

Wave Work Roles Technical Summary

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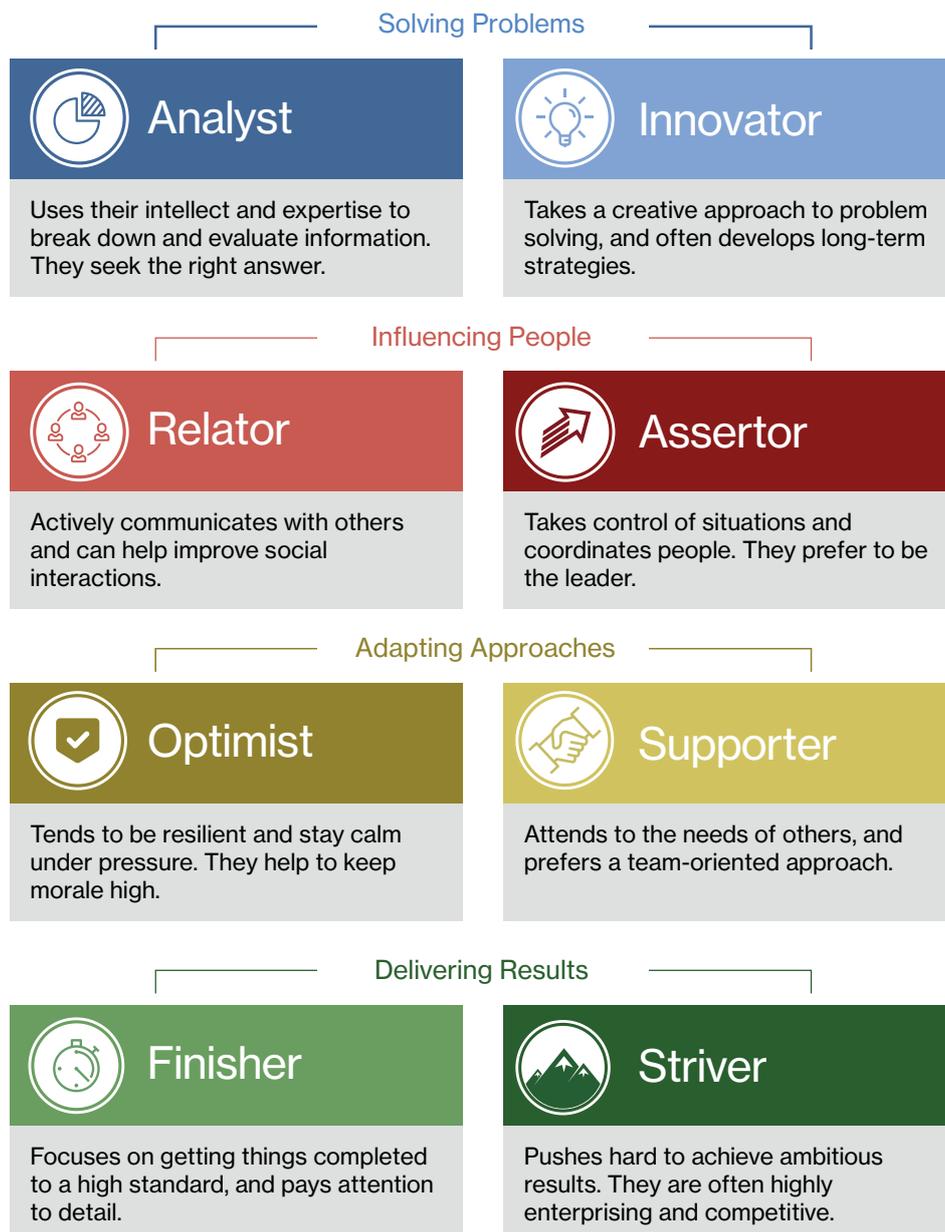
1.0 Introduction to the Wave Work Roles Model

Saville Assessment Wave Work Roles focuses on providing insight into the different roles that individuals perform at work and can be used to support personal development. Possessing greater awareness of the roles that individuals are likely to adopt in the workplace can help them to better understand their impact, whether working individually, in pairs or as part of a team or group.

When used in a group setting, Work Roles acts as a useful diagnostic of group dynamics and can help to highlight any gaps or overlaps that may impact on the group's performance.

The model was developed by splitting the Wave Performance Culture Framework clusters of Solving Problems, Influencing People, Adapting Approaches and Delivering Results into two, leading to a total of eight core roles.

Figure 1. Wave Clusters and Work Roles



The Work Roles scales demonstrate good construct separation, as the average correlation between the different scales is .11. The highest correlating two Work Roles are “Assertor” and “Striver” at .67, and this is likely to be a common combination of primary and secondary roles. The low and negative correlations of certain other Work Roles indicate those that are far less likely to be seen in combination (e.g. “Analyst” and “Supporter” at -.39).

The ‘Great Eight’ model, a criterion-centric model of work performance developed by Kurz and Bartram (2002), was used to help establish each of the eight Work Roles scales. It was one of the original inputs into the development of the Wave Performance Culture Framework and deployed in the Project Epsom research study (MacIver et al., 2008).

Underpinning each Great Eight competency are a combination of Wave Competency Potential scales. The Great Eight equations were adopted for the eight Work Roles constructs, where Figure 2 shows the direct alignment between the Great Eight model and the Work Roles model.

Figure 2. Work Roles and the Great Eight



Owing to the development process and alignment of Work Roles to the Great Eight competencies, practitioners and researchers are effectively provided with Great Eight scores powered via the Wave questionnaires.

While Work Roles is appropriate for use in an individual context, it is also designed for use with groups of varying sizes. It identifies the individual contribution each group member is likely to make towards an effective, operational group. When considering the group, or team as a whole, those with a greater variety of roles expressed are likely to be more effective than those with less (Benne & Sheats, 1948; Belbin, 1996; Fisher, Hunter & MacRosson, 2001). It is also, however, important to take into account the core function of any group and ensure the balance of roles is appropriate for this function. For example, a Research and Development team is likely to be more effective when it has a higher number of members who describe Analyst as their preferred role rather than one with an equal balance of roles.

2.0 Reporting

The Work Roles Report provides an indication of the types of roles that an individual is more or less likely to adopt in the workplace. It explores the likely impact of these preferred and less preferred roles when working and interacting with others. It is designed primarily for use in development settings and can be used with individuals alone as well as within and across groups of any size. Reports are accessible to line managers, team leaders and individuals, with no in-depth understanding of psychometric assessments required to use them.

The Work Roles report can be powered by Wave Professional Styles or Focus Styles questionnaires. It contains the following information:

Saville Assessment Work Roles: Presents an overview of the eight Work Roles for users to familiarize themselves with the characteristics of each.

Your Work Roles: Displays an individual's Sten scores across the eight Work Roles in a wheel. The candidate's Work Roles are shown below, ranked by order of preference. The two highest ranked roles are referred to as the Primary and Secondary preferred roles, with the two lowest ranked referred to as less preferred roles.

Your Preferred Work Roles: Presents information about an individual's Primary and Secondary preferred roles including the associated strengths of each. The Primary and Secondary roles combine to form an individual's Dual Role, which provides insight about the specific strengths resulting from that interaction.

Your Contrasting Work Roles: Allows an individual to explore how their preferred roles contrast with their less preferred roles. A question is asked after each contrast to encourage self-reflection and to prompt the individual to consider potential development actions.

Making the Most of Your Work Roles: Offers targeted development advice to help an individual use their preferred and less preferred roles to best effect. The advice aims to maximize the strengths related to preferred roles and to manage potential limitations associated with less preferred roles.

Working with Different Roles: Suggests how an individual can use the strengths of their preferred roles to work more effectively with those who prefer different roles. The roles are presented starting from the individual's least preferred down to their most preferred, i.e. moving from the most different to the most similar.

Working with the Same Roles: Suggests how an individual can work more effectively with those who prefer the same roles.

Further information can be found in the interactive Work Roles Report User Guide.

Figure 3. Work Roles Report – Saville Assessment Work Roles

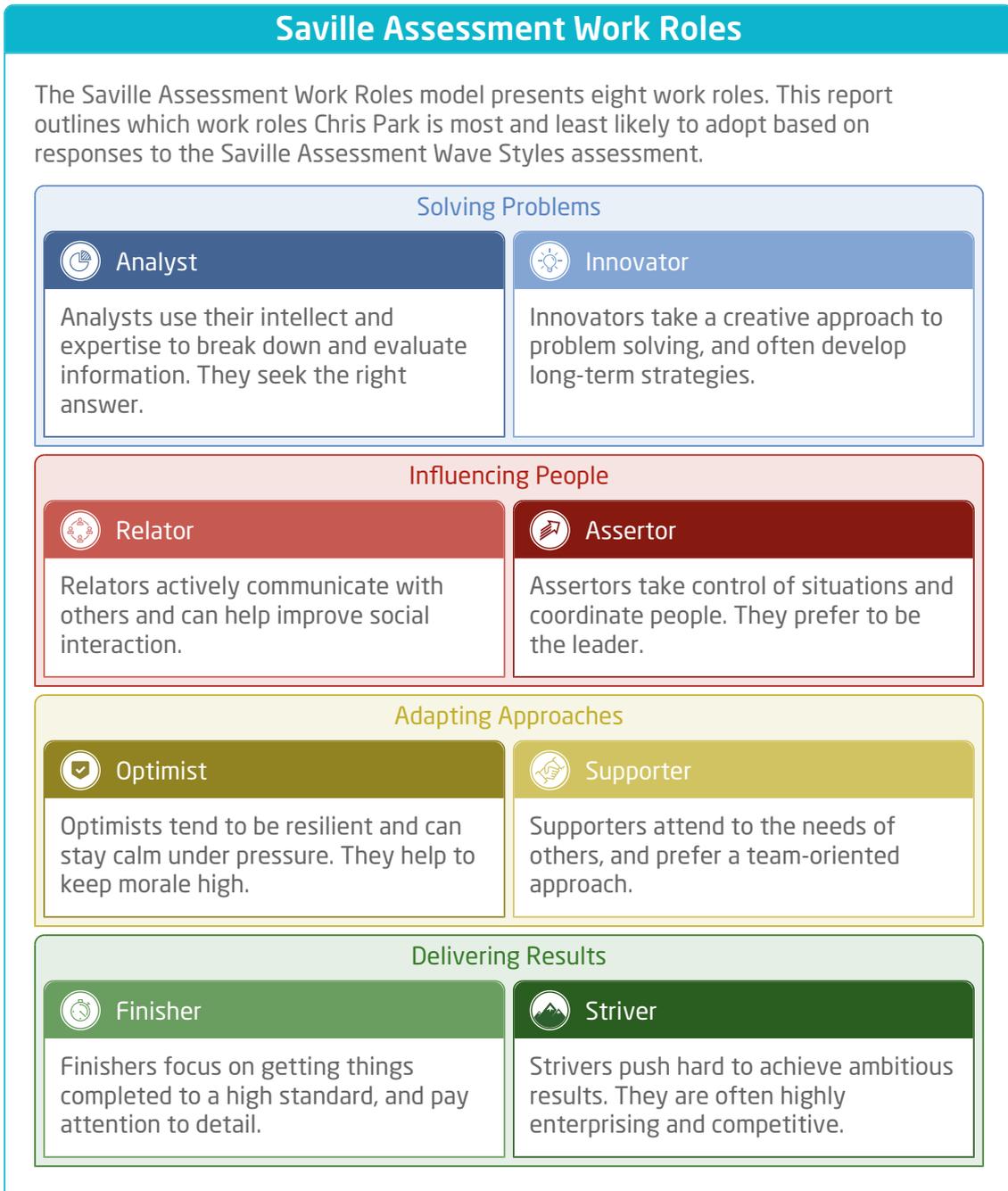


Figure 4. Work Roles Report – Your Work Roles

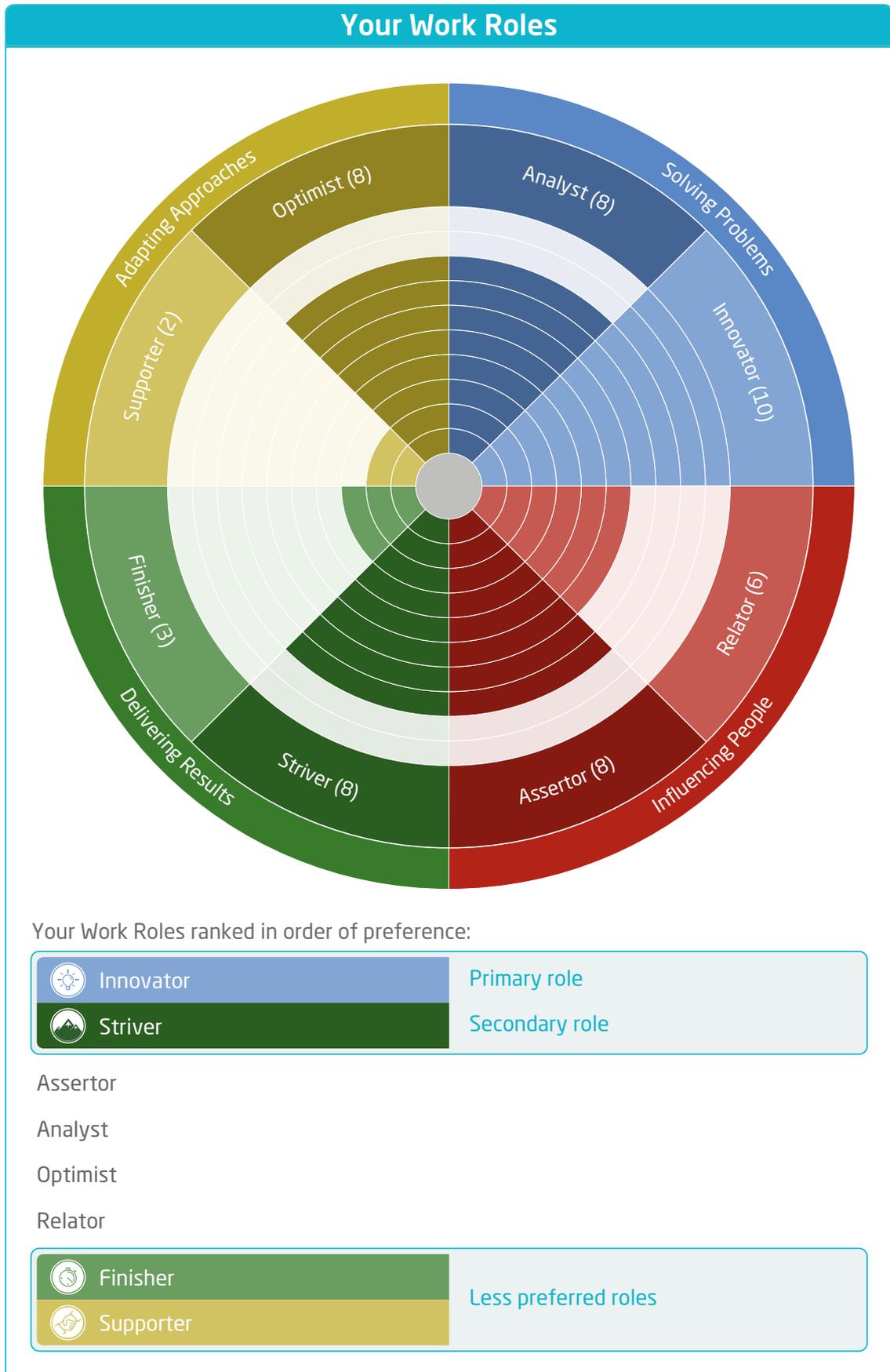


Figure 5. Work Roles Report – Your Preferred Work Roles

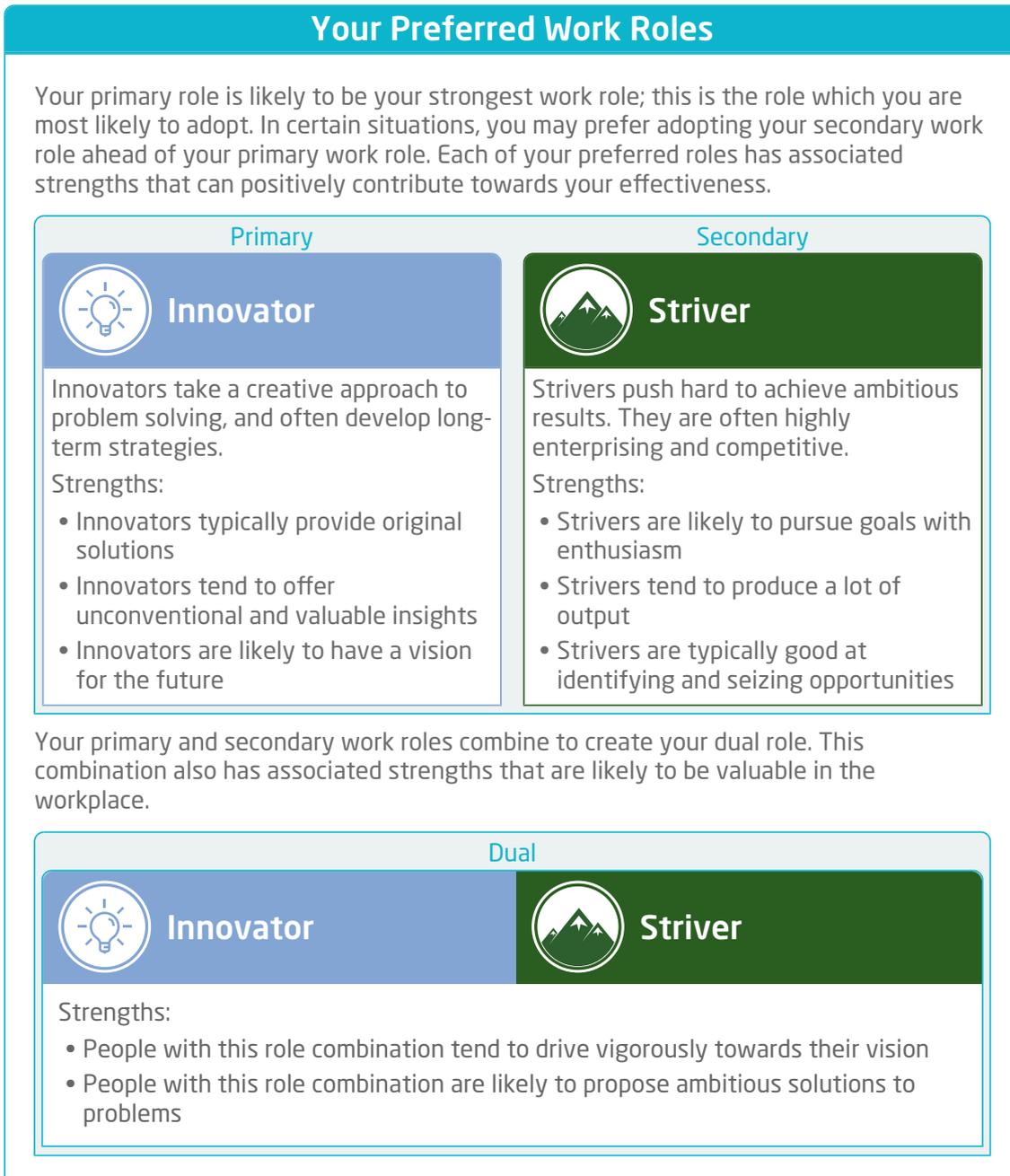


Figure 6. Work Roles Report – Your Contrasting Work Roles



Figure 7. Work Roles Report – Making the Most of Your Work Roles

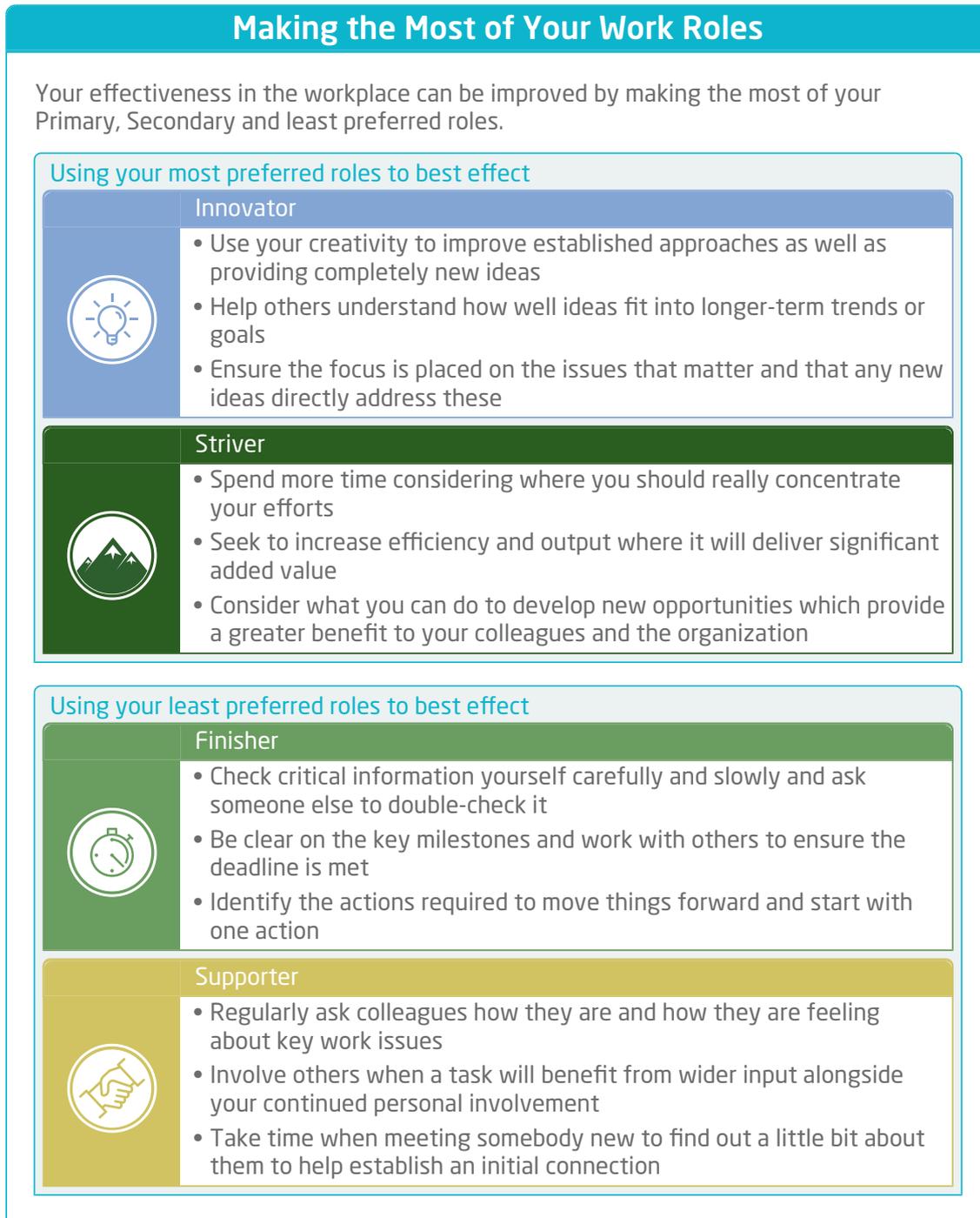


Figure 8. Work Roles Report – Working with Different Roles

Working with Different Roles	
It is useful to consider how you can work more effectively with people who have other work roles.	
	Supporter <ul style="list-style-type: none"> • Provide Supporters with ideas that will help other people in their work • Encourage Supporters to be more productive and reach more demanding targets
	Finisher <ul style="list-style-type: none"> • Work with Finishers to find more efficient and effective ways of doing things • Keep Finishers focused and don't let them get distracted by less important tasks
	Relator <ul style="list-style-type: none"> • Discuss relevant new perspectives with Relators which they can use to engage others in conversation • Focus Relators on interactions with stakeholders that will achieve results
	Optimist <ul style="list-style-type: none"> • Inspire Optimists by highlighting ideas that have real future potential and can generate wider enthusiasm • Direct Optimists' enthusiasm towards the pursuit of challenging goals
	Analyst <ul style="list-style-type: none"> • Provide ideas to encourage Analysts to think more widely • Push Analysts to do analysis which provides a clear and tangible benefit
	Assertor <ul style="list-style-type: none"> • Present Assertors with different ideas and perspectives which are likely to inform future direction • Challenge Assertors to push work along further and faster

Figure 9. Work Roles Report - Working with the Same Roles

Working with the Same Roles

It is useful to consider how you can work more effectively with people who have the same work roles as you.

	Other Strivers
	<ul style="list-style-type: none">• Present other Strivers with new possibilities, new opportunities and new routes to market• Agree with other Strivers on an important goal which is difficult to achieve and work hard to reach it• Look out for other Strivers who have goals that clash with your own
	Other Innovators
	<ul style="list-style-type: none">• Focus other Innovators on ideas that make a real difference to key outcomes at work• Talk through ideas with other Innovators to produce new and different perspectives• Make sure the best ideas from conversations with other Innovators are captured by writing them down

3.0 Group Overviews

As well as being used for individual development, Work Roles can help to explore group dynamics and improve team performance. This can be done via the online Work Roles Group Overview, which provides an interactive group-level analysis for multiple individuals.

It can be accessed via the Saville Assessment Oasys platform once Work Roles reports have been generated for at least three individuals. Individuals can be included from across different projects if they completed on the same Oasys platform. Each page of the Overview can be saved as a screenshot.

The Group Overview displays information across various pages including:

Overview: Shows the number of individuals from the group that preferred or least preferred each role. Each role can be selected to view the specific individuals that had the role as one of their preferred or less preferred. Names can be anonymized for all individuals in the group if desired. A dynamic card swatch can be selected that provides descriptions of each role.

Preferred Roles: Displays the two most frequently occurring preferred roles of the group. Information is given about the group's likely dynamic and strengths. A role combination is shown that provides insight into how a group with that combination is likely to behave.

Less Preferred Roles: Displays the two roles most frequently indicated as less preferred by members of the group. Possible consequences for the group are given along with potential actions that offer practical advice on addressing them.

Too Many? Considers the implications of having too many of the top two preferred roles in the group. Potential developmental actions for the group are suggested to counteract any imbalance that might arise from having too many of these roles.

Too Few? Presents the two roles that were indicated as a preferred role by the group the lowest number of times. Advice is given as to how the group can negate any possible adverse impact of having too few of these roles.

Potential Actions Summary: Provides a summary of the key development actions that were presented in the previous sections of the group overview. These can be used as a basis for making action plans and initiating group development.

Further information can be found in the Work Roles Group Overview User Guide.

Figure 10. Work Roles Group Overview - Overview

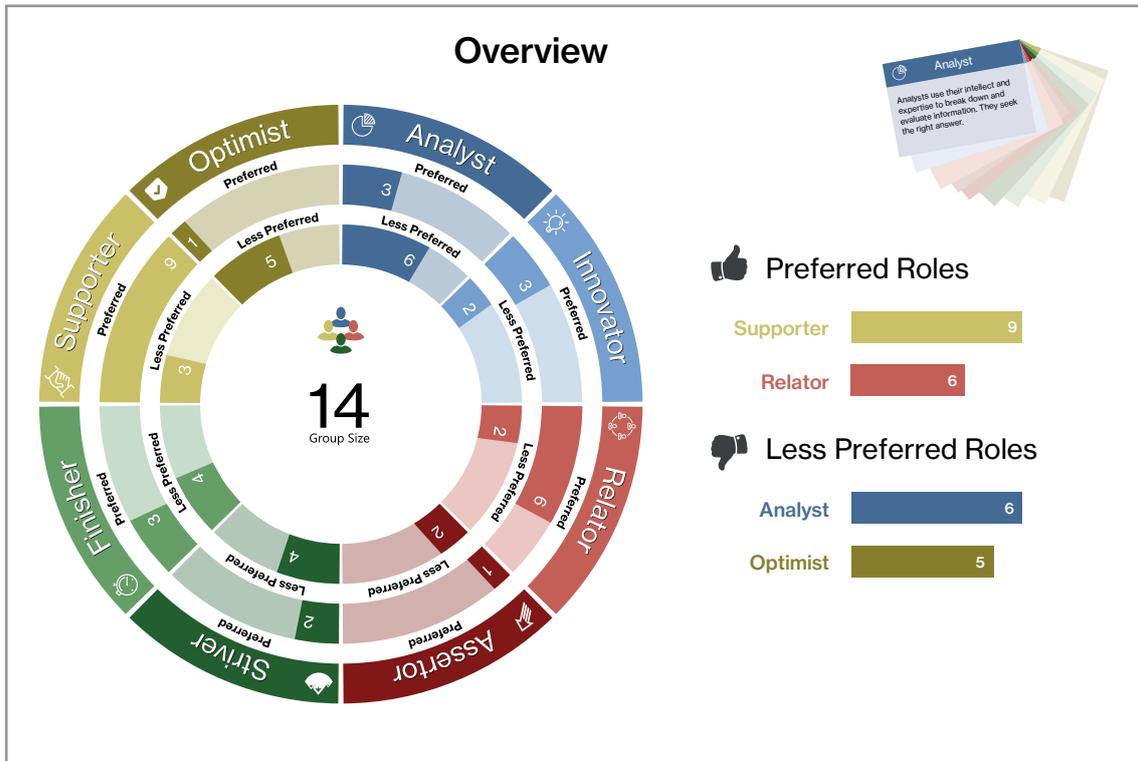


Figure 11. Work Roles Group Overview - Preferred Roles

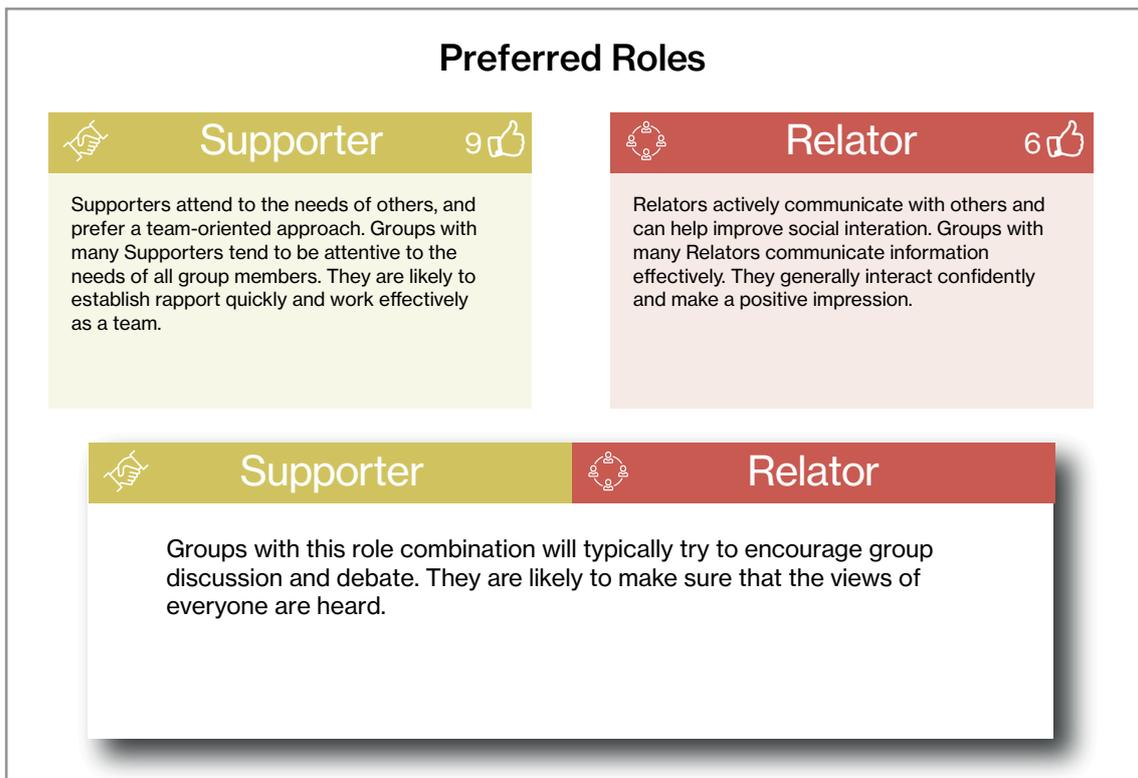


Figure 12. Work Roles Group Overview – Less Preferred Roles



Figure 13. Work Roles Group Overview – Too Many?

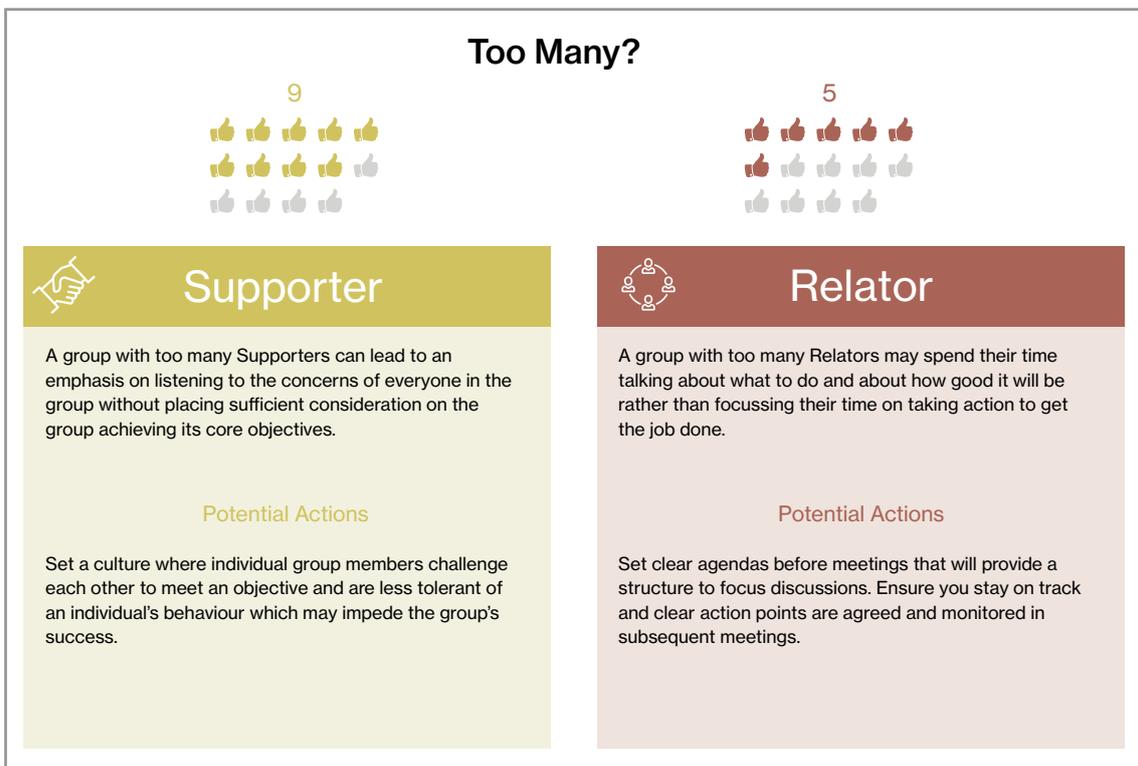


Figure 14. Work Roles Group Overview - Too Few?

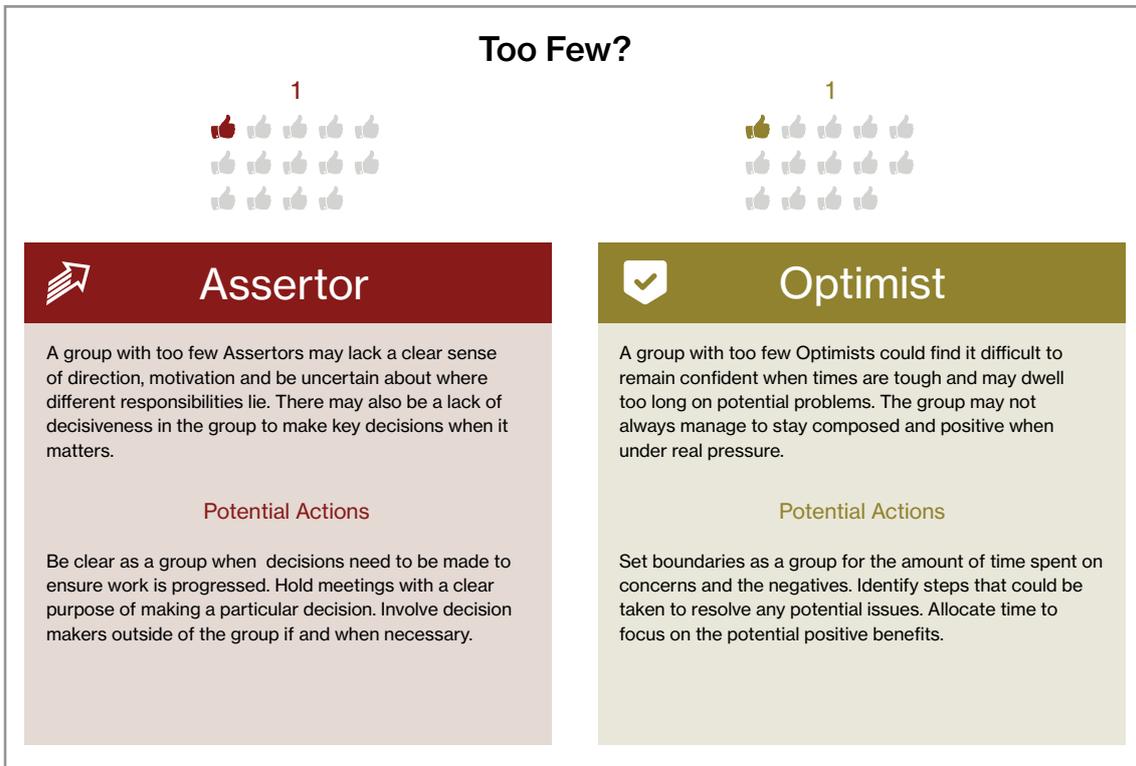


Figure 15. Work Roles Group Overview - Potential Actions Summary



4.0 Reliability

This section provides two different forms of reliability evidence for the Work Roles model. Alternate form reliability is where two equivalent (parallel) versions of a questionnaire are completed by the same sample of individuals. Test-retest reliability is where the same sample of individuals complete the same questionnaire twice, with a time delay between the two completions. In both types of analysis, the two sets of scores are correlated and this provides a useful indication of the consistency of the measure of a questionnaire. A development aim of the Work Roles model was that these forms of reliability should be as high as possible.

4.1 Alternate Form Reliability

Table 4.1 shows alternate form reliability figures for the eight Work Roles. This is based on a sample of 1,153 participants who completed both the invited access and the supervised access versions of Wave Professional Styles. Work Roles scores were derived from these data using pre-specified equations. The eight Work Roles demonstrate high alternate form reliabilities with coefficients ranging from .91 (Optimist, Supporter) to .94 (Innovator, Relator).

Table 4.1. Alternate Form Reliability – Invited Access (IA) vs. Supervised Access (SA) – Wave Professional Styles Work Roles (N=1,153)

Work Role	(IA) Mean	(IA) SD	(SA) Mean	(SA) SD	Sem (Sten)	r_t	Other Highest Correlation	Other Work Role
Analyst	11293.25	1714.97	11250.09	1749.06	.55	.92	.56	Innovator
Innovator	10872.26	1855.71	10760.39	1942.95	.49	.94	.56	Analyst
Relator	10254.77	1826.06	10024.31	1788.37	.49	.94	.51	Assertor
Assertor	11227.10	1832.23	11005.91	1817.37	.53	.93	.67	Striver
Optimist	11319.76	1625.88	11287.58	1634.94	.59	.91	.47	Assertor
Supporter	12385.29	1696.99	12212.21	1710.68	.61	.91	.25	Relator
Finisher	12084.06	1757.93	12232.67	1698.43	.55	.92	.19	Striver
Striver	11483.12	1720.73	11426.19	1730.59	.55	.92	.67	Assertor
Mean	11364.95	1753.81	11274.92	1759.05	.55	.92		
Median	11306.50	1739.33	11268.84	1739.82	.55	.92		
Min	10254.77	1625.88	10024.31	1634.94	.49	.91		
Max	12385.29	1855.71	12232.67	1942.95	.61	.94		

4.2 Test-Retest Reliability

Table 4.2 shows test-retest reliability figures for the eight Work Roles. This is based on a sample of 100 participants who completed Wave Professional Styles twice with a mean average period of 18 months between the two completions. Work Roles scores were derived from these data using pre-specified equations. The eight Work Roles demonstrate high test-retest reliabilities with coefficients ranging from .79 (Analyst, Innovator, Finisher) to .85 (Relator), with a median reliability of .80.

Table 4.2. Test-Retest Reliability - Professional Styles Wave Professional Styles Work Roles (N=100)

Work Role	Mean _{t1}	SD _{t1}	Mean _{t2}	SD _{t2}	SEm (Sten)	r _t
Analyst	11136.02	1708.07	11138.97	1744.94	.92	.79
Innovator	10949.54	1757.80	11191.32	1905.67	.91	.79
Relator	10240.73	1911.10	10117.83	1943.07	.78	.85
Assertor	11021.52	1794.71	11298.00	1916.88	.90	.80
Optimist	11059.02	1595.64	11029.55	1654.79	.88	.81
Supporter	12118.88	1877.67	11918.10	1957.77	.79	.84
Finisher	12436.52	1612.79	12519.42	1598.98	.92	.79
Striver	11389.08	1783.98	11389.89	1813.68	.83	.83
Mean	11293.91	1755.22	11325.38	1816.97	.87	.81
Median	11097.52	1770.89	11244.66	1859.67	.89	.80
Min	10240.73	1595.64	10117.83	1598.98	.78	.79
Max	12436.52	1911.10	12519.42	1957.77	.92	.85

Note: There was an average of 18 months between the first and second assessments.

Further information can be found in the Reliability chapter of the Wave Professional Styles Handbook (Second Edition).

5.0 Validity

This section provides two different forms of validity evidence for the Work Roles model: criterion-related and construct validity.

Criterion-related validity is often regarded as the single most important property of an assessment. It involves correlating assessment scores with independently evaluated criterion outcomes of job performance. The type of criterion-related validity evidence presented here is concurrent, where no time lag exists between when the assessment was completed and when the job performance criterion was measured.

Construct validity is the extent to which an assessment measures a hypothetical construct or area of human performance. The scores from an assessment with good construct validity would be expected to behave as if the underlying construct were directly being measured.

The Great Eight model (Kurz & Bartram, 2002) was used to validate the Wave questionnaires, a process detailed extensively in the Validity chapter of the Wave Professional Styles Handbook. The process involved creating composite Great Eight predictor scores for a number of different personality assessments, allowing for direct comparison between them. Due to the Work Roles model being developed with the Great Eight model in mind, much of the validity evidence presented in the chapter can be extrapolated to Work Roles. A summary of the key evidence is provided here.

5.1 Concurrent Criterion-Related Validity

To establish criterion-related validity, individuals' Work Roles scores were correlated against external supervisor ratings of work performance on the 'Great Eight' competencies, as measured by the Wave Performance 360 questionnaire.

Table 5.1 displays the a priori hypothesized correlations and up to three highest other significant correlations which were not a priori hypothesized. Validities were corrected for attenuation based on the reliability of the criteria (based on 263 pairs of criterion ratings). No further corrections were applied (e.g. restriction of range, predictor unreliability). Corrected correlations are displayed in brackets after uncorrected raw correlations.

Table 5.1. Wave Professional Styles Work Roles against ‘Great Eight’ work performance ratings (N=308)

Work Role	A priori hypothesized correlations	r uncorrected (r corrected)	Highest other correlations (not a priori)	r uncorrected
Analyst	Analyzing & Interpreting	.09 (.20)	None	
Innovator	Creating & Conceptualizing	.20 (.61)	Enterprising & Performing Organizing & Executing	.14 .12
Relator	Interacting & Presenting	.33 (.69)	Leading & Deciding	.18
Assertor	Interacting & Presenting	.30 (.55)	Enterprising & Performing Interacting & Presenting Creating & Conceptualizing	.26 .24 .20
Optimist	Adapting & Coping	.22 (.46)	Leading & Deciding Analyzing & Interpreting Creating & Conceptualizing	.26 .20 .19
Supporter	Supporting & Cooperating	.09 (.21)	None	
Finisher	Organizing & Executing	.22 (.51)	None	
Striver	Enterprising & Performing	.34 (.76)	Leading & Deciding Creating & Conceptualizing Adapting & Coping	.25 .24 .21

Note: Any raw correlation higher than .12 is statistically significant at the p<.05 level (two-tailed) and any raw correlation higher than .10 is statistically significant at the p<.05 level (one-tailed).

Six out of eight Work Roles were significantly positively associated with their a priori hypothesized matched ‘Great Eight’ criterion ratings and most, with the exceptions of ‘Analyst’, ‘Supporter’ and ‘Finisher’, were additionally significantly positively associated with work performance ratings on other ‘Great Eight’ competencies. Criteria relating to Analyzing & Interpreting and Supporting & Cooperating were generally less reliably assessed within the Project Epsom sample. Therefore, it is not surprising that in this instance the roles Analyst and Supporter correlated less strongly with their associated ‘Great Eight’ competencies.

5.2 Construct Validity

To establish construct validity, scores on the eight Work Roles were correlated with individuals' 'Great Eight' competency scores, which were computed from individuals' responses to the OPQ32i questionnaire. Table 5.2 displays the correlations between Work Roles and OPQ 'Great Eight' competencies.

Table 5.2. Wave Professional Styles Work Roles against Great Eight competencies from OPQ32i (N=308)

Work Role	Mapped 'Great Eight'	Average r with unmapped 'Great Eights'	r
Analyst	Analyzing & Interpreting	-.02	.63
Innovator	Creating & Conceptualizing	.03	.73
Relator	Interacting & Presenting	.03	.69
Assertor	Leading & Deciding	.06	.71
Optimist	Adapting & Coping	.06	.51
Supporter	Supporting & Cooperating	-.14	.75
Finisher	Organizing & Executing	-.11	.70
Striver	Enterprising & Performing	.05	.55
Mean		-.01	.66
Median		.03	.70
Min		-.14	.51
Max		.06	.75

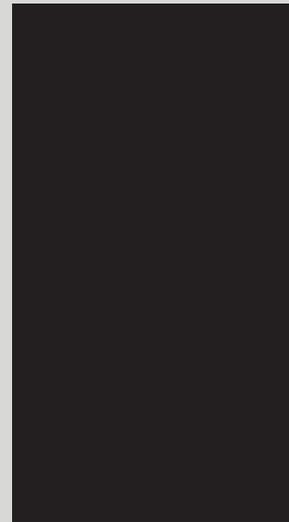
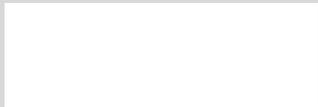
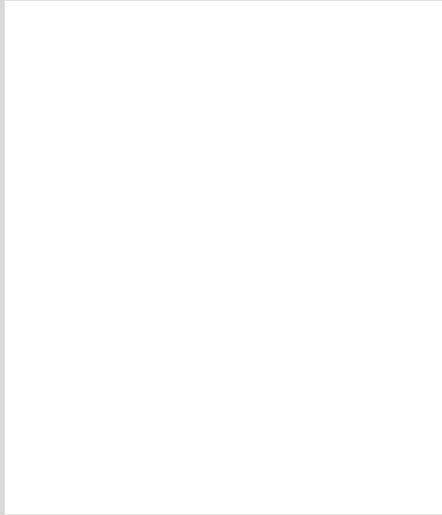
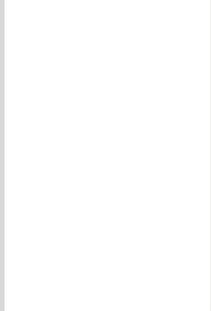
Note: Any raw correlation higher than .12 is statistically significant at the $p < .05$ level (two-tailed) and any raw correlation higher than .10 is statistically significant at the $p < .05$ level (one-tailed).

The results displayed in the above table provide strong evidence for the constructs of the eight Work Roles. Correlations between Work Roles and corresponding 'Great Eight' competency predictors scores (from OPQ32i) ranged from .51 to .75, with a mean average of .66. Low correlations, averaging .01, between Work Roles and non-associated 'Great Eight' competencies provide evidence to support the discriminant validity of the scales.

Further information can be found in the Work Roles and Validity chapters of the Wave Professional Styles Handbook (Second Edition).

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