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Development and Validation of a Scale to Measure Optimal Experience: The Flow State Scale

Susan A. Jackson  Herbert W. Marsh
University of Queensland  University of Western Sydney, Macarthur

The Flow State Scale (FSS) is a new measure of flow in sport and physical activity settings. The nine FSS scales of the 36-item instrument represent the dimensions of flow discussed by Csikszentmihalyi (1990, 1993), and each scale is measured by four items. Development of items was based on (a) past research with flow state both within and outside of sport settings, (b) qualitative analysis of interviews with elite athletes, and (c) quantitative analyses conducted in the present investigation. Internal consistency estimates for the nine FSS scales were reasonable (alpha M = .83) for administration of the scale to 394 athletes. Confirmatory factor analyses supported the nine scales. Consistent with the theoretical basis of the FSS, there was also support for a hierarchical model in which one global (higher order) flow factor explained correlations among the nine first-order FSS factors. Suggestions for use of the scale and for further research are discussed.

Key words: flow research, scale development, confirmatory factor analysis, construct validity

The flow state, a positive experiential state, occurs when the performer is totally connected to the performance, in a situation where personal skills equal required challenges. It is a state aspired to by elite athletes (Jackson, 1992, in press), but also one that can be enjoyed by any level of sport participant (Csikszentmihalyi, 1992; Stein, Kimiecik, Daniels, & Jackson, 1995). Research of flow has lagged behind experiential awareness of the state due to the inherent difficulties of applying empirical methods to phenomenological experiences. Due to the importance of flow state to concepts such as motivation, peak performance, peak experience, and enjoyment, attempts to develop ways of assessing flow in sport and activity settings are warranted. This investigation was designed to

Susan A. Jackson is with the Departments of Human Movement Studies and Psychology at the University of Queensland, Brisbane, QLD, 4072, Australia. Herbert W. Marsh is with the University of Western Sydney, Macarthur, P.O. Box 555, Campbelltown, NSW 2560, Australia.
Appendix

Flow State Scale

Please answer the following questions in relation to your experience in the event you have just completed. These questions relate to the thoughts and feelings you may have experienced during the event. There are no right or wrong answers. Think about how you felt during the event and answer the questions using the rating scale below. Circle the number that best matches your experience from the options to the right of each question.

Rating Scale:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. I was challenged, but I believed my skills would allow me to meet the challenge.
   1  2  3  4  5
2. I made the correct movements without thinking about trying to do so.
   1  2  3  4  5
3. I knew clearly what I wanted to do.
   1  2  3  4  5
4. It was really clear to me that I was doing well.
   1  2  3  4  5
5. My attention was focused entirely on what I was doing.
   1  2  3  4  5
6. I felt in total control of what I was doing.
   1  2  3  4  5
7. I was not concerned with what others may have been thinking of me.
   1  2  3  4  5
8. Time seemed to alter (either slowed down or speeded up).
   1  2  3  4  5
9. I really enjoyed the experience.
   1  2  3  4  5
10. My abilities matched the high challenge of the situation.
    1  2  3  4  5
11. Things just seemed to be happening automatically.
    1  2  3  4  5
12. I had a strong sense of what I wanted to do.
    1  2  3  4  5
13. I was aware of how well I was performing.
    1  2  3  4  5
14. It was no effort to keep my mind on what was happening.
    1  2  3  4  5
15. I felt like I could control what I was doing.
    1  2  3  4  5
16. I was not worried about my performance during the event.
    1  2  3  4  5

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