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Articles

Growth and Motor Development

The Feldenkrais Method®: A Dynamic Approach to Changing Motor Behavior (pp. 315-323)

Patricia A. Buchanan and Beverly D. Ulrich

This tutorial describes the Feldenkrais Method and points to parallels with a dynamic systems theory (DST) approach to motor behavior. Feldenkrais is an educational system designed to use movement and perception to foster individualized improvement in function. Moshe Feldenkrais, its originator, believed his method enhanced people's ability to discover flexible and adaptable behavior and that behaviors are self-organized. Similarly, DST explains that a human-environment system is continually adapting to changing conditions and assembling behaviors accordingly. Despite little research, Feldenkrais is being used with people of widely ranging ages and abilities in varied settings. We propose that DST provides an integrated foundation for research on the Feldenkrais Method, suggest research questions, and encourage researchers to test the fundamental tenets of Feldenkrais.

Measurement and Evaluation

Fitness Portfolio Calibration for First- Through Sixth-Grade Children (pp. 324-334)

Pamela Hodges Kulinna and Weimo Zhu

The purpose of this study was to develop and calibrate health-related fitness portfolios for 1st-6th grade students using the many-faceted Rasch model, and examine advantages and disadvantages of a portfolio assessment system based on Rasch calibration. Nine hundred ninety-five students from 23 schools in first-sixth grade, who completed three-six of nine health-related fitness portfolios, participated in this study. Ten physical education teachers performed the grading across various portfolios and grade levels. Students' portfolios were rated using 23 predeveloped rubrics, and their scores linked through several common portfolios that were used across schools. The rating scores were analyzed using the many-faceted Rasch model, with four defined facets: portfolio, rubric, student, and rater. The model-data fit was very good, and a consistent grade difference was found, that is, older students scored higher in fitness knowledge than younger ones. With Rasch calibration, measurement problems in conventional portfolio assessments can be eliminated, and a valid and reliable assessment system can be developed. In addition, several other measurement advantages are provided by Rasch calibration (e.g., related facets can be examined and controlled simultaneously). A large sample size and a more complex process, however, are required in the calibration stage of developing such a system using the Rasch model.

Motor Control and Learning

Attention and Motor Performance: Preferences for and Advantages of an External Focus (pp. 335-344)

Gabriele Wulf, Charles Shea, and Jin-Hoon Park

This study examined individual differences in the preference for and effectiveness of the type of attentional focus for motor learning. In two experiments, participants practicing a balance task (stabilometer) were asked to find out whether focusing on their feet (internal focus) or on two markers in front of their feet (external focus) was more effective. In Experiment 1, participants switched their attentional focus from trial to trial on Day 1 and used their preferred attentional focus on Day 2. In Experiment 2, participants were free to switch their attentional focus any time during 2 days of practice. Retention tests were performed on Day 3. Most participants chose an external focus. Also, they were more effective in retention than participants who preferred an internal focus.

Examining the Specificity of Practice Hypothesis: Is Learning Modality Specific? (pp. 345-354)

Jamie Coull, Luc Tremblay, and Digby Elliott

The specificity of practice hypothesis was examined using a tracking task. In Experiment 1, visual or auditory feedback about performance was provided. Vision was more useful than audition early in acquisition. Performance gains found in acquisition were maintained during retention, but learning was specific only if the acquisition modality

was visual. Specificity did not increase with the amount of practice. In Experiment 2, visual and auditory information were combined. Again, the specificity of practice hypothesis was supported. Also, instructing participants to attend to one information source allowed us to demonstrate that information can be explicitly or implicitly processed. Further, specificity effects may occur because of different rates of development for error detection and correction processes.

Pedagogy

An Investigation of Commitment Among Participants in an Extended Day Physical Activity Program (pp. 355-365)

Tammy A. Schilling

This study examined underserved youth participants' perceptions of commitment to an extended day physical activity program using Hellison's (1995) responsibility model. Seven participants ranging in age from 12 to 15 years participated in the study. Two personal interviews and a focus group interview were used to obtain participants' perceptions of program commitment. Results revealed that program organization, personal characteristics, development of interpersonal relationships, and the program environment influenced their program commitment. Participants described the nature of commitment in terms of program behavior, emotional involvement, and program history. While the type of activity was cited as a positive influence on program commitment, the specific activity could also serve as a barrier to program commitment. Implications for program development and future research are offered.

Description of an Expert Teacher's Constructivist-Oriented Teaching: Engaging Students' Critical Thinking in Learning Creative Dance

 (pp. 366-375)

Weiyun Chen

The focus of this study was to investigate how an expert teacher implemented constructivist-oriented teaching strategies to engage students' critical thinking skills in learning creative dance. The data were collected through videotaping 16 creative dance lessons taught by an expert teacher to 2 kindergarten, 2 first-grade, and 4 third-grade classes and conducting two formal interviews and several informal interviews with the teacher. In addition, one group interview was conducted with 4 kindergarten students, 4 first-grade students, and 8 third-grade students. The three salient themes were: (a) relating students' knowledge and ideas to lessons to spark dispositions, (b) encouraging and facilitating students' inquiries and creative products, and (c) engaging students' metacognition in refining the quality of dance movement.

Psychology

Social Support and Recovery From Sport Injury: Elite Skiers Share Their Experiences (pp. 376-388)

Theresa Bianco

Research suggests that social support can be an important coping resource for athletes recovering from sport injury. Few studies have investigated this claim, however. To address this gap in the literature, 10 elite downhill skiers who had recovered from serious sport injuries were interviewed about the sources of stress associated with injury and the role of social support in recovery from sport injury. This paper presents the social support findings that emerged from this research. Content analyses of the social support data revealed that the skiers needed various types of emotional, informational, and tangible support from the occurrence of injury through the return to full activity. Members of the treatment team, the ski team, and the skiers' home support networks provided social support throughout these phases. In general, the skiers were satisfied with the support received, indicating that it reduced distress and kept them motivated throughout recovery. The findings from this research have implications for the design of sport injury interventions.

The Effects of a Motivational General-Mastery Imagery Intervention on the Sport Confidence of High-Level Badminton Players (pp. 389-400)

Nichola Callow, Lew Hardy, and Craig Hall

A multiple-baseline across-participants design was used to examine the effects of a Motivational General-Mastery imagery intervention on the sport confidence of 4 high-level junior badminton players. Sport confidence data were

collected once a week for 21 weeks prior to international and county matches. The imagery intervention consisted of six imagery sessions (two per week for 3 weeks) and was administered using a multiple-baseline design with interventions commencing at Weeks 5, 7, 9, and 11 for Participants 1, 2, 3, and 4, respectively. Results of visual inspection and Binomial tests suggested significant increases in sport confidence for Participants 1 and 2, a significant decrease in sport confidence for Participant 3, and a delayed increase in sport confidence for Participant 4. The results are discussed in terms of the implications of using mastery imagery and the usefulness of multiple-baseline designs for furthering imagery research.

Validating Motivational Readiness for Exercise Behavior With Adolescents (pp. 401-410)

Rebecca E. Lee, Claudio R. Nigg, Carlo C. DiClemente, and Kerry S. Courneya

The stages of motivational readiness as conceptualized by the Transtheoretical Model have been widely used among adult samples to assess readiness for adopting exercise behavior. To date, little research has been conducted using a staging framework with adolescent samples. There is a need for validation of the staging framework prior to a substantial amount of research with this age group. The current article presents two studies assessing stage and reported exercise behavior (Study 1: $n = 819$; M age = 15.0 years, $SD = 1.2$; 51% men; Study 2: $n = 184$; M age = 18.6 years, $SD = .5$; 45% men). As hypothesized in both studies, reported exercise consistently varied as a function of stage classification; those in earlier stages of readiness reported less exercise than those in later stages. Staging algorithms showed good sensitivity to detect reported exercise; however, specificity was distinctly better with the algorithm that used a specific activity criterion and immediate intention, as opposed to irregular behavior, in defining the preparation stage. Results support the validity of the staging framework for measuring motivational readiness for exercise behavior among North American adolescents.

Research Notes

A 10,000-Step Count as a Physical Activity Target for Sedentary Women (pp. 411-414)

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Acute Ballistic Muscle Stretching Inhibits Maximal Strength Performance (pp. 415-419)

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Memory-Influenced Biases in Gymnastic Judging Occur Across Different Prior Processing Conditions

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