

How the Bright and Dark Side of Self-Determination Theory Relate to Students' Life Skills Development Within Physical Education



Edge Hill
University



LORCAN CRONIN¹, DAVID MARCHANT¹, JUSTINE ALLEN², CLAIRE MULVENNA³, DAVID CULLEN⁴, GARETH WILLIAMS¹, & PAUL ELLISON¹

¹EDGE HILL UNIVERSITY, ²UNIVERSITY OF STIRLING,
³UNIVERSITY OF BOLTON, & ⁴WOODBROOK COLLEGE

Introduction

- Throughout the world, the personal development of students is seen as a key curricular aim of PE (Hardman, 2011)
- PE has also been proposed as an ideal setting for the development of life skills (Goudas, 2010)
- **Teachers play a key role** in young peoples' development within PE (Bailey et al., 2013)



Introduction

Self-Determination Theory and Life Skills Development

- ❑ Self-Determination Theory (Ryan and Deci, 2000) is a theory of human development and wellness
- ❑ Hodge, Danish, and Martin's (2013) conceptual framework for life skills interventions suggested that Self-Determination Theory could be utilized to investigate life skills development
- ❑ Within PE, Cronin et al. (2018) found that teacher autonomy support was related to the development of eight different life skills within students

Purpose of the Study

Teaching Climate

- Teacher autonomy support
- Controlling teaching



Basic Need Satisfaction and Frustration

- Autonomy
- Competence
- Relatedness



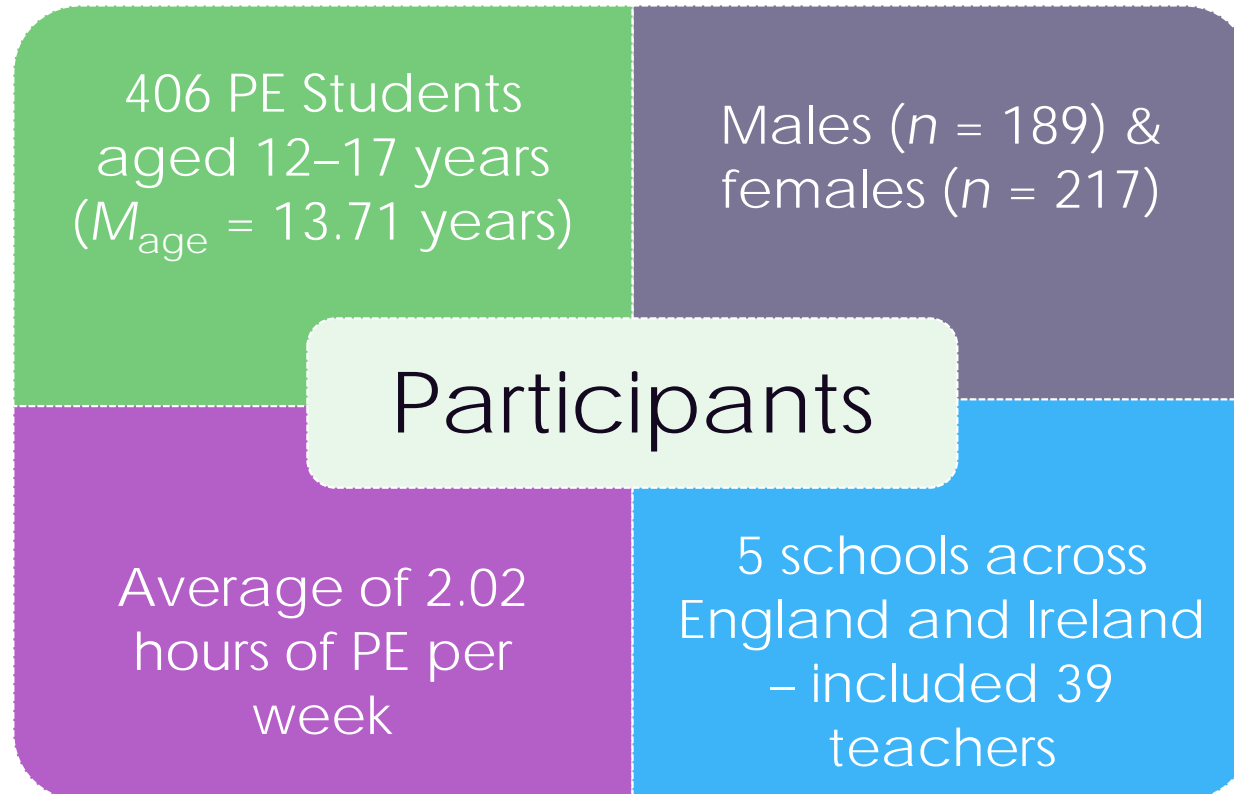
Life Skills

- Teamwork
- Leadership
- Communication
- Social skills
- Goal setting
- Time management
- Problem solving
- Emotional skills



Bartholomew et al. (2011)
Haerens et al. (2015)
Liu et al. (2017)

Method



Measures

Autonomy Supportive and Controlling Teaching

- Empowering and Disempowering Motivational Climate Questionnaire (Appleton et al., 2016)
- Autonomy-Supportive Coaching Questionnaire (Conroy and Coatsworth, 2007)
- 10 items for each subscale

My PE teacher....	Strongly disagree				Strongly agree
Gives students choices and options	1	2	3	4	5
Threatens to punish students to keep them in line during PE classes	1	2	3	4	5

Alpha coefficients = .94 and .89

Measures

Basic Need Satisfaction and Frustration

- Basic Needs Satisfaction and Frustration Scale for PE (Haerens et al., 2015)
- 24-item scale

During PE lessons...	Not true at all			Completely true	
I feel a sense of choice and freedom in the things I undertake	1	2	3	4	5
I am capable at what I am doing	1	2	3	4	5
I feel that class members I care about also care about me	1	2	3	4	5
I feel obligated to do certain things	1	2	3	4	5
I feel insecure about my abilities	1	2	3	4	5
I feel excluded from the group I want to belong to	1	2	3	4	5

Alpha coefficients = .85 to .91

Factorial validity = supported via CFA

Measures

Life skills development – Life Skills Scale for PE (Cronin et al., 2018)

- 43 items assessing the eight life skills listed earlier

PE classes have taught me to...	Not at all	A little	Some	A lot	Very much
Work well within a team/ group	1	2	3	4	5
Set specific goals	1	2	3	4	5
Speak clearly to others	1	2	3	4	5
Organise team/group members to work together	1	2	3	4	5

Alpha coefficients = .90 to .94

Factorial validity = supported via CFA, ESEM and bifactor analysis

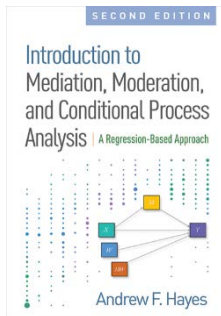
Data Analyses



- To assess if multilevel analyses would be appropriate



- To assess the normality of the data and possible gender and age group differences
- Descriptive statistics and correlations



- Process Macro for SPSS to assess our mediational models (cross checked our findings using structural equation modelling and the results were substantively identical)

Results

Students' perception of their PE teacher/s?

Autonomy supportive

Controlling

Strongly disagree				Strongly agree		
1	2	3	★	4	5	
1	2	★	3	4	5	

Results

Students' perception of the PE environment?

Autonomy satisfaction

Competence satisfaction

Relatedness satisfaction

Autonomy frustration

Competence frustration

Relatedness frustration

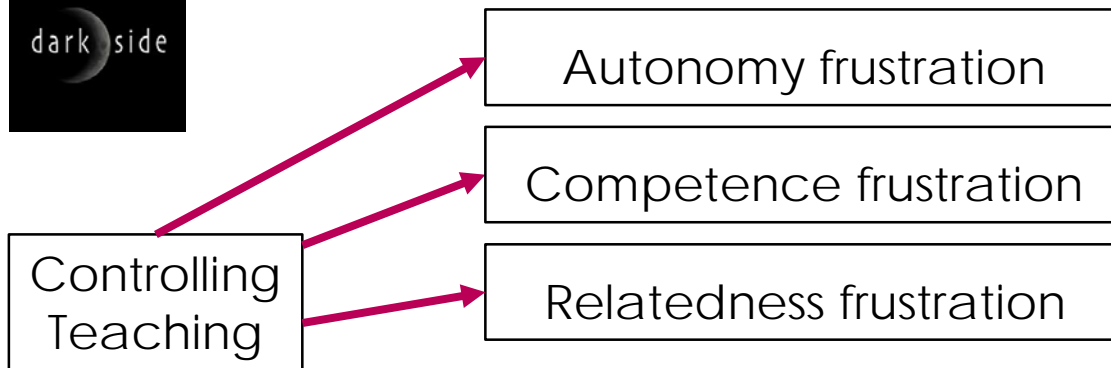
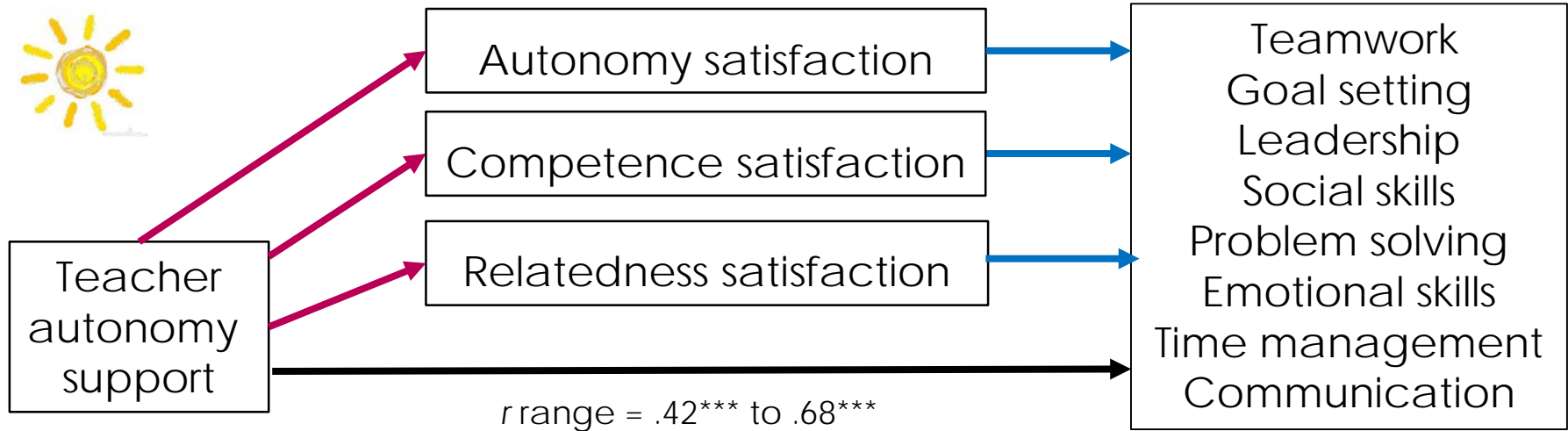
Not true at all					Completely true
1	2	3★	4	5	
1	2	3★	4	5	
1	2	3★	4	5	
1	2	★3	4	5	
1	2★	3	4	5	
1	2★	3	4	5	

Results

Students' perception of whether PE has taught them the eight different life skills?

	Not at all	A little	Some	A lot	Very much
Teamwork	1	2	3 ★	4	5
Communication	1	2	3 ★	4	5
Social skills	1	2	3 ★	4	5
Leadership	1	2	3 ★	4	5
Goal setting	1	2	3 ★	4	5
Time management	1	2	★ 3	4	5
Problem solving	1	2	★ 3	4	5
Emotional skills	1	2	★ 3	4	5
Total life skills	1	2	3 ★	4	5

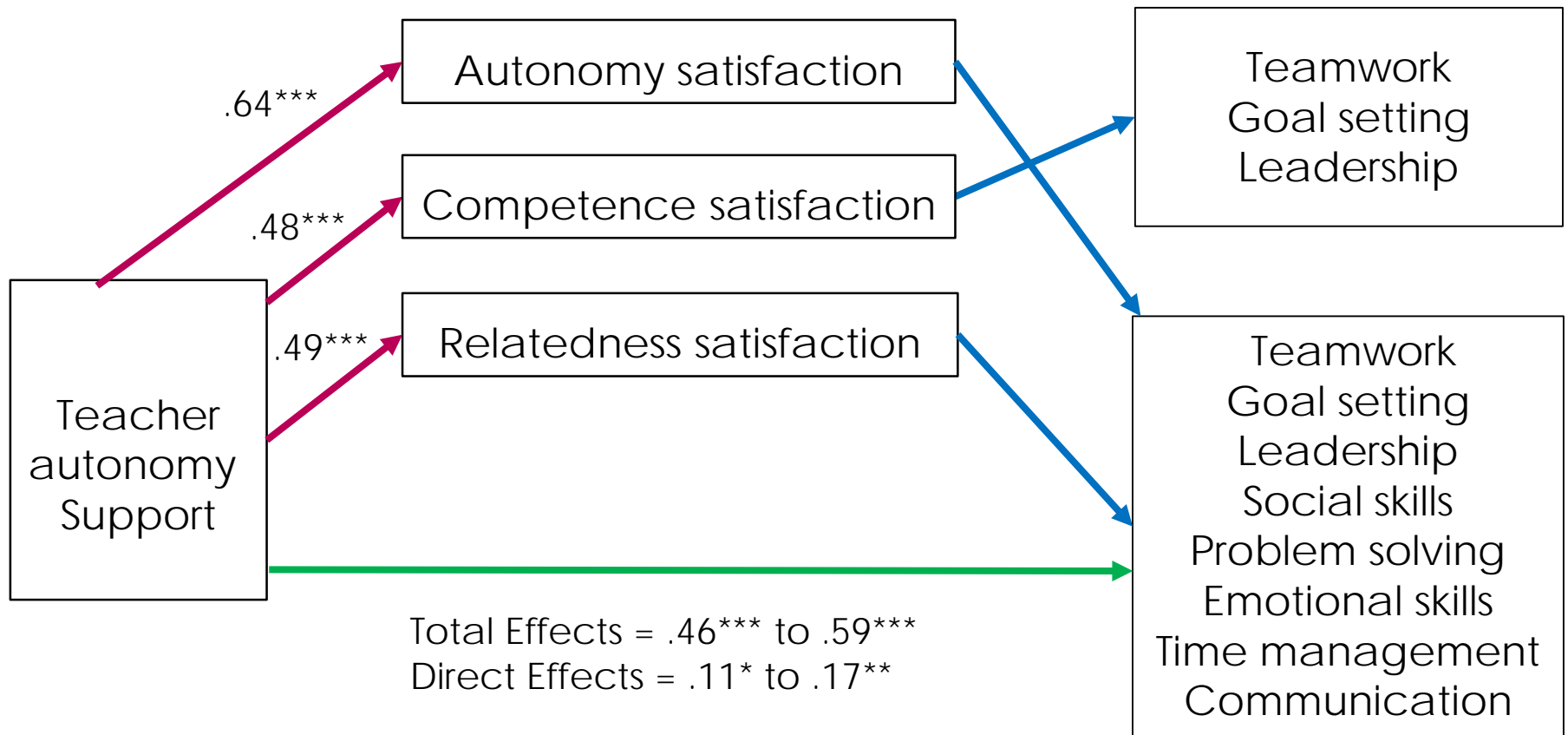
Correlational Results



$r \text{ range} = .35^{***} \text{ to } .41^{***}$

Mediation Results

β range = .12*** to .55***



Discussion

Key Findings

- Bright side of the pathway is related to students development of their life skills within PE
- Dark side of the pathway is only related to need frustration

Practical Application

- Teachers should provide an autonomy supportive climate and seek to satisfy students' three basic needs

Limitations

- Causality could not be established
- Self-report



Questions



For those interested in collaborating on future projects,
contact me at: Lorcan.Cronin@edgehill.ac.uk



References

- Appleton, P., Ntoumanis, N., Quested, E., Viladrich, C., & Duda, J. (2016). Initial validation of the coach-created Empowering and Disempowering Motivational Climate Questionnaire (EDMCQ-C). *Psychology of Sport and Exercise*, 22, 53–65.
- Bailey, R., Hillman C., Arent, S., & Petitpas, A. (2013). Physical activity: An underestimated investment in human capital. *Journal of Physical Activity and Health*, 10(3), 289–308.
- Bartholomew, K., Ntoumanis, N., Ryan, R., Bosch, J. & Thøgersen-Ntoumani, C. (2011). Self-determination theory and diminished functioning: The role of interpersonal control and psychological need thwarting. *Personality and Social Psychology Bulletin*, 37(11), 1459–1473.
- Conroy, D., & Coatsworth, J. (2007). Assessing autonomy-supportive coaching strategies in youth sport. *Psychology of Sport and Exercise*, 8(5), 671–684.
- Cronin, L., Allen, J., Mulvenna, C., & Russell, P. (2018). An investigation of the relationships between the teaching climate, students' perceived life skills development and well-being within physical education. *Physical Education and Sport Pedagogy*, 23(2), 181–196.

References

- Haerens, L., Aelterman, N., Vansteenkiste, M., Soenens, B., & Van Petegem, S. (2015). Do perceived autonomy-supportive and controlling teaching relate to physical education students' motivational experiences through unique pathways? Distinguishing between the bright and dark side of motivation. *Psychology of Sport and Exercise*, 16, 26–36.
- Hardman, K. (2011). Global issues in the situation of physical education in schools." In K. Hardman and K. Green (Eds.), *Contemporary Issues in Physical Education* (pp. 11–29). Maidenhead, UK: Meyer and Meyer Sport.
- Hodge, K., Danish, S., & Martin, J. (2012). Developing a conceptual framework for life skills interventions. *The Counseling Psychologist*, 41(8), 1125–1152.
- Goudas, M. (2010). Prologue: A review of life skills teaching in sport and physical education. *Hellenic Journal of Psychology*, 7, 241–258.
- Liu, J., Bartholomew, K. & Chung, P. (2017). Perceptions of teachers' interpersonal styles and well-being and ill-being in secondary school physical education students: The role of need satisfaction and need frustration. *School Mental Health*, 9(4), 360–371.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78.