Disposition: How do you know it when you see it?

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Abstract

For the purposes of measurement such as aggregation, improvement, diagnosis, assessment, evaluation, reporting, and research; constructs must be measured and not just observed, counted, or collected. Valid and reliable measurement includes a defined construct, a choice of appropriate models, creation of instruments, and meaningful results. In this case, we briefly review our model of measuring dispositions using the DAATS model. Next, we provide a few examples of results that can be obtained by measures that cannot be realized with poorer quality assessments. This paper is a companion to our other presentation which discusses legal and standards-based components of the DAATS assessment system.

Introduction

In scientific theory a hypothetical construct is an explanatory variable that is not directly observable. There have recently been a number of attempts to use psychological theories of personality, descriptions of social justice, values, morals, ethics, character, and philosophy to “define” dispositions (AATCE Annual Meeting, 2006). A recent AATCE short book of essays (Sockett, 2006) is less than definitive, advocating for the evaluation of morals and the development of a code of ethics for the profession over systematic use of appropriate, scientifically-based, assessment methods and adherence to INTASC Principles. Morals are typically not included in the definitions of dispositions, although some dictionaries do list “character” as one of many synonyms – but not the first. (See, for example, online dictionaries including Miriam-Webster, American Heritage, and Encarta).

In this paper, we organize attempts to measure dispositions, discuss research-based advice for construct development, and suggest likely solutions to effective description of the disposition construct for scientific uses. We make use of the established descriptors of dispositions in the teacher education field from INTASC as the core of our construct definition. We will begin this paper with a provocative statement by Wright & Stone (1979) that we hoped would no longer be the case in the 21st century:

Alfred Binet worried about it 60 years ago. Louis Thurstone worried about it 40 years ago…The truth is that the so-called measurements we now make in educational testing are no damn good! (p. xi)

Stone & Wright are describing items and instruments that do not measure accurately, are not useful for diagnosis and improvement, and cannot be considered as valid evidence when reported by evaluation and assessment systems. The problems occur when several common conditions appear in the development of assessment instruments:

1. Most or all those assessed get most or all the items correct.
2. There are some items that virtually all people get right (or wrong).
3. Constructs are seen as right/wrong instead of along a continuum.
4. Instruments are sample dependent instead of construct dependent.
5. Peoples' scores are item dependent instead of construct dependent.
6. Data is reported as counts or percentages of raw scores instead of equal units.
7. Examinees choose the items used for assessment so people scores are not stable.
8. Constructs are not defined or else defined by multidimensional, confused characteristics so item characteristics are not stable.
9. Rating and rubrics contain confused category steps and thresholds.
10. Judges and observers suffer from a variety of rating effects.

The Construct: Teacher Disposition

Our definition of dispositions (Wilkerson and Lang, in press) is as follows:

Dispositions are in the teacher education context are the aspects of teacher affect – attitudes, values, and beliefs – that influence the application and use of knowledge and skills, as defined in accepted standards of teaching, e.g., the INTASC Principles. Teachers who have the affects required of good teachers will have reached the “valuing” level in the Bloom and Krathwohl taxonomy. The guiding question that focuses this definition is: “What does the teacher believe to be important about teaching and being a good teacher? How is s/he likely to act?”

Measure Development from a Construct: Rasch Model:

In this paper, we recommend our preferred method of item construction called the Rasch Model of Item Response Theory (IRT). The Rasch model is named for its developer, Georg Rasch (1960), a mathematician from the Danish Institute for Educational Research. It is the simplest of the IRT models and works well with small samples. IRT is a relatively new technique that differs greatly from Classical Test Theory, a.k.a. CTT or True Score Theory. Most classical measurement is based on samples of data (called norms) which are used to generate distributional statistics such as the mean, standard deviation, percentile rank, and standard scores such as SAT’s, IQ’s, and NCE’s. Rasch is not sample dependent, does not rely on a normal distribution, and creates an interval scale better suited to statistical analysis.

We recommend that those using the DAATS model choose the Rasch model for item analysis, reporting scores, and detecting rater effects because it provides powerful statistics that are relatively simple to understand (if not to compute). Modern theory (Rasch, 1961) combined with processes such as construct mapping (Wilson, 2005) work for the measurement of complex and difficult concepts that may have appeared confusing in practical situations, such as dispositions. In fact, practical applications combined with theoretical thinking propose that construct development can be distinguished by different levels of thinking (Stenner, Smith & Burdick, 1983). Valid interpretations of real measures of affective and complex behaviors have developed from many years of applied and theoretical research (Thurstone & Chave, 1929; Guttman, 1944; E. Smith, 2004; Bezruczko, 2005). This suggests that there are ways to envision a construct, create measurement items associated with that construct, and interpret the results with confidence of construct validity. Here we will briefly summarize these processes (all consistent with the Rasch model), and quickly proceed to the results of disposition measurements built on these principles.

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Title</th>
<th>Method</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thurstone &amp; Chave</td>
<td>1929</td>
<td>Measurement of Attitude</td>
<td>The idea underlying such measurement is the equally often noticed difference, properly defined, as a unit of measurement.</td>
<td>Our defined vision of the construct is a ruler of equal amounts of disposition.</td>
</tr>
<tr>
<td>Guttman</td>
<td>1944</td>
<td>A basis for scaling qualitative data</td>
<td>Idealized instruments have conjoint probabilities evident in the scores.</td>
<td>The defined construct is independent of both items and people.</td>
</tr>
<tr>
<td>Stenner, Smith, &amp; Burdick</td>
<td>1983</td>
<td>Toward a theory of construct definition</td>
<td>Levels of thinking in construct validity.</td>
<td>Knowing why one question is harder than another is essential to knowing what your test is</td>
</tr>
</tbody>
</table>
In the DAATS model, the instrument development is not only consistent with item types that have proven useful in affective assessment, but also predicated on the Rasch model that places additional requirements on the system developers. You can see the effect the theory has on a practical choice of assessment methods in the chart below:

<table>
<thead>
<tr>
<th>Typical Assessment Method</th>
<th>Example</th>
<th>Poor Measurement Rationale</th>
<th>Better Solution: DAATS Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>A self-rating</td>
<td>Place a mark of positive to negative on attitude items towards teaching.</td>
<td>Does not have quantitative, interval level units.</td>
<td>A set of belief statements where one has to agree or disagree with INTASC principles.</td>
</tr>
<tr>
<td>A portfolio of reflections</td>
<td>The student uploads comments about helping the PTA improve the schoolyard on volunteer workday.</td>
<td>The student chooses whatever they want and may or may not correctly identify a disposition of interest or express a given level of thinking.</td>
<td>A questionnaire asking specifically what behaviors and thoughts were on the mind of the student concerning teacher-related activities.</td>
</tr>
<tr>
<td>A term paper</td>
<td>A statement of your philosophy of teaching.</td>
<td>There is multidimensional confusion.</td>
<td>A focus group with a set of guided questions for the students who have been taught by the teacher.</td>
</tr>
<tr>
<td>Background check</td>
<td>Fingerprint and police records</td>
<td>Not envisioned as a continuum of a construct.</td>
<td>A situational reflection that scores a teachers reaction to emotional scenes that they might encounter in education.</td>
</tr>
<tr>
<td>Observation of professional behavior</td>
<td>The teacher dresses appropriately.</td>
<td>This cannot be envisioned as part of a ruler of equal amounts of disposition. Everyone is almost always perfect.</td>
<td>Provide an interaction survey for students, parents, and peers of how they &quot;see&quot; the teacher through their eyes scaled on a ruler of respect for others.</td>
</tr>
</tbody>
</table>

**Method**

First, we'll provide an excerpt of typical items developed from the above discussion of solutions. Some example items are in the appendix. Next, we will provide a few examples of results and conclusions that simply could not be determined from simple raw scores or examination of counts, but are crucial information regarding the validity of the disposition of the teacher(s) measured and the consequences for student or program improvement. To start, a short explanation of how the results are reported and interpreted are necessary.

**Short Explanation**

Since most instruments do not have the same number of items, and some are dichotomous and some have a rating scale, it would be difficult to rank order the tasks in terms of difficulty based on teachers’ total scores. A Rasch ruler, however, takes care of that, if one has an advance conceptualization of what to expect in terms of difficulty. The concept mapping process provides a powerful tool to facilitate such a process. Wilson (2005) describes it well, highlighting that it provides “a coherent and substantive definition for the content” (p. 28) by creating a continuum for measuring both items and people.

In this example, we have listed items in order of expected difficulty or complexity, with the most difficult on top. Note that the items are clustered in categories. In the two example rulers that follow, the map on the right is aligned with the ordering and shows good coverage of the concept — no big gaps. It provides good evidence of validity. The map on the left shows gaps in coverage and problems with the ordering. Measurement designers need to rethink the map or look for problems causing some tasks to be easier than expected.
and others to be harder. For example, are there problems in the directions, rubrics, or judges’ ratings?

| Item 1       | difficult |
| Items 2, 10  | moderately difficult |
| Items 3, 6, 8, 9 | moderately easy |
| Items 4, 5, 7 | easy |

TABLE 12.2 Sample Test for Rasch Demonstration

<table>
<thead>
<tr>
<th>INPUT: 10 persons, 10 items MEASURED: 10 persons, 10 items, 2 CATS</th>
<th>3.57.2</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Item Logistic Ruler with a Gap in a Critical Region of Measurement</th>
<th>Item Logistic Ruler with No Gap in a Critical Region of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>persons MAP OF ITEMS</td>
<td>persons MAP OF ITEMS</td>
</tr>
<tr>
<td>&lt;more&gt;</td>
<td>&lt;rare&gt;</td>
</tr>
<tr>
<td>71   +       Item2</td>
<td>68   +T Item1</td>
</tr>
<tr>
<td>70   +</td>
<td>67   XX +</td>
</tr>
<tr>
<td>69   XX +</td>
<td>66   +</td>
</tr>
<tr>
<td>68   +</td>
<td>+</td>
</tr>
<tr>
<td>67   +</td>
<td>+</td>
</tr>
<tr>
<td>66   +</td>
<td>+</td>
</tr>
<tr>
<td>65   +</td>
<td>+</td>
</tr>
<tr>
<td>64   +</td>
<td>+</td>
</tr>
<tr>
<td>63   S+</td>
<td>+</td>
</tr>
<tr>
<td>62   X +S</td>
<td>+</td>
</tr>
<tr>
<td>61   +</td>
<td>+</td>
</tr>
<tr>
<td>60   + Item1 Item3 Item5</td>
<td>+</td>
</tr>
<tr>
<td>59   +</td>
<td>+</td>
</tr>
<tr>
<td>58   +</td>
<td>+</td>
</tr>
<tr>
<td>57   X +</td>
<td>+</td>
</tr>
<tr>
<td>56   +</td>
<td>+</td>
</tr>
<tr>
<td>55   +</td>
<td>+</td>
</tr>
<tr>
<td>54   +</td>
<td>+</td>
</tr>
<tr>
<td>53   +</td>
<td>+</td>
</tr>
<tr>
<td>52   XX M+</td>
<td>+</td>
</tr>
<tr>
<td>51   +</td>
<td>+</td>
</tr>
<tr>
<td>50   +M</td>
<td>+</td>
</tr>
<tr>
<td>49   +</td>
<td>+</td>
</tr>
<tr>
<td>48   +</td>
<td>+</td>
</tr>
<tr>
<td>47   +</td>
<td>+</td>
</tr>
<tr>
<td>46   +</td>
<td>+</td>
</tr>
<tr>
<td>45   +</td>
<td>+</td>
</tr>
<tr>
<td>44   +</td>
<td>+</td>
</tr>
<tr>
<td>43   + Item6</td>
<td>+</td>
</tr>
<tr>
<td>42   XX S+</td>
<td>+</td>
</tr>
<tr>
<td>41   +</td>
<td>+</td>
</tr>
<tr>
<td>40   +</td>
<td>+</td>
</tr>
<tr>
<td>39   + Item7 Item9</td>
<td>+</td>
</tr>
<tr>
<td>38   XX +S</td>
<td>+</td>
</tr>
<tr>
<td>37   +</td>
<td>+</td>
</tr>
<tr>
<td>36   +</td>
<td>+</td>
</tr>
<tr>
<td>35   +</td>
<td>+</td>
</tr>
<tr>
<td>34   + Item4 Item8</td>
<td>&lt;less&gt;</td>
</tr>
</tbody>
</table>

In this important center region of the ruler, this set has no items! This means that the error for scores on people in the center region will be large – a problem for both validity and reliability.

These items are too easy to be useful in terms of scaling, but they do help with certification.
Example 1: Group Patterns

<table>
<thead>
<tr>
<th>INTASC Disposition Indicators for Critical Thinking (Principle #4)</th>
<th>Thurstone Statements</th>
<th>Scale Value n=486</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 The teacher values the development of students’ critical thinking, independent problem solving, and performance capabilities.</td>
<td>Students need to learn to think, and that is a goal that I have that is built into all my lessons.</td>
<td>30</td>
</tr>
<tr>
<td>4.2 The teacher values flexibility and reciprocity in the teaching process as necessary for adapting instruction to student responses, ideas, and needs.</td>
<td>Students who can’t think are basically dumb, so I don’t think giving kids time to “brainstorm” is anything except a waste of time.</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>It’s more important that the students learn to think and be creative than it is that they know the material covered by the lessons.</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>The subject I teach doesn’t focus on creativity or thinking skills, but I believe all students should be exposed to art and music while in school.</td>
<td>73</td>
</tr>
</tbody>
</table>

Differential Item Functioning, or DIF, is a statistical process that seeks to determine if there are meaningful differences in the way sub-groups perform, particularly groups that are classified as protected – women and minorities. It is okay for the performance to be different, as long as it is not because of problems in the construction or administration of the assessment itself.

In this example we look at the results of a DIF analysis on the belief scale of 75 items taken by 801 teacher candidates from three culturally and geographically diverse universities. DIF can reveal program and institution patterns that are useful for analysis and improvement. Even though the overall average dispositions of all three schools are similar, there are strengths and weaknesses that would be useful to examine.

We present a partial table of the results (Linacre, 2003) with some comments following each excerpt to explain the results. We list the results from the computer printouts, but we are not reporting levels of significance or fancy things here.

<table>
<thead>
<tr>
<th>Positive DIF size is higher item difficulty measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>person</td>
</tr>
<tr>
<td>GROUP</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>2</td>
</tr>
</tbody>
</table>

Item: Agree or Disagree (Item Number 1):
“I usually think about children’s home life and environment so that I can tell if something isn’t right.”

Analysis of Item 1: Here, one institution (#1) has teachers showing more respect for family and home life than at the other two. Institutions #2 and #3 are similar, while #1 is a whole logit (10 points on the scale) better.
Example #3: Individual Pattern

Now we look at a focused reflection where a student is asked for a personal response to questions that are guided by INTASC dispositions. Here’s an example question and real answers that we have scored according to a rubric:

How have you kept abreast of current developments in your field? For example, did you attend any workshops, subscribe to any journals, read or buy a new book? If so, describe in one to two sentences something you learned and the source.

(INTASC Indicator: The teacher realizes that subject matter knowledge is not a fixed body of facts but is complex and ever-evolving. S/he seeks to keep abreast of new ideas and understandings in the field.)

Target:

I feel like in general I try to stay on top of current developments in education. I am constantly discussing and reviewing articles and watching CNN for the latest news on different legislations. During the 50th anniversary of Brown vs. Board of Education, there was a great special about the “resegregation” of schools. On a more practical classroom application level I regularly attend staff development meetings. This spring I finished participating in the “Framework for Understanding Poverty” seminars, throughout the year I have read professional books including Miller’s Reading with Meaning, and attended the IRA reading conference. I brought back many new ideas for integrating arts and music into the classroom which I used immediately with great success.

Acceptable:

I have had the opportunity to attend several workshops. I attended a session on phonemic awareness that I feel will be very beneficial for me next year. I also receive monthly publications through Kappa Delta Pi.

Unacceptable:

Unfortunately, I have not kept up with any of the current development in my field of education. I have been unable to attend any workshops, but I do plan eventually to subscribe to journals and read and
buy new books. I have not had much personal time. I have been given numerous magazines and books that I could use for my own good and also being into the classroom for different reasons and entertainment value for the students.

Below is a student identified by a computer index as having a very unusual pattern of response in spite of a perfectly average score (50 on a scale of 0 to 100). In this case, the student has received a Target rating on planning and personal improvement, but receive an unacceptable score on all the "human interaction" items such as collaboration. Out of over 1300 students, the computer picked out this student! This is something that likely would have gone unnoticed in an advisor's file or would never be seen in a lesson plan. Only measured results can spot such patterns.

<table>
<thead>
<tr>
<th>NUMBER - NAME ------------------</th>
<th>MEASURE - INFIT (MNSQ)</th>
<th>OUTFIT - S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1002 USF999918</td>
<td>50.00</td>
<td>3.2 A 3.2 6.2</td>
</tr>
<tr>
<td>10 20 30 40 50 60 70 80 90</td>
<td>NUM item</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>QUESTIONNAIRE7 LESSON FIX</td>
<td>NUM item</td>
</tr>
<tr>
<td>.2.</td>
<td>QUESTIONNAIRE1 IMPROVEMENT PLAN</td>
<td>NUM item</td>
</tr>
<tr>
<td>.0.</td>
<td>QUESTIONNAIRE6 ASSESSMENT DECISION</td>
<td>NUM item</td>
</tr>
<tr>
<td>.0.</td>
<td>QUESTIONNAIRE2 COLLABORATION</td>
<td>NUM item</td>
</tr>
<tr>
<td>.0.</td>
<td>QUESTIONNAIRE3 REWARDING BEHAVIOR</td>
<td>NUM item</td>
</tr>
<tr>
<td>.0.</td>
<td>QUESTIONNAIRE4 VALUE COMMUNITY</td>
<td>NUM item</td>
</tr>
<tr>
<td>.0.</td>
<td>QUESTIONNAIRE5 PLANNING</td>
<td>NUM item</td>
</tr>
<tr>
<td>.2.</td>
<td>QUESTIONNAIRE8 STUDENT FIX</td>
<td>NUM item</td>
</tr>
</tbody>
</table>

Discussion

The INTASC Principles provide a basis for construct and content validity. If we apply appropriate measurement techniques and a useful evaluation design model (DAATS), dispositions can be measured with results that are both valid and reliable.

While more work and more instruments remain needed, the results to date indicate that dispositions can, and should be, measured. The potential for providing useful data for the improvement of individual candidates and programs has been demonstrated in this field test. Without good data, we could not have hoped to know that 27% of our respondents admitted that they did NOT believe that all children could learn. Armed with high quality data, correction is possible. Without good measures, patterns of individuals are almost invisible. Without good data, strengths and weaknesses of programs are simply unknown – just like a bacteria that floats around unseen, but having great impact on our teacher education programs. It's time to build the microscopes!

The methodology, both the instrument types and the DAATS steps for developing them, is one that can be used at any institution serious about measuring dispositions. The measures themselves do not replace faculty judgment, grades, or other academic requirements, but add an important component to improving advisement and decisions.
Selected References


Thurstone, L. L. (1929). *The measurement of attitude; a psychophysical method and some experiments with a scale for measuring attitude toward the church*. The University of Chicago Press: Chicago.

### Appendix

Sample Disposition Assessments

#### D2: Teacher Beliefs Scale

*Note: These are the first 10 of 50 items of the scale in the administrative format -- with the INTASC Principles identified and the correct answers boldfaced.*

<table>
<thead>
<tr>
<th>Agree/Disagree</th>
<th>Item Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>1. I usually think about children’s home life and environment so that I can tell if something isn’t right. (10.2)</td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>2. If students complete all the lessons I teach and do all the assigned work, they will learn what they need to know. (9.2)</td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>3. I believe good teachers learn about the students’ backgrounds and community so I can understand their motivations. (3.4)</td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>4. It is most important that I know and teach my subject well, regardless of the age and grade of students in my class. (2.1)</td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>5. It’s the teacher’s job to teach the children, and the school board’s job to maintain the facilities. (10.5)</td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>6. I enjoy adapting to different learning styles and watching children achieve in a way they find easy to learn. (3.1-3.3)</td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>7. In my class, I think that a test at the end of each unit of study for the purpose of grading is the best strategy for assessment. (8.1)</td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>8. Schools today need to get back to basics and present lessons for everyone in a structured way until they all learn it. (3.1)</td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>9. In my classroom, variety is the spice of life. Everyone is encouraged to learn with the style that suits them best. (1.2)</td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>10. One of the most important tasks in my class is to make the subject meaningful to students. (1.3)</td>
</tr>
</tbody>
</table>

**Scoring Sheet**

Directions: The candidate gets one point for each “correct” answer; however, the final score is reported on a developmental scale, based on an Item Response Theory (IRT – Rasch Model) analysis.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>8</td>
</tr>
</tbody>
</table>

Total Score: ________ out of 50.

Points for Discussion with the Candidate:

#### D3: Candidate Disposition Questionnaire

*Note: These are the first two of eight question sets, showing the alignment with the INTASC indicators. The scoring rubric and selected examples for Question 1 follow. The scores on the eight items are merged with the scores on the other two instruments and reported as part of the scale score.*
1. How have you kept abreast of current developments in your field? For example, did you attend any workshops, subscribe to any journals, read or buy a new book? If so, describe in one to two sentences something you learned and the source. (1.1)

2. Do you talk about what you teach with your colleagues and friends? If so, tell us about the last conversation you had. To whom did you talk? What did you talk about? Did you discuss anything that caused you to check out something new? If so, what? (1.4, 10.3, 10.5)

**Rubric for Question #1**

<table>
<thead>
<tr>
<th>Target</th>
<th>Acceptable</th>
<th>Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>The candidate shows evidence of being engaged, disciplined, and committed to learning on his/her own about the field. S/he has identified one or more specific sources of learning beyond the campus classroom experience (required workshops, readings, etc.). The discussion of learning is specific enough to indicate that the candidate has, in fact, assimilated the information and made use of it. The candidate may indicate a future course or expectation of continued growth. The candidate expresses respect and/or responsibility for keeping abreast of new ideas and understandings in the field.</td>
<td>The candidate is probably engaged, disciplined, and committed to learning on his/her own about the field. The candidate has generally identified one or more sources of extra-curricular workshops or readings and mentions briefly something learned in very general terms, e.g., “I learned a lot about teaching or new instructional strategies or about science.” The candidate might list items purchased or provide a list of intended subscriptions, memberships, or purchases, but s/he does not explicitly state an intention to follow through and read or attend. The fact that something is listed allows the assessor to infer intent and sources to follow through unless the response concludes with something negative, e.g., “I just don’t have time to read/attend.” If the candidate does not list what was learned, more than one extra-curricular source of content knowledge needs to be identified.</td>
<td>The candidate has provided no evidence of being engaged, disciplined, and committed to learning on his/her own about the field through typical professional development activities. This may occur in one of two ways. (1) The candidate does not identify any learning opportunities beyond the program requirements. Any workshops or readings identified are part of the curriculum and, therefore, not extra-curricular. This candidate only meets requirements and is not likely to go beyond them in the K-12 classroom either. (2) The candidate states specifically they do not need to engage in continued learning and will learn when asked to or forced to by staff development or recertification.</td>
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**D4: K-12 Focus Groups Recording Form**

*Note: This is the recording form for the first of six question sets organized around classroom activities or situations. Variations for different age groups are being developed; this version is targeted at middle to high school.*

1. **Group work:**

   INTASC Principles Being Assessed: 5.2: The teacher understands how participation supports commitment, and is committed to the expression and use of democratic values in the classroom. 9.3: The teacher values the role of students in promoting each other's learning and recognizes the importance of peer relationships in establishing a climate of learning.

   1a: When you work in groups, do group members tend to work alone and compile work at the end, or do they tend to complete most/all components together? Does the teacher do anything to ensure that students work together? If so, what?
1b: If you are the best student in the group, do you find you learn during these activities by helping the others? If you are not the best person in the group, do you find you learn from the best or better students? Does the teacher like or dislike students who do well / poorly? How do you know?

D5: Situational Reflection Dispositions

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Directions to Assessor

1. Each Stimulus Card is intended to pull responses from teacher candidates that they would not normally be able or willing to reveal. Ask them to fill out the Stimulus Card form and talk while writing to explain what they are writing. Place the Stimulus Card in front of the teacher oriented normally for them. Ask them to look at the Card and imagine what is happening. Explain that there are no correct or incorrect answers.

2. Ask them to fill out the Stimulus Card form and talk while writing to explain what they are writing. Make notes of what they say or parts of the Card to which they refer. Cards are aimed at specific INTASC principles, but answers may focus on any aspect of INTASC.

3. Give the teacher three minutes per Card, but do not interrupt the teacher until he/she is finished writing.

4. You may answer questions, but do not lead and prompt; i.e., “Could you tell me more?”

5. A list of all INTASC Dispositions by Principle is attached. Using the list, put an INTASC indicator code (i.e. 2.1) beside anything the teacher wrote or recorded in your notes that indicates a focus on that disposition. Add a +, =, or – to indicate a disposition that you consider Target, Acceptable, or Unacceptable as expressed from the viewpoint of the teacher.

Note: This is the draft directions and a sample question from a high-inference apperception instrument that is being piloted now.
1. What is the teacher in the figure saying or thinking? List three to five statements:

______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

(INTASC 6)

D6: Teacher Professional Disposition Behaviors Checklist

Note: This is an early draft of items on a scale that has not yet been used or analyzed.

Please check all behaviors you have observed exhibited by this teacher candidate. If you have not observed a behavior, leave a blank space. If you have observed a behavior, then please estimate the frequency of behavior you observed. Use your best considered judgment including the situation or circumstances of your observations:
Interactions with Others:

____ Demonstrates respect in speech and action towards
____ Always ______ Usually ______ Sometimes
____ Demonstrates a lack of respect in speech and actions towards others
____ Always ______ Usually ______ Sometimes
____ Demonstrates patience, empathy or sympathy towards others
____ Always ______ Usually ______ Sometimes
____ Demonstrates a lack of patience, empathy, or sympathy towards others
____ Always ______ Usually ______ Sometimes
____ Accepts responsibility or volunteers or cooperates with others
____ Always ______ Usually ______ Sometimes
____ Does not accept responsibility or volunteer or cooperate with others
____ Always ______ Usually ______ Sometimes

Democratic Values:

____ Demonstrates values of citizenship and societal responsibility
____ Always ______ Usually ______ Sometimes
____ Does not demonstrate values of citizenship and societal responsibility
____ Always ______ Usually ______ Sometimes
____ Demonstrates appropriate adherence to democratic and republican processes
____ Always ______ Usually ______ Sometimes
____ Does not demonstrate appropriate adherence to democratic and republican processes
____ Always ______ Usually ______ Sometimes
____ Appears to value constitutional human rights (privacy, free speech, voting, religion, etc.)
____ Always ______ Usually ______ Sometimes
____ Does not appear to value constitutional human rights
____ Always ______ Usually ______ Sometimes