Interpretive Guide for The Character Skills Snapshot

The Character Skills Snapshot

The Enrollment Management Association
WHY CHARACTER?

At The Enrollment Management Association we believe the admission practices of the past will not sustain independent schools of the future. For more than 50 years, EMA has provided tools and services to help schools make critical decisions related to enrollment management.

The newest tool in our Member Toolkit, The Character Skills Snapshot, allows schools the ability to learn even more about applicants: specifically seven character skills which were selected for their connection to future success in school, work, and life.

Families want schools to see a more complete picture of their students during the admission process. We, too, believe that students should be evaluated in a more holistic way that includes more personal elements in addition to the traditional elements of an application. The Snapshot offers students an opportunity to share information about their character with schools in a way that is consistent for all applicants.

The Snapshot measures a student’s preferences, attitudes, and beliefs about their character. It does not measure their behavior.

The Snapshot is meant to complement, not replace, other materials that are part of an application. The Snapshot results can help a school learn more about a student, and the applicant group as a whole—from the student’s perspective. Using it can aid in understanding if and how the programs you offer might best serve a student, based on the students’ preferences. The Snapshot is not intended to be used to determine if a student should or should not be admitted. Alongside a complete application, the Snapshot is intended to offer context to help you better understand the whole student.

We are pleased to provide this guide in order to acquaint member schools and organizations with various aspects of The Character Skills Snapshot and provide guidelines for the interpretation and use of results reports.
INTRODUCTION

The Interpretive Guide for The Character Skills Snapshot (referred to as “The Snapshot”) has been prepared to assist schools with the understanding of character assessment, the development of The Character Skills Snapshot and the interpretation of results. Although this guide does not cover the gamut of psychometric information available, it does provide key information that can help admission officers and educators understand those aspects of the assessment that would be most useful to them.

OVERVIEW OF CHARACTER ASSESSMENTS

Seven years ago, The Enrollment Management Association’s Think Tank on the Future of Assessment was established to create a conversation about 21st century admission and the needs of enrollment managers during their selection process. Having studied current research and interviewed numerous experts in the field of noncognitive assessment, they produced two seminal reports and were instrumental in the creation of The Character Skills Snapshot. Important questions the committee pondered in order to educate themselves and our community about new trends affecting independent school admission included:

- How do we better understand our students’ many kinds of minds, and look for new ways standardized testing can reveal more about them?
- How should we support the professionalism and consistency of the admission process and consider carefully what will serve independent schools 10-20 years from now so we can better lead the profession forward?
- How do we pull together the best available thinking on broadening admission assessments and share that thinking widely?
- How might we test for important character attributes in the admission process?

The recommendations of the Think Tank resulted in the creation of an innovative tool called The Character Skills Snapshot. The Snapshot is designed for students in Grades 5 to 11 who are seeking entrance to private and independent schools for Grades 6 to 12. “The purpose of The Snapshot is to measure seven character skills deemed important in an admissions context by admissions directors, faculty, practitioners, and researchers. The skills are initiative, intellectual engagement, open-mindedness, resilience, self-control, social awareness, and teamwork.” The Snapshot is intended to complement the traditional elements of an application, and it should not be used independent of those elements to make admission decisions.

1 Think Tank on the Future of Assessments 2013,
Think Tank on the Future of Assessments 2014,
GUIDING CONCEPTUAL FRAMEWORK

In order to confirm that the skills measured by The Character Skills Snapshot encompassed a wide range of noncognitive concepts, EMA reviewed several existing noncognitive conceptual frameworks. A framework is a real or conceptual structure intended to serve as a support or guide for the building of something that expands the structure into something useful. The purpose of selecting a guiding framework was to ensure we did not leave out a major component when assessing a student’s character.

The framework selected for our guiding conceptual structure comes from support from the U.S. National Science Foundation. In collaboration with private foundations, the National Research Council (2012) conducted a series of workshops leading to a committee report relevant to the identification of noncognitive skills. The report, Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century, defined a set of key skills referred to as “21st century skills,” to describe how noncognitive skills lead to success in education and work.

Utilizing a rather simple organization, the report categorizes skills into three major domains: cognitive/intellectual, interpersonal, and intrapersonal. The Cognitive/Intellectual Domain maps to The Snapshot skills of intellectual engagement and open-mindedness. The Intrapersonal Domain maps to The Snapshot skills teamwork and social awareness. The Interpersonal Domain maps to The Snapshot skills resilience, self-control, and initiative. Here is the third level:

PURPOSE OF THE CHARACTER SKILLS SNAPSHOT

The Character Skills Snapshot is designed for students seeking entrance to independent schools in Grades 6-12. The purpose of The Snapshot is to measure seven character skills: initiative, intellectual engagement, open-mindedness, resilience, self-control, social awareness, and teamwork. The Snapshot provides schools with information about an applicant’s character in a way that is consistent for all applicants.

The Snapshot is NOT an achievement test. It is not designed to measure the extent of knowledge about a specific curriculum that has been covered in class. More generally, The Snapshot is NOT designed to measure indicators of academic ability such as verbal, quantitative, and reading comprehension. The feedback provided by The Snapshot should be used as part of a holistic admissions process that includes information from cognitive tests (such as the SSAT), recommendation letters, and interviews, etc.

ASSESSMENT DEVELOPMENT PROCESS

Each question on the The Snapshot is referred to as an item. The items are written by assessment development specialists and subject matter experts from the fields of psychology and education, as well as members from the independent school community. All items on The Snapshot must go through a Fairness and Sensitivity Review that checks to make sure the item content is appropriate for different groups of the population (gender, race/ethnicity, English as a second language, age). Fairness and sensitivity review also takes care to make sure content is culturally generalizable.

Every item on The Snapshot undergoes rigorous pilot testing that involves multiple stages. First, the item is presented to students in a cognitive lab setting. This is generally a one-on-one session between a student and a researcher to explore a student’s thought process as they complete each item. For researchers, this exploration typically provides information about student understanding of the item content, why a student responds to an item in a particular way, the threat of student fatigue, and areas of confusion that a student might experience.

After incorporating any needed edits from these cognitive lab sessions, items are then piloted with a larger group of students in order to determine if the psychometric properties of the item uphold: factor structure, reliability, intercorrelations and sub-group differences, etc. The form used for The Snapshot in 2017-2018 was pilot tested on 12,000 students prior to the operational launch.
To maintain the security of the items, a new form of The Snapshot needs to be developed every academic year. In order to develop a pool of items for use on future forms, The Character Skills Snapshot has incorporated an experimental section at the end of the operational tool where students have the opportunity to take additional items (not counted toward their results) which provide us with statistical performance data. The items in the experimental section have been developed, reviewed, and determined to meet assessment standards. Each item is then analyzed statistically to determine its usefulness. Satisfactory items become part of the item pool from which new forms are assembled. Unsatisfactory items are discarded or rewritten. Rewritten items are subject to the entire review process again. These experimental questions are not part of a student's Snapshot results.

A factor structure is the correlational relationship between a number of variables that are said to measure a particular construct (i.e., the statements that are supposed to measure teamwork, actually do).

Reliability is a measure of consistency. A test will be reliable when it gives the same repeated result under the same conditions.

A correlation matrix presents how related variables are. For example, you would expect skills like open-mindedness and intellectual engagement to be related, but you would not want them to be too highly intercorrelated or you would be measuring the same thing.

Investigating how different groups of students respond to each item is important to address any systematic difference that would put one group of students at a disadvantage.

The Snapshot Item Development Process

Forced-Choice Items

The Snapshot contains two sections which yield seven results (one for each character skill). The first section of The Snapshot is the forced-choice section. Forced-choice items “force” respondents to choose between two (or more) statements that can appear equally desirable. In settings with higher stakes (such as admissions), this feature presents a clear benefit over traditional self-report, Likert-type items because it is more difficult to determine which statement in a forced-choice item produces a better outcome for the respondent (Petway, Coppola, Brenneman, Martin, & Kyllonen, 2015). In The Snapshot, forced-choice items include three statements that are generally called “triads.” Each item contains only one statement per skill— that is, no two statements in a triad measure the same skill. Items are balanced on social desirability as best as possible by pairing statements that have similar mean scores in the single-statement item pretest.

Unsatisfactory items are discarded or rewritten. Rewritten items are subject to the entire review process again. These experimental questions are not part of a student’s Snapshot results.

In psychometrics, content validity refers to the extent to which a measure represents all facets of a given construct. Simply put, do the items include all of the different aspects of the operational definition of the skill.
### Situational Judgement Items

The situational judgment section of The Snapshot consists of 10-15 situational judgment items (SJIs). Each SJI includes a scenario that describes a problem and four possible ways to address that problem. In an effort to minimize socially-desirable responding, students are asked to rate the appropriateness of each possible response on a Likert-type scale from 1 (not appropriate) to 4 (very appropriate).

To support content validity, SJIs were written by admission professionals and teachers from the independent school community in order to draw from real experiences. Admission professionals/teachers were given detailed instructions, numerous example items, and complete descriptions of the constructs in order to produce valid item content. Edited items were then presented to students as part of think-aloud sessions to ensure that students perceived the situations and associated responses as realistic and plausible.

The situational judgment format was selected as a second method of character measurement because research has shown that they: (a) can capture information about skills and abilities that are often difficult to gather accurately with other forms of measurement, (b) exhibits less systematic differences between groups, (c) are more engaging, and (d) can be more resistant to intentional misrepresentation.

Regarding the latter point, The Snapshot adopts a knowledge-based prompt (i.e., “rate the appropriateness…”) because it effectively removes the threat of socially desirable responding. A student is either aware of the more appropriate behaviors or not, and they can only guess if the responses do not come to them naturally (like they would with a cognitive test of verbal or quantitative ability).

Situational judgment items (SJIs) typically present respondents with a scenario that details a problem or complex situation. Respondents are also presented with several possible responses to the presented scenario. Though there is a lot of flexibility in what an SJI response captures (mostly contingent on what the respondent is asked to evaluate), most SJIs require respondents to decide which response they are most (and/or least) likely to do themselves, or decide which response is most (and/or least) appropriate or effective. SJIs are attractive to researchers because they usually have real-world relevance that make them more engaging to test takers (Lievens & Sackett, 2006), they have some resistance to socially desirable responding (Nguyen, Biderman, & McDaniel, 2005), and are useful ways to gather information about skills that might be difficult to get using other methods (Oswald, Schmitt, Kim, Ramsay, & Gillespie, 2004).

### Forcéd-Choice Sample Items

**Instructions:** Drag and drop the statement that describes you MOST accurately and the statement that describes you LEAST accurately.

<table>
<thead>
<tr>
<th>I think things through before I act</th>
<th>I handle stressful situations well</th>
<th>I would rather work on a challenging assignment than an easy one</th>
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**Most like me**

**Least like me**

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<th>I wait to work on projects until they are due</th>
<th>I do not enjoy working in a group</th>
<th>I dislike difficult projects</th>
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**Most like me**

**Least like me**

The design of The Snapshot makes it extremely difficult for students to misrepresent themselves. Take traditional items used in many character assessment as as shown in the next examples; students are presented with a single statement and then asked to rate their level of agreement with each statement. When administered in a high-stakes context, it would be relatively easy for students to misrepresent themselves (select strongly agree to each positive statement).
Situational Judgement Sample Item

Instructions: Please rate the appropriateness of each possible response from 1 (not appropriate at all) to 4 (very appropriate). You may assign the same rating to more than one response.

Seth is taking an algebra test. As he is working a problem, he spots what he thinks is an error on the test; a negative sign seems to be missing. The teacher is walking around the classroom as the students work.

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ADMINISTRATION OF THE CHARACTER SKILLS SNAPSHOT

Following completion of parental consent and/or registration, The Snapshot may be taken on-demand on any computer that meets system, software, and browser requirements. The computer where a student takes The Snapshot may be located anywhere, but most students take The Snapshot at a computer located in their home. By allowing students to take The Snapshot in a comfortable environment, the expectation is that students will be more relaxed and responses will be more honest.

All students are required to electronically accept and submit a Student Integrity Statement, promising to follow the rules for taking The Snapshot before they begin. The statement reads:

I promise that I am the only one who will answer the questions in The Snapshot. I will answer honestly and I will not seek out or accept guidance from any outside sources (e.g., the internet, notes, or parents). I understand that some schools that I am interested in may use the results as part of their admission process and it is in my best interest to respond as honestly as possible.

Our decision to include an integrity statement for students came from research from the International Center on Academic Integrity, which suggests the mere presence of an academic integrity statement prior to an assessment can mitigate students from misrepresenting themselves (McCabe, et al., 2012).

SPECIAL ACCOMMODATIONS

A student with a disability may apply for testing accommodations for The Character Skills Snapshot. Students requiring testing accommodations such as a screen reader or Braille editions of The Snapshot, for example, may be accommodated pending application and submission of documentation (if applicable). It is important to note that The Snapshot is untimed, so students who may require extra time for other assessments, would not have to worry about that with The Snapshot.
ASSESSMENT SECURITY

EMA may use Data Forensics as a basis for determining assessment and/or administration irregularities and improbable results for enforceable actions. Data Forensics is the statistical analysis of assessment data to identify irregular testing patterns indicative of invalid assessment results, irregularities, assessment fraud, and item harvesting. EMA relies on Data Forensics to determine whether results should be withheld, invalidated, canceled, or investigated further to determine whether a student violated the terms of The Snapshot Candidate Agreement.

RECEIVING AND REPORTING SNAPSHOT RESULTS

Students may take The Character Skills Snapshot starting August 1 through mid-July of a given academic year.

To ensure that the comparison group is always generated from the current group of students who are taking The Snapshot, the first set of results are generally released in mid-December after a large enough percentage of the population has completed The Snapshot.

The Snapshot results are released on a set schedule, which is available on ssat.org and inside the family account. Results are generally released every Thursday from mid-December through January, then every two weeks through mid-July. It is important for schools to communicate with applicants regarding application deadlines and components to ensure the family schedules time for The Snapshot accordingly.

The Snapshot results are available for review in the Parent Account. The parent or guardian who registered the student will receive the results for that student. Results are NOT automatically sent to schools and results can only be sent through the parent account. Families will have the opportunity to review results first, then select the schools to which they wish to send the results. There is no limit on the number of schools to which families can send The Snapshot results.

Schools can access The Snapshot results through their Member Access Portal.
INTERPRETING SNAPSHOT RESULTS

The Character Skills Snapshot is an innovative tool. Before using it in the admission process, it is important to understand how the results are generated and what they can and cannot tell you about a student.

Raw Scores

Raw scores for The Character Skills Snapshot are calculated using a set of statistical models based on L. L. Thurstone’s Law of Comparative Judgment. The first model is called the Thurstonian Factor Model, which is a second-order factor model (i.e., a hierarchical model with two levels) often used to understand and evaluate the psychometric properties of the forced-choice items individually and as a whole. The second model, which is called the Thurstonian Item Response Theory (IRT) Model, reparameterizes the Thurstonian Factor Model as a first-order model (i.e., a model with a single level) and is the model used to score the forced-choice items.

Each forced-choice item includes three statements (e.g., “I work hard”), and no two statements in the same item measure the same Snapshot construct. For calculating results, the first step is to generate new variables that represent re-coded versions of the output responses to each item. In The Snapshot, the output responses are either 1, 2, or 3 (from most like me to least like me) and are re-coded to capture binary comparisons between any two statements in the item. Since there are three possible comparisons to make in each forced-choice item, there are three new variables that describe the ranking of each statement relative to another in the item (e.g., statement 1 is ranked as more like me compared to statement 2). A single statement will be involved in two comparisons, which means two of these new variables will capture information about each construct. Once the re-coding is complete, the Thurstonian IRT Model can be used. In the model, each Snapshot construct is defined using the re-coded variables that are supposed to inform it, and additional manipulation of parameters is applied to ensure the model is stable. Following all of this, scores are produced.

The situational judgment items are analyzed differently. Admissions officers and teachers from across the country were asked to rate the situational judgment item responses in the same manner as the students (i.e., rate the appropriateness of each possible response to the scenario presented). Students’ results on the situational judgment component reflect the extent of alignment with the aggregated admission officer and teacher medians. In other words, the situational judgment assesses how well a student is able to gauge the appropriateness of particular behaviors, with appropriateness set by the experts who are, in this case, admission officers and teachers.

Performance Categories

While raw scores are computed for each of the seven Snapshot skills, student levels of The Snapshot skills are actually presented on the report as one of three categories: Emerging, Developing, or Demonstrating. The Enrollment Management Association conducted numerous one-on-one sessions and focus groups with admission officers, parents, and students to settle on these particular labels.

- **Emerging** – Compared to their peer group, the student’s results fell below the 25th percentile. This does not mean the student is lacking this skill. When selecting statements that were “most like” themselves the student indicated a preference toward other skills.
- **Developing** – Compared to their peer group, the student’s results fell at or above the 25th percentile and below the 75th percentile of all student results.
- **Demonstrating** – Compared to their peer group, the student’s results fell at or above the 75th percentile of all student results.

Norm Groups

Numerical cutoffs for the above categorizations (Emerging, Developing, and Demonstrating) are based on two norming groups. A norm group is a reference group that is used to compare the respondent’s scores on a test or scale against similar others. This gives the score meaning. For example, a raw score of 1.3890 for Teamwork means nothing on its own. We need to know how other students in the same norm group perform to give the score meaning. By comparing the score with a group of similar others, we add meaning and thus interpretation to our observed score.

For The Snapshot we use two norm groups.

- **Middle Level Norm Group:**
  - Consists of students currently enrolled in Grades 5 through 7, applying to Grades 6-8
- **Upper Level Norm Group:**
  - Students currently enrolled in Grades 8 through 11, applying to Grades 9-12

As a best practice, we use students taking The Snapshot in the current academic year to establish our norm group. In the 2017-18 and 2018-19 testing year, Snapshot results were based on a sample of approximately 5,500 students. We expect around the same number for the 2019-20 academic year.

Prior to downloading results, schools must read and agree to a set of guidelines for fair use of The Snapshot. In the Fair Use Guidelines Agreement, schools affirm their understanding that The Snapshot is designed to provide additional information about an applicant as part of their application. The Snapshot results are to be used alongside other pieces of information in the file and not as a standalone or replacement tool for any traditional application element. The Snapshot is meant to inform, not to replace, the judgement and experience of enrollment professionals.
SNAPSHOT RELIABILITY AND VALIDITY

Reliability

Reliability is most commonly understood as consistency or repeatability of measurement. The primary question one would ask when inquiring about reliability is thus, “does this assessment produce the same result every time?” This interpretation of reliability generally requires the assumption that the test taker’s ability level does not change between measurements.

Typical reliability indices are on a scale from .00 to 1.00, where the former indicates that scores are entirely error and the latter suggests that scores are entirely true. Research generally holds that a reliability greater than .70 is desired. For The Snapshot, theoretical reliability coefficients achieve this threshold.

Validity

Test validity is a single concept composed of many different parts (e.g., construct validity or criterion validity) that address how well an assessment measures what it is supposed to measure. Validity of an assessment cannot be neatly summarized by a single index like reliability. Instead, researchers need to establish validity by presenting evidence that supports relevant claims. The amount of evidence needed varies based on the desired claims, with more impactful claims requiring a greater amount of supporting evidence. Most of this evidence comes after data has been collected, but some evidence can be established prior via the assessment development stage.

Typically, evidence comes in the form of a correlation coefficient, which can range from -1.00 to 1.00. A common goal of validity tests is to determine how the scores obtained from an assessment relate to other data (e.g., scores from other assessments or important outcomes). For example, to support The Snapshot’s Resilience score, we would correlate it with another source of information about a student’s resiliency. This could be a teacher or parent rating of the student, the student’s score on another resiliency assessment, or the student’s score on an assessment of a conceptually related construct (e.g., grit). Strong positive correlations would support our assessment of resiliency, while negative or weak positive correlations would not support it.

Studies to evaluate The Snapshot validity are ongoing; however, there are several existing studies that point to validity evidence supporting The Character Skills Snapshot. These studies include:

The Character Skills Snapshot Field Trial (2016)
- A study with 4,400 students indicated that The Snapshot skills are expressed in the same way for all subgroups compared. This means that the assessment does not demonstrate measurement biases toward any groups, suggesting The Snapshot is truly measuring the same set of skills for every group.

The Character Skills Snapshot Preliminary Validity Study (2018)
- A study with 600 students across 8 schools identified key relationships between The Snapshot skills and desirable outcomes. After having students take The Snapshot and then following those same students through the first year at the school to which they enrolled, results suggested:
  - Intellectual engagement, resilience, initiative, open mindedness, and social awareness are all related to class participation.
  - Initiative, intellectual engagement, and social awareness are all related to GPA.
  - Teamwork and self control are both related to how much a student contributes to the school community.
  - Self-control, teamwork, and social awareness are all related to being a good citizen.
  - Teamwork, self-control, and resilience are all related to having friends.
  - Teamwork, resilience, self control, and initiative are all related to being a happy person.
  - Intellectual engagement, open-mindedness, initiative, and resilience are all related to a student’s willingness to lead in an area of interest to them.
  - Teamwork is related to being able to identify a career path.

The Character Skills Snapshot and SSAT Study (2019)
- In a 2019 study with 2,600 students, EMA investigated the relationship between The Snapshot and SSAT scores. Research revealed a weak positive relationship between The Snapshot and SSAT scores, which is important because it supports the assertion that The Snapshot measures something other than cognitive ability.

Ultimately, the validity of The Snapshot depends on how it is used by individual schools. As with the SSAT, schools are encouraged to participate in validity studies whenever possible. The Enrollment Management Association conducts operational validity studies on an annual basis.
REFERENCES


