education teachers must utilize these so called “windows of opportunity” if their students are to develop these skills-related fitness components that can be used throughout their lives to help them enjoy different types of physical activity through competitive and recreational sports. In this article, an example assessment is provided that measures speed, agility, power,
reaction time, and coordination. A rationale for each component is provided along with a specific “real-life” example.

Speed is defined as the ability to perform a movement in a short period of time (Matte, 2011). It is critical for fast paced sport positions such as a point guard in basketball or a running back in football. In this assessment the 20m + 20m test will be used, as it removes the variability of different acceleration and anticipation rates among the elementary students who will be tested. The students should run 40 total meters; 20 meters untimed and 20 meters timed. They should be at a relatively constant acceleration rate when they hit the beginning of the final 20 meters (timed) and should continue to run as fast as they can until the finish. This test will give a good idea of true speed since any acceleration will be removed from the test (Makaruk, 2009).

Agility is defined as being able to change directions and body positions very quickly and accurately (Matte, 2011). This skill is very important in sports like tennis, racquetball, football, and basketball where changing directions is a crucial part of the sport. The Illinois agility test can be used to assess this skill. It is used in numerous agility research studies including sports such as rugby, field hockey, and other basic youth tests (e.g., Gabbett, 2002; Keogh, 2003; Whitehead, 1989).

The next component that will be tested is power, or also known as muscular explosiveness. The most common definition of this component is the ability to produce maximum force in a quick explosive burst; therefore, it is a combination of strength and speed (Matte, 2011). Some applications of power could include a football lineman exploding out of his three point stance or a swimmer bursting off of the starting platform. In the present example, two tests will be used for measuring power to include both upper and lower body measures. The students will be completing the squat jump to test their lower body power and a medicine ball
putt to test their upper body power (Miller, 2012). According to Markovic, Dizdar, Jukic, and Carinale (2004), from their research on the reliability of jump tests, the squat jump is one of the most reliable and valid tests of lower body muscular power. The seated medicine ball put has been one of the most commonly used tests of upper body power. Miller (2012) states that “the widespread popularity of this test is due not only to the ease of administration, but also to the direct specificity of this movement to a functional task” (p. 316). In addition these tests will be simple to conduct with elementary school students in a gym setting.

Hand-eye and foot-eye coordination will also be tested to determine if a child is fully coordinated from top to bottom. The hand-eye coordination test will be conducted using the popular activity of Speed Stacking. According to Mayer and Murray (2004) coordination is “the integration of the nervous and muscular system to produce correct, graceful, and harmonious body movements” (p. 413). In their research study they concluded that speed stacking is a very good measure of hand-eye coordination. To measure foot-eye coordination a test will be formed using a hacky sack during which the students will be using their eyes to track the hacky sack and only one foot to try and catch it on. This test is being formed, as there is no validated and reliable measure of foot-eye coordination of adolescents available.

The last skill-related component that could be included is reaction time. However, because reaction time is an inherent ability that cannot be improved, it will not be included in this assessment (Mackenzie, 1998).

**How to Conduct the Assessment**

In this example the assessment will be done all in one week during the student’s scheduled physical education classes. Since the equipment is being borrowed, it is important to have it used and returned during the same day to reduce the possibility of losing the equipment.
Students will have their own fitness sheet on which the volunteers will record all of their results. As they approach a station they will give the volunteer the sheet, perform the test, and must take their sheet with them to the next station. There will be four stations (jump squat, medicine ball put, speed stacking, and hacky sack) set up inside the gymnasium and two stations (Illinois agility test and 20+20 run) set up on a grassy field. The stations are split up because there isn’t enough room in a typical gymnasium to conduct all of the tests; also the agility and speed tests require at least 50 meters of space.

The Illinois Agility Test (Whitehead, 1989) will be set up in a grass field and will require eight cones and one stop watch (see Figure 1). The stop watch should be started as the participant crosses the start and stopped as soon as any part of their body crosses the finish line. Before the participant begins they will be shown a picture of the path they are supposed to take and a volunteer will run through the course to show them the correct way to weave through the cones. To use time effectively it would be beneficial to let a group of participants be shown the course all at once to limit the wait time between trials.

The 20+20 meter run to test speed will also be set up on the grassy field. This test will require three cones and one stop watch. The three cones will be set up in a line 20 meters from each other. The end cones will be the start and finish line and the middle cone will be the speed test start line. The first 20 meters is the acceleration phase and the participants will have this distance to try and get to their top speed before the stop watch is started. They will continue to run to the last cone/finish line where the time will be stopped and recorded (see Figure 2).

Upper body power will be tested using the medicine ball put. Each participant will sit back on the 45° incline bench with a four pound medicine ball held at chest height. There should be a tape measure taped to the floor beginning at the front of the bench and extending across the
gymnasium floor in a straight line. The participants will be asked to put or push the ball into the air while keeping their back in contact with the bench. This motion should mimic a chest pass in basketball but should be putted at a 45° angle, which is the same angle that they will be laid back on the bench. The distance that the ball travels from where it is released to where it lands on the floor is to be recorded.

The lower body portion of the power test will be done using a squat jump. To test the force produced during the squat jump a force mat will be used. Each participant will be shown how to execute a proper squat jump before doing a practice trial followed by the true test standing on the force mat. To perform a proper squat jump the participants will start with their hands on their head and their knees at a 90° angle. From that position the participant will jump as high as they can, leaving their hands on their head. The hands must remain on their head to keep them from creating momentum from swinging their arms. The force mat is not a readily available piece of equipment, but might be borrowed from a university kinesiology program. The volunteer working this station will need to become familiar with the instrument before administering the tests. This station will need a table to place the computer on and the attendant to sit at to view the data. The data from the jump squat is fed into a computer and the results should be recorded on the student’s fitness sheet.

The hand-eye coordination test will be executed using Speed Stacking. The week before the test the students will need to watch the Speed Stacking video that will be supplied. The students need to be familiar with how the Speed Stacking activity works to be able to perform it correctly. There will need to be a table at this station so that the participants will have something to stack the cups on top of. Each participant will get two trial runs to familiarize themselves with the process. The third trial will be the actual test and will be timed. The participants will have to
take six cups which are stacked inside of each other and stack them into a pyramid, as shown in the video. The time it takes them to stack the cups will be recorded by a volunteer on the student’s fitness sheet.

The final station will test foot-eye coordination using a simple hacky sack. A volunteer will drop the hacky sack from six feet above the ground and three feet in front of the participant. The participant will then attempt to see how many consecutive times they can kick the hacky sack, using any part of their foot, into the air without it touching the ground. The number of times the hacky sack is kicked will be recorded on the fitness sheet. There should be two practice trials given for students to familiarize themselves with the process. Once all of the stations are completed the participants should sign the bottom of their fitness sheets and hand them to the supervisor.

Example Data

In order to determine whether students have improved from one test to another (e.g. September to April) it is important to determine whether statistical improvement has occurred. Statistically measuring the changes allows a teacher or coach to determine whether improvements observed are due to chance or something else (e.g., interventions that deliberately develop health-related sport skills) have helped to cause the improvements. Included is a typical set of data that will be used to provide a guide through the data entry, analysis and interpretation of the outcome. In the following hypothetical situation, 29 boys and 26 girls completed the assessments.

Example Analysis

In order to statistically analyze this data, SPSS was used. Once the program has been opened, new data should be entered as in Figure 3. Each row in the window represents an
individual participant in which their pretest score/time and posttest score/time are in the same row as the corresponding participant’s number. In this example Participant One had a pretest time of 18 seconds and a posttest time of 19.3 seconds. The data should be entered the same for every participant. Once all data is entered, the “Analyze” tab should be selected. From the drop down list of options, “Compare Means” should be selected, giving more additional options. Of the compare means options, “Paired Samples T-Test…” should be selected. Once selected the window, shown in Figure 4, will appear to determine what variable should be compared. Using the mouse, click “Pre Test (Pre)” from the list and drag it under “Variable 1” in the “Paired Variables” table. Proceed to do the same with “Post Test” (Post), dragging it under the “Variable 2” space. Once this is completed, the option to click “OK” at the bottom of this window will be available (Figure 5). After clicking “OK” another window should appear which displays the analysis of the data that had been entered at the beginning (Figure 6). Adjust the window size to view all three boxes of statistical information.

Analyzing the Output

The following is an example of how to interpret the above hypothetical statistical information that was generated using SPSS and was conducted on the Illinois Agility Run shown in Figure 6. For the purposes of this example, the paired samples test is what is most important and in particular the number under Sig. (2-tailed). If this number (which in this case is .000) is less than .05, then there is a significant difference between pretest and posttest. The box labeled Paired Samples Statistics provides the mean/average scores of the pretest and posttest. Thus, based on these scores, participants significantly decreased their time in the test.
Conclusion and Additional Application

In conclusion, instead of only assessing a student’s fitness based on health related components, the skills related components can also be assessed to provide an overall understanding of a student’s physical fitness. This assessment can also be used beyond the physical education classroom. Coaches, personal trainers, and fitness specialists can use this assessment as part of their program to monitor progress in speed, agility, power, and hand-eye/foot-eye coordination. Furthermore, the more adventurous could include a control group in this assessment to see if the students or participants are making positive gains because of the fitness program or because of other factors such as normal growth/development or free play in sports at home. In sum, this assessment should provide a basis or starting point for anyone looking to improve their student’s or athlete’s fitness in a different way than focusing on health related fitness components, and statistically demonstrate that improvement is occurring.
References


Figure 1: Illinois Agility Test

Figure 2: 20 + 20 Run
Figure 3

Figure 4
Assessing Employee Interest in Wellness Programs at Colleges and Universities

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Oswego State University

Tyler Tapps
Oklahoma State University

Raffy Luquis
Penn State University

Abstract

A needs assessment is crucial for colleges and universities who wish to develop programs because of the wide range of employee types, interests, and backgrounds within their educational system. Researchers developed an assessment instrument to uncover the needs and wants of employees when designing a campus wellness program. A total of 438 employees from a mid-sized state university in the northeast completed a web-based survey. Significant differences were found between the subsets of “Lifestyle”, “Physical Activity”, and “Nutrition” programming activities. Findings suggested that employees were most interested in individual programming items such as strength training, stress reduction, and managing overall health classes, while Weight Watchers™, time management, and smoking cessation were found to be the least desired.
Introduction

The enactment of the Patient Protection and Affordable Care Act in 2010 (U.S. Department of Health and Human Services [DHHS], 2012) revitalizes the need for employee wellness and worksite health promotion programs. This new law establishes new incentives and uses existing wellness program policies to promote healthier workplaces, which would offers our nation an opportunity to improve the health of Americans and help control health care cost (DHHS, 2012). Over the past decade, studies have shown a positive health and financial impact of health promotion program in the worksites. For example, Naydeck, Pearson, Ozminkowski, Day, and Goetzel (2008) found that health care costs rose slower for participants of the Highmark employee wellness programs than non-participants. In addition, the program yielded an estimated return of investment of $1.65 for every dollar spent. Similarly, Baicker, Cutler, and Song (2010), who conducted a meta-analysis of workplace disease prevention and wellness program, found that overall medical and absenteeism costs decrease $3.27 and $2.73, respectively, for every dollar spent in wellness programs. Finally, Henke, Goetzel, McHugh, and Isaac (2011) found that Johnson and Johnson worksite health promotion program, one of the longest existing program in the nation, saved the company $565 on 2009 dollars on average per employee, and that employees benefited from a meaningful reductions in rates of obesity, high blood pressure, high cholesterol, tobacco use, physical inactivity, and poor nutrition.

Like companies, colleges and universities benefit from having health promotion programs for employees. Colleges and universities are unique in that most, if not all of them already possess the ability and facilities that are needed for a successful employee wellness program. Many universities already have recreation, health, and fitness resources that place them in an unique position to provide effective wellness programs. Further, many campuses provide
wellness programs to students, which can be altered to fit the needs of the employees (Carter, Kelly, Alexander, & Holmes, 2011).

For example, researchers at a large mid-western university developed a walking and wellness program to evaluate the effects on faculty and staff. By use of pedometers, a computer educational program, and weekly e-mail reminders, this comprehensive program showed positive improvements in Body Mass Index, blood glucose, blood pressure, and cholesterol (Haines, Davis, Rancour, Robinson, Neel-Wilson, & Wagner, 2007). Further, unexpected positive effects were found such as diet improvements, increased physical activity and health awareness, as well as interest in the program from the participants significant others (Haines et al., 2007).

Finally, colleges with academic departments in health and wellness can use employee wellness programs as a way to incorporate hands on learning experiences for their students by allowing them to assist in the delivery of the program. In 2009 the University of Alabama began implementing WellBama a collaborative health promotion and wellness model, which provide health screening, advising, monitoring, and supporting services (Carter, et al., 2011). By the end of its first year, the WellBama positively impacted the University employees and students. The authors concluded that this collaborative model approach could be beneficial to other University settings (Carter, et al., 2011).

Nonetheless, before colleges and universities spend resources in developing employee wellness programs, it is important that assessments are conducted to determine the attitudes and preferences of participants in such programs (Bright, et al., 2012). This formative assessment helps to uncover the needs and opportunities for promoting employee wellness at colleges and universities (Linnan et al., 2010). Assessing novel wellness interventions helps to increase the stratification of participants in the employee wellness programs (Haines et al., 2007). Thus, the
The purpose of this study was to conduct an assessment on the employees of a university to uncover their true wants and needs in an employee wellness program.

**Method**

**Participants**

The majority of the 438 participants were female (58.4%) and were employed fulltime by the university (79.2%). Ages ranged from 18 years of age to over 56 years of age with the significant portion of the sample (72.9%) being over the age of 35. The largest amount of respondents identified themselves as faculty members (35.2%) with other participants being administrators, professional staff, classified staff, or auxiliary staff members. Of the participants only 30.4% reported being members of a fitness club and only 25.3% stated that they were frequently or very frequently physically active at work. Only 4.8% of participants reported that they would not participate in activities encouraging a healthy lifestyle if they were offered to them (Table 1).

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Collective Demographic Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic</strong></td>
<td><strong>Response</strong></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
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<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td><strong>Age</strong></td>
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</tr>
<tr>
<td></td>
<td>26-35</td>
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<td></td>
<td>36-45</td>
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<td></td>
<td>46-55</td>
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<td>56+</td>
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<td><strong>Employment Type</strong></td>
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</tr>
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<td>Faculty</td>
</tr>
<tr>
<td></td>
<td>Professional Staff</td>
</tr>
<tr>
<td></td>
<td>Classified Staff</td>
</tr>
<tr>
<td></td>
<td>Auxiliary Services</td>
</tr>
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<td></td>
<td>Other</td>
</tr>
<tr>
<td><strong>Employment Status</strong></td>
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</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Part Time</td>
<td>60 (13.7%)</td>
</tr>
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</table>

**Member of Fitness Club**

<table>
<thead>
<tr>
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<th>Yes</th>
<th>133 (30.4%)</th>
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</thead>
<tbody>
<tr>
<td>No</td>
<td>299 (68.3%)</td>
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</tr>
</tbody>
</table>

**Physically Active Job**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>59 (13.5%)</th>
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</thead>
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<tr>
<td>Rarely</td>
<td>149 (34%)</td>
<td></td>
</tr>
<tr>
<td>Occasionally</td>
<td>104 (23.7%)</td>
<td></td>
</tr>
<tr>
<td>Frequently</td>
<td>68 (12.5%)</td>
<td></td>
</tr>
<tr>
<td>Very Frequently</td>
<td>56 (12.8%)</td>
<td></td>
</tr>
</tbody>
</table>

**Participate in Activities**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>191 (43.6%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>21 (4.8%)</td>
<td></td>
</tr>
<tr>
<td>Not Sure</td>
<td>162 (37.0%)</td>
<td></td>
</tr>
</tbody>
</table>

**Instrument**

For this study, the researchers developed an instrument to uncover the interests, needs, and wants of employees when designing a campus wellness program. The instrument was composed primarily from two existing surveys that were used to assess employee wellness needs and wants; the Fort Martin/Albright Region Worksite Wellness Survey which has been used by numerous local and state agencies, and is recommended by the National Safety Council (National Safety Council, 2012), as well as the Worksite Wellness for Tompkins County New York Survey (Tompkins County Health Department, 2012). Members of the committee tailored these surveys as well as included additional questions to make their instrument more applicable to their target population. The survey contained 33 questions in the areas of demographics, attitudes towards health and wellness, health history, physical activity, and programming. In order to assess the reliability of the programming scale, which was used for the analysis in this study, researchers conducted a reliability analysis. They found the current scale had a good internal consistency, with a Cronbach alpha coefficient of .85.

**Procedure & Data Analysis**

After IRB committee approval the survey and informed consent was distributed by the Office of Institutional Research via e-mail to all 1,536 employees of the university. In order to
increase participation, the committee offered participants the opportunity to be entered into a
drawing to win one of five free memberships to the campus recreation center. After one week, a
follow up e-mail was sent to all employees to remind them to complete the survey. At the
conclusion of two weeks the survey was closed and yielded 438 responses (28.5% response rate).
Most of the responses (67.2%) came from administrators, faculty, and professional staff.
Descriptive statistics of the participants’ interest in wellness activities were collected online and
analyzed using SPSS 16.0. In some cases the respondents did not answer a question, for these
analyses the missing data was excluded pairwise.

Results

Respondents were asked to rate 15 programming options which they would be most
interested in attending sessions on by using a five-point likert scale form 1 = “Not Interested At
All” to 5 = “Very Interested”. The 15 programming options were broken down into three
subsets by the research team: (1) “Physical Activity” (How to start an exercise program, Strength
training, Yoga classes, Zumba™ Classes, and Walking clubs) (2) “Nutrition” (Cooking classes,
Eating healthy, Weight Watchers™, and Healthy shopping on a budget) (3) “Lifestyle” (Stress
reduction, Sleep improvement, Smoking cessation, Time management, Health screenings, and
Managing overall health). In order to assess the interest of programming in each of these subsets,
the responses of each individual variable in the subset were added to calculate an overall score,
and the means (M) and standard deviations (SD) were used for comparison. Of these three
programming options, participants reported the most interest in “Lifestyle” (M = 18.33 ± SD =
4.73) followed by “Physical Activity” (M = 16.31 ± SD = 4.35), and “Nutrition” (M = 12.75 ±
SD = 4.13). A one-way repeated measures ANOVA was conducted to assess significant
differences between the three subsets, followed by a Bonferroni post hoc. Results suggested
there were significant differences between each of the three subsets, Wilks’ Lambda = .35, $F\left(2, 362\right) = p < 0.000$, multivariate partial eta squared = .64.

Researchers were also interested in assessing individual programming options to better construct a successful program. A chi-square was conducted to assess the level of interest in each of the individual programming options. Researchers combined categories 1-2 (Not Interested at All and Not Interested), 3 (Neutral), and 4-5 (Interested and Very Interested) to determine the level of interest by response percentage. Of the individual programs, participants responded that they were most interested in “Strength Training” 66.2% interested or very interested ($M = 3.69 \pm SD = 1.12$), “Stress Reduction” 62.6% interested or very interested ($M = 3.64 \pm SD = 1.18$), and “Managing Overall Health” 60.1% interested or very interested ($M = 3.58 \pm SD = 1.13$). The individual programs that participants had the lowest interest level in were “Smoking Cessation” 6.8% interested or very interested ($M = 1.49 \pm SD = 1.05$), “Weight Watchers™” 24.9% interested or very interested ($M = 2.56 \pm SD = 1.36$), “Time Management” 33.8% interested or very interested ($M = 2.87 \pm SD = 1.30$) (Table 2).

Table 2

Results of Program Interest Assessment

<table>
<thead>
<tr>
<th>Subset</th>
<th>Programming Option</th>
<th>$M \pm SD$</th>
<th>Chi-Square Interest Level of Individual Programming Options*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifestyle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stress Reduction</td>
<td>3.64 ± 1.18</td>
<td>17.0%</td>
</tr>
<tr>
<td></td>
<td>Managing Overall Health</td>
<td>3.58 ± 1.13</td>
<td>16.2%</td>
</tr>
<tr>
<td></td>
<td>Health Screenings</td>
<td>3.36 ± 1.19</td>
<td>20.6%</td>
</tr>
<tr>
<td></td>
<td>Sleep Improvement</td>
<td>3.33 ± 1.39</td>
<td>25.6%</td>
</tr>
<tr>
<td></td>
<td>Time Management</td>
<td>2.87 ± 1.30</td>
<td>36.8%</td>
</tr>
</tbody>
</table>

*Chi-square results indicate a significant difference among the three subsets.
Smoking Cessation 1.49 ± 1.05 82.0% 7.3% 6.8%

*Physical Activity* 16.31 ± 4.35

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mean ± SD</th>
<th>Participating %</th>
<th>Interested %</th>
<th>Not Interested %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength Training</td>
<td>3.69 ± 1.12</td>
<td>14.5%</td>
<td>18.5%</td>
<td>66.2%</td>
</tr>
<tr>
<td>Yoga</td>
<td>3.50 ± 1.34</td>
<td>20.3%</td>
<td>19.3%</td>
<td>57.2%</td>
</tr>
<tr>
<td>Walking Clubs</td>
<td>3.04 ± 1.34</td>
<td>33.1%</td>
<td>24.7%</td>
<td>40.8%</td>
</tr>
<tr>
<td>Starting an Exercise Program</td>
<td>3.04 ± 1.30</td>
<td>30.3%</td>
<td>27.6%</td>
<td>39.9%</td>
</tr>
<tr>
<td>Zumba™</td>
<td>3.04 ± 1.38</td>
<td>35.2%</td>
<td>22.3%</td>
<td>40.3%</td>
</tr>
</tbody>
</table>

*Nutrition* 12.75 ± 4.13

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mean ± SD</th>
<th>Participating %</th>
<th>Interested %</th>
<th>Not Interested %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eating Healthy</td>
<td>3.47 ± 1.25</td>
<td>23.0%</td>
<td>16.0%</td>
<td>59.6%</td>
</tr>
<tr>
<td>Cooking Classes</td>
<td>3.37 ± 1.34</td>
<td>24.6%</td>
<td>18.7%</td>
<td>54.5%</td>
</tr>
<tr>
<td>Healthy Shopping on a Budget</td>
<td>3.33 ± 1.34</td>
<td>26.0%</td>
<td>19.0%</td>
<td>53.1%</td>
</tr>
<tr>
<td>Weight Watchers™</td>
<td>2.56 ± 1.36</td>
<td>46.9%</td>
<td>24.4%</td>
<td>24.9%</td>
</tr>
</tbody>
</table>

*In some cases participants did not respond, thus the percentages may not add to 100%.

* Significant difference (p < .01)

**Discussion**

Many of the current employee wellness programs focus on reducing negative chronic health conditions by offering a programming and activities to their employees to help offset the rising cost of health insurance. In order for these programs to be well received and successful, the employees’ true needs and interests should be assessed.

The current study asked all employees from a single university to rate their interest levels in 15 different programming areas. The employees surveyed came from all areas of the university with varying physical activity levels while at work and represented all ages. Researchers found that only a small percentage of employees (4.8%) said that they would not participate in wellness programming if it was offered. This suggests that there is an interest in...
employee wellness programs for all employees at universities, regardless of their job responsibilities.

Many current employee wellness programs stress the importance of physical activity and proper nutrition. Interestingly, the current sample of employees indicated that they were most interested in Lifestyle activities (e.g. stress reduction, managing overall health, etc.). Although physical activity and nutrition are important aspects of any employee wellness program, this suggests that today's college and university employees may be more interested in learning more about changing lifestyle factors that will positively assist with their overall wellness. This may be because their hectic lives do not allow for time to exercise or to prepare a healthy meal. These results indicate that there is a growing need and interest to incorporate these lifestyle programming options into employee wellness programs along with the traditional physical activity and nutrition programming.

The current assessment of employee interest in wellness programs suggested that there were a number of specific, individual programming options that interested employees. Strength training, stress reduction, and managing overall health were rated highest with this population. Although this was a large sample size, which well represented the make-up of employees where the survey was distributed, each university is different. There is a need for employee wellness committees to assess their individual campus to best develop a program that will have high participation rates and success.

Conclusion

Colleges and universities are located all over the world and have a diverse population of administration, faculty, and staff. Because of this, wellness program coordinators need to be able
to effectively assess the unique needs and interests of their campus. Thus, as a first step wellness program coordinators should gather information and uncover the needs and wants from their specific employees, which will help to fulfill the needs of their campus (Barker & Glass, 1990; Bright, et al., 2012). By far, the most common method of assessment is a health risk assessment. This assessment collects baseline health information from each participant so that the employer can use it to target their wellness program (Baicker, Cuttler, & Strong, 2011). While a health risk assessment can help employers to measure baseline health data, for an employee wellness program to be successful it must offer programing that appeals to the employees (Carter, Gaskins, & Shaw, 2005; Sofie, 2000). The idea of looking at employee interests and needs is nothing new. Past studies such as Baker and Glass (1990) have looked at the perceived wellness interest and needs in college and university employees. This study suggested that employers focused on stress management, physical fitness, nutrition, and weight control. In many workplaces these focal points still hold true, however the information is outdated and does not include new areas of programming. Furthermore, most current research about interests in employee wellness programs has been conducted using samples from large corporations and does not take into account the unique settings of colleges and universities. The diverse make up of employees at colleges and universities requires special consideration by wellness committees when offering programs. To be successful in gaining employee participation, wellness committee members face and increasing need to understand the specific innovative programs and unique needs of employees. Many colleges and universities already have the physical tools and expertise on campus to begin an employee wellness program. It is the responsibility of those in charge of the employee wellness programs to assess what it is that the employees are truly interested in, and then in turn create a wellness program that reflects the interests of the employees.
References

*Health Affairs, 29*(2), 304-311.


A Practical Method for Determining Muscular Strength and Muscular Endurance in Adolescents Over Time

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Oklahoma State University

Tim Baghurst

Oklahoma State University

Abstract

Muscular strength is an important component of both physical education and coaching programs. However, it can be difficult to determine whether students or athletes are actually improving. Therefore, the purpose of this article is to provide an overview of recommended measures of muscular strength and muscular endurance in adolescents and demonstrate a method for statistically determining changes in overall upper and lower body muscular strength and endurance in adolescents over time. Using the assessment measures of modified pull ups, pushups, half sit-ups, standing long jump, and standing vertical jump an example data set is analyzed using a repeated-measures ANOVA to explain how physical educators and coaches can statistically determine whether improvements are being made through a season, semester, or school year.
The Importance of Muscular Strength and Endurance

Muscular strength and endurance are key components of an adolescent’s health, and serve as key components in fitness (Burnstein, Steele, & Shrier, 2011). They are frequently a measure used in determining student (hereafter we use the term student to also include athletes) fitness and is reported in many fitness assessments such as the Fitnessgram (Fitnessgram, n.d.).

This article seeks to provide a practical understanding of muscular strength and endurance, their importance in assessment, and how to statistically determine whether students are improving or not based on the methods being taught. The use of statistical analysis allows teachers or coaches to demonstrate that any changes that might occur are not the result of chance, but due to instruction. In addition, should the analysis demonstrate no evidence of improvement, modifications or adjustments to instruction can be supported.

Research has shown that physical fitness at a young age can help prevent injuries that may occur later on in adulthood (Mikkelsson, Nupponen, Kaprio, Kautiainen, Mikkelsson, & Kujala, 2006). Mikkelsson et al. (2006) found that the development of strength, flexibility and physical activity at an adolescent age lowered the risk of back pain in adulthood. According to Greene and Adyanju (1991) unhealthy lifestyles during youth directly and negatively impact both physical and mental problems in adulthood. Thus, exercise and physical fitness programs that are introduced during adolescence can serve as a preventative strategy.
Assessment Components

The first component of the assessment is the push up (PU). The push up measures the muscle endurance of the chest, shoulders, and triceps muscles (Quinn, 2008). According to Quinn, (2008) participants should:

- begin in a push up position on hands and toes with hands shoulder-width apart and elbows fully extended. While keeping a straight line from the toes to hips, and hips to the shoulder, lower your upper body so your elbows bend to 90 degrees. Push back up to the start position. (p.1)

The aforementioned evaluation has been documented as reliable, easy to perform, and low maintenance in regards to the amount of equipment required (Augustsson, Bersas, Mangusson, Sahlberg, Augustsson, & Syantesson, 2009). Once the student has started the test, the student may not pause and may not adjust their position.

The modified push up may need to be administered which is also valid and reliable (McManis, Baumgartner, & Wuest, 2000). The modified push up is similarly conducted with the modification being that the point of contact is on the knees instead of the toes. The student should record the number of push-ups completed until failure.

The second component of the assessment is the half sit-up. The half-sit up measures the muscle endurance of the abdominals as it assist in maintaining trunk and spine stability, reduces lower back pain, and improves athletic performance (Parfrey, Docherty, Workman, & Behm, 2008). The criteria of the half sit-up suggest that the individual should be supine to begin with knees at 90 degrees. Hands should be pronated on the floor or mat with fingers pointing straight and elbows locked. The participant should then raise their trunk until the back tip of the scapula leaves the floor. This method removes hip flexor strength from the sit up.
The third component of the assessment is the Baumgartner modified pull up (BMPU). The pull up assesses the muscle endurance of the biceps and back muscles of the student. The BMPU has been documented as both valid and reliable for both genders and should be performed as laid out by Baumgartner and Gaunt (2005).

To administer the BMPU an inclined track is needed with a pull up bar at the top and a scooter on the track. The test requires the participant to lie prone on the scooter with the top of the scooter positioned at the bottom of the sternum. The participant grasps the pull up bar at the top of the inclined track with an overhand grip and hands about shoulder width apart. From a straight arm position the participant pulls up the inclined track until the chin is over the pull up bar and then returns to the straight arm starting position. This action is repeated as many times as possible. (p.52)

The fourth component of the assessment is the standing long jump. This measures the lower body strength of the student. The student has the option to substitute the vertical jump test or the standing long jump to accommodate for participant comfort levels. The distance should be recorded in inches and both tests are valid (Jaksic & Cvetkovic, 2009). The triple jump was not an option, as it is too difficult for middle school students to learn and be able to perform for the test. Almuzaini (2000) explains how to execute this component.

Standardized instructions were given to subjects that permitted them to begin the jump with bent knees and swing their arms to assist the jump. A line drawn in a hard surface served as a starting point. Length of the jump was determined via a tape meter, which was affixed on the floor on the side of the jumping area. Each subject was given three trials and the distance of the best jump was measured…where the heel closest to the line landed. Subjects were required to jump vertically as high as they could in order to
evaluate lower body strength by utilizing the vertical jump test. Because time is not a factor in the measurement, this serves as a measure of muscular strength. In preparation for the jump, the subjects were allowed to crouch momentarily and then were helped by a swing forward with the arms at the peak of the jump, the subjects marked the measuring board with chalk… subjects were given three trials and the best value of the three jumps was taken as the score. (p.351)

**The Problem with Averages**

The use of averages and percentages are common in determining change, yet they do not show a significant difference in change. When comparing a percentage or an average of a group there is no indication of any outliers that might have skewed the data. In addition, it is not possible to determine whether changes have occurred through chance or deliberate design. Therefore, the use of statistical analysis is necessary to show that change occurred through guided instruction (or potentially something else) and not by random chance. This is important for the teacher to show that their instruction was the cause of the change.

**Finding Significance**

Analysis of variance, or ANOVA, is a statistical analysis to determine if there is a significant difference between three or more groups, although it still can be used for two groups. A Repeated Measures ANOVA is a specific ANOVA that compares one or more groups against itself on separate assessments to see if any change that has occurred over time is significant. In the present example, we hypothetically tested the muscular strength and muscular endurance of a group of students using the five assessments outlined over the course of a year: in August, January, and May.
To run an ANOVA a program such as SPSS is recommended. This program will calculate the data entered from each time period to find whether a significant difference is present in the results. An ANOVA must be used for each variable of the assessment. Figure 1 shows how the data should be entered into the program. The three tests are listed as separate columns along with gender, age, height, weight, and BMI. Each respective row represents an individual student. Figure 1 displays a sample for the pushup component of the assessment.

**Analysis**

After the data has been entered into SPSS using the same format as Figure 1, the repeated measures ANOVA can be calculated. In this example the three separate tests are labeled as pretest, diagnostic, and posttest. On the top of the page will be the Analyze tab. Click this tab, then select General Linear Model. Next select the Repeated Measures option. A box, shown by Figure 2, will then open. Rename the factor with something that represents the independent variable (in this instance, time). Next change the number of levels for the amount of assessments you have done over the course of the year or semester (in this case 3). Click the Add button. In the Measure Name text box you will need to name your dependent variable. For the example ACB was used. Click the Define box. A new window will open and will look like Figure 3. Use the top right arrow or drag, to insert the “Pretest, Diagnostic, and Posttest” lines so that they are in the Within-Subjects Variables box. It will look like Figure 4. Click the Plots button. A window such as Figure 5 will then open. Use the right arrow to move the Time factor over to the Horizontal Axis box. Click the Add button, then the Continue button. The next window will be Figure 4 again. Click the Options button. A window similar to Figure 6 will then appear. Use the right arrow to move Time into the Display Means For box. Click the Compare Main Effects, Descriptive Statistics, and Estimates of Effect Size check boxes. Change the Confidence Interval
Adjustment drop down box to select Bonferroni. Significance level should then be selected. Standard significance levels are generally set at .05 in physical education. A sample of this window has been displayed in Figure 7. Click the Continue button, then the OK button on the next window.

The SPSS program will then run the repeated measures ANOVA and present a data set as shown by Figures 8, 9, and 10. Look for a table labeled Transformed Variable: Average. This will be located in Figure 9 under the heading, “Test of Between Subject Effects”. Under the Column labeled, Sig., for significance, it will display a number. This number such as .000 as shown in Figure 9 means that there was significance between tests. If the number is lower than what was set for significance (.05) then it can be determined that there is significant difference between the tests. Thus, because .000 is less than .05, there was a significant difference.

When significance has occurred, the next step is to determine where this significance occurred. For example, did it occur between the pretest and posttest, pretest and diagnostic (middle test), diagnostic and posttest, or in more than one? In order to determine where significance occurred, refer to both the descriptive statistics in Figure 8 and the pairwise comparisons in Figure 10. In Figure 8 the first table labeled Within-Subject Factors will display scores for the three different time that were included. In the present example, the scores are for the pre, post, and diagnostic tests. These three evaluations are assigned numbers by SPSS for further use in other tables. Next, go to Figure 10 and find the table named Pairwise Comparisons. This table will show each test, labeled by its number, compared against each other to show if there is significance. From this example, significance is found between tests 1 and 2, tests 2 and 3, and tests 1 and 3. Significance is easy to find by the use of asterisks in the Mean Difference column for each respected test comparison which indicate a significant difference. Thus, in the present example,
participants improved between tests 1 and 2, between tests 2 and 3, and not surprisingly between tests 1 and 3 indicating consistent, significant improvement through the course of the year.

**Conclusion and Additional Application**

The purpose of this article is threefold: first, to explain why muscular strength and endurance should be measured, second to highlight possible measures that could be used, and third to present a step-by-step guide for determining if and what changes have occurred statistically. The procedure for developing and assessing muscular strength and endurance in the present article is one that can be used for other assessments in a physical education or coaching environment. The advantage of this process is that educators and coaches can demonstrate that learning, development, or some other variable is occurring through instruction and not by random chance.

Given the developmental progression of adolescents, it could be argued that any improvements in muscular strength and endurance, even if significant, could be attributed to maturation over any instruction or training, as it could be argued in the current example. There are statistical measures and techniques that can be used to demonstrate that muscular growth has improved from deliberate instruction in addition to maturation. However, these concepts are not discussed in this article, and it is recommended that someone interested in pursuing these ideas should contact someone familiar with research methodology.
References


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**Figure 1**
Figure 2
Figure 3
Figure 4
Figure 5
Figure 6
Figure 7
General Linear Model

Within-Subjects Factors

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Multivariate Tests

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Mauchly's Test of Sphericity

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Tests the null hypothesis that the error covariance matrix of the orthogonalized transformed dependent variables is proportional to an identity matrix.

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Tests the null hypothesis that the error covariance matrix of the orthogonalized transformed dependent variables is proportional to an identity matrix.

Mauchly's test of sphericity

Tests for Within-Subjects Effects table.

Figure 8
### Tests of Within-Subjects Effects

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*Figure 9*
Estimated Marginal Means

time

Estimates

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Pairwise Comparisons

Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval for Difference |
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<td>.503</td>
<td>.000</td>
</tr>
<tr>
<td>3 1</td>
<td>3.185*</td>
<td>.420</td>
<td>.000</td>
</tr>
<tr>
<td>3 2</td>
<td>-3.074*</td>
<td>.503</td>
<td>.000</td>
</tr>
</tbody>
</table>

Based on estimated marginal means

*: The mean difference is significant at the .05 level.

b: Adjustment for multiple comparisons: Bonferroni

Multivariate Tests

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<th>Value</th>
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<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
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<td>30.200*</td>
<td>2.00</td>
<td>25.000</td>
<td>.000</td>
<td>.707</td>
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<td>30.200*</td>
<td>2.00</td>
<td>25.000</td>
<td>.000</td>
<td>.707</td>
</tr>
</tbody>
</table>

Each F tests the multivariate effect of time. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a: Exact statistic

Figure 10
A Practical Method for Assessing Locomotor Skills in Elementary Children

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Abstract

Locomotor skills such as galloping, skipping, hopping and sliding should be learned at an early age to ensure that more complex skills can be progressively developed. Educators and coaches should be able to provide evidence that teaching or coaching methods are resulting in improvements in these basic skills. A helpful way to provide this evidence is through statistical evidence. The purpose of this article is to explain why locomotor skills are important to a child’s development and what specific locomotor skills can be used. In addition, a specific example of how data can be analyzed using statistics is provided. An understanding of locomotor skill importance, how to assess it, and how to determine whether instruction is resulting in improvements will allow educators and coaches to apply these methods and improve instruction.
Introduction

When children are born they quickly begin to use their bodies by grabbing a bottle, crawling, walking, skipping, running, etc. This is the maturation of locomotor skills and is a very important part of development. Pica (2009) asserts that the development of basic motor skills is as important as teaching language skills, as without them a plethora of health risks including obesity, heart disease, are diabetes are likely to develop. Furthermore, according to Henniger (2009),

Movement is at the very center of young children’s lives. It is an important facet of all aspects of their development, whether in the motor, cognitive, or affective domains of human behavior. To deny children the opportunity to reap the many benefits of regular, vigorous physical activity is to deny them the opportunity to experience the joy of efficient movement, the health effects of movement, and a lifetime as confident, competent movers. (p. 24)

People who are physically active on a regular basis continue to be physically active throughout life (Sanders, 2002). Lack of interest in physical activity is high because of “the lack of exposure at an early age to physical skill development activities” (Sanders, 2002; p. 1). For example, if an individual is not skilled in a certain area, he or she may take no interest in that activity; which, in return means they did not develop those skills for that activity.

Children develop at different times with different strengths, depending on their interests. Referring to Boyer’s (2009) example, children who are more interested in art will develop those skills faster than someone interested in building. Many people believe that children automatically develop locomotor skills through maturation. Although maturation is a part of the development process, Pica (2008) describes that, at this point, children have not yet developed the part of the
skill where technique is the main focus. For example, when children begin running they have not yet developed the technique of moving their arms and legs in opposition. Without practice and the correct technique, children do not fully develop the muscles for strength needed for proper development of those skills. Boyer (2009) explains that as children grow older they reach a variety of milestones that demonstrate whether or not proper development is taking place. These indicators are a great way to know what steps need to be taken to assure that children's growth is moving in a continuous upwards motion”. (p. 1)

Some examples of the milestones a baby goes through include: “discovering body parts, grasping objects, feeding themselves, [and] tying shoes” (p. 1). Making an assessment that includes these skills identifies progress made and areas for improvement.

According to Henniger (2009), activity levels of children have received a large amount of attention because of increasing obesity rates among youth, whereby obesity among two to five year olds has doubled in the past 30 years. This can be attributed to eating excessively and a general lack of exercise. It is well known that obesity is an issue for not only children, but adults as well. As Henniger (2009) mentioned, society is not physically active enough to avoid obesity.

In physical education, it is the teacher’s duty to make learning and being physically active as fun as possible. One way teachers make exercising fun is by teaching a skill and implementing it into a game. For example, if a teacher wants to implement all of the skills taught in a unit plan, students should be spread throughout the gym in a circle and move to music using the different locomotor skills they have learned. Using music in the activity makes for a fun way for the students to practice their skills while they are being assessed. Thus, they engage in activity while simultaneously being assessed. Skills can be reinforced by encouraging such
movement at home. Physical education should be fun for everyone. If students are having fun, it makes them want to come back to class with smiles ready to learn something new that helps them to be physically fit and active, which will ultimately assist in reducing the increasing rate of obesity. Sanders (2002) states that,

if children do not learn to throw, catch, jump and kick when they are young they will not possess the skills needed to participate in physical activities as adults and thus most will not get appropriate amounts of physical activity. These types of skills are what makes being physically active, and fun (p. 1).

The challenge of a teacher, therefore, is to accurately assess locomotor skills in order to provide an understanding of what each student does and does not perform well. An understanding of whether students are making improvements will allow for individual instruction that directly targets areas of skill development. Therefore, the purpose of this article is to provide a practical guide for teachers to conduct a statistical test to determine whether locomotor skills are improving. By using statistical measures, teachers are able to determine whether teaching modalities and strategies designed to foster locomotor skills are successful or need modification.

Testing Locomotor Skills

For this sample assessment, four different locomotor skills are assessed: galloping, skipping, hopping and sliding. Part of correct assessment is selecting skills that are developmentally appropriate for students. These locomotor skills are developmentally appropriate for students in the first grade according to the Oklahoma Priority Academic Student Skills (PASS; Oklahoma State Department of Education, 2013).

Ratzlaff (2010) states “a locomotor skill is a skill using the feet that moves you from one place to another” (p. 2). A gallop is “a form of locomotion which is a combination of an open
step by the leading foot and a closed step by the trailing foot” (Ratzlaff, 2010, p. 2). The same foot leads throughout with an uneven rhythm. A skip is a skill that combines a hop and a skip with an uneven rhythm while a hop is a “form of locomotion in which the body is projected from one foot to the same foot” (Ratzlaff, 2010, p. 2). A slide is the same combination as a gallop, except the travel direction is sideways with an uneven rhythm.

Students will be tested on their locomotor skills at the beginning and end of the school year during their regular class time. The first grade class consists of four classes with twenty-five students including girls and boys in each class with a total of 100 students. Students will need to wear athletic attire including: gym shorts, a t-shirt and tennis shoes. Students will be very active in the gym and safety is an issue. Wearing tennis shoes is not only safe but gives better support for student’s feet.

Four assistants will be needed for the locomotor skills assessment. A meeting prior to the assessment should be conducted with assistants to make sure they are competent in understanding what each of the locomotor skills entail. Assistants will be given the rubrics that will be used to assess the first grade students as well as the student’s class list, which will be a part of the rubric. As part of the meeting, each assistant will demonstrate each of the locomotor skills so that any corrections of the performed skills can be made and ensure that there is no misunderstanding of what is expected of the students. Assistants need to wear athletic attire and their name tag while assessing the students, which will be given to them at the meeting.

Half a dozen cones are needed for the layout of the assessment. The cones will mark the spots in which students will stand and wait to be assessed. Music will be playing during this assessment at a level that will not distract the students, but will give them pleasant background noise. A compact disc of age appropriate songs will be used.
Before the assessment takes place, students will be notified of expectations during the assessment day. This will include what they will be tested on and how the gymnasium will be set up for that day. This will help to eliminate chaos or confusion the day of the assessment. The students will be split up into groups, according to their class list and will be given their station number before assessment day.

On the day of the assessment students will come into the gymnasium and sit in their squad spots. Roll will be taken and then students will proceed to their testing station. All students will stay at their designated stations to complete the four locomotor skills. Students will perform each of the locomotor skills for their assigned instructor and then back to the cone where they started.

Data from the first assessment can be used as part of progress reports made to parents. This serves as an opportunity for parents to work with their child on skills they may have trouble with at home. After the second assessment, parents will have a better understanding of progress made on each locomotor skill and identify where improvements have been made and where future development is necessary.

The Problem with Averages

Typically, a mean or average score is a frequently used measure to determine whether improvement has occurred. However, means fail to consider an outlier such as someone who does something that greatly impacts a score. For example, if a student does 20 pushups at the beginning of the semester but only 1 in a later test because he or she was sick, this is lost in the mean. Therefore, other statistical tests may be better suited to recognize any outliers and show the significance improvements. One such test, demonstrated in this article, is a t-test.
Finding Significance

A paired sample \textit{t-test} is relevant to use when testing and recording data for locomotor skills. It is used when members of a group are related or when comparing a pretest and posttest. In a paired sample \textit{t-test} participation among the groups are “matched” by characteristics such as siblings, age or IQ. An example of two matched groups is pair of twins who are randomly assigned to two different groups. Another example is matching students on prior knowledge level and randomly assigning the members of the pairs to the two different groups.

Analyzing data statistically can be done using a variety of computer programs. When inputting data there are several things to look at that are important; a value score \((T = 3.22)\), degrees of freedom \((df = 10)\) and significance level \((p\) value). The \(p\) value determines whether the results are by chance or have occurred through some deliberate manner. Usually, in the physical education field, if a \(p\) value is less than .05 then the findings are significant, meaning that there is 95\% confidence that the results were not random.

In order to evaluate the data in this example, SPSS (Statistical Package for the Social Sciences) will be used. SPSS is one of several statistical software packages which can be purchased to calculate both simple and complex mathematical equations. Participants were a first grade class of 49 females and 51 males with a mean age of 6.29 years \((SD = 0.55)\). They averaged 48.41 inches in height \((SD = .28)\) and weighed 63.90 lbs. \((SD = 4.34)\). Height and weight allowed for Body Mass Index to be calculated \((M = 16.65; SD = 1.98)\).

The first step in using SPSS is plugging in the data as seen in Figure 1. Each individual row from left to right is the data of one student. Next, select the “analyze” tab. Then, from the drop down menu, place the cursor over “compare means” and select “Paired Sample T-Test”. Once those have been selected, a box will appear as seen in Figure 2. Use the mouse and click on “Pre” to
highlight it. Then, click the arrow in the middle of the box to transfer “Pre” to the “Paired Variables”. Do the same for “post”. Click “OK on the bottom left of the box. This will bring up the analysis (Figure 3).

**Analyzing the Output**

To analyze and interpret the output in Figure 3, look at the bottom right where it says “Sig. (2-tailed)”. As previously stated, anything under .05 is significant. Figure 3 shows the “Sig. (2-tailed)”, or p-value, at .000, which shows there is a significant difference between the pre- and post-test. The findings are displayed with the T score and the degrees of freedom ($t = 10.85, df = 99, p = .000$) with scores higher in the posttest ($M = 3.14; SD = 0.87$) than the pretest ($M = 2.36; SD = .87$). Therefore, because the $p$ value was less than .05, there was a significant difference. Observing the means it can be determined that improvement was significantly better from the first test. Because of the statistical significance, it can be concluded that improvement was not caused by chance.

**Conclusion and Additional Application**

Locomotor skills are only one of many different types of skills that can be tested and interpreted. For example, it is possible to test the progress of jumping rope from the beginning of the year to the end by comparing how many jumps a student can complete at the start of the year and the end of the year. This would be a great way to show school administrators student progress. Another example is tossing and catching. How many times in a row can a student toss and catch a ball from the beginning of the unit to the end? Furthermore, parents can be provided with data to indicate whether a student is achieving individual goals and whether the class as a whole is improving.
Although the use statistical software such as SPSS can be daunting, this guide has provided the groundwork for physical educators to statistically demonstrate improvements in their students. Furthermore, such use of technology can only increase the success of both teachers and students in physical education by providing informative feedback on what activities, skills, and lessons led to the most successful outcomes.
References


Figure 1