

Reflective questions for discussion

1. What is the common theoretical basis for all achievement motivation theories? Discuss why this common basis is so important when studying achievement motivation in education, in general, and in PE in particular.
2. SDT is a comprehensive theory that encompasses the functions of other achievement motivation theories. One of the most important SDT tenets is to provide individuals the opportunity to be autonomous (to own the decision, action, etc.) in their settings. Given that schools reflect tightly controlled environments, what strategies would be most effective in promoting autonomy while still providing an orderly learning environment?
3. Researchers have observed the link between motivation levels and learning achievement in classroom-based research, but rarely in PE. What limits PE researchers from establishing this critical link to fully understand the power of student motivation? What suggestions can you make for future research?
4. Students' PE motivation and their motivation in after-school settings may require different mental processes. For example, the PE motivation process can derive and be dominated by perceived competence, whereas the motivation in an after-school setting can be driven completely by individual interest. To what extent do motivation mechanisms/strategies learned in PE transfer to outside school settings making physically active behavior sustainable? Use research evidence to support your conclusion.

References

- Alderman, M. K. (2008). *Motivation for achievement: Possibilities for teaching and learning* (3rd edn). New York: Routledge.
- Alexander, P.A. (2005). *Psychology in learning and instruction*. Columbus, OH: Prentice-Hall.
- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84*, 261–271.
- Ames, C., & Ames, R. (1984). Goal structures and motivation. *The Elementary School Journal, 85*, 39–52.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Berlant, A. R., & Weiss, M. R. (1997). Goal orientation and the modeling process: An individual's focus on form and outcome. *Research Quarterly for Exercise and Sport, 68*, 317–330.
- Chen, A. (2013). Special Topic: Top 10 research questions related to children physical activity motivation. *Research Quarterly for Exercise and Sport, 84*, 441–447.
- Chen, A., & Darst, P.W. (2001). Situational interest in physical education: A function of learning task design. *Research Quarterly for Exercise and Sport, 72*, 150–164.
- Chen, A., Darst, P.W., & Pangrazi, R. P. (1999). What constitutes situational interest? Validating a construct in physical education. *Measurement in Physical Education and Exercise Science, 3*, 157–180.
- Chen, A., & Ennis, C. D. (2004). Goal, interest, and learning in physical education. *The Journal of Educational Research, 97*, 329–338.
- Chen, A., Martin, R., Ennis, C. D., & Sun, H. (2008). Content specificity of expectancy beliefs and task values in elementary physical education. *Research Quarterly for Exercise and Sport, 79*, 195–208.
- Chen, A., & Shen, B. (2004). A web of achieving in physical education: Goals, interest, outside-school activity and learning. *Learning and Individual Differences, 14*, 169–182.
- Chen, S., Chen, A., & Zhu, X. (2012). Are K–12 learners motivated in physical education? A meta-analysis. *Research Quarterly for Exercise and Sport, 83*, 36–48.
- Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychology Bulletin, 125*, 627–668.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*, 227–268.

- Dempsey, J. M., Kimiecik, J. C., & Horn, T. S. (1993). Parental influence on children's moderate to vigorous physical activity participation: An expectancy-value approach. *Pediatric Exercise Science*, 5, 151-167.
- Digelidis, N., Papaioannou, A., Laparidis, K., & Christodoulidis, T. (2003). A one-year intervention in 7th grade physical education classes aiming to change motivational climate and attitudes toward exercise. *Psychology of Sport and Exercise*, 4, 195-210.
- Elliot, A. J. (1997). Integrating the "classic" and "contemporary" approaches to achievement motivation: A hierarchical model of approach and avoidance achievement motivation. In M. Maehr & P. Pintrich (Eds.), *Advances in motivation and achievement* (Vol. 10, pp. 243-279). Greenwich, CT: JAI Press.
- Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. *Educational Psychologist*, 34, 169-189.
- Elliot, A. J. (2005). A conceptual history of the achievement goal construct. In A. Elliot & C. Dweck (Eds.), *Handbook of competence and motivation* (pp. 52-72). New York: Guilford Press.
- Ennis, C. D. (2003). Using curriculum to enhance student learning. In S. J. Silverman & C. D. Ennis (Eds.), *Student learning in physical education: Applying research to enhance instruction* (2nd ed., pp. 109-127). Champaign, IL: Human Kinetics.
- Garn, A. C., & Sun, H. (2009). Approach-avoidance motivation in early adolescents: Exploring goal profiles and fitness testing. *Journal of Teaching in Physical Education*, 28, 400-421.
- Gillison, F. B., Standage, M., & Skevington, S. M. (2013). The effects of manipulating goal content and autonomy support climate on outcomes of a PE fitness class. *Psychology of Sport and Exercise*, 14, 342-352.
- Grolnick, W. S., Gurland, S. T., Jacob, K. F., & DeCoursey, W. (2002). The development of self-determination in middle childhood and adolescence. In A. Wigfield & J. Eccles (Eds.), *Development of achievement motivation* (pp. 148-171). San Diego, CA: Academic Press.
- Hidi, S., & Anderson, V. (1992). Situational interest and its impact on reading and expository writing. In K. A. Renninger, S. Hidi, & A. Krapp (Eds.), *The role of interest in learning and development* (pp. 43-69). Hillsdale, NJ: Erlbaum.
- Hidi, S., & Harackiewicz, J. M. (2000). Motivating the academically unmotivated: A critical issue for the 21st century. *Review of Educational Research*, 70, 151-179.
- Jewett, A. E., Bain, L. L., & Ennis, C. D. (1995). *The curriculum process in physical education*. Madison, WI: Brown & Benchmark.
- Kaplan, A., Middleton, M. J., Urdan, T., & Midgley, C. (2002). Achievement goals and goal structures. In C. Midgley (Ed.), *Goals, goal structures, and patterns of adaptive learning* (pp. 21-54). New York: Routledge.
- Koka, A., & Hein, V. (2003). Perceptions of teachers' feedback and learning environment as predictors of intrinsic motivation in physical education. *Psychology of Sport and Exercise*, 4, 333-346.
- Krapp, A., Hidi, S., & Renninger, K. A. (1992). Interest, learning, and development. In K. A. Renninger, S. Hidi, & A. Krapp (Eds.), *The role of interest in learning and development* (pp. 43-69). Hillsdale, NJ: Erlbaum.
- Lonsdale, C., Rosenkranz, R. R., Sanders, T., Peralta, L. R., Bennie, A., Jackson, B., Taylor, I. M., & Lubans, D. R. (2013). A cluster randomized controlled trial of strategies to increase adolescents' physical activity and motivation in physical education: Results of motivating active learning in physical education (MALP) trial. *Preventive Medicine*, 57, 696-702.
- Molden, D. C., & Dweck, C. S. (2000). Meaning and motivation. In C. Sansone & J. M. Harackiewicz (Eds.), *Intrinsic and extrinsic motivation: The search for optimal motivation and performance* (pp. 131-159). San Diego, CA: Academic Press.
- National Association for Sport and Physical Education. (1995). *Moving into the future: National standards for physical education*. Reston, VA: Author.
- National Association for Sport and Physical Education. (2004). *Moving into the future: National standards for physical education* (2nd edn). Reston, VA: Author.
- Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review*, 91, 328-346.
- Ntoumanis, N. (2001). A self-determination approach to the understanding of motivation in physical education. *British Journal of Educational Psychology*, 71, 225-242.
- Ntoumanis, N. (2005). A prospective study of participation in optional school physical education using a self-determination theory framework. *Journal of Educational Psychology*, 97, 444-453.
- Oldfather, P., & Dahl, K. (1994). Toward a social constructivist reconceptualization of intrinsic motivation for literacy learning. *Journal of Reading Behavior*, 26, 139-158.
- Pintrich, P. R. (2000). Multiple goals, multiple pathway: The role of goal orientation in learning and achievement. *Journal of Educational Psychology*, 92, 544-555.

- Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology, 95*, 667–686.
- Pintrich, P. R., & Schunk, D. H. (2002). *Motivation in education: Theory, research and applications* (2nd edn). Upper Saddle River, NJ: Pearson Education, Inc.
- Pollard, A., Thiessen, D., & Filer, A. (1997). *Children and their curriculum: The perspectives of primary and elementary school children*. London: Falmer Press.
- Renninger, K. A. (2000). Individual interest and its implications for understanding intrinsic motivation. In C. Sansone & J. M. Harackiewicz (Eds.), *Intrinsic and extrinsic motivation: The search for optimal motivation and performance* (pp. 373–404). San Diego, CA: Academic Press.
- Renninger, K. A., Hidi, S., & Krapp, A. (1992). *The role of interest in learning and development*. Hillsdale, NJ: Erlbaum.
- Reynold, R. E., Sinatra, G. M., & Jetton, T. L. (1996). Views of knowledge acquisition and representation: A continuum from experience centered to mind centered. *Educational Psychology, 31*(2), 93–104.
- Rink, J. E. (2001). Investigating the assumptions of pedagogy. *Journal of Teaching in Physical Education, 20*, 112–128.
- Rink, J. E. (2003). Effective instruction in physical education. In S. J. Silverman & C. D. Ennis (Eds.), *Student learning in physical education: Applying research to enhance instruction* (2nd ed., pp. 147–163). Champaign, IL: Human Kinetics.
- Rovegno, I. (2006). Situated perspectives on learning. In D. Kirk, D. Macdonald, & M. O'Sullivan (Eds.), *Handbook of physical education* (pp. 262–274). Los Angeles: Sage.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic, social development, and well-being. *American Psychologist, 55*(1), 68–78.
- Ryan, R. M., & Deci, E. L. (2002). An overview of self-determination theory. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3–33). Rochester, NY: University of Rochester Press.
- Ryan, R. M., & Powelson, C. L. (1991). Autonomy and relatedness as fundamental to motivation and education. *Journal of Experimental Education, 60*(1), 49–66.
- Sallis, J. F., McKenzie, T. L., Beets, M. W., Beighle, A., Erwin, H., & Lee, S. (2012). Physical education's role in public health: Steps forward and backward over 20 years and HOPE for the future. *Research Quarterly for Exercise and Sport, 83*, 125–135.
- Sansone, C., & Harackiewicz, J. (2000). *Intrinsic and extrinsic motivation: The search for optimal motivation and performance*. San Diego, CA: Academic Press.
- Sarrazin, P., Roberts, G., Cury, F., Biddle, S., & Famose, J. P. (2002). Exerted effort and performance in climbing among boys: The influence of achievement goals, perceived ability, and task difficulty. *Research Quarterly for Exercise and Sport, 73*, 425–436.
- Schmidt, R. A., & Lee, T. D. (2009). *Motor control and learning: A behavioral emphasis* (4th edn). Champaign, IL: Human Kinetics.
- Schraw, G., Flowerday, T., & Lehman, S. (2001). Increasing situational interest in the classroom. *Educational Psychology Review, 13*, 211–224.
- Shen, B., & Chen, A. (2006). Examining the interrelations among knowledge, interests, and learning strategies. *Journal of Teaching in Physical Education, 25*, 182–199.
- Shen, B., Chen, A., & Guan, J. (2007). Using achievement goals and interest to predict learning in physical education. *The Journal of Experimental Education, 75*(2), 89–108.
- Shen, B., Chen, A., Scrabis, K. A., & Tolley, H. (2003). Gender and interest-based motivation in learning dance. *Journal of Teaching in Physical Education, 22*, 396–409.
- Shuell, T. J. (1986). Cognitive conceptions of learning. *Review of Educational Research, 56*, 411–436.
- Silverman, S., Tyson, L., & Krampitz, J. (1992). Teacher feedback and achievement in physical education: Interaction with student practice. *Teaching & Teacher Education, 8*, 333–344.
- Society of Health and Physical Educators [SHAPE]. (2014). *National standards & grade-level outcomes for K-12 physical education*. Champaign, IL: Human Kinetics.
- Solmon, M. A., & Boone, J. (1993). The impact of student goal orientation in physical education classes. *Research Quarterly for Exercise and Sport, 64*, 418–424.
- Standage, M., Duda, J. L., & Ntoumanis, N. (2003). Predicting motivational regulations in physical education: The interplay between dispositional goal orientations, motivational climate and perceived competence. *Journal of Sport Sciences, 21*, 631–647.
- Standage, M., Duda, J. L., & Ntoumanis, N. (2005). A test of self-determination theory in school physical education. *British Journal of Educational Psychology, 75*, 411–433.

- Sun, H. (2012). Exergaming impact on physical activity and interest in elementary physical education. *Research Quarterly for Exercise and Sport*, 83, 212–220.
- Sun, H. (2013). Impact of exergames on physical activity and interest in elementary school students: A follow up study. *Journal of Sport and Health Science*, 2, 138–145.
- Sun, H., & Chen, A. (2010). An examination of sixth graders' self-determined motivation and learning in physical education. *Journal of Teaching in Physical Education*, 29, 262–277.
- Theodosiou, A., & Papaioannou, A. (2006). Motivational climate, achievement goals and metacognitive activity in physical education and exercise involvement in out-of-school settings. *Psychology of Sport and Exercise*, 7, 361–379.
- Todorovich, J. R., & Curtner-Smith, M. D. (2003). Influence of the motivational climate in physical education on third-grade students' task and ego orientations. *Journal of Classroom Interaction*, 38, 36–46.
- Treasure, D. (2001). Enhancing young people's motivation in youth sport: An achievement goal approach. In G. C. Roberts (Ed.), *Advances in motivation in sport and exercise* (2nd ed., pp. 79–100). Champaign, IL: Human Kinetics.
- Urda, T. C. (1997). Achievement goal theory: Past results, future directions. In M. L. Maehr & P. R. Pintrich (Eds.), *Advances in motivation and achievement*, Vol. 10 (pp. 99–141). Greenwich, CT: JAI Press.
- Vallerand, R. J., & Losier, G. F. (1999). An integrative analysis of intrinsic and extrinsic motivation in sport. *Journal of Applied Sport Psychology*, 11, 142–169.
- Vallerand, R. J., & Rousseau, F. L. (2001). Intrinsic and extrinsic motivation in sport and exercise: A review using the hierarchical model of intrinsic and extrinsic motivation. In R. N. Singer, H. A. Hausenblas, & C. M. Janelle (Eds.), *Handbook of sport psychology* (2nd ed., pp. 389–416). New York: Wiley.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wang, C. J., Biddle, S. J., & Elliot, A. J. (2007). The 2×2 achievement goal framework in a physical education context. *Psychology of Sport and Exercise*, 8, 147–168.
- Wang, C. J., Chatzisarantis, N. L. D., Spray, C. M., & Biddle, S. J. H. (2002). Achievement goal profiles in school physical education: Differences in self-determination, sport ability beliefs, and physical activity. *British Journal of Educational Psychology*, 72, 433–445.
- Wigfield, A. & Eccles, J. S. (2002). The development of competence beliefs, expectancies for success, and achievement values from childhood through adolescence. In A. Wigfield & J. S. Eccles (Eds.), *Development of achievement motivation* (pp. 91–120). San Diego, CA: Academic Press.
- Zhu, X. (2013). Situational interest and physical activity in fitness testing: A need for pedagogical engineering. *International Journal of Sport and Exercise Psychology*, 12, 76–89.
- Zhu, X., Chen, A., Ennis, C., Sun, H., Hopple, C., Bonello, M., Bae, M., & Kim, S. (2009). Situational interest, cognitive engagement, and achievement in physical education. *Contemporary Educational Psychology*, 34, 221–229.
- Zhu, X., Chen, S., & Parrott, J. (2014). Adolescents' interest and performances in aerobic fitness testing. *Journal of Teaching in Physical Education*, 33, 53–67.