Motivation in Sport and Physical Activity: Synthesis of Theories and Methods.

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Introduction
Trend in PA & Sedentary Behaviour in Singapore

Wang et al., 2008
Barriers to PA

ADNFS (1992); Ball, Crawford, & Owen (2000)
Define motivation

Overview of the three theoretical frameworks
  - sport ability beliefs
  - achievement goal theory
  - self-determination theory

Synthesis of theories and methods - some examples

Summary
Understanding Motivation

Direction

Persistence over time

Persistence

Intensity

Performance

motivation

WHY DO YOU DO WHAT YOU DO?
Study of Motivation

Theory X

Theory Y

Theory Z
Dweck & her colleagues (Dweck & Leggette, 1988) proposed that theories of intelligence that people hold create different goals.
Sport Ability Beliefs
Learning Improvement Stable Gift

Incremental Task Enjoyment

Biddle et al., 2003

$\chi^2 = 815.49$, df = 343, NNFI = 0.915, CFI = 0.921, RMSR = 0.065, RMSEA = 0.047
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Wang et al. 2002

![Graph showing data clusters for Task, Ego, and PC categories with three clusters marked as Cluster 1, Cluster 2, and Cluster 3.]
Entity beliefs do not allow feelings of confidence and control over future outcomes, especially when perceived competence is low, thus resulting in less adaptive responses.

Incremental beliefs, through the pursuit of task goals, allow the feeling that success is under one’s personal control (Duda & Nicholls, 1992; Nicholls, 1989), resulting in more adaptive motivational patterns.

It is apparent that looking at self-conceptions of ability or beliefs is useful in understanding students’ motivation in physical activity settings.
Nicholls’ AGT (1989) assumes individuals strive to demonstrate competence and avoid showing incompetence.
### Achievement Goal Theory

#### Predictions:

<table>
<thead>
<tr>
<th>Goal Orientation</th>
<th>Perceived Ability</th>
<th>Behaviour Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ego/Performance</td>
<td>High</td>
<td>Adaptive</td>
</tr>
<tr>
<td>Ego/Performance</td>
<td>Low</td>
<td>Maladaptive</td>
</tr>
<tr>
<td>Task/Mastery</td>
<td>High or Low</td>
<td>Adaptive</td>
</tr>
</tbody>
</table>
### A 2x2 Achievement Goal

<table>
<thead>
<tr>
<th>Valence</th>
<th>Definition</th>
<th>Mastery</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Approach</strong></td>
<td>Mastery-Approach</td>
<td>Performance-Approach</td>
<td></td>
</tr>
<tr>
<td><strong>Avoidance</strong></td>
<td>Mastery-Avoidance</td>
<td>Performance-Avoidance</td>
<td></td>
</tr>
</tbody>
</table>
Wang, Biddle & Elliot 2007

Z Score
Clustering Variable
Moderate
Low
High
Mastery
Wang, Biddle & Elliot 2007

Outcome Variable

Z Score

Moderate
Low
High
Mastery

ENJOY
EFFORT
BOREDOM
PA

Outcome Variable

Z Score

Moderate
Low
High
Mastery

ENJOY
EFFORT
BOREDOM
PA
Wang, Biddle & Elliot 2007

Cluster 1
Cluster 2
Cluster 3
Cluster 4

Psychological Variable

Z Score

Cluster 1
Cluster 2
Cluster 3
Cluster 4
According to SDT, people are active organisms seeking to master their internal and external environment (Ryan & Deci, 2008). Three psychological needs are essential conditions for self-growth, integrity and well-being. Goals pursuit are driven by psychological needs.

- Autonomy
- Competence
- Relatedness

Goal Pursuit
Self-Determination Theory

Ext Events

Needs Satisfied

Intrinsic Motivation ↑

Task

Int Events

Needs Thwarted

Intrinsic Motivation ↓

Ego
Nature of Motivation

- Amotivation
- Extrinsic Motivation
- Intrinsic Motivation
The self-determination Continuum

Amotivation
Non-regulation
External Regulation
Introjected Regulation
Identified Regulation
Integrated Regulation
Intrinsic Regulation
Intrinsic Motivation

Self-Determination Continuum:

Extrinsic Motivation

The self-determination Continuum

--  --  -  +  ++
Enjoy Free Chocie perf

Task Ego

Spray, Wang, Biddle, & Chatzisarantis, 2006
Free Choice Behaviour

Task

Ego
Spray, Wang, Biddle, & Chatzisarantis, 2006

Bar chart showing data for Enjoy, Free Chocie, and perf with Auto and Control conditions. The chart indicates significant differences marked by stars (*) for the Auto condition compared to the Control condition.
Teachers, as the significant others in the PE classroom, should adopt an autonomy-supportive style when communicating with their students. This will minimize the internally controlling effect of ego involvement and facilitate internalisation towards more autonomous behaviour (internal locus of causality).

According to SDT, this internalisation process causes the individual to initiate and regulate his or her behaviour in more self-determined ways, thereby increasing intrinsic motivation.
If the aim of educators is to promote intrinsic goals and interest towards physical activity among students, then they should strive to foster incremental beliefs in their students and promote mastery-approach goals.

They should also create social contexts that will facilitate students’ needs for competence, autonomy and relatedness.
To summarise, the above review has highlighted the potential of integrating different motivational theories.

Specifically, sport ability beliefs, achievement goals and self-determination have significant impact on students’ intrinsic motivation in PE activity.

Psychological research in PE is valuable in providing insight into students’ experiences towards physical activity.
Translating Theory into Practice
Promoting Competence

Corrective feedback

Recognize effort

Praise improvement
Promoting Competence

- Pitch learning at correct level
- Promote mod difficult goals
- Goal setting
- Individualised instruction
Promoting Autonomy

Provide rationale

Provide Choice

Allow decision making

Empathy
Promoting Relatedness

- Positive Tones
- Know students personally
- Encouragement
- Respect
- Genuine Concern
• Want More Practical Tips?

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Thank You!