Evaluation of I-ADAPT and TEAM-ADAPT Performance Measures

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In today’s organizations, employees are expected to maintain high performance levels in jobs that are unstable and in a constant state of change.

Pulakos, Arad, Donovan, & Plamondon (2000) proposed an 8 dimension taxonomy of individual adaptability. The dimensions include adaptation to: work stress, crisis, interpersonal issues, learning new tasks, problem solving creativity, uncertainty, culture issues, and physical requirements. Ployhart & Bliese (2006) developed a 55-item measure (I-ADAPT) to capture those dimensions.
The current study examined the internal consistency of 6 I-ADAPT dimensions (2 dimensions, cultural and physical, were excluded because they were not relevant to the research setting). Based on suggestions from Ployhart & Bliese (2006), we developed a parallel measure of team adaptability (TEAM-ADAPT) and examined its internal consistency.
Method

Participants: 32 senior aerospace students working in teams. Each person occupied a specific position in simulated airlines flight operations center. Each group operated the simulated airline during the three 2.5 hour simulations. During each simulation, problem events occurred that required adaptation.

Procedure: I-ADAPT was completed following initial training and the TEAM-ADAPT was administered following the first simulation. For each scale, participants indicated their extent of agreement with each scale item. Sample I-ADAPT and TEAM-ADAPT items are presented in Table 1.
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Example I-ADAPT Items</th>
<th>Example TEAM-ADAPT Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling Work Stress <em>(Work Stress)</em></td>
<td>I am usually stressed when I have a large work load (reverse coded)</td>
<td>Our team is usually stressed when we have a large workload (reverse coded)</td>
</tr>
<tr>
<td>Handling Emergency or Crisis Situations <em>(Crisis)</em></td>
<td>I usually step up and take action during a crisis</td>
<td>Our team usually steps up and takes action during a crisis</td>
</tr>
<tr>
<td>Interpersonal Adaptability <em>(Interpersonal)</em></td>
<td>My insight helps me to work effectively with others</td>
<td>Our insight helps us to work effectively with each other</td>
</tr>
<tr>
<td>Learning New Work Tasks, Technologies and Procedures <em>(Learning)</em></td>
<td>I am continually learning new skills for my job</td>
<td>Our team is continually learning new skills for the job</td>
</tr>
<tr>
<td>Solving Problems Creatively <em>(Creativity)</em></td>
<td>I am an innovative person</td>
<td>Our team is innovative</td>
</tr>
<tr>
<td>Dealing with Uncertain and Unpredictable Situations <em>(Uncertainty)</em></td>
<td>I am able to make effective decisions without all relevant information</td>
<td>Our team is able to make effective decisions without having all relevant information</td>
</tr>
</tbody>
</table>
### Table 2

**Coefficient Alpha Reliabilities**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>I-ADAPT Alpha</th>
<th>n</th>
<th>TEAM-ADAPT Alpha</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>.90</td>
<td>31</td>
<td>.92</td>
<td>23</td>
</tr>
<tr>
<td>Work Stress</td>
<td>.77</td>
<td>32</td>
<td>.73</td>
<td>28</td>
</tr>
<tr>
<td>Crisis</td>
<td>.75</td>
<td>32</td>
<td>.79</td>
<td>28</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>.70</td>
<td>31</td>
<td>.84</td>
<td>28</td>
</tr>
<tr>
<td>Learning</td>
<td>.80</td>
<td>31</td>
<td>.72</td>
<td>25</td>
</tr>
<tr>
<td>Creativity</td>
<td>.67</td>
<td>32</td>
<td>.75</td>
<td>26</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>.71</td>
<td>31</td>
<td>.71</td>
<td>27</td>
</tr>
</tbody>
</table>
Results

- Results, presented in Table 2, indicate that both the I-ADAPT and TEAM-ADAPT measures were reliable overall and for each dimension.
- The I-ADAPT dimension reliabilities ranged from $\alpha = .67$ to $.80$.
- The TEAM-ADAPT dimension reliabilities ranged from $\alpha = .71$ to $.84$.
- Overall reliability was quite high for both the I-ADAPT ($\alpha = .90$) and TEAM-ADAPT ($\alpha = .92$).
Discussion

There is surprisingly little research to be found on the topics of individual adaptability and adaptive performance. In order to increase our understanding of these topics, it is critical that researchers have a solid frame of reference, such as an agreed upon definition and measure, to use. The current study helps to fill this void by presenting optimistic findings for reliable individual and team adaptability measures.
Discussion Cont.

- The positive results indicate a step toward validating a team adaptability measure, TEAM-ADAPT. While team adaptive performance has been suggested as an extension of individual adaptive performance, this is one of the first evaluations of a team adaptability measure.
Limitations

- We had a very small sample size (n=32). With a larger sample, factor analyses could have been conducted to assess the dimensions of I-ADAPT and TEAM-ADAPT. With the smaller sample, internal reliability was our only option for analyses.

- This study analyzed only reliability. A true validation study is necessary to further assess these measures.
References
