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ABSTRACT

A table that gives a quick scoring method for the Teaching Situation Reaction Test for Secondary School Mathematics is provided. Use of the table is explained and examples are given. (MK)

A Quick Scoring Technique
For the Teaching Situation Reaction Test
For Secondary School Mathematics (TSRT-SSM)

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The Teaching Situation Reaction Test for Teachers of Secondary School Mathematics (TSRT-SSM) (Flora, 1972) is a fifty-item paper and pencil test modeled after the Teaching Situation Reaction Test (TSRT) (Duncan, 1966). The TSRT-SSM is a test designed to "measure selected characteristics which are assumed to help determine the teaching behavior of teachers of secondary school mathematics. (It was)"designed for diagnostic use in methods course(s) for prospective teachers of secondary school mathematics" (Suydam, 1974). For each of the fifty items, the test requires the respondent to order four choices which follow a statement or question about a given teaching situation. The fifty items cover ten teacher behavior characteristics which were identified in the development of the test as being associated with highly effective teachers of secondary school mathematics. In scoring the test, for each item the four ordered choices are compared with a keyed response sheet developed along with the test. The total score for each of the ten characteristics and the total score is then compared with model profiles for "highly effective" and "minimally effective" teachers of secondary school mathematics. This comparison results in an assessment of teaching potential and a diagnosis of weaknesses of the respondent as a teacher of secondary school mathematics.

Given below is a quick scoring procedure for the TSRT-SSM. This procedure is easily used for hand scoring of the TSRT-SSM or is adaptable to computer scoring of the test. The original scoring procedure is given in (Flora, 1969).

For each item on the test, the respondent is to order each of the four choices given. In the sample response given in Figure 1, the respondent ordered alternative c first, d second, b third, and a fourth.

alternatives →	a b c d
respondents order →	4 3 1 2

Figure 1. Sample Response

For each item there is an established response given in an answer key available from the developer of the test. Figure 2 gives a sample answer key for the same item as in Figure 1.

alternatives	a b c d
Answer Key order	1 4 2 3

Figure 2. Sample Answer Key

In using the quick scoring technique for the TSRT-SSM, one can compare these two responses using Table 1. The score for a given item is the number at the intersection of the row of the keyed answer and the column with the respondent's response. The person who gave the response in Figure 1 to an item (4321) whosed keyed answer is given in Figure 2 (1423) would receive a

Table 1

Item Score for the Teaching Situation Reaction Test for Secondary School Mathematics (TSRT-SSM)

Respondents Response

Keyed Answers	4 3 2 1 4 3 1 2 4 2 3 1	4 2 1 3 4 1 3 2 4 1 2 3	3 4 2 1 3 4 1 2 3 2 4 1	3 2 1 4 3 1 4 2 3 1 2 4	2 4 3 1 2 4 1 3 2 3 4 1	2 3 1 4 2 1 4 3 2 1 3 4	1 4 3 2 1 4 2 3 1 3 4 2	1 3 2 4 1 2 4 3 1 2 3 4
1 2 3 4	0 1 1	2 2 3	1 2 2	3 3 4	2 3 3	4 4 5	3 4 4	5 5 6
1 2 4 3	1 0 2	1 3 2	2 1 3	2 4 3	3 2 4	3 5 4	4 3 5	4 6 5
1 3 2 4	1 2 0	3 1 2	2 3 1	4 2 3	3 4 2	5 3 4	4 5 3	6 4 5
1 3 4 2	2 1 3	0 2 1	3 2 4	1 3 2	4 3 5	2 4 3	5 4 6	3 5 4
1 4 2 3	2 3 1	2 0 1	3 4 2	3 1 2	4 5 3	4 2 3	5 6 4	5 3 4
1 4 3 2	3 2 2	1 1 0	4 3 3	2 2 1	5 4 4	3 3 2	6 5 5	4 4 3
2 1 3 4	1 2 2	3 3 4	0 1 3	4 4 5	1 2 3	3 5 6	2 3 3	4 4 5
2 1 4 3	2 1 3	2 4 3	1 0 4	3 5 4	2 1 3	2 6 5	3 2 4	3 5 4
2 3 1 4	2 3 1	4 2 3	3 4 0	5 1 4	2 5 1	6 2 3	3 4 2	5 3 4
2 3 4 1	3 2 4	1 3 2	4 3 5	0 4 1	5 2 6	1 3 2	4 3 5	2 4 3
2 4 1 3	3 4 2	3 1 2	4 5 1	4 0 3	3 6 2	5 1 2	4 5 3	4 2 3
2 4 3 1	4 3 3	2 2 1	5 4 4	1 3 0	6 3 5	2 2 1	5 4 4	3 3 2
3 1 2 4	2 3 3	4 4 5	1 2 2	5 3 6	0 3 1	4 4 5	1 2 2	3 3 4
3 1 4 2	3 2 4	3 5 4	2 1 5	2 6 3	3 0 4	1 5 4	2 1 3	2 4 3
3 2 1 4	3 4 2	5 3 4	2 3 1	6 2 5	1 4 0	5 3 4	2 3 1	4 2 3
3 2 4 1	4 3 5	2 4 3	3 2 6	1 5 2	4 1 5	0 4 3	3 2 4	1 3 2
3 4 1 2	4 5 3	4 2 3	5 6 2	3 1 2	4 5 3	4 0 1	3 4 2	3 1 2
3 4 2 1	5 4 4	3 3 2	6 5 3	2 2 1	5 4 4	3 1 0	4 3 3	2 2 1
4 1 2 3	3 4 4	5 5 6	2 3 3	4 4 5	1 2 2	3 3 4	0 1 1	2 2 3
4 1 3 2	4 3 5	4 6 5	3 2 4	3 5 4	2 1 3	2 4 3	1 0 2	1 3 2
4 2 1 3	4 5 3	6 4 5	3 4 2	5 3 4	2 3 1	4 2 3	1 2 0	3 1 2
4 2 3 1	5 4 6	3 5 4	4 3 5	2 4 3	3 2 4	1 3 2	2 1 3	0 2 1
4 3 1 2	5 6 4	5 3 4	4 5 3	4 2 3	3 4 2	3 1 2	2 3 1	2 0 1
4 3 2 1	6 5 5	4 4 3	5 4 4	3 3 2	4 3 3	2 2 1	3 2 2	1 1 0

score of 3 for that item. This procedure is repeated for each item on the test, then the subscores for each of the ten characteristics as well as the total score are obtained by summing the item scores associated with each characteristic and all the items, respectively.

For a second example, suppose you took the TSRT-SSM and on item 25 you gave the response:

alternative → a b c d

your response → 2 1 3 4

The keyed answer is:

alternative → a b c d

Answer Key order → 3 1 2 4

Your score from Table 1 for that item would be the number at the intersection of the column labeled 2134 and the row labeled 3124. Thus, your score for item 25 on the test would be 5.

It is hoped that this scoring procedure for the TSRT-SSM will allow greater use of a test which has interesting potential for teacher education in mathematics.

References

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