Validity and Reliability of the Teamwork Scale for Youth

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Attributes of Teamwork

- Behaviors often associated with teamwork include:
  - Working collaboratively,
  - Including others,
  - Encouraging others’ contributions,
  - Being sensitive to the feelings and perspectives of others,
  - Communicating within a group, and
  - Providing and receiving feedback.

- Simply put, teamwork is the ability to collaborate and work with others in order to achieve a common goal.
Teamwork as a Life Skill

- Teamwork involves a collaboration of ability among a group or team willing to interact appropriately with one another by demonstrating various social skills and group processes such as problem solving, negotiating, supplying feedback, and illustrating responsibility and accountability.
  - (Anderson-Butcher et al., In Press; Baker, Horvath, Campion, Offermann, & Salas, 2004; Gould & Carson, 2008; Hellison, 2003; as cited in Weinburg & Gould, 1999).

- Teamwork is the ability to coordinate and cooperate, collectively determine goals, define specific roles and duties, and work together to achieve a shared goal.
  - (Baker, Horvath, Campion, Offermann, & Salas, 2004; Guest, 2008)
The Value of Teamwork

- A versatile interpersonal skill that can be utilized in a multitude of contexts such as sport, school, and the workforce

- The ability to effectively perform within a team is a critical attribute to achievement and success

- Is a targeted outcome of many sport-based positive youth development (PYD) programming objectives
Need for Teamwork Measure

- Limited number of tools designed to measure teamwork amongst youth
- Teamwork is often assessed at the team level, neglecting interpersonal and individual skills
  - (Eys, Loughead, Bray, & Carron, 2009)
- Research has primarily relied on third party observations
  - (Baker, Horvath, Campion, Offermann, & Salas, 2004)
- There is a need for a self-reported psychometrically sound, versatile, accessible, user-friendly scale to assess and measure perceptions of individual teamwork competence among youth.
  - (Danielson & Phelps, 2003)
Method

- Teamwork Scale for Youth developed to assess a primary outcome of a sport-based PYD summer camp

- The program’s objective is to enhance the social and athletic competence of youth through the integration of sport and social skill curricula

- Scale administered to 460 youth at three separate times
  - Pre-test
  - Mid-point
  - Post-test
## Table 1

### Teamwork Scale for Youth

<table>
<thead>
<tr>
<th>Scale Items</th>
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<tbody>
<tr>
<td>Item 1: I think that teamwork is important.</td>
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<td>Item 2: People who work in teams can learn more than if they work by themselves.</td>
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<tr>
<td>Item 3: I feel confident in my ability to work in a team.</td>
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<td>Item 4: I know how to give my team members feedback that will not hurt their feelings.</td>
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<td>Item 5: I ask others for feedback.</td>
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<td>Item 6: I make an effort to include other members of my group.</td>
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<td>Item 7: I value the contributions of my team members.</td>
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<td>Item 8: I treat my team members as equal members of the team.</td>
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<td>Item 9: I am good at communicating with my team members.</td>
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<tr>
<td>Item 10: I feel confident in my ability to be a leader.</td>
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</tbody>
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*Note.* Items 1 and 2 were removed from the final 8-item Teamwork Scale for Youth. The term “team” can be interchanged with “group”. 
Analysis

- Confirmatory factor analyses examined the factor structure and measurement invariance across time

- Reliability testing conducted to examine the internal consistency of the scale

- Predictive validity of the scale determined based on significant positive correlations with two other life skills:
  - Social competence
  - Commitment
Results

- Validity
  - Items 1 and 2 removed
  - 8-item scale measuring perceived teamwork behaviors
    - $\chi^2(225) = 455.609$, $p < .001$; CFI: .984; GFI: .925; RMSEA: .047; SRMR: .042
  - Configural and weak invariance models upheld

- Reliability
  - Pre-test $\alpha = .785$; Mid-point $\alpha = .856$; Post-test $\alpha = .882$

- Predictive validity
  - Teamwork and social competence ($r = .646$)
  - Teamwork and commitment ($r = .599$)
Practical Implications

- Scale helps to support the needs of youth sport leaders within and outside of sport contexts
- Program administrators can use scale to inform programmatic structures and practices
- Youth sport leaders can intentionally match prescribed activities and lesson plans to facilitate the development of teamwork
- The scale can be used to help assess and identify youth who may need assistance to further develop the teamwork life skill
Limitations and Future Directions

• Limitations
  ○ Self-report perceptions of perceived teamwork behaviors
  ○ Literacy appropriate for children and adolescents
  ○ Focus on one dimension of teamwork

• Future directions
  ○ Establish external validity
  ○ Extend predictive validity to alternative life skills
  ○ Ongoing establishment of psychometric properties
  ○ Creation of teacher/practitioner report versions
Questions?

Thank you for attending!