Reliability of Goal Perspectives and Sport Participation Motivation Questionnaires for Athletes with Intellectual Disabilities

Yeshayahu (Shayke) Hutzler [1, 2]

Mali Oz [1] Sharon Barak [3]

1. Zinman College for Physical Education and Sport Sciences

2. Israel Sport Center for the Disabled

3. Safra Children Hospital at the Shiba Medical Center.

There are many ways to motivate people to participate in Sports

- I hope you don't use this one

- Or this one

It never gets easier. You just get better.

ABILITY IS WHAT YOU'RE CAPABLE OF DOING.
MOTIVATION DETERMINES WHAT YOU DO.
ATTITUDE DETERMINES HOW WELL YOU DO IT.
-LOU HOLTZ

SUCCESS ISN'T GIVEN.
IT'S EARNED.
ON THE TRACK, ON THE FIELD,
IN THE GYM.
WITH BLOOD, SWEAT,
AND THE OCCASIONAL TEAR.

Citations

.1 Strive for progress, not perfection. -Unknown

2 You want me to do something... tell me I can't do it. -Maya Angelou

.3 You miss 100% of the shots you don't take. -Wayne Gretzky

4If you don't make mistakes, you aren't really trying. -Unknown

.5 You live longer once you realize that any time spent being unhappy is wasted. -Ruth E. Renkl

6 Strength does not come from physical capacity. It comes from an indomitable will. -Mahatma Gandhi

. 7 Motivation will almost always beat mere talent. -Norman R. Augustine

8 .I'd rather be a failure at something I enjoy than a success at something I hate. -George Burns

.9 Energy and persistence conquer all things. -Benjamin Franklin

.10 Nothing great was ever achieved without enthusiasm. -Ralph Waldo Emerson

Intellectual Disability

Coaches' Dilemmas (mainly grassroots level)

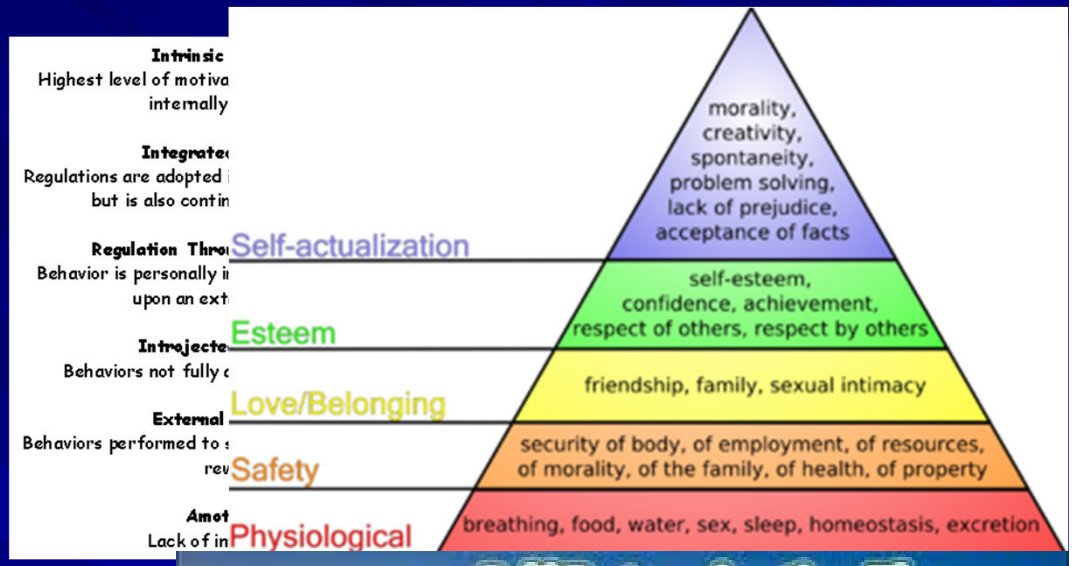
- Competitive training and sport climate vs. cooperative, task oriented experience ?



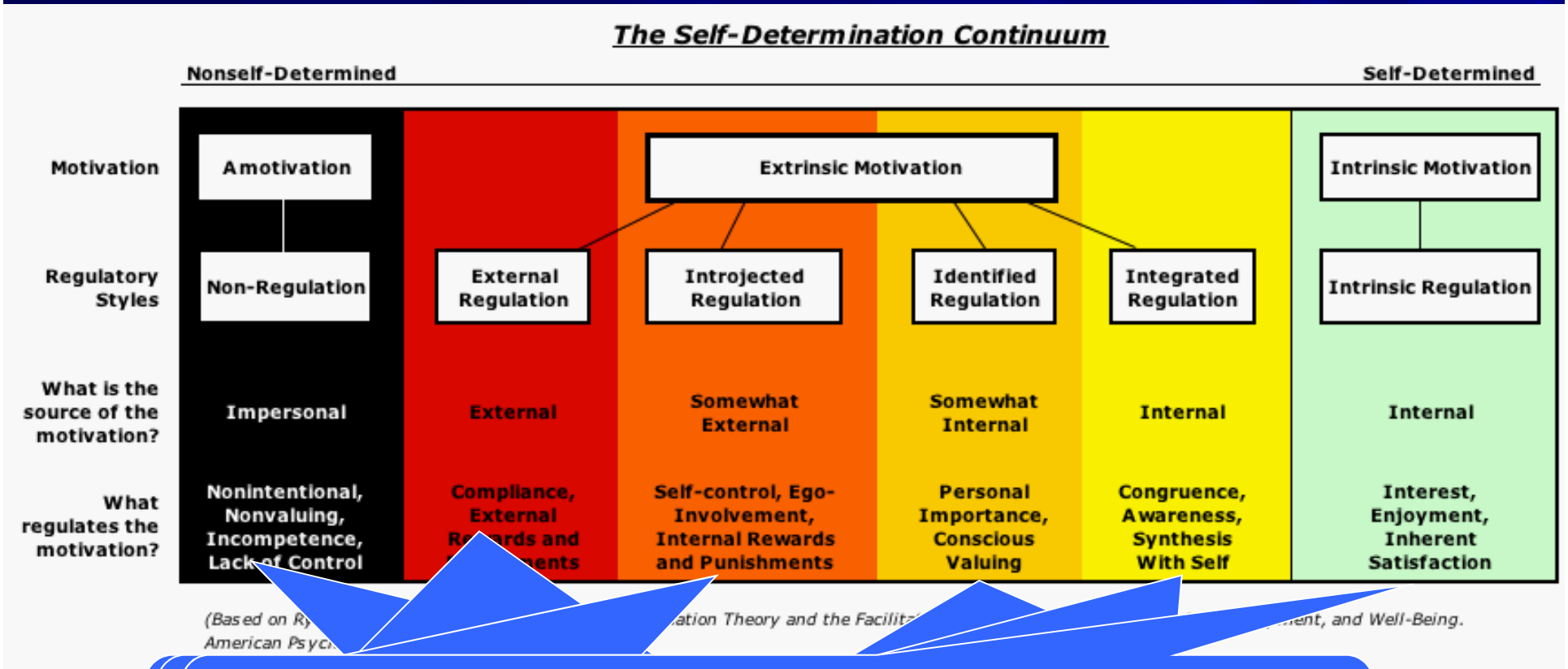

- Relying on External Rewards vs. developing Internal Motivation Systems (Self determination) ?

Theoretical Foundations

- Self Determination Theory (Maslow, 1943; Ryan & Deci, 2000):
- Continuum of external to Internal Motivation.



Self-Determination Theory and Continuum (Ryan & Deci, 2000)



An activity is carried out purely for the inherent satisfaction of doing so

"not true" (1) to "true" (3)

I participate in sport because…	Participants (n = 102)			Males (n = 60)			Females (n = 42)		
	M	SD	Rank	M	SD	Rank	M	SD	Rank
Internal motivation									
I want to have fun	2.91	0.38	3	2.98	0.13	2	2.81	0.55	5
I like the excitement	2.25	0.93	10	2.20	0.95	10	2.31	0.90	10
I am interested in sport	2.93	0.29	2	2.98	0.13	2	2.86	0.42	3
I think that sport is great	2.78	0.59	4	2.75	0.63	5	2.83	0.54	4
Identified regulation									
I want to learn new skills	2.69	0.56	8	2.72	0.56	8	2.64	0.58	9
I want to stay in a good shape	2.45	0.77	9	2.43	0.77	9	2.48	0.77	8
I want to meet friends	2.77	0.51	5	2.78	0.49	4	2.76	0.53	7
I want to be pretty skilled	2.91	0.35	3	2.93	0.31	3	2.88	0.40	2
External regulation									
My parents want me to participate	2.22	0.94	11	2.08	0.98	11	2.40	0.86	9
I like my coach	2.73	0.66	7	2.68	0.72	7	2.79	0.56	6
I feel important and popular	2.76	0.63	6	2.73	0.66	6	2.81	0.59	5
I want to win ribbons and medals	2.98	0.20	1	3.00	0.00	1	2.95	0.31	1
Amotivation									
I had to do something	1.51	0.78	12	1.42	0.72	13	1.64	0.85	11
I think it's boring activity	1.39	0.66	14	1.35	0.66	14	1.45	0.67	12
I am wasting my time	1.33	0.59	15	1.25	0.54	15	1.45	0.63	12
I really don't know why	1.44	0.70	13	1.45	0.75	12	1.43	0.63	14

IM

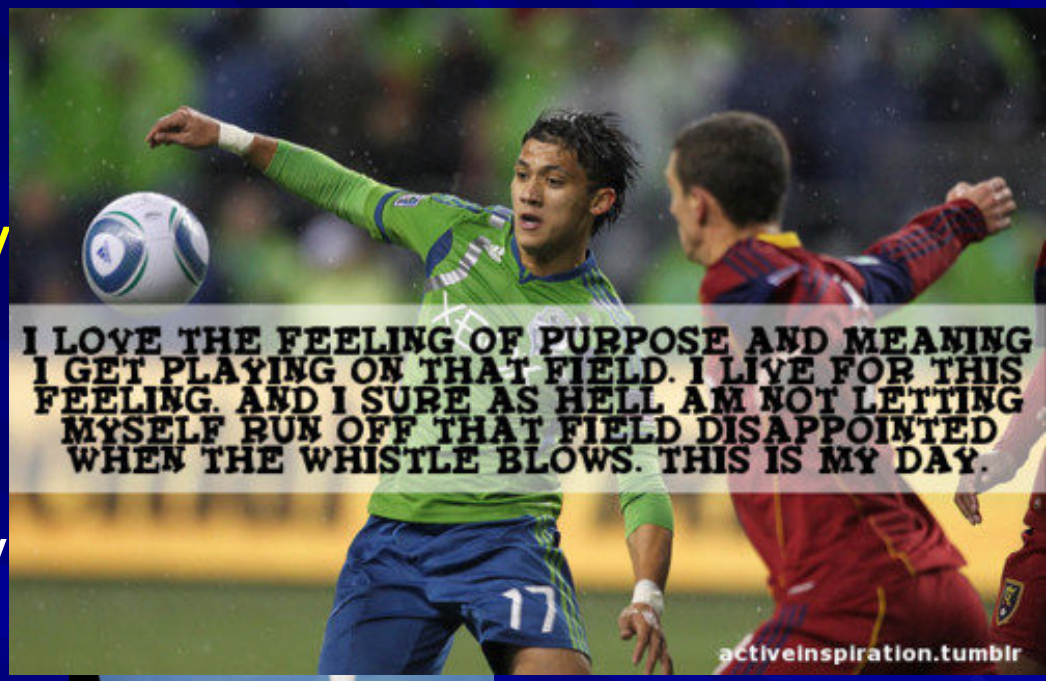
IR

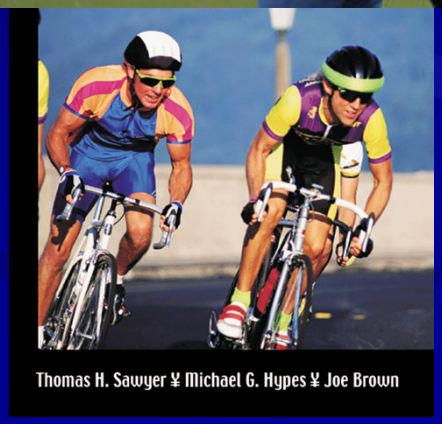
ER

AM

Goal Orientation Theory

- Goal orientations (Task and Ego perspectives) theory
- Task and Ego Orientations in Sport Questionnaire (TEOSQ) developed by Duda (1992).
- personal goals influence how people think, feel and act in achievement situations such as sports.





Task vs. Ego orientations in Sport

- Task oriented (TO) athletes emphasize personal improvement and place more emphasis on respect and fairness when striving to achieve in a competitive setting (Nicholls, 1989).
- Athletes with an ego orientation (EO) feel competence and success, resulting from favorable normative comparisons with others. The achievement of superiority over others may take precedence over issues of justice and fairness (Nicholls, 1989).

TEOSQ

I feel most successful in sport when…

1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree

Question	Score
I am the only one who can do the play or skill	
I learn a new skill and it makes me want to practice more	
I can do better than my friends	
The others cannot do as well as me	
I learn something that is fun to do	
Others mess up "and" I do not	
I learn a new skill by trying hard	

Duda, J.L. (1989). Relationship between task and ego orientation and the perceived purpose of sport among high school athletes. Journal of Sport and Exercise Psychology, 11, 318-335

TEOSQ Contd.

I feel most successful in sport when…

1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree

Question	Score
I work really hard	
I score the most points/goals/hits, etc.	
Something I learn makes me want to go practice more	
I am the best	
A skill I learn really feels right	
I do my very best	

Purpose

The purpose of this study was to study the internal consistency, and test-retest repeatability of motivational scales in young typically developing athletes (TD) and those with Intellectual Disability (ID) who participate in swimming and basketball competitions.

Participants

- A convenience sample of 63 with ID (25 females and 38 males) and 59 TD (16 f and 43 m) athletes.

Mean athlete ages:

ID AGE=20.35 (SD=7)
TD AGE=18.8 (SD=8)
Recruited through communication with local club coaches.

Participants contd.

- Three sub-groups of athletes with ID were identified based on disability, including
  - non specified intellectual disability (NSID),
  - Down Syndrome (DS), and
  - Autism (Aut)
- 30 Participants with ID and 30 TD participants completed a second set of questionnaires within three weeks.

Sample data

Variables		Typically developing n=59	Entire group (n=63)	Down syndrome sub-group (n=17)	General retardation sub-group (n=39)	
Age- mean (SD), years		18.83 (8.03)	20.35 (7.01)	23.35 (8.57)	17.13 (2.57)	18.86 (4.56)
Age group-n (%)						
	< 15 years	13 (22.03)	5 (7.94)	0 (0.00)	4 (10.26)	1 (14.29)
	15-17 years	30 (50.85)	22 (34.92)	0 (0.00)	20 (51.28)	2 (28.57)
	18-20 years	7 (11.86)	15 (23.81)	2 (11.76)	11 (28.21)	2 (28.57)
	> 20 years	9 (15.25)	21 (33.33)	15 (88.24)	4 (10.26)	2 (28.57)
Gender-n (%)						
	Male	43 (72.88)	38 (60.32)	9 (52.94)	23 (58.97)	6 (85.71)
	Female	16 (27.12)	25 (39.68)	8 (47.06)	16 (41.03)	1(14.29)

Instruments and Procedure

- TEOSQ and SMS were translated into Hebrew using the Committee method with three bilingual professionals.
- The dissemination of questionnaire acquired the permission of the Institutional Ethical Review Board (IERB), the local SO headquarters, and the club coaches.
- Informed consent was filled in by all participants after an oral explanation
- Parental or Guardian's consent was filled in for minors.

Instruments and Procedure – Contd.

- One on one interviews were performed with the participants with ID during their free time prior to or after the training.
- In the clubs for TD participants, the interviews were filled in by writing during group gathering.
- All participants were informed that the filling in of questionnaires is not obligatory.

Statistical Analysis - Internal Consistency

- (Cronbach`s alpha (α) coefficients were computed for each subscale separately.
  - The values of Cronbach's α were interpreted as follows (Cronbach, 1951):
    - poor (< 0.5);
    - moderate (0.5-0.75);
    - good (0.75-0.9); and
    - excellent (> 0.9)
  - Analyses were conducted on the TD group, ID-entire group and on each of the three ID sub-groups separately (i.e., NSID, DS, and Aut.).

TEOSQ internal consistency

	Typically developed (n=59)	Entire group (n=63)	Down syndrome sub-group (n=17)	NSID sub-group (n=39)	
Task orientation	0.77	0.63	0.08	Delete item 13=0.81	Delete item 9=0.95
	Delete item 12=0.81	Delete item 13=0.71	Delete item 13=0.31		
Ego orientation	0.85	0.80	0.88	Delete item 9=0.71	
	Delete item 1=0.86	Delete item 9=0.81	---------- ----------		

SMS Internal Consistency

	Typically developed (n=59)	Entire group (n=63)	Down syndrome sub-group (n=17)	NSID sub-group (n=39)	
Internal		**0.81**	No calculation	Delete item 1=0.75	Delete item 13=0.29
Identified	**0.74**	0.59	0.31	Delete item 8=0.39	
		Delete item 7=0.65	Delete item 7=0.54		
External	0.65	0.65	-0.52	Delete item 9=0.79	
	Delete item 12=0.66	Delete item 9=0.75			
Anxiety	0.49	0.31	0.21	Delete item 13=0.76	
	Delete item 13=0.76	Delete item 13=0.58	Delete item 15 or 16=0.24		

Statistical Analysis – Repeatability

- Intraclass correlation coefficients (ICCs), based on a one-way analysis of variance (Streiner and Norman, 1995). According to Landis and Koch (1977),
- ICCs interpretation criteria:
  - 0–0.2 poor agreement,
  - 0.2–0.4 fair agreement,
  - 0.4–0.6 moderate agreement,
  - 0.6–0.8 substantial agreement, and
  - 0.8-<1.0 almost perfect agreement.

TESOQ Task Subscale n=60

	ITEMS	**ICC**	**Cronbach alpha**
Task	Task 1	0.759	0.757
	Task 5	0.792	0.795
	Task 7	0.720	0.717
	Task 8	0.791	0.788
	Task 10	0.829	0.828
	Task 12	0.900	0.899
	Task 13	0.766	0.763
	Task scale	**0.852**	**0.850**

TESOQ Ego Subscale n=60

	ITEMS	**ICC**	**Cronbach alpha**
Ego	Ego 1	0.944	0.944
	Ego 3	0.923	0.922
	Ego 4	0.886	0.888
	Ego 6	0.856	0.854
	Ego 9	0.806	0.803
	Ego 11	0.926	0.925
	Ego scale	**0.969**	**0.968**

SMS Internal and Identified Regulation n=60

	ITEMS	**ICC**	**Cronbach alpha**
Internal (Sentence 1-4)	Sentence 1	0.659	0.663
	Sentence 2	0.466	0.462
	Sentence 3	0.779	0.778
	Sentence 4	0.792	0.794
	Sentence 1-4	**0.650**	**0.649**
	ITEMS	**ICC**	**Cronbach alpha**
Identified (Sentence 5-8)	Sentence 5	0.678	0.675
	Sentence 6	0.317	0.314
	Sentence 7	0.854	0.854
	Sentence 8	0.759	0.771
	Sentence 5-8	**0.785**	**0.791**

SMS External Regulation and Amotivation n=60

	ITEMS	**ICC**	**Cronbach alpha**
External (Sentence 9-12)	Sentence 9	0.938	0.940
	Sentence 10	0.821	0.819
	Sentence 11	0.902	0.901
	Sentence 12	0.797	0.794
	Sentence 9-12	**0.923**	**0.924**
	ITEMS	**ICC**	**Cronbach alpha**
A-motivation (Sentence 13-16)	Sentence 13	0.864	0.865
	Sentence 14	0.939	0.939
	Sentence 15	0.797	0.797
	Sentence 16	X	X
	Sentence 13-16	**0.882**	**0.883**

Discussion

- EO; TO and three of the SMS sub-scales appear to have acceptable (moderate to good) internal consistency across TD and ID participants. Amotivation subscale does not
- EO and TO had excellent test-retest agreement (ICC=0.97 & 0.85 respectively)
- SMS Subscales ranged substantial to perfect repeatability (ICC=0.65 – 0.92).

Conclusions

- Both instruments appear reliable for use with an ID athlete population, with reservations concerning some of the SMS subscales.
- Further study is warranted to explore the psychometric attributes of these scales in Paralympic athletes with ID.

Application

- Differences across age groups of athletes with ID in a sample of n=63:
- Older athletes with ID were more externally motivated than young ones – different than in TD
- Implications to coaches ????

Research in Developmental Disabilities 34 (2013) 2149–2160

Contents lists available at SciVerse ScienceDirect

Research in Developmental Disabilities

Goal perspectives and sport participation motivation of Special Olympians and typically developing athletes

Yeshayahu Hutzler[a,b,*], Mali Oz[a], Sharon Barak[c]

[a] The Zinman College for Physical Education and Sport Sciences at the Wingate Institute, Netanya, Israel
[b] Israel Sport Center for the Disabled, Ramat-Gan, Israel
[c] The Edmond and Lily Safra Children's Hospital, the Chaim Sheba Medical Center, Israel

ARTICLE INFO

Article history:
Received 1 January 2013
Received in revised form 16 March 2013
Accepted 17 March 2013
Available online

Keywords:
Intellectual disability
Sport
Psychological tests

ABSTRACT

Based on social-learning and self-determination motivational theories, the purpose of this study was to determine the sources of motivation in youth and young adults with intellectual disability (ID) who participate in Special Olympics (SO) competitions and those of typically developed (TD) age- and activity-matched athletes. A convenience sample of 63 SO (25 females and 38 males) and 59 TD (16 females and 43 males) athletes was retrieved through communication with local club coaches. Three sub-groups of SO athletes were identified based on disability, including non specified intellectual disability (NSID = 39), Down syndrome (DS = 17), and Autism (Aut = 7). Mean SO and TD athlete ages were 20.35 (SD = 7) and 18.8 (SD = 8), respectively. For analysis purposes four age groups

Thank you for your kind attention!