

Aug 01, 2023

9/24/2021

TAPAS Theory of Action – Selection and Classification		
Major Claims		
I. Temperament facets are predictive of performance and continuance intentions/behavior	→	III. Respondents selected or classified based on TAPAS scores (in combination with other indicators) have higher likelihood of success within particular military occupations
Department of Defense <small>OFFICE OF PREPUBLICATION AND SECURITY REVIEW</small> II. The TAPAS measures a useful sample of temperament facets		

Overview of Major Claims and Specific Claims:

I. Temperament facets are predictive of performance and continuance intentions/behavior.	
Selection	Classification
I.1 Temperament facets predict aspects of performance and continuance intentions/behavior.	I.2 Temperament facets are differentially related to performance across occupations.
I.3. Temperament facets, when combined with measures of <i>g</i> , provide better predictions of performance and continuance intentions/behavior than the level of prediction afforded by <i>g</i> alone. (Incremental validity)	I.4 Temperament facets, when combined with other knowledge, skills, and ability (KSA) measures, provide better prediction of outcomes across occupations than the level of prediction afforded by KSA measures alone. (Incremental validity)
II. The TAPAS measures a useful sample of temperament facets.	
Selection	Classification
II.1. TAPAS measures temperament facets associated with work requirements across a broad range of military occupations.	II.2 TAPAS measures temperament facets associated with work requirements differentially across military occupations.
Selection & Classification	
II.3 TAPAS facet scores are of sound psychometric quality.	
II.4 TAPAS composite scores are of sound psychometric quality.	
II.5 TAPAS facet scores are fair representations of respondents' temperament facets.	
II.6 TAPAS composite scores are fair representations of respondents' temperament facets.	
II.7 Administrative policies and procedures support the psychometric quality of TAPAS scores.	
III. Respondents selected or classified based on TAPAS scores (in combination with other indicators) have higher likelihood of success within particular military occupations.	
Selection	Classification
III.1 TAPAS scores are related to performance across military occupations (Criterion-related validity)	III.2 TAPAS scores are differentially related to performance across occupations
III.3 TAPAS scores, when combined with AFQT, provide better predictions of outcomes than the level of prediction afforded by AFQT alone. (Incremental validity)	III.4 TAPAS scores, when combined with ASVAB scores, provide better prediction of outcomes across occupations than the level of prediction afforded by ASVAB scores alone. (Incremental validity)
III.5 Respondents selected using TAPAS scores have higher likelihood of success across military occupations.	III.6 Respondents classified using TAPAS scores have higher likelihood of success within particular military occupations.
Selection & Classification	
III.7 A proposed/operational set of TAPAS scores would maximize aggregate predicted performance across the Service.	

Major Claim	
I. Temperament facets are predictive of performance and continuance intentions/behavior.	
Specific Claims	
Selection	Classification
I.1 Temperament facets predict performance and continuance intentions/behavior.	I.2 Temperament facets are differentially related to performance across occupations.
Assumptions	Assumptions
I.1.a. If temperament facets predict performance, then occupation analysis information should identify temperament facets as indicators of suitability across occupations.	I.2.a. If temperament facets are differentially related to performance across occupations, then occupation analysis information should differentially identify temperament facets as indicators of suitability for specific occupations.
I.1.b. If temperament facets predict performance, then facets should have a well-established body of validity evidence for predicting performance outcomes.	I.2.b. If temperament facets are differentially related to performance across occupations, then facets should differentially predict performance indicators across occupations (e.g., specific facets will be more highly correlated with outcome measures for some occupations than others).
I.1.c. If temperament facets predict continuance intentions/behavior, then facets should have a well-established body of validity evidence for predicting continuance intentions/behavior.	
I.1.d. If temperament facets predict performance and continuance intentions/behavior, then facets should be reasonably stable for the tested population (minimally, they should be stable from the time the assessment is administered until the end of one cycle of training or through the first job performance appraisal).	I.2.c. If temperament facets are differentially related to performance across occupations, then facets should be reasonably stable for the tested population (minimally, they should be stable from the time the assessment is administered until the end of one cycle of training or through the first job performance appraisal).

Major Claim	
I. Temperament facets are predictive of performance and continuance intentions/behavior.	
Specific Claims	
Selection	Classification
I.3. Temperament facets, when combined with measures of <i>g</i> , provide better predictions of performance and continuance intentions/behavior than the level of prediction afforded by <i>g</i> alone.	I.4 Temperament facets, when combined with other KSA measures, provide better prediction of outcomes across occupations than the level of prediction afforded by KSA measures alone.
Assumptions	Assumptions
I.3.a. If temperament facets, when combined with measures of <i>g</i> , provide better prediction of performance, then temperament facets should improve prediction of performance indicators beyond prediction afforded by <i>g</i> alone.	I.4.a. If temperament facets, when combined with other KSA measures, provide better prediction of outcomes across occupations, then combined KSA and facet measures should improve prediction of outcomes afforded by KSA measures alone.
I.3.b. If temperament facets, when combined with measures of <i>g</i> , provide better prediction of continuance intentions/behavior, then temperament facets should improve prediction of continuance behavior/intentions beyond prediction afforded by <i>g</i> alone.	

<b>Major Claim</b>	
II. The TAPAS measures a useful sample of temperament facets	
<b>Specific Claims</b>	
<b>Selection</b>	<b>Classification</b>
II.1. TAPAS measures temperament facets associated with work requirements across a broad range of military occupations.	II.2 TAPAS measures temperament facets associated with work requirements differentially across military occupations.
<b>Assumptions</b>	<b>Assumptions</b>
II.1.a. If TAPAS measures temperament facets associated with work requirements across a broad range of military occupations, then job analysis information across a broad sample of occupations should support the relevance of those facets. (Content relevance)	II.2.a. If TAPAS measures temperament facets associated with work requirements differentially across military occupations, then occupational analysis information should show differences in which facets are most relevant for different occupations. (Content relevance of facets)
II.1.b. If TAPAS measures temperament facets associated with work requirements across a broad range of military occupations, then the facets should cover a broad range of established temperament constructs.	
<b>Specific Claim - Selection &amp; Classification</b>	
II.3 TAPAS facet scores are of sound psychometric quality.	
<b>Assumptions</b>	
II.3.a. If TAPAS facet scores are of sound psychometric quality, then intended temperament facets should be represented in TAPAS statement pools.	
II.3.b. If TAPAS facet scores are of sound psychometric quality, then metadata from the statement pools (e.g., information functions, parameters, classical statistics) should support TAPAS statement quality.	
II.3.c. If TAPAS facet scores are of sound psychometric quality, then facet statement pools should contain a sufficient number and mix of statements representing the parameters on which statements are selected to generate a reliable and accurate score for each measured facet.	
II.3.d. If TAPAS facet scores are of sound psychometric quality, then the computerized adaptive testing (CAT) algorithm for statement selection, pairing, and scoring should yield reliable and accurate facet scores.	
II.3.e. If TAPAS facet scores are of sound psychometric quality, then different versions of the TAPAS should generate comparable (interchangeable) scores.	
II.3.f. If TAPAS facet scores are of sound psychometric quality, then TAPAS facet scores should be correlated with scores from other measures of those facets.	
II.3.g. If TAPAS facet scores are of sound psychometric quality, then respondents should not be able to distort responses to generate a more favorable outcome.	
<b>Specific Claim - Selection &amp; Classification</b>	
II.4. TAPAS composite scores are of sound psychometric quality.	
<b>Assumptions</b>	
II.4.a. If TAPAS composite scores are of sound psychometric quality, then the method of constructing TAPAS composite scores should follow professional best practices.	
II.4.b. If TAPAS composite scores are of sound psychometric quality, then different versions of the TAPAS should generate comparable (interchangeable) composite scores.	

<b>Major Claim</b>
II. The TAPAS measures a useful sample of temperament facets.
<b>Specific Claim - Selection &amp; Classification</b>
II.5 TAPAS facet scores are fair representations of respondents' temperament facets. (Subgroup Differences – facets)
<b>Assumptions</b>
II.5.a. If TAPAS facet scores are fair representations of respondents' temperament facets, then evidence of rigorous norming procedures should support the creation of percentile rankings.
II.5.b. If TAPAS facet scores are fair representations of respondents' temperament facets, then using (or the addition of) TAPAS facet scores should not disadvantage protected groups.
II.5.c. If TAPAS facet scores are fair representations of respondents' temperament facets, then TAPAS statements (or statement pairs) should not exhibit substantial differential item functioning (calculated via DIF or other suitable statistical indices).
II.5.d. If TAPAS facet scores are fair representations of respondents' temperament facets, then TAPAS facet scores should not underpredict the performance of protected subgroups.
<b>Specific Claim - Selection &amp; Classification</b>
II.6 TAPAS composite scores are fair representations of respondents' temperament facets. (Subgroup Differences – composites)
<b>Assumptions</b>
II.6.a. If TAPAS composite scores are fair representations of respondents' temperament, then using (or the addition of) TAPAS composite scores should not disadvantage protected groups.
II.6.b. If TAPAS composite scores are fair representations of respondents' temperament, then TAPAS composite scores should not underpredict the performance of protected subgroups.
<b>Specific Claim - Selection &amp; Classification</b>
II.7 Administrative policies and procedures support the psychometric quality of TAPAS scores.
<b>Assumptions</b>
II.7.a. If administration policies and procedures support the psychometric quality of TAPAS scores, then TAPAS scores should not exhibit inappropriate variance (e.g., cheating, exposure of TAPAS statements).
II.7.b. If administration policies and procedures support the psychometric quality of TAPAS scores, then proctored and unproctored versions of the TAPAS should yield comparable (interchangeable) scores.
II.7.c. If administration policies and procedures support the psychometric quality of TAPAS scores, then retest policies should not compromise score validity.
II.7.d. If administration policies and procedures support the psychometric quality of TAPAS scores, then score reports should be clear and interpretable by all users.

Major Claim	
III. Respondents selected or classified based on TAPAS scores (in combination with other indicators) have higher likelihood of success within particular military occupations.	
Specific Claims	
Selection	Classification
III.1. TAPAS scores are related to outcomes across a broad range of military occupations. (Criterion-related validity)	III.2 TAPAS scores are differentially related to outcomes across occupations.
Assumptions	Assumptions
III.1.a. If TAPAS scores are related to outcomes across a broad range of military occupations, then those scores should yield a useful degree of criterion-related validity for predicting outcomes. (Criterion-related validity evidence)	III.2.a. If TAPAS scores are differentially related to occupations, then those scores should yield a useful degree of criterion-related validity for predicting outcomes in some occupations and lower validity for predicting outcomes in others. (Criterion-related validity evidence)
	III.2.b. If TAPAS scores are differentially related to outcomes across occupations, then there should be evidence of increased classification efficiency based on including those scores.
	III.2.c. If TAPAS composite scores are differentially related to outcomes across occupations, then alternate composites (comprised of different subsets of facets) should not show improved classification efficiency over operational/proposed composites.
Specific Claims	
Selection	Classification
III.3. TAPAS scores, when combined with AFQT, provide better predictions of aspects of performance and continuance intentions/behavior than the level of prediction afforded by AFQT alone.	III.4 TAPAS scores, when combined with ASVAB scores, provide better prediction of performance across occupations than the level of prediction afforded by ASVAB scores alone.
Assumptions	Assumptions
III.3.a. If TAPAS scores, when combined with AFQT, provide better predictions of aspects of performance, then TAPAS scores should improve prediction of performance indicators beyond prediction afforded by AFQT alone.	III.4.a. If TAPAS scores, when combined with ASVAB, provide better prediction of performance across occupations, then combined ASVAB and TAPAS scores should improve prediction of performance indicators beyond ASVAB alone.
III.3.b. If TAPAS scores, when combined with AFQT, provide better predictions of continuance intentions/behavior, then TAPAS scores should improve prediction of continuance behavior/intentions beyond prediction afforded by AFQT alone.	

<b>Major Claim</b>	
III. Respondents selected or classified based on TAPAS scores (in combination with other indicators) have higher likelihood of success within particular military occupations.	
<b>Specific Claims</b>	
<b>Selection</b>	<b>Classification</b>
III.5. Respondents selected using TAPAS scores have higher likelihood of success across military occupations.	III.6. Respondents classified using TAPAS scores have higher likelihood of success within particular military occupations.
<b>Assumptions</b>	<b>Assumptions</b>
III.5.a. If TAPAS scores are used for selection into the military, then cut scores should have been set using rigorous and appropriate procedures.	III.6.a. If respondents classified using TAPAS scores have higher likelihood of success within particular military occupations, then cut scores should have been set using rigorous and appropriate procedures.
III.5.b. If TAPAS scores are used for selection into the military, then score reliability should be appropriately high and error appropriately low throughout the scale (especially near important cut scores).	III.6.b. If respondents classified using TAPAS scores have higher likelihood of success within particular military occupations, then score reliability should be appropriately high and error appropriately low throughout the scale (especially near important cut scores).
III.5.c. If TAPAS scores are used for selection into the military, then selection decision accuracy should be appropriately high.	III.6.c. If respondents classified using TAPAS scores have higher likelihood of success within particular military occupations, then composite-level scores should have appropriately high classification decision accuracy.
<b>Specific Claims - Classification</b>	
III.7 A proposed/operational set of TAPAS scores would maximize aggregate predicted performance across the Service.	
<b>Assumptions</b>	
III.7.a. If the set of proposed/operational TAPAS classification scores maximizes aggregate performance across the service, then the scores should exhibit classification efficiency.	
III.7.b. If the set of proposed/operational TAPAS classification scores maximizes aggregate performance across the service, then alternative methods of identifying a set of classification scores should not improve the efficacy of this set of proposed/operational scores.	