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NEPS TECHNICAL REPORT FOR  
ORTHOGRAPHY:  
SCALING RESULTS OF STARTING  
COHORT 3 IN GRADES 5 AND 7

NEPS Working Paper No. 49  
Bamberg, December 2014

**Working Papers of the German National Educational Panel Study (NEPS)**

at the Leibniz Institute for Educational Trajectories (LifBi) at the University of Bamberg

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# NEPS Technical Report for Orthography<sup>1</sup>:

## Scaling Results of Starting Cohort 3 in Grades 5 and 7

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**Bibliographic data:**

Blatt, I., Frahm, S., Jarsinski, S., & Prosch, A. (2014). *Technical Report for Orthography: Scaling results of Starting Cohort 3 in Grades 5 and 7* (NEPS Working Paper No. 49). Bamberg: Leibniz Institute for Educational Trajectories, National Educational Panel Study.

<sup>1</sup> This paper uses data from the National Educational Panel Study (NEPS): Starting Cohort 3 – 5th Grade, doi: 10.5157/NEPS:SC3:3.0.0. From 2008 to 2013, NEPS data were collected as part of the Framework Programme for the Promotion of Empirical Educational Research funded by the German Federal Ministry of Education and Research (BMBF). As of 2014, the NEPS survey is carried out by the Leibniz Institute for Educational Trajectories (LIfBi) at the University of Bamberg in cooperation with a nationwide network.

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# **NEPS Technical Report for Orthography: Scaling Results of Starting Cohort 3 in Grades 5 and 7**

## **Abstract**

In the National Educational Panel Study (NEPS), the orthography competency is measured as a stage-specific supplement in secondary school from Grades 5 to 9. In this paper, the test and its theoretical framework are introduced, followed by a description of the data, of data analysis, and its results for the Scientific Use File in Grades 5 and 7. The Scientific Use File for Grade 5 is an upgrade. In the first release missing values were not coded separately because the software did not allow for this. This has now been revised in the third release, including items that are not totally identical. The aim of this Technical Report is to provide a description that will enable the scientific community to understand as well as use the data in an appropriate way. In so doing, the paper seeks to clarify in advance any potential questions that may arise concerning the data and to motivate data users to further analyze the data of the orthography competency in Grades 5 and 7.

## **Keywords**

spelling competency, orthography

## 1. Introduction

Most competencies are measured coherently across the life span in the National Educational Panel Study (NEPS), that is, reading, mathematics, and domain-general cognitive functioning. These competencies are complemented by stage-specific measures that occur only in one specific stage. This is also true for the spelling competency, which is measured only in NEPS Stage 4—From Lower to Upper Secondary School.

The spelling test used in Stage 4 had been developed in previous works by Inge Blatt and Andreas Voss for Grades 4 and 5 (Voss et al., 2007; Blatt et al., 2007; Jarsinski, 2010; Frahm et al., 2011). In the National Educational Panel Study this test was then further developed during the course of the study with an identical framework but changed content. Like most competence tests, the scaling is also carried out by using models based on item response theory (IRT) in order to evaluate the quality of the test.

This paper presents the results of the analyses for the spelling competency in Starting Cohort 3—Grade 5 and Grade 7. First, the theoretical framework and its realization are briefly described. Thereafter, the analyses of its results are explained. The items and the results for Grade 5 differ slightly from the first release because missing data are coded separately in the third release. This is then followed by a discussion.

The present report is modeled on the technical reports by Pohl, Haberkorn, Hardt, & Wiegand (2012) and Haberkorn, Pohl, Hardt, & Wiegand (2012). We would like to thank Steffi Pohl and Kerstin Haberkorn for developing and providing standards for the technical reports and for giving feedback to previous drafts of this paper.

## 2. Testing Orthography Competence

The framework and test development for the orthography competence test have already been described in Blatt et al. (2011) and Frahm et al. (2011). Therefore, we will give only a brief outline of the framework and the tests used in the National Educational Panel Study for Grades 5 and 7.

The framework for all grades distinguishes between five subskills of orthography (phonographic syllabic subskill, morphological subskill, peripheral subskill, derivational subskill, and syntactic subskill). In order to measure these subskills, structural units of words (i.e., reality: #real #ity) are assigned to subskills, with each subskill consisting of 23 to 71 structural units in Grade 5 and 40 to 103 structural units in Grade 7. The subskills usually correlate highly, but previous works have proven a five-dimensional model to be most adequate for modeling the data. On top of this distinguished model, each word is also assessed at whole-word level, regardless of the subskills. Hence, the test offers an insight into two levels of orthography, depending on what kind of objectives are pursued for using the test data—either a differential score of spelling based on subskills or a generalized score based on the whole-word level.

Both tests consist of a cloze test and full sentences. In Grade 5 there are three full sentences and in Grade 7 there are nine full sentences. The tests include six pages and have to be mastered within 25 min. The test instructions and the test contents were played back from a CD that had been prerecorded with a professional speaker.

### **3. Data**

#### **3.1 The Design of the Study**

For the main study in Grades 5 and 7, no split design was intended. This came as a result of the testing situation via CD. The entire test group took the test simultaneously.

For Grade 5 the test included 30 words in the cloze test and 44 words in the full sentences. In Grade 7 the test included 18 words in the cloze test and 119 words in the full sentences. Words that did not provide any information on orthography competency, such as “and”, were eliminated prior to the analyses. Therefore, the data set used for the analyses consisted of 54 full words in Grade 5 and 87 full words in Grade 7. Those 54 words in Grade 5 translate into 234 structural units, whereas those 87 full words in Grade 7 translate into 364 structural units. In both tests they are distributed across all subskills.

The test data were first transcribed by the IEA Data Processing Center (IEA DPC) using transcription conventions that had been established in the context of the PIRLS Study (cf. Frahm et al., 2011). The transcribed data were then entered into Microsoft Excel by the IEA Data Processing Center (IEA DPC) and coded by a newly developed tool (SRT-Editor) in Stage 4 (cf. Frahm et al., 2011). The data analyses described in this paper were performed by Stage 4 based on the scaling standards for NEPS (Pohl & Carstensen, 2012a). Deviations from these standards are indicated in the respective paragraphs of this paper.

#### **3.2 Sample**

The test was taken by 5,208 students in Grade 5 attending several different school types in Germany. In Grade 7 the test was taken by 6,196 students who also came from several school types. Students with special educational needs were not included.

### **4. Analyses**

#### **4.1 Missing Responses**

In case of a missing item response, the item was coded as 95 = “missing gaps word”, 96 = “missing sentence word”, 97 = “cannot be read”, and 99 = “joke response”.

#### **4.2 Scaling Model**

For the data analyses, test data are first transcribed and then coded with special software developed for this test into dichotomous items (0 = wrong; 1 = right) with missings. Analyses are based on item response theory (IRT) with Rasch’s Simple Logistic Model (Rasch, 1960), and they are conducted via the program ConQuest (Wu, Adams, & Wilson, 1997). Ability estimates for spelling competency were estimated as weighted maximum likelihood estimates (WLEs, Warm, 1989). Person parameter estimation in NEPS has already been described in Pohl & Carstensen (2012a), whereas the data available in the SUF are described here in Section 7.

#### **4.3 Reviewing the Quality of the Test**

The spelling test was specifically constructed to be implemented in NEPS. In order to ensure appropriate psychometric properties, the quality of the test was reviewed. It is important to

note that, prior to the analyses, words such as “and” that were correctly solved by a huge majority of the sample and also constants were directly removed. During the estimation of student ability and item difficulty, some misfit items had to be removed, because they deviated from the PISA reference by a maximum item fit (weighted mean square (MNSQ)) of 1.2 and a discrimination of less than 0.26 (OECD, 2005). For Grade 5 these were 4 out of 54 items at whole-word level and 53 out of 234 items at structural-unit level; in Grade 7 these were 9 out of 87 items at whole-word level and 63 out of 364 items at structural-unit level.

## **5. Results**

### **5.1 Parameter Estimates**

#### **5.1.1 Item parameter and person parameters**

The estimated item parameter and person parameters are represented in the form of item fit, item difficulty, and student ability. The collection of item parameters is provided in the Appendix (see Tables 3, 4, 5, and 6).

At whole-word level and structural-unit level, item fit has removed misfit items not over 1.20. In terms of item difficulty, it can be seen that both tests still offer easy as well as difficult items. For Grade 5 they are within the range of -5 and 3 for the whole-word level (see Figure 1) and within the range of -4 and 3 for the structural-unit level (see Figure 2). For Grade 7 they are within the range of -4 and 2 for the whole-word level (see Figure 3) and within the range of -4 and 3 for the structural-unit level (see Figure 4). Compared with the whole word, the structural units are, in total, a little bit easier. Students solve more structural-unit items correctly than whole-word items. All in all, student ability is high overall.

### Map of Item Difficulty and Student Ability



Figure 1. Whole-word level in Grade 5.





Each 'X' represents 8.4 cases  
 Some parameters could not be fitted on the display

Figure 2. Structural-unit level in Grade 5.

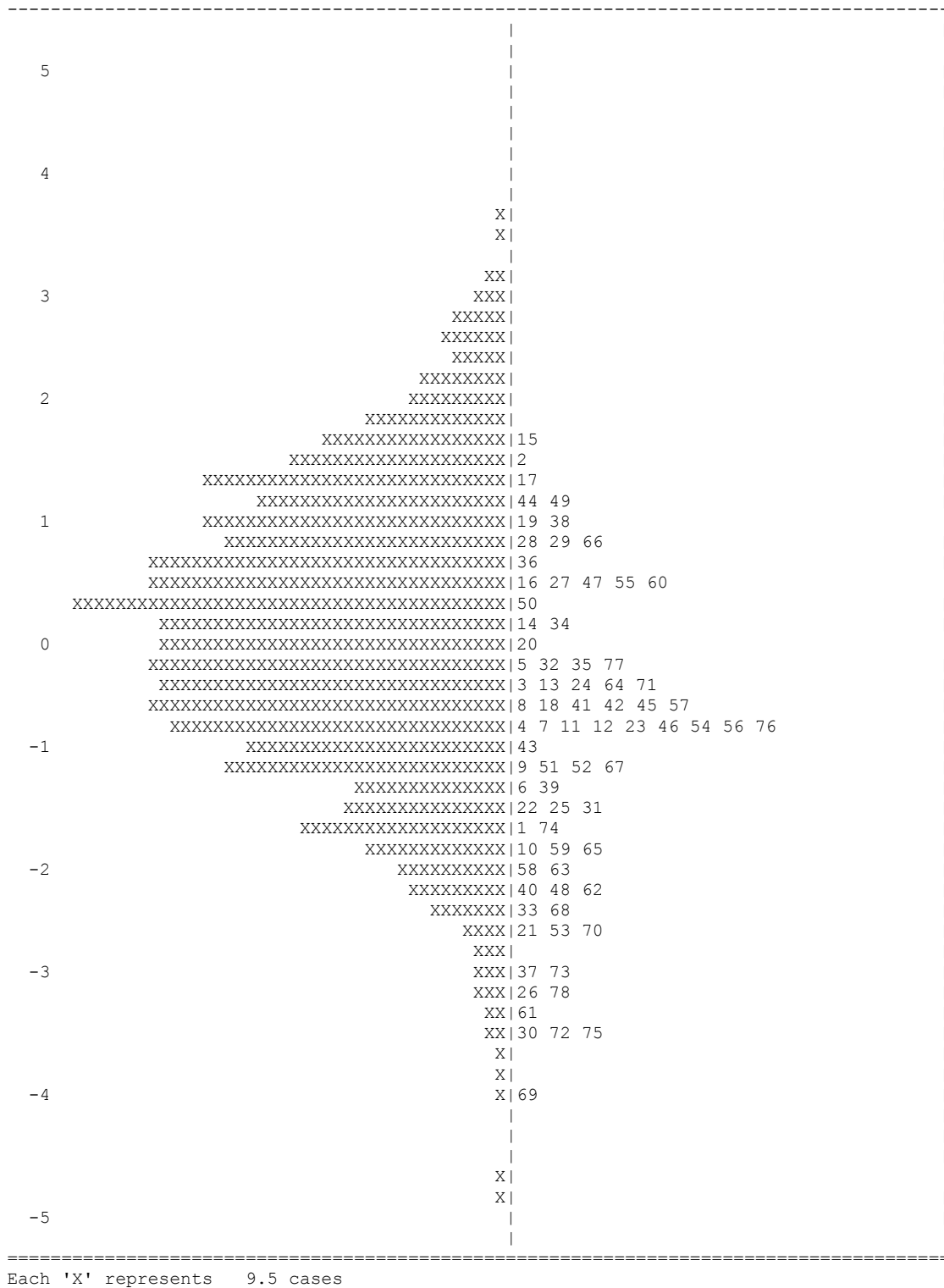


Figure 3. Whole-word level in Grade 7.



Tables 1 and 2 show the results of the descriptive statistics.

*Table 1*

*Descriptive Statistics Grade 5*

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Variance</b>
<b>org5_sc1a</b>	5208	-5.69	4.45	-0.01	1.38	1.89
<b>org5_sc2a</b>	5208	0.34	1.51	0.38	0.08	0.06
<b>org5_sc1b</b>	5208	-8.69	4.74	-0.10	1.19	1.42
<b>org5_sc2b</b>	5208	0.17	1.44	0.24	0.08	0.07

For Grade 5 the variables org5\_sc1a and org5\_sc1b are the raw (nonstandardized) estimated student ability with the standard error in terms of org5\_sc2a and org5\_sc2b at the whole-word and structural-unit level. It can be transformed according to the needs of the researcher.

*Table 2*

*Descriptive Statistics Grade 7*

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Variance</b>
<b>org7_sc1a</b>	6196	-6.90	4.90	0.01	1.37	1.89
<b>org7_sc2a</b>	6196	0.26	1.45	0.31	0.09	0.01
<b>org7_sc1b</b>	6196	-9,03	5,09	0.18	1.37	1.88
<b>org7_sc2b</b>	6196	0.14	1.47	0.26	0.12	0.01

For Grade 7 the variables org7\_sc1a and org7\_sc1b are the raw (nonstandardized) estimated student ability with the standard error in terms of org7\_sc2a and org7\_sc2b at the whole-word and structural-unit level. It can be transformed according to the needs of the researcher.

## 5.2 Reliability

For Grade 5 the reliability (EAP/PV) at the whole-word level is 0.963 and 0.928 at structural-unit level. In terms of its high value, one can assume that the test is reliable.

For Grade 7 the reliability (EAP/PV) at the whole-word level is 0.942 and 0.945 at structural-unit level. In terms of its high value, one can assume that the test is reliable.

## 6. Discussion

The test has proven to be reliable after item elimination in accordance with statistical criteria. Furthermore, the test is objective because dictation is given from a CD recording and executed by experienced test administrators. However, those statistical processes are not the only steps necessary for developing a reliable test. It must be stressed that prior theoretical work and the development of a common framework are important prerequisites for successful testing. Prior development processes include a thorough interdisciplinary research of linguistics, didactics, and empirical studies.

In order to give further insight into the meaning of the results, it is important to underline the difference of both levels, particularly in terms of item difficulty. At the whole-word level, the difficulty has proven to be statistically adequate. At the structural-unit level, however, a majority of rather easy items has become evident. This is intended as the structural units provide some important additional information on the students' strengths and weaknesses, which allows for a more differentiated insight into their spelling competency. By offering a score on both levels, that is, a general score and a differential one, we are facilitating a variety of options for using the test data according to individual research objectives.

## 7. Data in the Scientific Use File

There are 231 items in the data set of Grade five and 379 items in the data set of Grade 7 that are either scored as dichotomous variables with 0 indicating an incorrect response, 1 indicating a correct response and 95, 96, 97, and 99 indicating missing values. Manifest scale scores are provided in the form of WLE estimates (Grade 5: org5\_sc1; Grade 7: org7\_sc1) including the corresponding standard error (Grade 5: org5\_sc2; Grade 7: org7\_sc2). The ConQuest Syntax for estimating the WLE scores from the items is provided in Appendix.

Plausible values that allow for an investigation of latent relationships of competence scores with other variables will be provided in later data releases. Alternatively, users interested in investigating latent relationships may either include the measurement model in their analyses or estimate plausible values themselves. A description of these approaches can be found in Pohl and Carstensen (2012a).

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### Item Parameters and Item Fit

Tables 3 and 4 represent the estimated item parameters for each item on the whole-word level and the structural-unit level for Grade 5. Tables 5 and 6 represent the estimated item parameters for each item on the whole-word level and the structural-unit level for Grade 7. In the first two columns item numbers and item names are displayed. Columns 3 and 4 represent the item difficulty by showing the mean and the standard error. The weighted fit is represented by the weighted mean square (MNSQ) and the *t*-value. Finally, there is the discrimination of the items.

Table 3

#### Whole-Word Level Grade 5

	ITEM	ITEM DIFFICULTY		WEIGHTED FIT		DISCRIMINATION
		ESTIMATE	SE	MNSQ	T	
1	org51001_c	-1.923	0.040	1.04	1.7	0.38
2	org51002_c	0.662	0.033	1.07	5.0	0.45
3	org51003_c	0.114	0.032	0.95	-3.4	0.56
4	org51004_c	2.565	0.047	0.95	-1.6	0.40
5	org51005_c	0.472	0.032	0.94	-4.3	0.55
6	org51006_c	-0.267	0.032	0.92	-5.7	0.57
7	org51007_c	-0.554	0.033	1.05	3.3	0.48
8	org51008_c	-2.447	0.045	1.04	1.3	0.36
9	org51009_c	1.043	0.034	0.95	-3.5	0.52
10	org51010_c	0.569	0.033	0.96	-2.9	0.54
11	org51011_c	1.283	0.035	0.98	-1.0	0.48
12	org51012_c	0.214	0.032	0.98	-1.8	0.54
13	org51013_c	-0.961	0.034	0.99	-0.5	0.50
14	org51014_c	-1.005	0.034	1.09	5.3	0.43
15	org51015_c	0.803	0.033	0.87	-9.0	0.59
16	org51016_c	-0.934	0.034	0.87	-8.2	0.58
17	org51017_c	0.212	0.032	1.06	4.1	0.48
18	org51018_c	0.654	0.033	0.94	-4.1	0.55
19	org51019_c	2.634	0.048	1.03	0.9	0.33
20	org51020_c	-0.106	0.032	0.93	-5.1	0.57
21	org51021_c	-1.076	0.035	1.14	7.7	0.38
22	org51022_c	1.193	0.035	1.18	10.3	0.34
23	org51023_c	1.605	0.037	0.96	-1.8	0.48
24	org51024_c	0.431	0.032	0.93	-5.5	0.57
25	org51025_c	1.584	0.037	0.92	-4.3	0.51
26	org51026_c	-1.469	0.037	0.91	-4.7	0.52
27	org51027_c	1.727	0.038	0.98	-0.9	0.45
28	org51028_c	-1.304	0.036	0.96	-2.4	0.51
29	org51029_c	-2.562	0.047	1.10	3.2	0.31
30	org51030_c	0.878	0.033	1.04	2.5	0.47
31	org51031_c	2.242	0.043	0.92	-3.2	0.44
32	org51032_c	1.371	0.036	0.96	-2.1	0.48
33	org51033_c	-0.995	0.034	0.94	-3.9	0.54
34	org51034_c	0.612	0.033	1.03	2.4	0.49
35	org51035_c	-0.062	0.032	1.09	6.3	0.45
36	org51036_c	-0.952	0.034	1.18	10.6	0.38

<b>37</b>	org51037_c	0.564	0.033	1.07	4.6	0.45
<b>38</b>	org51038_c	1.098	0.034	1.16	9.7	0.36
<b>39</b>	org51039_c	-0.017	0.032	1.01	0.8	0.52
<b>40</b>	org51040_c	-2.037	0.041	0.93	-3.0	0.47
<b>41</b>	org51041_c	2.583	0.047	0.96	-1.4	0.38
<b>42</b>	org51042_c	2.095	0.041	0.93	-2.8	0.47
<b>43</b>	org51043_c	0.010	0.032	1.01	0.8	0.51
<b>44</b>	org51044_c	2.362	0.044	1.02	0.6	0.36
<b>45</b>	org51045_c	-3.512	0.063	1.01	0.2	0.27
<b>46</b>	org51046_c	-1.800	0.039	0.95	-2.3	0.47
<b>47</b>	org51047_c	0.401	0.032	0.98	-1.4	0.52
<b>48</b>	org51048_c	-1.459	0.037	1.19	9.1	0.34
<b>49</b>	org51049_c	-0.186	0.032	0.98	-1.7	0.53
<b>50</b>	org51050_c	-2.772	0.050	0.99	-0.3	0.36

Table 4

## Structural-Unit Level Grade 5

	ITEM	ITEM DIFFICULTY		WEIGHTED FIT		DISCRIMINATION
		ESTIMATE	SE	MNSQ	T	ESTIMATE
1	org52001_c	-2.486	0.046	1.07	2.3	0.31
2	org52002_c	0.548	0.032	1.01	0.8	0.40
3	org52003_c	-4.288	0.088	1.01	0.1	0.27
4	org52004_c	-2.796	0.050	0.92	-2.4	0.46
5	org52005_c	-3.027	0.054	1.04	1.1	0.31
6	org52006_c	-2.708	0.049	1.05	1.5	0.31
7	org52007_c	-3.370	0.061	0.99	-0.1	0.33
8	org52008_c	-2.192	0.042	0.90	-4.1	0.51
9	org52009_c	-2.652	0.048	0.97	-0.9	0.40
10	org52010_c	-2.204	0.042	0.95	-1.8	0.45
11	org52011_c	0.684	0.032	1.05	3.7	0.35
12	org52012_c	-3.305	0.060	1.06	1.2	0.27
13	org52013_c	-2.134	0.041	1.01	0.5	0.39
14	org52014_c	-0.469	0.032	1.01	0.5	0.44
15	org52015_c	-3.512	0.064	1.02	0.3	0.30
16	org52016_c	-2.975	0.053	0.99	-0.3	0.36
17	org52017_c	-3.700	0.069	1.00	-0.1	0.31
18	org52018_c	-1.526	0.036	1.00	-0.2	0.44
19	org52019_c	-3.836	0.073	0.98	-0.3	0.32
20	org52020_c	-3.695	0.069	0.98	-0.3	0.33
21	org52021_c	-0.961	0.033	1.10	6.5	0.36
22	org52022_c	-2.463	0.045	1.05	1.6	0.34
23	org52023_c	-3.820	0.073	0.98	-0.3	0.34
24	org52024_c	-3.084	0.055	1.03	0.7	0.31
25	org52025_c	-1.827	0.038	0.95	-2.1	0.46
26	org52026_c	-2.092	0.041	0.96	-1.6	0.45
27	org52027_c	-1.327	0.035	1.11	6.0	0.35
28	org52028_c	-3.192	0.057	0.94	-1.5	0.41
29	org52029_c	-2.044	0.040	0.95	-2.2	0.46
30	org52030_c	-3.412	0.062	0.91	-1.8	0.42
31	org52031_c	-2.325	0.044	1.08	2.9	0.30
32	org52032_c	-3.858	0.074	0.95	-0.9	0.37
33	org52033_c	-2.650	0.048	0.94	-1.7	0.44
34	org52034_c	-0.948	0.033	1.06	4.0	0.41
35	org52035_c	-3.759	0.071	0.93	-1.3	0.39
36	org52036_c	-3.525	0.065	0.96	-0.8	0.37
37	org52037_c	-3.612	0.067	0.92	-1.5	0.40
38	org52038_c	-1.978	0.040	0.89	-4.7	0.52
39	org52039_c	-3.779	0.071	0.93	-1.2	0.40
40	org52040_c	-3.042	0.054	0.92	-2.0	0.45
41	org52041_c	-2.627	0.048	0.92	-2.4	0.47
42	org52042_c	-2.895	0.052	1.04	1.1	0.32
43	org52043_c	-0.847	0.033	1.13	8.6	0.33
44	org52044_c	-0.045	0.031	0.99	-1.2	0.44
45	org52045_c	-1.088	0.034	0.88	-7.9	0.55
46	org52046_c	-1.832	0.038	1.12	5.5	0.31
47	org52047_c	-2.749	0.049	1.03	0.9	0.34
48	org52048_c	-0.794	0.032	1.13	9.2	0.33
49	org52049_c	-0.376	0.031	1.02	2.0	0.42

50	org52050_c	-1.595	0.037	0.99	-0.7	0.44
51	org52051_c	-2.580	0.047	1.09	2.6	0.28
52	org52052_c	-2.080	0.041	0.92	-3.2	0.49
53	org52053_c	-1.842	0.039	1.15	6.7	0.28
54	org52054_c	-0.915	0.033	1.18	12.0	0.28
55	org52055_c	-0.658	0.032	0.87	-10.0	0.55
56	org52056_c	-1.050	0.033	0.94	-3.7	0.49
57	org52057_c	-4.721	0.106	1.01	0.1	0.27
58	org52058_c	-3.913	0.075	1.01	0.3	0.27
59	org52059_c	-2.835	0.051	1.01	0.3	0.37
60	org52060_c	0.271	0.031	0.99	-0.6	0.42
61	org52061_c	-1.408	0.035	0.96	-2.4	0.48
62	org52062_c	-0.934	0.033	0.91	-6.3	0.53
63	org52063_c	-1.972	0.040	1.05	2.1	0.37
64	org52064_c	-1.672	0.037	1.10	4.6	0.34
65	org52065_c	-2.706	0.049	0.99	-0.3	0.38
66	org52066_c	-2.251	0.043	0.90	-4.0	0.51
67	org52067_c	0.140	0.031	1.05	3.8	0.40
68	org52068_c	-1.122	0.034	0.96	-2.6	0.48
69	org52069_c	-2.488	0.046	1.01	0.2	0.38
70	org52070_c	-2.128	0.041	0.99	-0.4	0.42
71	org52071_c	0.262	0.031	1.04	3.0	0.39
72	org52072_c	-3.188	0.057	0.99	-0.3	0.34
73	org52073_c	-2.429	0.045	0.90	-3.6	0.49
74	org52074_c	-3.896	0.075	0.94	-0.9	0.36
75	org52075_c	-1.936	0.039	1.00	0.2	0.41
76	org52076_c	-3.249	0.059	0.96	-0.9	0.37
77	org52077_c	-1.448	0.036	1.06	3.0	0.39
78	org52078_c	-2.791	0.050	1.00	-0.1	0.37
79	org52079_c	-1.922	0.039	1.00	-0.2	0.42
80	org52080_c	-1.472	0.036	1.08	4.1	0.37
81	org52081_c	0.097	0.031	1.06	4.6	0.38
82	org52082_c	-1.102	0.034	0.89	-7.1	0.54
83	org52083_c	0.649	0.032	0.92	-6.1	0.45
84	org52084_c	-0.313	0.031	0.94	-5.3	0.49
85	org52085_c	-3.393	0.062	1.05	1.1	0.26
86	org52086_c	-0.327	0.031	0.91	-7.8	0.52
87	org52087_c	-2.153	0.042	0.93	-2.8	0.48
88	org52088_c	-0.362	0.031	0.90	-8.3	0.52
89	org52089_c	-0.765	0.032	0.96	-2.7	0.48
90	org52090_c	-2.786	0.050	0.95	-1.5	0.42
91	org52091_c	-2.007	0.040	1.00	0.1	0.42
92	org52092_c	0.697	0.032	0.87	-9.7	0.49
93	org52093_c	-1.489	0.036	0.87	-7.1	0.55
94	org52094_c	-0.197	0.031	0.87	-11.1	0.54
95	org52095_c	-1.098	0.034	1.12	7.4	0.34
96	org52096_c	-2.682	0.048	0.92	-2.4	0.45
97	org52097_c	-1.152	0.034	1.02	1.5	0.42
98	org52098_c	-0.028	0.031	0.91	-7.8	0.51
99	org52099_c	-3.330	0.060	0.92	-1.6	0.41
100	org52100_c	1.783	0.039	1.03	1.4	0.29
101	org52101_c	-3.480	0.064	0.89	-2.2	0.44
102	org52102_c	-1.842	0.039	0.91	-4.3	0.51
103	org52103_c	-1.162	0.034	1.06	3.9	0.39
104	org52104_c	-2.244	0.043	1.09	3.1	0.33
105	org52105_c	-3.131	0.056	1.07	1.7	0.26
106	org52106_c	-3.603	0.067	1.04	0.8	0.27

107	org52107_c	-2.840	0.051	1.07	1.9	0.28
108	org52108_c	-2.827	0.051	1.05	1.4	0.30
109	org52109_c	-4.802	0.109	1.00	0.1	0.29
110	org52110_c	-1.981	0.040	0.94	-2.8	0.48
111	org52111_c	-1.621	0.037	0.99	-0.3	0.44
112	org52112_c	-0.966	0.033	1.00	-0.0	0.44
113	org52113_c	-1.643	0.037	0.93	-3.8	0.50
114	org52114_c	-3.784	0.072	0.95	-0.8	0.37
115	org52115_c	-2.057	0.041	0.93	-3.0	0.49
116	org52116_c	-1.636	0.037	1.10	5.1	0.34
117	org52117_c	-3.030	0.054	1.04	1.1	0.30
118	org52118_c	-3.616	0.067	1.04	0.7	0.26
119	org52119_c	-2.266	0.043	1.08	2.8	0.32
120	org52120_c	0.207	0.031	1.15	11.4	0.31
121	org52121_c	-1.408	0.035	1.05	2.5	0.39
122	org52122_c	-2.342	0.044	1.03	1.2	0.36
123	org52123_c	-2.421	0.045	1.02	0.8	0.37
124	org52124_c	-1.453	0.036	1.17	8.8	0.28
125	org52125_c	-0.578	0.032	1.05	3.5	0.40
126	org52126_c	-0.373	0.031	1.08	6.1	0.38
127	org52127_c	-1.593	0.037	1.10	5.0	0.34
128	org52128_c	-0.749	0.032	0.93	-5.3	0.50
129	org52129_c	-0.735	0.032	0.95	-3.7	0.48
130	org52130_c	-0.516	0.032	1.08	6.2	0.37
131	org52131_c	-2.176	0.042	1.05	1.8	0.37
132	org52132_c	-2.638	0.048	0.98	-0.5	0.39
133	org52133_c	-1.924	0.039	1.10	4.1	0.32
134	org52134_c	-4.508	0.096	0.99	-0.1	0.29
135	org52135_c	-0.808	0.032	1.04	2.3	0.41
136	org52136_c	-2.636	0.048	0.99	-0.4	0.39
137	org52137_c	-2.023	0.040	1.07	3.0	0.34
138	org52138_c	0.080	0.031	1.11	8.5	0.36
139	org52139_c	-4.236	0.086	0.99	-0.1	0.29
140	org52140_c	-0.408	0.031	1.01	0.7	0.43
141	org52141_c	-2.187	0.042	0.91	-3.5	0.49
142	org52142_c	-1.647	0.037	0.95	-2.8	0.49
143	org52143_c	-3.455	0.063	0.92	-1.6	0.40
144	org52144_c	-1.257	0.034	1.12	7.1	0.34
145	org52145_c	-1.267	0.034	1.06	3.8	0.38
146	org52146_c	-2.425	0.045	0.93	-2.4	0.46
147	org52147_c	-1.988	0.040	0.99	-0.3	0.42
148	org52148_c	-0.604	0.032	1.07	5.5	0.40
149	org52149_c	-1.581	0.036	1.11	5.6	0.33
150	org52150_c	-3.455	0.063	0.92	-1.7	0.41
151	org52151_c	-2.830	0.051	0.97	-0.8	0.39
152	org52152_c	-2.249	0.043	1.02	0.8	0.38
153	org52153_c	-3.594	0.066	0.99	-0.2	0.34
154	org52154_c	-4.312	0.089	0.98	-0.2	0.31
155	org52155_c	-2.618	0.047	1.07	2.1	0.31
156	org52156_c	-3.607	0.067	1.00	0.1	0.30
157	org52157_c	-2.671	0.048	1.06	1.9	0.31
158	org52158_c	-2.757	0.050	1.01	0.4	0.36
159	org52159_c	-2.492	0.046	0.97	-1.0	0.43
160	org52160_c	-3.239	0.058	1.04	0.9	0.29
161	org52161_c	-0.846	0.033	1.10	6.6	0.36
162	org52162_c	-4.250	0.086	0.98	-0.3	0.33
163	org52163_c	-1.908	0.039	0.98	-1.0	0.45

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<b>164</b>	org52164_c	-2.096	0.041	1.02	0.8	0.39
<b>165</b>	org52165_c	-0.370	0.031	1.17	13.0	0.30
<b>166</b>	org52166_c	-3.744	0.070	0.94	-1.0	0.39
<b>167</b>	org52167_c	-2.936	0.053	0.95	-1.2	0.41
<b>168</b>	org52168_c	-4.199	0.085	0.98	-0.3	0.33
<b>169</b>	org52169_c	-3.484	0.064	0.93	-1.4	0.40
<b>170</b>	org52170_c	0.802	0.033	1.06	4.2	0.32
<b>171</b>	org52171_c	0.910	0.033	0.99	-0.8	0.37
<b>172</b>	org52172_c	-1.956	0.040	1.13	5.2	0.27
<b>173</b>	org52173_c	-1.375	0.035	1.03	1.9	0.41
<b>174</b>	org52174_c	-3.287	0.059	0.95	-1.2	0.39
<b>175</b>	org52175_c	-4.192	0.084	0.96	-0.6	0.35
<b>176</b>	org52176_c	-3.106	0.056	0.94	-1.5	0.41
<b>177</b>	org52177_c	-1.225	0.034	0.95	-2.9	0.49
<b>178</b>	org52178_c	-0.635	0.032	0.99	-0.6	0.44
<b>179</b>	org52179_c	-3.662	0.068	0.93	-1.2	0.39
<b>180</b>	org52180_c	-1.715	0.037	1.04	1.8	0.40
<b>181</b>	org52181_c	-2.333	0.044	0.87	-4.7	0.53

Table 5

## Whole-Word Level Grade 7

	ITEM	ITEM DIFFICULTY		WEIGHTED FIT		DISCRIMINATION
		ESTIMATE	SE	MNSQ	T	
1	org71001_c	-1.711	0.035	0.92	-4.0	0.52
2	org71002_c	1.477	0.033	1.00	-0.2	0.43
3	org71003_c	-0.397	0.030	0.97	-2.3	0.54
4	org71004_c	-0.861	0.031	1.05	3.4	0.47
5	org71005_c	-0.210	0.030	1.03	2.0	0.50
6	org71006_c	-1.244	0.033	0.92	-5.3	0.55
7	org71007_c	-0.796	0.031	0.99	-0.5	0.51
8	org71008_c	-0.549	0.030	0.88	-9.2	0.60
9	org71009_c	-1.148	0.032	0.91	-5.7	0.57
10	org71010_c	-1.919	0.037	0.96	-2.0	0.48
11	org71011_c	-0.749	0.031	0.99	-1.0	0.52
12	org71012_c	-0.801	0.031	0.91	-6.2	0.57
13	org71013_c	-0.422	0.030	0.95	-4.3	0.55
14	org71014_c	0.075	0.029	1.11	8.2	0.42
15	org71015_c	1.789	0.035	1.10	5.2	0.33
16	org71016_c	0.524	0.030	1.00	-0.0	0.49
17	org71017_c	1.312	0.032	0.96	-2.9	0.46
18	org71018_c	-0.612	0.030	0.99	-1.0	0.52
19	org71019_c	0.913	0.031	0.91	-6.6	0.53
20	org71020_c	-0.012	0.029	0.88	-10.5	0.59
21	org71021_c	-2.538	0.043	0.96	-1.4	0.42
22	org71022_c	-1.567	0.034	1.05	2.5	0.44
23	org71023_c	-0.780	0.031	1.04	2.5	0.48
24	org71024_c	-0.368	0.030	1.07	5.2	0.46
25	org71025_c	-1.424	0.033	1.17	9.5	0.35
26	org71026_c	-3.033	0.050	0.92	-2.3	0.41
27	org71027_c	0.547	0.030	0.82	-14.8	0.60
28	org71028_c	0.889	0.031	1.06	4.4	0.44
29	org71029_c	0.847	0.031	1.10	7.4	0.35
30	org71030_c	-3.540	0.059	0.97	-0.7	0.33
31	org71031_c	-1.524	0.034	1.08	4.3	0.42
32	org71032_c	-0.238	0.030	1.16	11.8	0.40
33	org71033_c	-2.370	0.041	0.98	-0.7	0.43
34	org71034_c	0.074	0.029	1.11	8.2	0.41
35	org71035_c	-0.203	0.030	1.04	3.0	0.49
36	org71036_c	0.580	0.030	0.98	-1.5	0.51
37	org71037_c	-2.948	0.048	1.00	0.0	0.35
38	org71038_c	1.076	0.031	0.97	-2.4	0.46
39	org71039_c	-1.325	0.033	0.92	-5.0	0.55
40	org71040_c	-2.196	0.039	1.00	0.0	0.43
41	org71041_c	-0.645	0.030	1.05	3.6	0.47
42	org71042_c	-0.578	0.030	0.82	-14.1	0.64
43	org71043_c	-1.002	0.031	0.88	-8.0	0.59

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44	org71044_c	1.221	0.032	0.93	-5.0	0.50
45	org71045_c	-0.674	0.030	1.07	5.3	0.46
46	org71046_c	-0.776	0.031	0.87	-9.8	0.61
47	org71047_c	0.398	0.030	0.97	-2.8	0.52
48	org71048_c	-2.299	0.040	0.86	-5.9	0.53
49	org71049_c	1.184	0.032	0.95	-3.4	0.45
50	org71050_c	0.242	0.029	0.89	-8.9	0.56
51	org71051_c	-1.162	0.032	0.93	-4.7	0.56
52	org71052_c	-1.102	0.032	1.20	12.2	0.35
53	org71053_c	-2.564	0.043	1.02	0.9	0.37
54	org71054_c	-0.844	0.031	1.01	0.8	0.50
55	org71055_c	0.413	0.030	0.91	-7.2	0.56
56	org71056_c	-0.812	0.031	0.99	-0.6	0.51
57	org71057_c	-0.561	0.030	1.16	11.1	0.40
58	org71058_c	-2.007	0.038	0.96	-1.9	0.47
59	org71059_c	-1.887	0.037	0.93	-3.2	0.50
60	org71060_c	0.454	0.030	1.01	1.0	0.48
61	org71061_c	-3.256	0.054	1.01	0.4	0.33
62	org71062_c	-2.227	0.040	1.04	1.6	0.40
63	org71063_c	-2.107	0.038	0.95	-2.1	0.47
64	org71064_c	-0.471	0.030	1.09	6.4	0.45
65	org71065_c	-1.893	0.037	0.89	-5.6	0.53
66	org71066_c	0.813	0.030	1.18	12.4	0.36
67	org71067_c	-1.126	0.032	0.88	-7.9	0.59
68	org71068_c	-2.354	0.041	0.93	-2.7	0.47
69	org71069_c	-4.015	0.070	0.98	-0.4	0.29
70	org71070_c	-2.596	0.044	1.09	3.0	0.32
71	org71071_c	-0.357	0.030	1.12	8.8	0.43
72	org71072_c	-3.465	0.058	0.98	-0.3	0.32
73	org71073_c	-2.965	0.049	1.03	1.0	0.32
74	org71074_c	-1.610	0.035	0.94	-3.3	0.51
75	org71075_c	-3.492	0.058	0.94	-1.5	0.36
76	org71076_c	-0.870	0.031	1.03	2.2	0.48
77	org71077_c	-0.175	0.030	1.18	13.6	0.38
78	org71078_c	-3.117	0.051	1.05	1.5	0.29



Table 6

## Structural-Unit Level Grade 7

	ITEM	ITEM DIFFICULTY		WEIGHTED FIT		DISCRIMINATION
		ESTIMATE	SE	MNSQ	T	ESTIMATE
1	org72001_c	0.325	0.029	1.11	8.4	0.36
2	org72002_c	-3.278	0.058	1.09	2.1	0.26
3	org72003_c	-4.208	0.082	1.05	0.7	0.27
4	org72004_c	-4.620	0.097	1.05	0.6	0.27
5	org72005_c	-4.020	0.076	1.06	0.9	0.26
6	org72006_c	-3.160	0.055	1.01	0.3	0.36
7	org72007_c	-3.586	0.065	1.08	1.6	0.26
8	org72008_c	-4.174	0.081	1.02	0.3	0.31
9	org72009_c	-4.129	0.080	1.05	0.7	0.27
10	org72010_c	-2.682	0.047	1.01	0.3	0.40
11	org72011_c	-4.038	0.077	1.00	-0.0	0.35
12	org72012_c	-2.946	0.052	1.11	2.9	0.27
13	org72013_c	-5.087	0.118	1.04	0.4	0.33
14	org72014_c	-3.235	0.057	1.01	0.3	0.36
15	org72015_c	-4.688	0.100	1.01	0.1	0.34
16	org72016_c	-4.032	0.077	0.99	-0.1	0.35
17	org72017_c	-4.092	0.078	1.02	0.4	0.31
18	org72018_c	-5.160	0.122	1.05	0.4	0.29
19	org72019_c	-2.322	0.043	0.99	-0.4	0.44
20	org72020_c	-1.752	0.037	1.14	6.3	0.34
21	org72021_c	-2.187	0.041	1.01	0.3	0.43
22	org72022_c	-4.188	0.081	0.99	-0.1	0.35
23	org72023_c	-2.826	0.050	0.93	-2.1	0.47
24	org72024_c	-0.929	0.032	0.90	-6.7	0.53
25	org72025_c	-0.947	0.032	1.07	4.2	0.41
26	org72026_c	-1.711	0.037	0.91	-4.3	0.53
27	org72027_c	-3.582	0.064	0.94	-1.2	0.42
28	org72028_c	-1.569	0.036	1.07	3.7	0.40
29	org72029_c	-4.062	0.077	0.97	-0.4	0.37
30	org72030_c	0.011	0.029	0.90	-8.0	0.50
31	org72031_c	-3.654	0.066	0.94	-1.2	0.42
32	org72032_c	-2.279	0.042	1.08	3.1	0.36
33	org72033_c	-2.165	0.041	1.00	0.0	0.44
34	org72034_c	-3.986	0.075	0.94	-0.9	0.41
35	org72035_c	-2.608	0.046	1.02	0.6	0.39
36	org72036_c	-4.739	0.102	0.99	-0.1	0.37
37	org72037_c	-4.781	0.104	0.96	-0.4	0.41
38	org72038_c	-0.139	0.030	1.12	9.1	0.37
39	org72039_c	-3.364	0.059	0.92	-1.8	0.46
40	org72040_c	-4.610	0.097	0.94	-0.7	0.43
41	org72041_c	-4.068	0.078	0.94	-0.9	0.41
42	org72042_c	-4.142	0.080	0.91	-1.4	0.46
43	org72043_c	-3.964	0.074	0.92	-1.3	0.43
44	org72044_c	-4.168	0.081	0.98	-0.2	0.36
45	org72045_c	-2.935	0.051	1.02	0.5	0.37
46	org72046_c	-4.092	0.078	0.97	-0.4	0.37
47	org72047_c	-4.092	0.078	0.96	-0.7	0.39
48	org72048_c	-4.194	0.082	1.01	0.1	0.32
49	org72049_c	-5.074	0.118	1.04	0.4	0.30

50	org72050_c	-5.427	0.137	1.06	0.5	0.32
51	org72051_c	-4.313	0.086	1.03	0.5	0.29
52	org72052_c	-3.216	0.056	1.03	0.7	0.34
53	org72053_c	-1.363	0.034	1.14	7.3	0.34
54	org72054_c	-1.974	0.039	1.12	4.9	0.34
55	org72055_c	-1.067	0.032	0.94	-3.6	0.50
56	org72056_c	-2.721	0.048	0.94	-2.0	0.47
57	org72057_c	-2.318	0.043	1.09	3.1	0.34
58	org72058_c	-2.496	0.045	0.98	-0.7	0.43
59	org72059_c	-2.442	0.044	0.96	-1.3	0.45
60	org72060_c	-4.104	0.079	1.04	0.6	0.29
61	org72061_c	-3.899	0.073	1.04	0.6	0.30
62	org72062_c	-1.513	0.035	1.01	0.6	0.44
63	org72063_c	-2.714	0.048	1.09	2.8	0.31
64	org72064_c	-4.350	0.087	1.01	0.2	0.32
65	org72065_c	-5.145	0.121	1.07	0.6	0.27
66	org72066_c	-2.259	0.042	0.95	-1.8	0.47
67	org72067_c	-4.068	0.078	1.01	0.1	0.33
68	org72068_c	-3.175	0.056	1.06	1.5	0.31
69	org72069_c	-0.814	0.031	1.06	3.8	0.42
70	org72070_c	-4.298	0.085	1.04	0.5	0.28
71	org72071_c	-3.222	0.057	0.94	-1.3	0.43
72	org72072_c	-3.969	0.075	0.99	-0.1	0.35
73	org72073_c	-3.565	0.064	1.02	0.5	0.32
74	org72074_c	-3.731	0.068	1.03	0.7	0.31
75	org72075_c	-4.111	0.079	1.02	0.3	0.31
76	org72076_c	-4.871	0.108	1.05	0.5	0.27
77	org72077_c	-2.954	0.052	1.02	0.6	0.36
78	org72078_c	-3.569	0.064	0.98	-0.3	0.37
79	org72079_c	-4.436	0.090	0.99	-0.1	0.35
80	org72080_c	-3.986	0.075	1.00	0.0	0.34
81	org72081_c	-4.214	0.082	0.98	-0.3	0.36
82	org72082_c	-1.733	0.037	0.87	-6.4	0.56
83	org72083_c	-3.878	0.072	1.00	-0.1	0.34
84	org72084_c	-2.409	0.044	0.99	-0.5	0.44
85	org72085_c	-3.311	0.058	1.04	0.8	0.33
86	org72086_c	-3.513	0.063	0.95	-1.1	0.41
87	org72087_c	-3.857	0.071	0.95	-0.8	0.39
88	org72088_c	-2.818	0.049	1.01	0.4	0.38
89	org72089_c	-1.238	0.033	1.05	2.9	0.43
90	org72090_c	-3.607	0.065	0.96	-0.8	0.40
91	org72091_c	-3.497	0.062	0.94	-1.2	0.42
92	org72092_c	-4.428	0.090	0.97	-0.3	0.37
93	org72093_c	-3.703	0.067	0.97	-0.6	0.38
94	org72094_c	-2.682	0.047	0.96	-1.3	0.44
95	org72095_c	-4.277	0.084	0.94	-0.8	0.42
96	org72096_c	-4.668	0.099	0.96	-0.4	0.40
97	org72097_c	-3.573	0.064	0.95	-1.0	0.41
98	org72098_c	-3.975	0.075	0.92	-1.3	0.43
99	org72099_c	-3.447	0.061	0.91	-1.9	0.46
100	org72100_c	-3.374	0.060	0.95	-1.2	0.42
101	org72101_c	-2.438	0.044	0.90	-3.7	0.52
102	org72102_c	-2.828	0.050	0.94	-1.7	0.46
103	org72103_c	-4.708	0.101	0.96	-0.5	0.42
104	org72104_c	-2.413	0.044	1.08	2.9	0.35
105	org72105_c	-3.399	0.060	0.98	-0.3	0.39
106	org72106_c	-3.163	0.055	0.99	-0.1	0.38

107	org72107_c	-3.615	0.065	0.92	-1.6	0.45
108	org72108_c	-5.205	0.125	1.03	0.3	0.35
109	org72109_c	-4.739	0.102	1.03	0.3	0.31
110	org72110_c	-3.225	0.057	0.97	-0.7	0.40
111	org72111_c	-4.511	0.093	1.01	0.2	0.32
112	org72112_c	-4.020	0.076	1.04	0.7	0.27
113	org72113_c	-4.086	0.078	0.96	-0.6	0.39
114	org72114_c	-4.313	0.086	1.01	0.1	0.32
115	org72115_c	-4.520	0.093	1.00	0.0	0.34
116	org72116_c	-4.453	0.091	1.00	0.0	0.34
117	org72117_c	-2.591	0.046	0.94	-2.1	0.47
118	org72118_c	-0.501	0.030	0.97	-2.2	0.47
119	org72119_c	-1.688	0.036	1.03	1.2	0.43
120	org72120_c	-2.446	0.044	0.99	-0.5	0.43
121	org72121_c	-1.228	0.033	1.09	5.3	0.39
122	org72122_c	-2.983	0.052	1.06	1.7	0.33
123	org72123_c	-0.031	0.029	1.17	13.2	0.31
124	org72124_c	-1.796	0.037	0.99	-0.6	0.45
125	org72125_c	0.438	0.029	1.08	6.4	0.35
126	org72126_c	1.053	0.031	1.06	4.0	0.34
127	org72127_c	-0.534	0.030	1.05	3.6	0.43
128	org72128_c	-3.099	0.054	0.92	-2.1	0.47
129	org72129_c	-2.282	0.042	0.94	-2.2	0.48
130	org72130_c	-3.343	0.059	0.94	-1.3	0.42
131	org72131_c	-2.008	0.039	1.13	5.1	0.33
132	org72132_c	-1.742	0.037	0.98	-1.1	0.47
133	org72133_c	-4.412	0.089	1.03	0.4	0.30
134	org72134_c	-3.339	0.059	1.05	1.0	0.32
135	org72135_c	-2.256	0.042	1.04	1.4	0.40
136	org72136_c	-2.240	0.042	1.02	0.6	0.42
137	org72137_c	-0.963	0.032	1.19	11.7	0.33
138	org72138_c	-1.468	0.035	0.98	-1.0	0.47
139	org72139_c	-2.291	0.042	1.02	0.9	0.41
140	org72140_c	1.158	0.031	0.98	-1.7	0.39
141	org72141_c	-1.271	0.034	1.18	9.7	0.33
142	org72142_c	-4.486	0.092	1.00	0.0	0.34
143	org72143_c	-4.174	0.081	0.97	-0.4	0.37
144	org72144_c	-2.582	0.046	1.04	1.1	0.38
145	org72145_c	-5.160	0.122	1.06	0.5	0.29
146	org72146_c	-2.621	0.047	1.03	0.8	0.38
147	org72147_c	-2.059	0.040	0.95	-2.0	0.48
148	org72148_c	-2.375	0.043	1.00	0.1	0.42
149	org72149_c	-0.612	0.031	1.15	10.3	0.36
150	org72150_c	-2.211	0.041	0.93	-2.6	0.49
151	org72151_c	-1.312	0.034	0.91	-5.4	0.54
152	org72152_c	-3.094	0.054	0.95	-1.2	0.43
153	org72153_c	-3.958	0.074	0.92	-1.3	0.43
154	org72154_c	-3.545	0.064	1.09	1.8	0.26
155	org72155_c	-2.840	0.050	1.06	1.8	0.33
156	org72156_c	-2.948	0.052	1.10	2.7	0.28
157	org72157_c	-3.557	0.064	1.01	0.2	0.35
158	org72158_c	-1.539	0.035	1.13	6.4	0.35
159	org72159_c	-1.091	0.033	1.12	7.3	0.37
160	org72160_c	-2.768	0.049	0.99	-0.3	0.41
161	org72161_c	-2.244	0.042	0.95	-2.0	0.47
162	org72162_c	-2.893	0.051	0.99	-0.2	0.40
163	org72163_c	-3.206	0.056	1.05	1.1	0.33

164	org72164_c	-3.754	0.069	1.02	0.4	0.33
165	org72165_c	-3.281	0.058	1.09	2.0	0.28
166	org72166_c	-4.235	0.083	1.01	0.1	0.33
167	org72167_c	-3.318	0.059	1.10	2.2	0.27
168	org72168_c	-2.671	0.047	1.09	2.7	0.32
169	org72169_c	-2.132	0.041	0.98	-0.6	0.44
170	org72170_c	-5.354	0.133	1.07	0.6	0.29
171	org72171_c	-0.848	0.031	1.08	5.0	0.41
172	org72172_c	-4.848	0.107	1.04	0.4	0.30
173	org72173_c	-1.490	0.035	1.03	1.6	0.43
174	org72174_c	-3.565	0.064	0.95	-1.1	0.42
175	org72175_c	-3.425	0.061	0.97	-0.7	0.40
176	org72176_c	-3.360	0.059	0.95	-1.2	0.44
177	org72177_c	-2.758	0.049	0.97	-1.0	0.44
178	org72178_c	-4.477	0.092	1.01	0.2	0.33
179	org72179_c	-1.949	0.039	1.12	5.0	0.34
180	org72180_c	-3.778	0.069	0.98	-0.4	0.38
181	org72181_c	-1.964	0.039	0.98	-0.9	0.46
182	org72182_c	-5.408	0.136	1.05	0.4	0.34
183	org72183_c	-3.947	0.074	1.00	-0.0	0.34
184	org72184_c	-1.746	0.037	1.13	5.9	0.35
185	org72185_c	-3.867	0.072	1.00	0.1	0.34
186	org72186_c	-3.773	0.069	1.02	0.3	0.32
187	org72187_c	-2.612	0.046	0.92	-2.7	0.49
188	org72188_c	-2.917	0.051	0.98	-0.6	0.42
189	org72189_c	-0.869	0.032	1.05	3.1	0.42
190	org72190_c	-1.808	0.037	0.90	-4.9	0.53
191	org72191_c	-2.912	0.051	1.13	3.4	0.26
192	org72192_c	-5.286	0.129	1.01	0.1	0.40
193	org72193_c	-4.943	0.111	0.99	-0.1	0.40
194	org72194_c	-4.494	0.092	1.02	0.3	0.31
195	org72195_c	-4.629	0.097	0.97	-0.3	0.40
196	org72196_c	-3.812	0.070	0.96	-0.8	0.40
197	org72197_c	-4.335	0.086	0.96	-0.5	0.39
198	org72198_c	-3.740	0.068	0.99	-0.2	0.36
199	org72199_c	-1.386	0.034	1.03	1.8	0.43
200	org72200_c	-2.975	0.052	0.96	-1.2	0.44
201	org72201_c	-4.161	0.081	0.96	-0.5	0.38
202	org72202_c	-2.876	0.050	1.07	1.9	0.33
203	org72203_c	-4.968	0.112	0.98	-0.2	0.41
204	org72204_c	-2.927	0.051	0.90	-3.0	0.50
205	org72205_c	-3.721	0.068	0.92	-1.5	0.45
206	org72206_c	-2.765	0.049	0.93	-2.2	0.47
207	org72207_c	-4.068	0.078	0.93	-1.2	0.43
208	org72208_c	-3.947	0.074	0.93	-1.1	0.42
209	org72209_c	-2.616	0.046	1.06	1.9	0.36
210	org72210_c	-2.098	0.040	1.15	5.6	0.32
211	org72211_c	-3.261	0.057	0.93	-1.6	0.45
212	org72212_c	-2.970	0.052	0.97	-0.9	0.43
213	org72213_c	-2.858	0.050	1.07	2.1	0.32
214	org72214_c	-3.764	0.069	0.94	-1.0	0.42
215	org72215_c	-4.461	0.091	0.99	-0.2	0.36
216	org72216_c	-3.150	0.055	0.93	-1.7	0.46
217	org72217_c	-3.421	0.061	0.96	-0.8	0.40
218	org72218_c	-1.842	0.038	1.08	3.4	0.39
219	org72219_c	-3.754	0.069	1.02	0.4	0.40
220	org72220_c	-3.281	0.058	1.09	2.0	0.42

221	org72221_c	-4.235	0.083	1.01	0.1	0.46
222	org72222_c	-3.318	0.059	1.10	2.2	0.45
223	org72223_c	-2.671	0.047	1.09	2.7	0.42
224	org72224_c	-2.132	0.041	0.98	-0.6	0.46
225	org72225_c	-5.354	0.133	1.07	0.6	0.40
226	org72226_c	-0.848	0.031	1.08	5.0	0.40
227	org72227_c	-4.848	0.107	1.04	0.4	0.48
228	org72228_c	-1.490	0.035	1.03	1.6	0.41
229	org72229_c	-3.565	0.064	0.95	-1.1	0.34
230	org72230_c	-3.425	0.061	0.97	-0.7	0.36
231	org72231_c	-3.360	0.059	0.95	-1.2	0.27
232	org72232_c	-2.758	0.049	0.97	-1.0	0.29
233	org72233_c	-4.477	0.092	1.01	0.2	0.45
234	org72234_c	-1.949	0.039	1.12	5.0	0.39
235	org72235_c	-3.778	0.069	0.98	-0.4	0.41
236	org72236_c	-1.964	0.039	0.98	-0.9	0.44
237	org72237_c	-5.408	0.136	1.05	0.4	0.29
238	org72238_c	-3.947	0.074	1.00	-0.0	0.26
239	org72239_c	-1.746	0.037	1.13	5.9	0.39
240	org72240_c	-3.867	0.072	1.00	0.1	0.42
241	org72241_c	-3.773	0.069	1.02	0.3	0.47
242	org72242_c	-2.612	0.046	0.92	-2.7	0.34
243	org72243_c	-2.917	0.051	0.98	-0.6	0.34
244	org72244_c	-0.869	0.032	1.05	3.1	0.27
245	org72245_c	-1.808	0.037	0.90	-4.9	0.32
246	org72246_c	-2.912	0.051	1.13	3.4	0.38
247	org72247_c	-5.286	0.129	1.01	0.1	0.47
248	org72248_c	-4.943	0.111	0.99	-0.1	0.34
249	org72249_c	-4.494	0.092	1.02	0.3	0.26
250	org72250_c	-4.629	0.097	0.97	-0.3	0.32
251	org72251_c	-3.812	0.070	0.96	-0.8	0.51
252	org72252_c	-4.335	0.086	0.96	-0.5	0.34
253	org72253_c	-3.740	0.068	0.99	-0.2	0.40
254	org72254_c	-1.386	0.034	1.03	1.8	0.36
255	org72255_c	-2.975	0.052	0.96	-1.2	0.28
256	org72256_c	-4.161	0.081	0.96	-0.5	0.27
257	org72257_c	-2.876	0.050	1.07	1.9	0.33
258	org72258_c	-4.968	0.112	0.98	-0.2	0.52
259	org72259_c	-2.927	0.051	0.90	-3.0	0.53
260	org72260_c	-3.721	0.068	0.92	-1.5	0.51
261	org72261_c	-2.765	0.049	0.93	-2.2	0.50
262	org72262_c	-4.068	0.078	0.93	-1.2	0.47
263	org72263_c	-3.947	0.074	0.93	-1.1	0.33
264	org72264_c	-2.616	0.046	1.06	1.9	0.26
265	org72265_c	-2.098	0.040	1.15	5.6	0.36
266	org72266_c	-3.261	0.057	0.93	-1.6	0.40
267	org72267_c	-2.970	0.052	0.97	-0.9	0.51
268	org72268_c	-2.858	0.050	1.07	2.1	0.43
269	org72269_c	-3.764	0.069	0.94	-1.0	0.45
270	org72270_c	-4.461	0.091	0.99	-0.2	0.33
271	org72271_c	-3.150	0.055	0.93	-1.7	0.50
272	org72272_c	-3.421	0.061	0.96	-0.8	0.34
273	org72273_c	-1.842	0.038	1.08	3.4	0.37
274	org72274_c	-5.205	0.125	1.04	0.4	0.34
275	org72275_c	-4.003	0.076	1.01	0.2	0.33
276	org72276_c	-3.964	0.074	1.04	0.6	0.28

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<b>277</b>	org72277_c	-2.160	0.041	1.03	1.0	0.41
<b>278</b>	org72278_c	-0.957	0.032	0.92	-5.2	0.52
<b>279</b>	org72279_c	-2.570	0.046	0.96	-1.3	0.45
<b>280</b>	org72280_c	-2.930	0.051	0.93	-1.8	0.46
<b>281</b>	org72281_c	-2.484	0.045	1.08	2.7	0.34
<b>282</b>	org72282_c	-4.739	0.102	0.96	-0.5	0.42
<b>283</b>	org72283_c	-0.208	0.030	0.97	-2.3	0.47
<b>284</b>	org72284_c	-3.187	0.056	0.89	-2.9	0.50
<b>285</b>	org72285_c	-1.078	0.033	0.89	-7.3	0.54
<b>286</b>	org72286_c	-2.737	0.048	0.87	-4.1	0.53
<b>287</b>	org72287_c	-1.752	0.037	0.93	-3.6	0.51
<b>288</b>	org72288_c	-2.545	0.045	0.90	-3.3	0.51
<b>289</b>	org72289_c	-2.530	0.045	1.05	1.7	0.36
<b>290</b>	org72290_c	-4.718	0.101	0.98	-0.2	0.39
<b>291</b>	org72291_c	-3.654	0.066	0.97	-0.6	0.38
<b>292</b>	org72292_c	-0.329	0.030	0.86	-11.6	0.54
<b>293</b>	org72293_c	-0.271	0.030	0.93	-5.2	0.49
<b>294</b>	org72294_c	-3.311	0.058	0.99	-0.2	0.38
<b>295</b>	org72295_c	-2.992	0.052	1.03	0.9	0.36
<b>296</b>	org72296_c	-4.629	0.097	1.00	0.0	0.35
<b>297</b>	org72297_c	-4.142	0.080	0.96	-0.6	0.40
<b>298</b>	org72298_c	-2.714	0.048	0.97	-0.8	0.43
<b>299</b>	org72299_c	0.239	0.029	0.96	-3.5	0.46
<b>300</b>	org72300_c	-4.249	0.083	1.01	0.1	0.32
<b>301</b>	org72301_c	-2.240	0.042	1.17	6.1	0.28