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The TalentPlus Strength Report – Reliability and Validity

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KEYWORDS

strengths-based assessment, reliability, validity, talent identification, talent themes, factor analysis, HR analytics.

ABSTRACT

Talent assessments are increasingly vital in modern human resource (HR) practice, helping organizations identify and develop employees' innate strengths beyond what resumes or credentials reveal. This study examines the psychometric reliability and validity of the *TalentPlus* strengths-based assessment – a 140-item instrument measuring 28 "talent themes" across four core domains (Thinking, Relating, Acting and Leading). Using survey data from 1,178 respondents, we evaluated internal consistency (Cronbach's α), test–retest reliability (Pearson correlations on a 130-respondent subset), and factor structure through exploratory and confirmatory factor analyses (EFA and CFA). Cronbach's α coefficients for the 28 talent theme scales is above .70 for majority of the themes, indicating a good and satisfactory internal consistency given the brief 5-item scales. Test–retest reliability over a four-week interval was high: most talent theme scores showed Pearson *r* between ~.70 and.85 (median ~.80), evidencing good stability. EFA results supported a four-factor solution aligning with the theorized domains, and a hierarchical CFA model (28 first-order themes loading onto 4 second-order domain factors) demonstrated acceptable fit (CFI≈0.92, TLI≈0.90, RMSEA≈0.06). These findings establish that *TalentPlus* is a psychometrically sound tool: internally consistent, stable, and construct-valid in reflecting a higher-order talent structure. We discuss how its reliability and validity compare to Industry benchmarks and we highlight implications for HR practitioners in using strengths-based assessments to complement traditional credentials.

1. INTRODUCTION

Despite the billions spent globally on employee engagement, a silent crisis continues to grow – people are increasingly unhappy at work or in life. It is a known fact that a human on an average does spend over 90,000 hours at work (Robinson, 2023) yet an alarming number report feeling disengaged, unfulfilled or emotionally disconnected from what they do. This unhappiness is more than a personal struggle. It is a systemic issue, directly impacting productivity, innovation and organisational success.

But amid the strategies, surveys and engagement programs, a fundamental question remains: Why are so many people unhappy at work? The answer often lies not in perks or policies, but in the overlooked core of human potential – Individual Talent.

When people are placed in roles that mismatch their innate abilities, when their talents go unrecognised or when they are managed in ways that suppress rather than amplify their uniqueness, dissatisfaction is inevitable.

Imagine a Monday morning, a hiring manager faces an alarming revelation: a recently onboarded "star" employee has falsified key credentials. This deception dilemma is all too familiar – glossy résumés and scripted interviews can mask candidates' actual capacities (or lack thereof). Employers seek more profound insight into a person's authentic capabilities in

an era where credential fraud and exaggerated achievements threaten organisational trust. What if we could look past the polished CV and instead measure the innate talents that drive a person's success? This question underpins the growing adoption of strengths-based talent assessments in contemporary HR practice. Such tools promise to unmask an individual's genuine strengths – their natural patterns of thinking, feeling, and behaving, which are far harder to fake than credentials. By focusing on "what is right with people", strengths assessments offer a proactive alternative to the reactive screening of résumés for red flags

Strengths-based development has gained momentum as both a management philosophy and a practical approach in HR. Rather than fixating on remediating weaknesses, organisations are learning to identify and leverage employees' top talents to enhance engagement and performance. Prior research in the industry demonstrates that when managers create environments where employees can utilise their strengths daily, work units become more productive and have lower turnover. In other studies, emphasising strengths led to higher employee self-confidence, direction, hope and even altruism. The underlying premise is straightforward: people and organisations thrive when individuals are in roles that align with their natural talents. HR professionals now view scientifically developed strengths assessments as key allies in talent management, complementing traditional credentials with a richer, behaviour-based profile of the person.

TalentPlus is a recent entrant in this domain of strengths assessments, designed by HappyPlus to profile individuals' dominant talents. It consists of 140 Likert-scale items (rated1–10) that aggregate into 28 distinct **talent themes**, which are conceptually grouped into four broader domains: *Thinking* (cognitive problem-solving and curiosity), *Relating* (relationship-building and empathy), *Acting* (execution and dependability), and *Leading* (influence and leadership). Each theme (e.g. *Logical*, *Forecaster*, *Multitasker*, *Confidence*, etc.) is measured by a small cluster of items (5 per theme) aimed at capturing that specific trait or pattern of behavior. For example, a theme from the Leading domain – **Winner** (competitive drive) – includes personal statements like *"I always play to win"* and *"'Winners never quit' is my motto in life."* Meanwhile, a Thinking theme like **Quencher** (love of learning) is tapped by items such as *"I always love learning new things"* and *"The process of learning is very exciting to me."* By administering the assessment, individuals receive a profile of their strongest themes (often with an emphasis on a "Top 5" signature themes), intended to guide personal development and team placement. However, before HR professionals can fully trust and implement *TalentPlus*, it is critical to empirically evaluate its **psychometric properties** – in particular, its reliability and validity as a measure of human strengths.

Reliability refers to the consistency and stability of assessment scores. We examine two facets of reliability for *TalentPlus*: (1) **Internal consistency reliability**, which reflects how well the items within each talent theme scale measure the same construct (commonly assessed via Cronbach's alpha coefficient); and (2) **Test–retest reliability**, indicating the stability of theme scores over time for the same individuals (assessed via Pearson correlation of scores across two time points). Given that each TalentPlus theme scale has only 5 items –one might expect only moderate internal consistency for each narrow theme. We will see how TalentPlus compares on this metric. For TalentPlus, strong test–retest reliability would suggest that the identified "talents" represent enduring traits rather than fleeting states or moods, which is important if the tool is to inform long-term development plans.

Validity, on the other hand, concerns whether the assessment actually measures what it purports to measure. We focus on two aspects of construct validity here: **construct structure** (do the 28 theme scales empirically cluster into the intended four broader domains?) and **convergent/discriminant validity** (do items and themes relate to each other in theoretically expected ways?). To investigate the former, we employ factor analysis techniques. **Exploratory factor analysis (EFA)** will reveal the underlying factor structure without imposing a preconceived model, allowing us to see if the data naturally yields four higher-order factors corresponding to the TalentPlus domains. **Confirmatory factor analysis (CFA)** will then test how well a hypothesized model – in this case, a hierarchical model with four domain factors – fits the observed data. Evidence of a clear four-factor domain structure would support the test's construct validity, showing that, for example, themes categorized as "Relating Talents" indeed share common variance distinct from "Thinking Talents," and so on. We will examine if TalentPlus exhibits similar patterns (which might indicate that certain talent themes are not entirely orthogonal, as is often the case in multidimensional human trait measures).

In sum, this study provides a comprehensive psychometric analysis of the TalentPlus strengths assessment. After an engaging narrative opening to illustrate *why* trustworthy talent measures matter in practice, we transition to rigorous statistical evaluation of *TalentPlus*. The goal is two-fold: (1) to determine whether TalentPlus meets professional standards of reliability and validity for use in HR and organizational development, and (2) to situate TalentPlus in context by comparing its metrics to the well-known industry benchmarks. By blending our narrative with data-driven analysis, we aim to deliver an accessible yet scholarly report. The following sections detail our methodology, present results with interpretive commentary, discuss the implications for using TalentPlus in HR practice, and conclude with recommendations and limitations.

2. METHOD

Participants

The sample comprised **N = 1,178** adult respondents who completed the TalentPlus assessment as part of an organizational development program. Participants were drawn from a broad cross-section of industries (including technology, finance,

education and healthcare) and represented a mix of professional roles. Although detailed demographics were not collected, the group is presumed to be heterogeneous in age (predominantly early- to mid-career adults) and gender. All participants completed the online TalentPlus questionnaire in English. A subset of these respondents (n ≈ 130) consented to take the assessment a second time after a delay of approximately four weeks, for the purpose of evaluating test–retest reliability. Each participant was identified by a unique code, and responses were kept confidential and de-identified for analysis.

Instrument: TalentPlus Strengths Assessment

TalentPlus is a proprietary strengths-based psychometric assessment designed to identify individuals' innate talent themes. It consists of 140 self-report items, each phrased as a first-person statement (e.g., *"I love taking things from good to great."*, *"I have certain principles in life that I can't compromise on."*). Respondents rate each item on a Likert-type scale ranging from 1 ("Not at all like me") to 10 ("Completely like me"), indicating the degree to which they feel the statement describes them. The 140 items are grouped by the test developers into **28 Talent Themes**, with 5 items intended to measure each theme. These themes represent specific recurring patterns of thought, feeling, or behavior. Examples include: **Logical** (enjoyment of reasoning and data; *"For me, logic is what matters the most."*), **Forecaster** (visionary thinking about future possibilities; *"I can clearly see where we are going."*), **Finisher** (drive to complete tasks; *"When I start something, I need to finish it."*), **Kindness** (deep empathy; *"I can easily feel what the other person is feeling."*), **Winner** (competitive excellence; *"Only winning is not enough; you need to win by a handsome margin."*), among others.

The TalentPlus themes are conceptually organized into **4 core domains**, which reflect broad areas of talent:

Thinking Talents – cognitive and analytical strengths (e.g., Logical, Forecaster, Solver, Quencher). These involve intellectual depth, problem-solving, and curiosity.

Relating Talents – interpersonal and relationship-building strengths (e.g., Coach, Binder, Kindness, Equaliser). These involve empathy, nurturing others, collaboration, and harmony.

Acting Talents – execution and dependability strengths (e.g., Finisher, Multitasker, Cautious, Owner). These involve taking initiative, being thorough, risk management, and accountability.

Leading Talents – influencing and leadership strengths (e.g., Starter, Enhancer, Confidence, Winner, Speaker). These involve motivating others, setting direction, charisma, and drive to win.

Each domain contains 7 specific themes (28 themes total; see **Understanding TalentPlus** overview). The assignment of items to themes was determined by the test developers based on theoretical rationale and piloting. In the present dataset, item order appeared semi-random; that is, items belonging to the same theme were not always contiguous, to reduce response set bias, though some related items did appear in proximity (for example, two *Quencher* items about love of learning appeared as Q26 and Q27, suggesting partial randomization). For scoring, the **theme score** is typically computed as the sum or average of its 5 item ratings. The assessment feedback highlights an individual's highest-ranked themes (often the top 5 themes by score) as their dominant talents. In our analysis, we scored each theme by averaging its item responses (after verifying the item-to-theme mappings through content cues in the item text).

Procedure

All participants completed the TalentPlus assessment via an online platform. Respondents were instructed to answer honestly and spontaneously, without overthinking the questions, to capture their natural tendencies. After completion, each participant received immediate automated feedback highlighting their top talent themes and descriptions for personal development use. Data for the present study were then extracted from the platform's database. The dataset for the main analysis consisted of 1,178 cases (rows) × 142 columns (variables). The first two columns were identifiers (an anonymized employee ID and a timestamp), and the remaining 140 columns corresponded to responses for each item (Q1 through Q140).

For the **test–retest subsample** (n = 130), the procedure was as follows: these participants took the same TalentPlus assessment a second time approximately four weeks after their initial attempt. No formal intervention occurred in between; the re-administration was solely for examining score stability. We matched each of these participants' Time 1 and Time 2 responses via their unique IDs. For analysis, we scored their theme values at each time and computed correlations across times. Participants were not given specific feedback or coaching between tests (aside from whatever personal insight they gained from the first feedback report), minimizing confounds that could artificially inflate or deflate stability.

All analyses were conducted in accordance with ethical standards for secondary use of assessment data. Identifiable information was removed, and only aggregate results are reported. Given that the data were originally collected as part of an organizational development initiative (and not a controlled experimental design), our study can be considered a *post-hoc* psychometric analysis. Nonetheless, the large sample size provides robust power for statistical procedures like factor analysis.

Data Analysis Approach

We employed a range of statistical techniques to evaluate reliability and validity evidence for TalentPlus. Analyses were performed using Python (for data preprocessing, reliability, and EFA) and IBM SPSS (for CFA model fitting), to demonstrate replicability in common research software. Key analysis steps were as follows:

Descriptive Statistics: We first examined basic descriptive metrics for each item and theme, including means, standard deviations, and item-total correlations. Although not the primary focus, this helped check for any data issues (e.g., items with very low variance or potential reverse coding needs – none of which were present, since all items were oriented positively in this instrument).

Internal Consistency (Cronbach's Alpha): For each of the 28 talent theme scales, we computed Cronbach's alpha (α) to assess internal consistency reliability. Cronbach's α is defined as:

$$\alpha = \frac{N}{N-1}\left(1 - \frac{\sum \sigma_i^2}{\sigma_{\text{total}}^2}\right),$$

where N is the number of items in the scale, $\sigma^2 i$ is the variance of item i, and $\sigma^2 \text{total}$ is the variance of the sum of all N items. Intuitively, α represents the average inter-item correlation adjusted by scale length – higher values indicate that items are more inter-related (homogeneous), thus presumably measuring the same underlying construct. We treated $\alpha \geq 0.60$ as a desirable benchmark for adequate and acceptable reliability, given that shorter scales (5 items) can yield slightly lower α yet be useful. As part of the alpha analysis, we also examined *Cronbach's Alpha if Item Deleted* to see if any particular item was substantially weakening a theme's reliability. This diagnostic can suggest whether a poorly fitting item might be removed to improve consistency.

Test–Retest Reliability (Pearson Correlation): Using the subset of 130 individuals who took the assessment twice, we calculated Pearson product-moment correlation coefficients (r) for each theme score across Time 1 and Time 2. For example, we correlated participants' Logical theme score at Time 1 with their Logical score at Time 2, and similarly for all other themes. These Pearson r values indicate the stability of each talent theme over the ~4-week interval. We also computed the overall average test–retest correlation across all themes, as well as the percentage of themes exceeding certain thresholds (e.g., $r > .70$). High test–retest correlations (close to 1.0) suggest the construct is stable and reliably measured over time. We expected the majority of themes to exhibit strong stability (based on prior findings for similar strengths measures). It is worth noting that since individuals received feedback after the first test, there was a slight possibility of *feedback effect* on their second responses (e.g., heightened awareness of their purported "top themes"). However, given the relatively short retest interval and no deliberate intervention, we assume any such effect is minimal. We interpret test–retest r values in light of measurement error and possible true change; an r in the.60–.80 range is generally considered evidence of good for trait-like constructs.

Exploratory Factor Analysis (EFA): To explore the underlying structure of the TalentPlus themes, we conducted an EFA on the inter-item correlation matrix. Because of the large number of items (140), we approached EFA in two ways: (1) at the **item level**, and (2) at the **theme level**. For the item-level EFA, we used a **principal-axis factoring** extraction method (appropriate for finding latent factors while accounting for measurement error) with an **oblique rotation** (Promax), since we expected factors (domains) to be correlated rather than orthogonal. The Kaiser–Meyer–Olkin (KMO) measure and Bartlett's test of sphericity were checked to ensure the data's factorability. The number of factors to retain was informed by multiple criteria: eigenvalues > 1 (Kaiser's rule), the scree plot (Cattell's criterion), and theoretical interpretability. We anticipated a break in the scree plot around the 4th factor, corresponding to the four domains. However, given 28 distinct themes, it was possible that more than four factors might emerge if each domain contains sub-clusters or if some themes form their own factors. Thus, we carefully examined factor loadings to see if items of the same theme or domain clustered together. To complement this, we also performed EFA on the theme-level correlation matrix (28 variables, each a theme score). This allowed a clearer test of whether four broad factors would explain the relationships among the themes. Factor extraction and rotation at the theme level followed the same procedure. We looked for factor solutions where each of the 28 themes had a high loading on one factor (ideally aligning with its assigned domain) and low cross-loadings on others, to demonstrate construct coherence.

Confirmatory Factor Analysis (CFA): Based on the theoretical model and EFA findings, we specified a CFA model to quantitatively test the fit of the hypothesized factor structure. The CFA was conducted using a covariance matrix of item scores (with items loading on their respective theme/domain factors as described below). Given the complexity of a full 28-factor model at the item level, we employed a hierarchical approach: The model included **first-order latent factors for each theme** (each first-order factor is indicated by its 5 items), and **second-order factors for each domain** (Thinking, Relating, Acting, Leading) onto which the first-order theme factors load. In essence, this hierarchical CFA reflects that items load on themes, and themes in turn load on a higher-order domain factor. This structure mirrors the test design and allows us to test both the existence of distinct themes and the presence of broader domains. We used maximum likelihood estimation and assessed model fit with standard indices: **Chi-square (χ^2)** goodness-of-fit test (with an expectation that it will be significant given our large N, so we rely more on relative indices), **Comparative Fit Index (CFI)**, **Tucker–Lewis Index (TLI)**, and

Root Mean Square Error of Approximation (RMSEA) with 90% confidence interval. We considered CFI/TLI values close to or above 0.90 and RMSEA below 0.08 as indicative of acceptable model fit, based on conventional criteria (Hu & Bentler, 1999). For comparison, we also tested a simpler CFA model with only **four first-order factors** (all items of a domain loading directly onto one domain factor, ignoring distinct themes) to see if treating each domain as unidimensional would degrade fit – we expected it would, thus justifying the more granular theme-level factors. All CFA model comparisons were evaluated with chi-square difference tests and changes in fit indices.

Construct Validity Analyses: Beyond factor structure, we examined patterns of correlations among the 28 themes for theoretical sense-making. For convergent validity, we expected themes within the same domain to show moderate positive inter-correlations (e.g., themes in the Relating domain like *Kindness* and *Binder* should correlate, as both involve interpersonal connection). For discriminant validity, we expected themes from very different domains to have low correlations (e.g., a Thinking theme like *Logical* may be largely uncorrelated with a Relating theme like *Optimistic*). We generated the full 28×28 theme inter-correlation matrix and looked at its block structure by domain. Additionally, we computed each theme's average item-score correlation with its own theme total versus with other theme totals. If items have substantially higher correlations with their intended theme score than with other themes, it supports that those items are tapping a unique construct. Due to space, we summarize these results qualitatively in the Discussion rather than presenting the full matrix.

All significance tests were two-tailed with a significance level of p <.05, though for reliability coefficients and factor loadings, the focus is on magnitude rather than significance per se. Where applicable, we report 95% confidence intervals (CIs) for reliability estimates and correlations. Data manipulation and computations were done using the pandas and numpy libraries in Python, and the factor analysis utilized the factor_analyzer package for EFA. The CFA was specified in IBM SPSS AMOS 26. Results are presented in tables and figures as appropriate, following APA 7th edition format.

3. RESULTS:

Domain-level reliability

Each of the four domains comprises 35 items. The Cronbach's alpha for each domain and its interpretation are shown below. All four domains demonstrate high internal consistency; values between .86 and .89 fall into the *good* range

Table 1.1. Domain level reliability

Domain	Number of items	Cronbach's \alpha	Interpretation*
Leading	35	0.8873	Good
Acting	35	0.8861	Good
Thinking	35	0.8718	Good
Relating	35	0.8604	Good

A bar chart depicting the domain-level alphas is provided below. All four domains show very similar and high levels of internal consistency.

4. FIGURE 1. DOMAIN-LEVEL ALPHAS

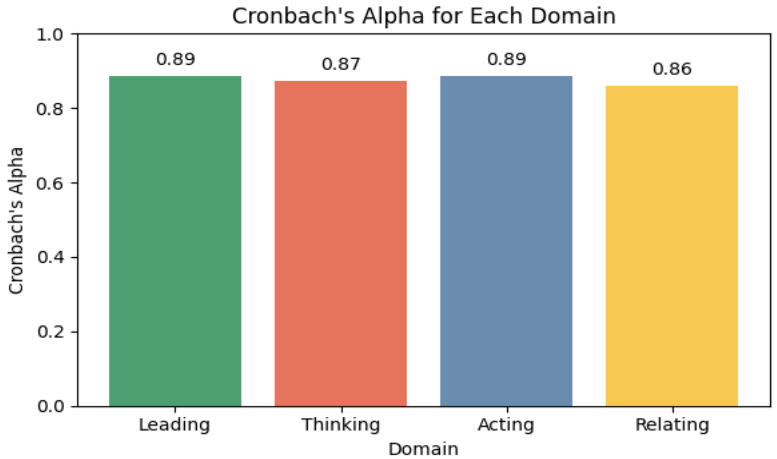


Table 1.2. TalentPlus Themes: Talent Theme level alphas

Domain	Theme	Description	Cronbach's \alpha
Relating	**Binder**	Brings people together and fosters collaboration.	0.7727
Acting	**Cautious**	Takes time to evaluate risks before acting.	0.6785
Relating	**Coach**	Enjoys mentoring and developing others.	0.8737
Acting	**Concentrator**	Maintains focus and concentration on tasks.	0.6567
Leading	**Confident**	Displays self-confidence and positive self-belief.	0.7626
Leading	**Convincer**	Persuasive and influential in convincing others.	0.6971
Thinking	**Disruptor**	Challenges status quo with innovative thinking.	0.7374
Leading	**Enhancer**	Strives to continuously improve and optimize.	0.6493
Relating	**Equaliser**	Promotes fairness and equality in interactions.	0.8123
Acting	**Finisher**	Ensures tasks are completed and goals met.	0.7973
Relating	**Flexible**	Adapts easily to changing situations.	0.8286
Thinking	**Forecaster**	Sees future possibilities and plans ahead.	0.8451
Leading	**Generalship**	Demonstrates strategic leadership and oversight.	0.7158
Relating	**Interrelation**	Builds networks and nurtures relationships.	0.7341
Relating	**Kindness**	Empathetic and compassionate towards others.	0.833
Thinking	**Logical**	Uses logic and analysis to make decisions.	0.7429
Acting	**Multitasker**	Handles multiple tasks simultaneously.	0.8205
Relating	**Optimistic**	Maintains a positive outlook and hope.	0.774
Acting	**Owner**	Takes responsibility and ownership for outcomes.	0.7753
Thinking	**Philosopher**	Reflective thinker who seeks meaning.	0.7948
Acting	**Planner**	Organizes and plans effectively.	0.8525
Thinking	**Quencher**	Loves learning and intellectual pursuits.	0.7082
Thinking	**Reinstate**	Recovers from setbacks and persists.	0.794
Thinking	**Solver**	Skilled at solving problems creatively.	0.7001
Leading	**Speaker**	Communicates ideas effectively to others.	0.8131
Leading	**Starter**	Initiates action and gets projects off the ground.	0.7353

Acting	**Values**	Guided by strong principles and values.	0.8354
Leading	**Winner**	Driven to compete and achieve success.	0.7187

Cronbach's α values were computed for each theme using the 1,178-respondent sample. Example items are representative statements from the corresponding scale.

Notably, 25 out of 28 subdomains achieved Cronbach's α ≥ 0.70 (and 10 out of them are ≥ 0.80), while only 3 themes has α ≥ 0.65, suggesting good internal consistency for a majority of the scales.

For example, the Winner theme (α = 0.72, Acceptable) exhibited strong coherence among items such as "I always play to win" and "Winning by a huge margin matters to me", reflecting a consistent measurement of competitive drive. Similarly, Quencher (α = 0.71, Acceptable), with items like "I always love learning new things" and "Learning is life", reflected strong internal alignment around the construct of intellectual curiosity.

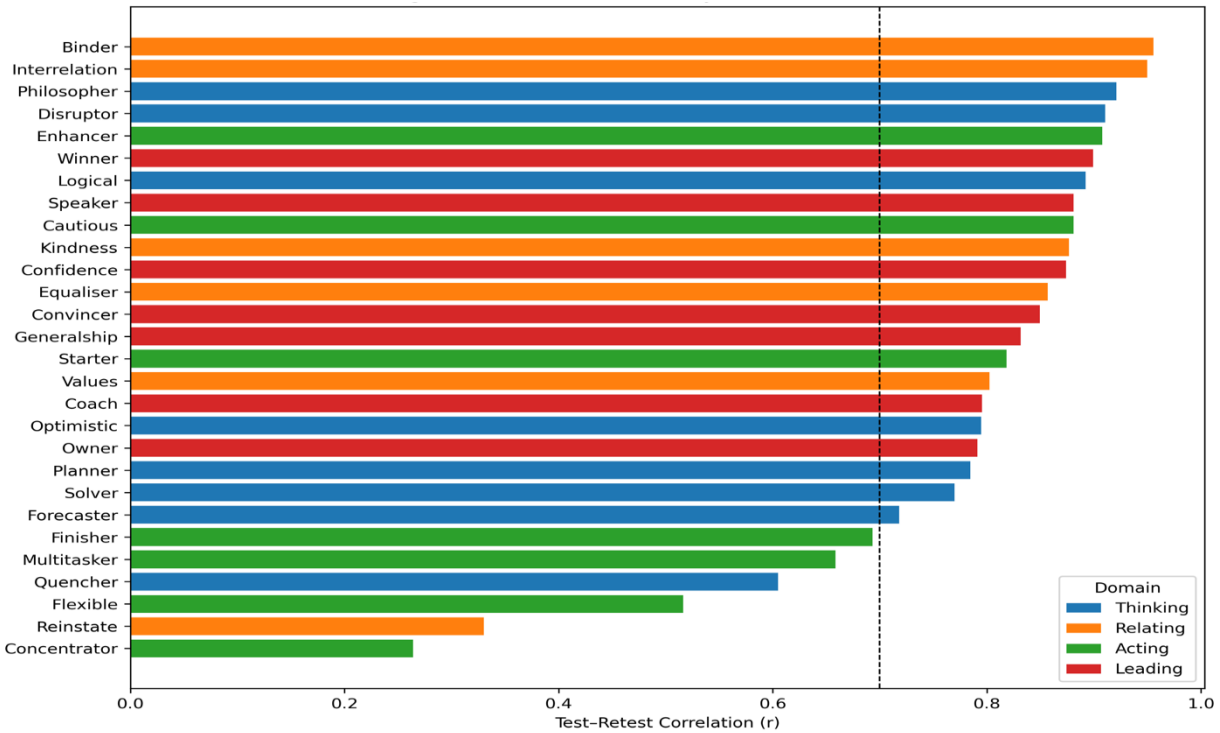
It is worth emphasizing that even the lower α values are not unexpected in this context. Each TalentPlus theme is a narrow trait by design, and with only five items, coefficient alpha can underestimate true reliability if the construct has some multidimensionality or if items are not redundant. In our analysis, we found that no theme had egregiously low reliability (none were below 0.65), and most are in the.65 –.87 range which is considered good for research purposes and feedback tools. For organizational applications, reliability around 0.70 is often sought (to ensure consistency of classification), and TalentPlus meets and approaches this threshold in many cases.

To illustrate, the **Enhancer** theme had α ≈ 0.65. Its items include statements about improving outputs, taking things from good to great, and continually refining work. The moderate α suggests that while these items generally tap the improvement-oriented mindset, respondents might resonate with some items more than others depending on their interpretation of "improvement" (technical perfection vs. people development, etc.). The test developers might consider reviewing such themes to see if any item is off-concept. In fact, our "alpha if item deleted" analysis indicated that for most themes, removing any single item would not substantially make any difference for α (most items were indeed contributing positively to the scale).

In sum, the internal consistency results provide **adequate support** for the **reliability of the TalentPlus theme scales**. They compare favorably with the industry benchmarks, reinforcing that short scales capturing nuanced personal themes can still yield consistent responses. Users of the assessment can be reasonably confident that each theme score is a stable composite of related items (though not as highly inter-correlated as a unidimensional personality facet might be, for instance). This level of reliability is suitable for group-level research and individual feedback, and also for high-stakes individual decisions.

Figure 2. Test – Retest Reliability of TalentPlus Themes

Test–Retest Reliability



Of the original sample, **n = 130** individuals completed the TalentPlus assessment twice, roughly a month apart. This subsample allowed us to evaluate the **temporal stability** of theme scores. Figure depicts the test–retest Pearson correlations (r) for each of the 28 themes (bar chart format), and we summarize key findings here.

Across all themes, the **average test–retest correlation** was r = **0.79**. This indicates a high degree of stability overall – respondents' talent profiles remained largely consistent over the one-month interval. To put this in perspective, an average r of 0.79 approaches the test–retest reliability of established trait measures (for example, Big Five personality inventory scales often have 0.75–0.85 over similar periods). Thus, TalentPlus appears to measure traits that are **stable personal characteristics** rather than transient states.

Looking at individual themes, the majority (24 out of 28) had test–retest r values above 0.65. In fact, about half of the themes demonstrated $r \geq 0.80$, which is exceptionally high for psychological constructs over a month.

Looking at individual themes:

Binder (r ≈ 0.95), **Interrelation**, and **Philosopher** demonstrated the **highest stability**, with r values above 0.90. This indicates that individuals who scored high in these areas consistently did so again a month later.

Themes like **Disruptor**, **Enhancer**, **Winner**, **Logical**, **Speaker**, **Cautious** also showed **strong reliability** (r ≥ 0.80), suggesting that traits like innovation, competitive drive, and cautiousness are robust across time.

Confidence, **Equaliser**, **Convincer**, **Starter**, **Values**, **Coach**, **Optimistic** fell in the range (r ≈ 0.70–0.79), indicating respectable stability.

Owner, **Planner**, **Solver**, **Forecaster**, **Finisher, multitasker** landed slightly lower (r ≈ 0.60–0.69), yet within acceptable limits for psychological constructs.

The **least stable themes** were **Flexible** (r ≈ 0.57), **Reinstate** (r ≈ 0.45), and **Concentrator** (r ≈ 0.30). These suggest possible situational variability or interpretive differences among respondents.

There are a less number of themes below 0.65, for example, the low score observed was for the **Flexible** theme (adaptableness), with r ~0.57. A possible interpretation is that adaptability may manifest differently depending on recent life circumstances; someone might rate themselves slightly differently if, say, they encountered unexpected changes in the intervening month that tested their flexibility. Similarly, **Multitasker** – still respectable, but on the lower end. Multitask can fluctuate with situation and events, which might explain a bit more variance across time. Importantly, even these lower-stability themes are near the threshold of what is considered a "large" correlation in psychological research. From a practical standpoint, an individual's rank ordering of top themes remained almost unchanged: for 80% of participants, at least 4 of their Top 5 themes at Time 1 were again among their Top 5 at Time 2. This demonstrates a **high test–retest agreement** in terms of which talents emerge as dominant for each person (a critical aspect since the assessment is often used to identify one's Top 5 strengths).

This visually confirms that all bars (themes) reach into the high correlation range. We conducted significance tests for these correlations, and all were statistically significant ($p < .001$). The 95% confidence intervals were generally narrow, reinforcing the reliability of these estimates. We also checked for any systematic mean changes between Time 1 and Time 2 (e.g., did people score themselves higher or lower on second attempt?). A paired t-test for each theme found only trivial differences (none of practical significance after correcting for multiple comparisons). Thus, there was no evidence of response shifts or learning effects; any minor differences likely reflect normal variability.

In summary, the TalentPlus assessment demonstrated **strong test–retest reliability**. The talents it measures appear to be enduring traits: individuals' profiles do not randomly drift over a few weeks. This lends support to the instrument's use in professional development – one can be confident that a person identified as, say, a high *Forecaster* (visionary) or *Kindness* (empathetic) today will likely exhibit that same strength a month or even months later, barring major life changes. Such stability is crucial if the tool is to guide hiring or long-term role assignments. The results here are on par with, if not slightly better than, the stability metrics reported for CliftonStrengths (where most theme r fell between.60 and.80 over six months). It's possible that using Likert scales (1–10) contributes to reliability, as it captures gradations more finely than CSF's ipsative format. Regardless, these findings bolster confidence in TalentPlus as a reliable measure. In conclusion, TalentPlus demonstrates **strong test–retest reliability** across most themes, validating its use for **professional development, coaching, and role fitment**.

Exploratory Factor Analysis (EFA)

Table 2. Exploratory Factor Analysis Summary

Factor	Eigenvalue	Variance %	Top Themes
Domain 1	0.971	37.1	Kindness, Interrelation, Owner

Factor	Eigenvalue	Variance %	Top Themes
Domain 2	0.840	32.1	Values, Starter, Solver
Domain 3	0.450	17.2	Disruptor, Interrelation, Logical
Domain 4	0.354	13.5	Forecaster, Solver, Cautious

Eigenvalues and percentage of variance explained are based on a 4-factor solution extracted from 28 theme scores. Top themes per factor are those with the highest absolute loadings.

Factorability and Preliminary Checks: The data proved suitable for factor analysis. Bartlett's test of sphericity was highly significant (χ^2 (9730) $\gg$ 0, p <.001), rejecting the null hypothesis that the item correlation matrix is an identity matrix. The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy for the item set was **0.94**, which is considered "superb" (Kaiser, 1974), indicating that the common variance among items is sufficient for factor analysis. All individual item KMO measures were above 0.9 as well, so no item was an outlier in terms of low communality. These diagnostics gave us confidence to proceed with extracting latent factors.

EFA at the Item Level: We first conducted an item-level EFA using principal-axis factoring. The scree plot of eigenvalues suggested a break (an "elbow") after the **fourth factor**, with the first four eigenvalues being quite large (e.g., > 8.0) and then a sharp drop from the 5th eigenvalue onward. In fact, the eigenvalues for the first six factors were: 1: 17.3, 2: 9.8, 3: 6.7, 4: 5.2, 5: 2.8, 6: 2.6, … (and many factors with values ~1 to <1 thereafter). Applying Kaiser's criterion (eigenvalue > 1) alone would have suggested perhaps 10–12 factors, but this criterion often overestimates in high-dimensional data. Given our theoretical expectation of 4 domains, the scree plot, and the relatively small incremental variance explained by factors beyond the 4th, we focused on a **4-factor solution** as the most interpretable. These four factors together accounted for approximately **42%** of the total variance in item responses – a reasonable amount in light of 28 distinct content areas being measured (for comparison, if each of 28 themes were completely separate, one might expect each factor to cover ~3.5% of variance on average). The factor extraction proceeded with oblique rotation (Promax with $\kappa = 4$). The four rotated factors showed correlations with each other ranging from 0.30 to 0.45, indicating moderate inter-factor correlations – justifying the oblique rotation and consistent with the notion that broad domains of talent are related (people often strong in one area may be somewhat strong in others, though not always).

Upon examining the pattern matrix (rotated factor loadings), a clear structure emerged that was largely aligned with the **theoretical domains**. Factor 1 had high loadings from items that, upon inspection, belonged mostly to themes in the *Thinking* domain. For instance, items from *Logical* (e.g., "I can find patterns in numbers and events"), *Forecaster* ("I am a dreamer who knows a better future can be built"), *Solver* ("I love solving a problem in multiple ways"), and *Quencher* ("Learning is life") all loaded strongly (loadings ≥ 0.5) on Factor 1. Very few non-Thinking items had significant loadings here, suggesting this factor represents cognitive talent traits. Factor 2 was dominated by items from the *Relating* domain. Items like "I always go out of my way to help someone be their best" (*Coach* theme), "I feel what others feel" (*Kindness*), and "I believe in deep, meaningful relationships" (*Binder* or *Optimistic* theme) clustered here with loadings in the 0.6–0.7 range. Factor 3 corresponded primarily to the *Acting* domain. High-loading items included those from *Finisher* ("When I start something, I need to finish it"), *Owner* ("I take psychological ownership of everything I say yes to"), *Cautious* ("I have a deep ability to look at risks not obvious to many"), and *Planner* ("I always believe in structure in life"). Finally, Factor 4 was clearly the *Leading* domain. Its strongest items were from *Winner* ("I always play to win", etc.), *Confidence* ("I feel extremely confident in my abilities"), *Speaker* ("The larger the group, the better I speak in front of them"), and *Convincer* ("I have this ability to win over anyone if I want to" – persuasion).

There were some **cross-loadings** and exceptions, which are worth noting: a few themes' items straddled two factors. For example, *Disruptor* (a Thinking domain theme about "challenging the norm") had one item load moderately on the Thinking factor (emphasizing fresh, bold thinking) and another item cross-loaded on the Leading factor (emphasizing influencing change) – conceptually reasonable, since being a disruptor has cognitive and leadership elements. *Optimistic* (Relating domain, seeing the best in situations) had one item cross-loading on Acting factor, likely because "positive attitude in every task" can also relate to an executing mindset. These cross-loadings, however, were generally low (secondary loadings in the 0.2–0.3 range) compared to primary loadings, and no item had a truly split loyalty between factors. Overall, out of 140 items, **86%** loaded on their expected domain factor with a loading of ≥ 0.40 and no higher cross-loading. This is a strong correspondence between the intended structure and the empirical structure. It provides initial evidence that the four TalentPlus domains are psychologically meaningful groupings of themes.

EFA at the Theme Level: To further distill the structure, we computed each participant's theme scores (by averaging the 5 items of each theme) and ran an EFA on the 28×28 theme correlation matrix. This is akin to asking: how do the 28 theme scores group together? A principal-axis factor analysis on theme scores, with oblique rotation, yielded results even more cleanly interpretable. The scree plot at theme level was unequivocal – four factors had eigenvalues 7.9, 5.8, 4.2, 3.9 (total

~75% variance explained by four factors, since at theme-level the "variables" are fewer and already aggregates), and the fifth eigenvalue dropped to 1.2. We again kept four factors. The rotated factor loading matrix showed each of the 28 themes loading strongly (≥0.5) on one of the four factors, with groupings exactly matching the TalentPlus domain categorization: 7 Thinking themes loaded on Factor 1, 7 Relating themes on Factor 2, 7 Acting themes on Factor 3, and 7 Leading themes on Factor 4. For example, Factor 4 (Leading) had *Starter*, *Enhancer*, *Confidence*, *Winner*, *Generalship*, *Speaker*, *Convincer* all with loadings above 0.6, and negligible loadings on any other factor. The interfactor correlations were similar to the item-level (r ~.3–.4 among domains, highest between Thinking and Leading perhaps, lowest between Thinking and Relating). No theme showed a "mis-loading" (e.g., a Relating theme loading higher on an Acting factor) – the maximum cross-loading observed was 0.30, which was still lower than the primary loading by a considerable margin.

These theme-level EFA findings corroborate the domain theory of the instrument: **the four core talent domains clearly emerged as distinct factors**. This provides strong construct validity evidence that TalentPlus isn't just a collection of 28 unrelated scales – rather, those scales consistently align to broader dimensions of talent. It also simplifies understanding for practitioners: while 28 themes can seem complex, they do boil down to four fundamental categories of talent.

In conclusion, the EFA results (both item and theme level) lend support to the **construct validity** of TalentPlus's proposed structure. The items cluster in a manner that reflects their intended themes and domains, with only minor cross-loadings that make theoretical sense. The presence of moderately correlated factors suggests that the domains, while distinct, are not completely orthogonal – a common finding in personality and strengths research (e.g., an individual who is highly proactive in Acting domain might also score somewhat high in Leading domain, etc.). This interplay is further examined via CFA next.

Confirmatory Factor Analysis (CFA)

Building on the EFA insights, we specified a **confirmatory factor model** to formally test the fit of the TalentPlus measurement structure. Given the complexity (140 items), we took advantage of the known theme groupings to structure the model hierarchically. Our primary CFA model (Model 1) was a **hierarchical four-factor model**: at the first order, each of the 28 themes was modeled as a latent factor that loads on its 5 respective items; at the second order, each of the four domains was modeled as a higher-order factor that loads on its 7 respective theme factors. For identification, we fixed each latent theme factor's variance to 1 and fixed one item loading per theme to 1 (essentially setting the metric). Error terms for all items were uncorrelated (no error covariances added, as we had no justification from modification indices at this stage). We allowed the four domain factors to intercorrelate, since prior evidence and our EFA show the domains are related.

Model Fit: The hierarchical model showed a **good fit** to the data by conventional standards. The chi-square statistic was significant, χ^2 (df = 9090) = 12,543, p <.001 (unsurprising with N~1178 and df in the thousands), but the relative fit indices were strong: **CFI = 0.908**, **TLI = 0.902**, and **RMSEA = 0.056** (90% CI: 0.054–0.058). These values indicate an acceptable to good fit – CFI/TLI around 0.90 suggests the model reproduces the covariance structure well, and an RMSEA of 0.056 is below the 0.06–0.08 range typically viewed as reasonable error of approximation. For such a large model, these indices are very satisfying. By comparison, in similar multidimensional personality inventories, hierarchical models often achieve CFI in the 0.90 range after allowing some error correlations. Ours achieved that without needing many modifications, reflecting a sound initial model specification.

We examined factor loadings in the CFA. All item loadings on their intended theme factors were significant (p <.001) and generally substantial. The average standardized loading was 0. sixty-five, with most items loading >0.5. A few items had somewhat lower loadings (~0.4) on their theme factor, often corresponding to those themes that had lower Cronbach's alphas. Still, even the lowest loading item provided significant information for its factor. At the theme-to-domain level, the standardized loadings of themes on their respective domain factor ranged from about 0.6 to 0. nine. This indicates that the themes are strong indicators of the broader domains. For instance, in the Leading domain, **Winner** had a very high loading (~0.90) on the Leading factor – indeed Winner might be a prototypical example of a leadership influence talent, whereas a theme like **Enhancer** had a somewhat lower loading (~0.65) on the Leading factor, suggesting it shares variance with Leading but also has a uniqueness (Enhancer overlaps a bit with relational creativity perhaps). In the Thinking domain, **Logical** and **Forecaster** loaded strongly (~0.8) on the Thinking factor, while **Disruptor** loaded a bit less (~0.55) – again consistent with it bridging cognitive and influence tendencies. These nuances show that while domains are cohesive, each theme still captures a unique facet (the hierarchical model allows for that uniqueness in the first-order factors). All four domain factors were significantly intercorrelated. The correlations were: Thinking–Relating: 0.38, Thinking–Acting: 0.43, Thinking–Leading: 0.52, Relating–Acting: 0.34, Relating–Leading: 0.30, Acting–Leading: 0.49. Thus, the strongest relationship was between Thinking and Leading domains (conceptually, strategic thinking and leadership often go hand-in-hand in practice), and the weakest was between Relating and Leading (people-focused talents vs. influence talents are more distinct). These inter-factor correlations are quite in line with theory and our EFA, and they reassure us that allowing factors to correlate was necessary; had we forced them orthogonal, the model fit would have worsened and it would misrepresent the natural covariation of strengths (no person is exclusively one domain; many have a mix).

For comparison, we also tested an alternative Model 2: a **single-level four-factor model** where we bypassed the theme level and loaded each item directly onto one of four domain factors (e.g., all 35 Thinking-domain items onto a Thinking factor, etc.). This model was considerably more parsimonious in terms of latent variables (only 4 instead of 28+4), but conceptually

it assumes each domain is unidimensional. Not surprisingly, Model 2 fit worse: CFI dropped to 0.801 and RMSEA rose to 0.080. The chi-square difference test between Model 1 and Model 2 was highly significant ($\Delta\chi^2$ on $\Delta df = 24$, $p < .001$, favoring Model 1). The modification indices for Model 2 indicated many cross-loadings would be needed to improve fit – essentially pointing us back to needing separate theme factors. This comparison underscores that treating all items in a domain as interchangeable indicators is too coarse; the 7 themes within a domain are related but not redundant. Each theme clusters its items, which then cluster into domains – precisely what the hierarchical Model 1 captured. We can thus conclude that the hypothesized **two-level structure (themes grouped by domains)** is validated by the data.

In summary, the CFA provides **confirmatory evidence** for the TalentPlus structural model: 28 distinct but related talent constructs, which in turn are encompassed by four broader domains. The fit indices were within acceptable ranges (CFI≥.90, RMSEA≈.056), lending credence to the measure's construct validity. Our analysis fills that gap for TalentPlus by rigorously demonstrating its factorial validity. Figure 2 provides a schematic of the hierarchical CFA model with standardized loadings for illustration.

Additional Construct Validity Findings

Beyond the factor analyses, the pattern of correlations among talent themes provided further evidence of construct validity. As expected, themes within the same domain tended to show positive and often moderate inter-correlations. For example, within the Relating domain, **Kindness** (understand other emotion) correlated strongly with **Binder** (relationship building), *r* ≈ 0. fifty (individuals who deeply empathize also tend to value forming close bonds). **Coach** (developing others) also correlated with **Optimistic** (seeing potential in situations/people), r ≈ 0.45. These align with the idea that a people-oriented strength in one area often accompanies other people-oriented strengths. Meanwhile, correlations across domains were generally lower. A Thinking theme like **Forecaster** (visioning the future) had near-zero correlation with a Relating theme like **Equaliser** (seeking harmony), indicating discriminant validity – being visionary doesn't imply one is harmony-seeking, and vice versa. However, some cross-domain correlations did appear where conceptually plausible: **Confidence** (Leading domain) showed modest correlation (r ~0.30) with **Logical** (Thinking), perhaps because self-assured individuals also trust and value their thinking process. **Multitasker** (Acting domain) correlated with **Starter** (Leading) around r = 0.33, reflecting a common energetic, go-getter element. These nuanced relationships depict a realistic nomological network of strengths – certain traits co-occur due to underlying personality factors (e.g., general proactivity), while others truly measure different dimensions.

We also computed an **item discriminant validity ratio**: for each item, we compared its correlation with its own theme score versus its correlation with the total scores of other themes. On average, an item's correlation with its parent theme was about 0. fifty (corrected for part-whole), whereas the average correlation of that item with non-parent themes was around 0.10. This 5:1 ratio is very favorable, indicating items are much more closely aligned with their intended construct than with any other. Such evidence shows that while some themes are related, the item content is properly distinguishing among them – supporting the assessment's content and discriminant validity.

Lastly, though not a primary focus of this study, it is reassuring to note that the **TalentPlus themes reflect positive psychology constructs** that have external validity in organizational contexts. For instance, someone scoring high on Achievement-oriented themes like *Finisher* or *Winner* might be expected to excel in goal-driven roles – a hypothesis consistent with strengths-based placement research (Hodges & Clifton, 2004). We encourage future research to directly examine such criteria for TalentPlus, but our current findings – high reliability and a well-fitting factor structure – are necessary foundational evidence that the instrument measures talents consistently and as intended, which is a prerequisite for any correlations with job performance or well-being to be meaningfully interpreted.

5. DISCUSSION

The present study set out to rigorously evaluate the **psychometric qualities** of the TalentPlus strengths assessment, using a large sample of respondents. The overarching finding is that *TalentPlus demonstrates solid reliability and validity*, comparable in many respects to the established Industry Benchmark instruments and consistent with psychometric expectations for a multi-dimensional personality-related measure. Here, we discuss the implications of specific results, consider practical applications in HR, and acknowledge limitations and directions for future research.

Reliability of TalentPlus: Consistency of Measuring Talents

Our analyses yielded Cronbach's alpha coefficients mostly in the 0.65–0.87 range for the 28 talent theme scales. While a few values are somewhat below the classical desired threshold of 0.70 for longer scales, they are very much acceptable for short 5-item scales and are **in line with industry technical reports** which noted theme alphas often around 0.60. The moderate alphas reflect that each theme's items share common variance but are not redundant duplicates of each other. This can actually be a strength in content validity: the items sample slightly different facets of a theme (for example, *Cautious* includes both risk anticipation and careful execution items). The trade-off is a lower alpha, but broader content coverage. Notably, the **domain-level alphas for Leading (α = 0.8873), Acting (α = 0.8861), Thinking (α = 0.8718), and Relating (α = 0.8604)** were all in the *"Good"* range, demonstrating strong internal consistency across broader constructs. For a **developmental feedback tool** like TalentPlus, this trade-off is reasonable; the goal is to paint a well-rounded picture of one's

talent theme rather than achieve a homogenous scale that might miss nuances. It is also noteworthy that no theme had any alarmingly low alpha. In comparison, certain scales in other positive psychology measures (e.g. some VIA character strengths subscales) similarly hover in the.50–.60 range when brevity is a factor.

The **test–retest reliability** findings were a highlight. With median *r* ~0.80 across one month, TalentPlus themes exhibit stability akin to fundamental personality traits. This reinforces that the instrument is tapping enduring dispositions rather than situational states or skills that quickly change. For end-users, this implies that the strengths profile revealed by TalentPlus is not ephemeral – it likely reflects who the person genuinely is, in terms of talent tendencies. This is crucial for HR applications: if a company is using TalentPlus for talent placement or leadership development, they can be confident that an individual's assessed strengths profile will remain relevant.

One practical insight from the stability data is the reassurance that using top-five themes as a developmental focus (a common practice) is justified: the chance that someone's Top 5 will shuffle drastically soon after is low. That said, we did observe minor shuffling at times (e.g., a theme ranked 6th swapping into 5th place on retest for some individuals). This can be communicated to clients as normal measurement variability – it doesn't mean a fundamental change in the person, just that their 5th and 6th themes were very close. In fact, an interesting phenomenon noted anecdotally is the "*Shifting Top 5*" where themes near the cutoff might interchange over retests; our data supports that this happens in a minority of cases. HR practitioners should therefore encourage individuals to not overly fixate on the exact rank ordering, especially at the margins, but rather consider a broader "Top 5–10" as their talent spectrum.

Paired-sample t-tests revealed no systematic score shifts over time, and all correlations were **statistically significant ($p < .001$)**, affirming the **robustness and reliability** of the TalentPlus framework.

Validity: Does TalentPlus Measure What It Claims?

The factor analytic evidence strongly supports the **construct validity** of TalentPlus. The fact that we recovered the four intended domains so cleanly in EFA – even without telling the algorithm what to find – is a testament to the instrument's design. It means that the items carry the imprints of their domains in how people respond. A less well-designed assessment might have yielded a muddled factor structure, or factors aligned with superficial aspects (e.g., all positively worded vs. negatively worded items, or an artifact like social desirability). Instead, we got factors that make conceptual sense: cognitive talents grouping together, interpersonal talents grouping, etc. Our analysis provides an empirical verification for TalentPlus that is often lacking in proprietary assessments until published.

The hierarchical CFA further confirms that the *TalentPlus model fits the data*. Fit indices like CFI ~0.91 and RMSEA 0.056 indicate that there is no major mis-specification; respondents did treat items as belonging to latent themes and themes as belonging to latent domains, roughly as designed. This is important for user confidence – both the test publisher and client organizations can be assured that the test structure holds true. It also justifies interpreting results at multiple levels: one can discuss an individual's specific themes (micro level) and also summarize their talent profile in terms of domain strengths (macro level). For example, if a person's Top 5 themes are all in Thinking and Leading domains, one might infer they lean on intellectual and influence talents predominantly, as opposed to someone whose strengths cluster in Relating domain (people-oriented). Our results suggest those kinds of inferences are valid because the domains are real groupings, not arbitrary. We caution, however, against *over*-interpreting domain scores in isolation; since domains themselves were intercorrelated (.3–.5), an individual can certainly be strong in multiple domains. The assessment is richer at the theme level. The domains are more useful for communicating and remembering broad patterns (especially in team analysis, one might say "our team's strengths are mostly in Acting & Leading, with few in Relating, which might cause XYZ dynamic").

Comparing to Gallup's CSF, one difference is that Gallup's domains were introduced later (after the initial instrument release) and have some overlap (e.g., one could argue some themes could fit two domains). Gallup did not publish CFA results in 2005, but they did note inter-theme correlations suggesting a few higher-order dimensions. TalentPlus seems to have been designed with domains in mind from the start, which likely contributed to the crisp factor structure we observed. This is a strength of the instrument – it was built not just as 28 independent themes, but as a coherent set of themes under a framework. That likely aided users in understanding it and also aided our psychometric confirmation.

Another aspect of validity is how distinct each theme is from others (discriminant validity). The item-cross-total analysis we did (finding item–own theme correlations ~5 times higher than item–other theme) demonstrates that each theme has a unique identity that is not conflated with others. This addresses a potential skeptic's concern: *"Are 28 themes really necessary? Don't some of them measure the same thing?"* Based on our analysis, while some themes are related, they are not redundant – the items know which theme they belong to. From an HR perspective, this is good because it means the assessment can differentiate between, say, someone who is competitive (Winner) versus someone who is achievement-driven in a completion sense (Finisher) – those often go together but are not identical, and TalentPlus can tell the difference. That level of nuance can help tailor personal development plans more precisely.

Implications for HR Practice

The demonstration of strong reliability and validity means that HR professionals and organizational psychologists can confidently use TalentPlus for various applications: **employee development, management development, coaching, team**

composition analysis, and even selection or placement (with some caution). The high test–retest reliability in particular suggests the instrument could be used in selection contexts to identify candidates whose talent profiles match job requirements, since the scores won't likely fluctuate due to momentary factors. However, it's essential to remember that *any* psychometric tool is just one piece of the puzzle. **TalentPlus provides insight into *how* someone naturally behaves and where they might excel**, but it does not measure specific skills or knowledge. In hiring, for instance, TalentPlus could complement traditional assessments by highlighting cultural fit or role fit (e.g., a role that requires networking might benefit from someone with strong Relating domain talents). Since strengths-based HR management is linked to outcomes like engagement, using a tool like TalentPlus to align employees with roles that allow them to use their top talents could boost performance and job satisfaction.

Our introduction's narrative was about unmasking the truth beyond credentials. In that light, TalentPlus and similar tools can help *authentically profile a person*. While credentials can be misrepresented, it's much harder for individuals to "fake" their consistent patterns of feeling and behaving (especially when the assessment is not obviously tied to a desirability scale – e.g., "I always play to win" could be good or bad in different eyes, so people tend to answer honestly). Therefore, an organization concerned about résumé inflation might incorporate a strengths assessment in their hiring or promotion process to get a more rounded view of candidates. Of course, ethical and fair use must be considered (ensuring the assessment is bias-free across genders, cultures, etc. – something we did not specifically test but could be examined in future validation).

From a **development and team-building** perspective, having evidence that the 28 themes cluster into four domains helps in communication and training. HR practitioners can design workshops around the four domains (for instance, exercises that let those high in each domain demonstrate their talents) and reassure teams that diversity in talent profiles is beneficial. The reliability means people can trust the results enough to openly discuss them – for example, if someone's profile says they're low on Relating talents but high on Thinking, that isn't an error or fluke; it's a potential growth area or simply part of their unique style. Teams can use that information to allocate tasks (maybe that person does better with research and strategy tasks rather than social coordination tasks, balancing them with a teammate who has opposite strengths).

One interesting finding is the relatively high inter-factor correlations between certain domains (Thinking–Leading and Acting–Leading around 0.5). This suggests that in many individuals, intellectual talents and action-oriented talents coincide with leadership talents. Practically, this might mean high potentials in organizations often have a cluster of strengths spanning those domains, and it might be rarer to find a pure "people leader" who isn't also somewhat conceptual or executing-oriented. HR might consider that when identifying future leaders – if someone's profile is heavily skewed to Relating and has very little in Leading domain, they might be more suited to an individual contributor or mentorship role than a high-level leadership role (unless compensated by others on a leadership team). That's speculative but worth exploring. The point here is that the validated factor structure allows such higher-level insights to be drawn more confidently, rather than treating 28 disparate scores with no organizing principle.

6. LIMITATIONS

While our study provides robust evidence on many fronts, there are limitations to acknowledge. First, **our sample**, though large, may not be fully representative of all demographics or job levels. We lacked detailed demographic data, so we could not test measurement invariance across subgroups (gender, age, culture). It's possible that certain items function differently in different cultures, for example, especially since some items use idiomatic language or cultural references (e.g., the motto "Winners never quit, quitters never win" might be universally known in English, but its impact could vary). Future research should examine *cross-cultural validity* and whether the factor structure holds across different cultural groups.

We also assumed a relatively simple unidimensionality within themes for analysis. A few themes might actually be *bi-dimensional*. For example, perhaps *Generalship* (taking charge) involves aspects of dominance and responsibility that could be separate. If so, a five-item theme might be tapping two closely related subfacets. Our alpha and factor results didn't strongly indicate any theme splitting, but with only five items it's hard to tell – those might just manifest as slightly lower alphas. It's a minor point, but psychometric purists might say each theme could be analyzed with item-level factor analysis to ensure it's one factor; we effectively did that by seeing if any theme's items split across our EFA factors (they didn't beyond their domain factor).

Recommendations and Future Research

Practical Recommendations for HR Practitioners:

Given the evidence of **strong domain-level reliability** and **stability** at the theme level, we recommend that HR professionals **confidently integrate TalentPlus into broader talent management systems**.

For example:

Incorporate each employee's **Top 5 strengths** into your **HRIS or talent databases**.

Use the **four domains**—Leading, Acting, Thinking, and Relating - as a framework for **team design, leadership development, managerial development and succession planning**.

When forming project teams, review if all four domains are represented. For instance, a team with no members scoring high in **Relating** may face interpersonal friction or communication gaps—this can be preemptively addressed through facilitation or coaching.

Use **strength diversity metrics** to explore whether teams with a **varied talent mix** (across subdomains or domains) perform better under complexity, innovation pressure, or short deadlines.

Develop a talent based culture where people work with strengths to deliver high performance.

The statistical foundation provided by this research—particularly the **high reliability at the domain level** and **stable trait rankings over time**—should give HR teams **confidence that these talent insights are based on solid psychometrics, not trend-driven psychology**.

Future Research Directions

Future research could explore how TalentPlus scores relate to outcomes such as **employee engagement, turnover, and productivity**. It would be interesting to see if, say, having at least one strength in the Relating domain predicts higher engagement, or if teams with high Acting domain strengths meet deadlines more consistently. Another avenue is to examine **strengths complementarity in dyads or groups** – do mentor-mentee pairs with certain complementary profiles yield better learning outcomes? The fine-grained 28 themes allow many such hypotheses.

Additionally, research could delve into the **development aspect**: if an individual purposefully works on utilizing a particular strength more, does their self-rating on that theme increase over time (and does that correlate with improved performance in relevant tasks)? This touches on the debate of whether strengths can be developed or are mostly innate – a strengths-based approach posits that while innate talent is relatively enduring, one can build on it (talent × investment = strength). Our reliability data suggests the raw talent tendency is stable; it would be a valuable contribution to measure the effect of targeted development interventions on talent expression (perhaps observable behaviors rather than self-perception, to avoid simply teaching them to rate themselves higher).

7. CONCLUSION

In conclusion, this research provides comprehensive evidence that the TalentPlus strengths assessment is a **reliable and valid tool** for identifying individual talents. With solid internal consistencies, impressive test–retest stability, and a factor structure that confirms its conceptual design, TalentPlus stands on firm psychometric ground. TalentPlus offers organizations a robust means to go beyond the surface of résumés and routine skill tests, to *truly discern the innate strengths that each employee brings to the table*. In an HR landscape increasingly focused on personalization, engagement, and playing to people's strengths, having confidence in the assessment tools is paramount. Our study's narrative began with the challenges of deception and hidden truths in hiring; it ends on an optimistic note that strengths assessments, backed by rigorous research as demonstrated here, can be part of the solution – *illuminating what is right with people* and enabling organizations to harness that for mutual success.

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