**EXAM 1**

TEST SCALING: SUM SCORES

epsy5221.EXAM1DATA5948

October 10, 2019 17:08:35

Sum Score Descriptive Statistics

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Statistic Value

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N 5948.0000

Min 1.0000

Max 56.0000

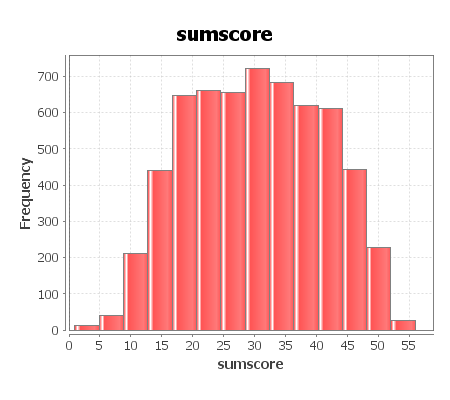
Mean 30.4847

St. Dev. 10.9472

Skewness -0.0078

Kurtosis -0.9291

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*Figure 1*. Frequency histogram for sumscores from Exam 1.

ITEM ANALYSIS

epsy5221.EXAM1DATA5948

October 10, 2019 17:16:51

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Item Option (Score) Difficulty Std. Dev. Discrimin.

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item1 Overall 0.7103 0.4537 0.3124

A(1.0) 0.7103 0.4537 0.3124

B(0.0) 0.0768 0.2663 -0.2237

C(0.0) 0.0825 0.2752 -0.2822

D(0.0) 0.1253 0.3310 -0.1143

item2 Overall 0.5304 0.4991 0.2646

A(0.0) 0.1427 0.3498 -0.0548

B(0.0) 0.1486 0.3557 -0.1734

C(0.0) 0.1717 0.3771 -0.2662

D(1.0) 0.5304 0.4991 0.2646

item3 Overall 0.8125 0.3903 0.4146

A(0.0) 0.0456 0.2085 -0.2433

B(0.0) 0.0597 0.2369 -0.2565

C(1.0) 0.8125 0.3903 0.4146

D(0.0) 0.0745 0.2626 -0.2552

item4 Overall 0.5760 0.4942 0.2357

A(0.0) 0.1395 0.3465 -0.1374

B(1.0) 0.5760 0.4942 0.2357

C(0.0) 0.1370 0.3439 -0.1208

D(0.0) 0.1414 0.3485 -0.2158

item5 Overall 0.6537 0.4758 0.2949

A(0.0) 0.0757 0.2645 -0.2413

B(0.0) 0.1152 0.3192 -0.1763

C(1.0) 0.6537 0.4758 0.2949

D(0.0) 0.1478 0.3549 -0.1598

item6 Overall 0.7345 0.4416 0.3482

A(0.0) 0.0731 0.2604 -0.2620

B(1.0) 0.7345 0.4416 0.3482

C(0.0) 0.1338 0.3405 -0.1807

D(0.0) 0.0536 0.2253 -0.2388

item7 Overall 0.4613 0.4985 0.3196

A(0.0) 0.1898 0.3922 -0.2747

B(0.0) 0.1804 0.3845 -0.1191

C(1.0) 0.4613 0.4985 0.3196

D(0.0) 0.1616 0.3681 -0.1551

item8 Overall 0.8566 0.3505 0.4185

A(0.0) 0.0289 0.1676 -0.2188

B(0.0) 0.0615 0.2403 -0.2792

C(0.0) 0.0449 0.2071 -0.2589

D(1.0) 0.8566 0.3505 0.4185

item9 Overall 0.5447 0.4980 0.3222

A(1.0) 0.5447 0.4980 0.3222

B(0.0) 0.1638 0.3701 -0.2266

C(0.0) 0.0920 0.2890 -0.2510

D(0.0) 0.1861 0.3892 -0.1155

item10 Overall 0.8100 0.3923 0.4628

A(0.0) 0.0358 0.1858 -0.2521

B(0.0) 0.0770 0.2666 -0.3098

C(0.0) 0.0686 0.2528 -0.2672

D(1.0) 0.8100 0.3923 0.4628

item11 Overall 0.8278 0.3776 0.4517

A(0.0) 0.0580 0.2338 -0.2951

B(0.0) 0.0745 0.2626 -0.3056

C(1.0) 0.8278 0.3776 0.4517

D(0.0) 0.0340 0.1811 -0.2001

item12 Overall 0.5545 0.4971 0.3306

A(1.0) 0.5545 0.4971 0.3306

B(0.0) 0.2956 0.4563 -0.1558

C(0.0) 0.0938 0.2916 -0.2878

D(0.0) 0.0483 0.2143 -0.2304

item13 Overall 0.7739 0.4184 0.4748

A(0.0) 0.0587 0.2350 -0.2503

B(0.0) 0.0770 0.2666 -0.2836

C(0.0) 0.0799 0.2711 -0.2939

D(1.0) 0.7739 0.4184 0.4748

item14 Overall 0.4741 0.4994 0.3047

A(0.0) 0.1108 0.3139 -0.2313

B(0.0) 0.1933 0.3950 -0.1755

C(1.0) 0.4741 0.4994 0.3047

D(0.0) 0.2113 0.4083 -0.1353

item15 Overall 0.6421 0.4794 0.4453

A(1.0) 0.6421 0.4794 0.4453

B(0.0) 0.0952 0.2935 -0.2584

C(0.0) 0.1232 0.3287 -0.2637

D(0.0) 0.1284 0.3346 -0.2363

item16 Overall 0.4486 0.4974 0.3014

A(0.0) 0.2569 0.4370 -0.1028

B(1.0) 0.4486 0.4974 0.3014

C(0.0) 0.1794 0.3837 -0.2307

D(0.0) 0.1041 0.3054 -0.1993

item17 Overall 0.4353 0.4958 0.3384

A(0.0) 0.3906 0.4879 -0.1422

B(0.0) 0.0918 0.2888 -0.2783

C(0.0) 0.0671 0.2502 -0.2221

D(1.0) 0.4353 0.4958 0.3384

item18 Overall 0.4892 0.4999 0.2985

A(0.0) 0.1100 0.3129 -0.2078

B(1.0) 0.4892 0.4999 0.2985

C(0.0) 0.1375 0.3444 -0.2607

D(0.0) 0.2455 0.4304 -0.0747

item19 Overall 0.6698 0.4703 0.5288

A(1.0) 0.6698 0.4703 0.5288

B(0.0) 0.0920 0.2890 -0.3172

C(0.0) 0.0807 0.2724 -0.2829

D(0.0) 0.1399 0.3469 -0.2851

item20 Overall 0.5045 0.5000 0.3342

A(0.0) 0.1286 0.3348 -0.2138

B(0.0) 0.1984 0.3988 -0.1788

C(1.0) 0.5045 0.5000 0.3342

D(0.0) 0.1491 0.3562 -0.1688

item21 Overall 0.5740 0.4945 0.4060

A(1.0) 0.5740 0.4945 0.4060

B(0.0) 0.2303 0.4211 -0.2237

C(0.0) 0.1202 0.3252 -0.2616

D(0.0) 0.0609 0.2391 -0.2150

item22 Overall 0.4388 0.4963 0.3795

A(1.0) 0.4388 0.4963 0.3795

B(0.0) 0.1806 0.3847 -0.2158

C(0.0) 0.2522 0.4343 -0.1906

D(0.0) 0.1091 0.3118 -0.1948

item23 Overall 0.3717 0.4833 0.3129

A(0.0) 0.1779 0.3824 -0.2010

B(0.0) 0.2747 0.4464 -0.1808

C(1.0) 0.3717 0.4833 0.3129

D(0.0) 0.1548 0.3618 -0.0910

item24 Overall 0.5718 0.4949 0.5084

A(0.0) 0.1350 0.3418 -0.2707

B(1.0) 0.5718 0.4949 0.5084

C(0.0) 0.0962 0.2948 -0.2899

D(0.0) 0.1738 0.3790 -0.2573

item25 Overall 0.5057 0.5000 0.4217

A(0.0) 0.1246 0.3303 -0.2303

B(0.0) 0.2209 0.4149 -0.2890

C(1.0) 0.5057 0.5000 0.4217

D(0.0) 0.1269 0.3329 -0.1316

item26 Overall 0.7438 0.4366 0.4321

A(0.0) 0.0755 0.2642 -0.2140

B(1.0) 0.7438 0.4366 0.4321

C(0.0) 0.0807 0.2724 -0.3121

D(0.0) 0.0773 0.2671 -0.2063

item27 Overall 0.1634 0.3698 0.1772

A(0.0) 0.3146 0.4644 -0.1786

B(0.0) 0.2482 0.4320 -0.0937

C(0.0) 0.2492 0.4326 0.0374

D(1.0) 0.1634 0.3698 0.1772

item28 Overall 0.3948 0.4888 0.2548

A(1.0) 0.3948 0.4888 0.2548

B(0.0) 0.1754 0.3803 -0.1437

C(0.0) 0.2260 0.4182 -0.1233

D(0.0) 0.1748 0.3799 -0.1456

item29 Overall 0.4475 0.4973 0.3095

A(1.0) 0.4475 0.4973 0.3095

B(0.0) 0.1264 0.3324 -0.2857

C(0.0) 0.3144 0.4643 -0.0839

D(0.0) 0.0856 0.2798 -0.1785

item30 Overall 0.4242 0.4943 0.3037

A(1.0) 0.4242 0.4943 0.3037

B(0.0) 0.1883 0.3910 -0.2045

C(0.0) 0.2614 0.4395 -0.1237

D(0.0) 0.0985 0.2980 -0.1673

item31 Overall 0.3647 0.4814 0.2157

A(0.0) 0.1918 0.3938 -0.1280

B(0.0) 0.2044 0.4033 -0.1601

C(1.0) 0.3647 0.4814 0.2157

D(0.0) 0.2123 0.4090 -0.0693

item32 Overall 0.3258 0.4687 0.1804

A(0.0) 0.1639 0.3702 -0.1806

B(1.0) 0.3258 0.4687 0.1804

C(0.0) 0.2344 0.4236 -0.2163

D(0.0) 0.2458 0.4306 0.0899

item33 Overall 0.6700 0.4703 0.3890

A(0.0) 0.1367 0.3435 -0.2416

B(1.0) 0.6700 0.4703 0.3890

C(0.0) 0.1063 0.3082 -0.1893

D(0.0) 0.0637 0.2443 -0.2099

item34 Overall 0.4924 0.5000 0.4036

A(1.0) 0.4924 0.5000 0.4036

B(0.0) 0.2540 0.4354 -0.1610

C(0.0) 0.1437 0.3509 -0.2810

D(0.0) 0.0861 0.2805 -0.1968

item35 Overall 0.6518 0.4764 0.4946

A(0.0) 0.1363 0.3432 -0.2711

B(1.0) 0.6518 0.4764 0.4946

C(0.0) 0.0849 0.2788 -0.2623

D(0.0) 0.1017 0.3023 -0.2498

item36 Overall 0.6079 0.4883 0.5070

A(0.0) 0.0975 0.2967 -0.2089

B(0.0) 0.1224 0.3278 -0.2945

C(0.0) 0.1456 0.3527 -0.2819

D(1.0) 0.6079 0.4883 0.5070

item37 Overall 0.5303 0.4991 0.4545

A(0.0) 0.1385 0.3455 -0.3380

B(0.0) 0.1806 0.3847 -0.1440

C(0.0) 0.1221 0.3274 -0.2113

D(1.0) 0.5303 0.4991 0.4545

item38 Overall 0.4090 0.4917 0.2719

A(1.0) 0.4090 0.4917 0.2719

B(0.0) 0.1369 0.3437 -0.2664

C(0.0) 0.2752 0.4467 -0.0716

D(0.0) 0.1511 0.3582 -0.0996

item39 Overall 0.3368 0.4726 0.2473

A(0.0) 0.1826 0.3864 -0.1244

B(0.0) 0.2645 0.4411 0.0167

C(0.0) 0.1873 0.3902 -0.2634

D(1.0) 0.3368 0.4726 0.2473

item40 Overall 0.6061 0.4887 0.3729

A(0.0) 0.1009 0.3012 -0.2206

B(0.0) 0.1994 0.3996 -0.1518

C(1.0) 0.6061 0.4887 0.3729

D(0.0) 0.0666 0.2493 -0.2636

item41 Overall 0.6269 0.4837 0.4512

A(0.0) 0.1515 0.3585 -0.2905

B(0.0) 0.1379 0.3448 -0.1826

C(0.0) 0.0563 0.2306 -0.2487

D(1.0) 0.6269 0.4837 0.4512

item42 Overall 0.5129 0.4999 0.3355

A(1.0) 0.5129 0.4999 0.3355

B(0.0) 0.1286 0.3348 -0.2859

C(0.0) 0.1481 0.3552 -0.2569

D(0.0) 0.1809 0.3850 0.0087

item43 Overall 0.6310 0.4826 0.3759

A(0.0) 0.0827 0.2755 -0.1819

B(1.0) 0.6310 0.4826 0.3759

C(0.0) 0.1722 0.3776 -0.1836

D(0.0) 0.0841 0.2775 -0.2419

item44 Overall 0.3721 0.4834 0.3320

A(0.0) 0.3065 0.4611 -0.1071

B(1.0) 0.3721 0.4834 0.3320

C(0.0) 0.1501 0.3572 -0.1897

D(0.0) 0.1384 0.3453 -0.1822

item45 Overall 0.5304 0.4991 0.4594

A(0.0) 0.1738 0.3790 -0.2196

B(0.0) 0.1743 0.3794 -0.2742

C(1.0) 0.5304 0.4991 0.4594

D(0.0) 0.0876 0.2827 -0.1763

item46 Overall 0.5403 0.4984 0.5022

A(0.0) 0.0908 0.2873 -0.2422

B(0.0) 0.1537 0.3607 -0.3251

C(0.0) 0.1804 0.3845 -0.1825

D(1.0) 0.5403 0.4984 0.5022

item47 Overall 0.4610 0.4985 0.3836

A(0.0) 0.1347 0.3414 -0.1821

B(1.0) 0.4610 0.4985 0.3836

C(0.0) 0.1451 0.3522 -0.2609

D(0.0) 0.2244 0.4173 -0.1220

item48 Overall 0.4760 0.4995 0.4069

A(0.0) 0.0935 0.2911 -0.2487

B(0.0) 0.1592 0.3659 -0.2445

C(1.0) 0.4760 0.4995 0.4069

D(0.0) 0.2340 0.4234 -0.1206

item49 Overall 0.4923 0.5000 0.3351

A(0.0) 0.1708 0.3764 -0.2165

B(0.0) 0.1624 0.3689 -0.1511

C(1.0) 0.4923 0.5000 0.3351

D(0.0) 0.1335 0.3401 -0.1211

item50 Overall 0.6258 0.4840 0.5501

A(0.0) 0.0963 0.2951 -0.2778

B(1.0) 0.6258 0.4840 0.5501

C(0.0) 0.1222 0.3276 -0.2909

D(0.0) 0.1184 0.3231 -0.2736

item51 Overall 0.6469 0.4780 0.5795

A(0.0) 0.1263 0.3322 -0.3232

B(0.0) 0.1130 0.3166 -0.3109

C(0.0) 0.0765 0.2658 -0.2472

D(1.0) 0.6469 0.4780 0.5795

item52 Overall 0.4982 0.5000 0.4434

A(1.0) 0.4982 0.5000 0.4434

B(0.0) 0.2503 0.4332 -0.1594

C(0.0) 0.1323 0.3389 -0.2935

D(0.0) 0.0792 0.2701 -0.2198

item53 Overall 0.4970 0.5000 0.4106

A(0.0) 0.1358 0.3427 -0.1604

B(0.0) 0.1828 0.3865 -0.2507

C(1.0) 0.4970 0.5000 0.4106

D(0.0) 0.1395 0.3465 -0.1662

item54 Overall 0.3828 0.4861 0.2358

A(0.0) 0.1901 0.3925 -0.1051

B(1.0) 0.3828 0.4861 0.2358

C(0.0) 0.2468 0.4312 -0.0918

D(0.0) 0.1337 0.3403 -0.1376

item55 Overall 0.4176 0.4932 0.3527

A(1.0) 0.4176 0.4932 0.3527

B(0.0) 0.1463 0.3534 -0.1783

C(0.0) 0.1296 0.3359 -0.1724

D(0.0) 0.2589 0.4381 -0.1437

item56 Overall 0.6332 0.4820 0.5253

A(0.0) 0.0935 0.2911 -0.2636

B(0.0) 0.1131 0.3168 -0.2784

C(0.0) 0.1088 0.3114 -0.2493

D(1.0) 0.6332 0.4820 0.5253

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TEST LEVEL STATISTICS

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Number of Items = 56

Number of Examinees = 5948

Min = 1.0000

Max = 56.0000

Mean = 30.4847

Median = 31.0000

Standard Deviation = 10.9463

Interquartile Range = 18.0000

Skewness = -0.0078

Kurtosis = -0.9291

KR21 = 0.9002

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RELIABILITY ANALYSIS

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Method Estimate 95% Conf. Int. SEM

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Guttman's L2 0.9108 (0.9075, 0.9140) 3.2698

Coefficient Alpha 0.9095 (0.9062, 0.9127) 3.2935

Feldt-Gilmer 0.9106 (0.9073, 0.9138) 3.2735

Feldt-Brennan 0.9104 (0.9071, 0.9136) 3.2775

Raju's Beta 0.9095 (0.9062, 0.9127) 3.2935

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**LIKING SCIENCE**

TEST SCALING: MEAN SCORES

epsy5221.LIKINGSCIENCE

October 10, 2019 17:22:00

Mean Score Descriptive Statistics

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Statistic Value

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N 75.0000

Min -0.5200

Max 1.0000

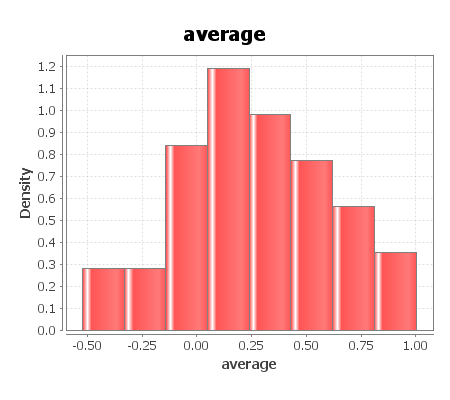
Mean 0.2661

St. Dev. 0.3471

Skewness 0.0262

Kurtosis -0.3517

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*Figure 2*. Frequency histogram for average scores for Liking Science.

ITEM ANALYSIS

epsy5221.LIKINGSCIENCE

October 10, 2019 17:18:28

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Item Option (Score) Difficulty Std. Dev. Discrimin.

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q1 Overall 0.4533 0.5764 0.6569

0.0(-1.0) 0.0400 0.1973 -0.3513

1.0(0.0) 0.4667 0.5022 -0.5754

2.0(1.0) 0.4933 0.5033 0.6304

q2 Overall 0.5467 0.6837 0.6132

0.0(-1.0) 0.1067 0.3108 -0.4606

1.0(0.0) 0.2400 0.4300 -0.4658

2.0(1.0) 0.6533 0.4791 0.6304

q3 Overall 0.1733 0.7047 0.7364

0.0(-1.0) 0.1733 0.3811 -0.5598

1.0(0.0) 0.4800 0.5030 -0.3324

2.0(1.0) 0.3467 0.4791 0.6866

q4 Overall -0.3067 0.6773 0.5191

0.0(-1.0) 0.4267 0.4979 -0.5089

1.0(0.0) 0.4533 0.5012 0.0914

2.0(1.0) 0.1200 0.3271 0.4516

q5 Overall -0.5067 0.7047 -0.1466

0.0(-1.0) 0.6267 0.4869 0.0249

1.0(0.0) 0.2533 0.4378 -0.1225

2.0(1.0) 0.1200 0.3271 -0.0608

q6 Overall 0.2133 0.7031 0.5824

0.0(-1.0) 0.1600 0.3691 -0.5202

1.0(0.0) 0.4667 0.5022 -0.2254

2.0(1.0) 0.3733 0.4869 0.5048

q7 Overall -0.0800 0.7669 0.5444

0.0(-1.0) 0.3333 0.4746 -0.4989

1.0(0.0) 0.4133 0.4957 -0.1170

2.0(1.0) 0.2533 0.4378 0.5282

q8 Overall -0.2800 0.7083 0.3698

0.0(-1.0) 0.4267 0.4979 -0.2813

1.0(0.0) 0.4267 0.4979 -0.2235

2.0(1.0) 0.1467 0.3562 0.5251

q9 Overall 0.0667 0.7941 0.4776

0.0(-1.0) 0.2800 0.4520 -0.4379

1.0(0.0) 0.3733 0.4869 -0.2116

2.0(1.0) 0.3467 0.4791 0.4919

q10 Overall 0.7333 0.5022 0.5331

0.0(-1.0) 0.0267 0.1622 -0.3744

1.0(0.0) 0.2133 0.4124 -0.4552

2.0(1.0) 0.7600 0.4300 0.4985

q11 Overall 0.6133 0.5426 0.6349

0.0(-1.0) 0.0267 0.1622 -0.2700

1.0(0.0) 0.3333 0.4746 -0.6287

2.0(1.0) 0.6400 0.4832 0.6367

q12 Overall 0.8267 0.3811 0.4837

0.0(-1.0) 0.0000 0.0000 NaN

1.0(0.0) 0.1733 0.3811 -0.5481

2.0(1.0) 0.8267 0.3811 0.4837

q13 Overall 0.6933 0.6361 0.4861

0.0(-1.0) 0.0933 0.2929 -0.4400

1.0(0.0) 0.1200 0.3271 -0.3470

2.0(1.0) 0.7867 0.4124 0.5068

q14 Overall 0.1733 0.7236 0.5990

0.0(-1.0) 0.1867 0.3923 -0.5070

1.0(0.0) 0.4533 0.5012 -0.2540

2.0(1.0) 0.3600 0.4832 0.5529

q15 Overall 0.4800 0.6650 0.6410

0.0(-1.0) 0.0933 0.2929 -0.4089

1.0(0.0) 0.3333 0.4746 -0.5300

2.0(1.0) 0.5733 0.4979 0.6591

q16 Overall 0.1067 0.6892 0.4454

0.0(-1.0) 0.1867 0.3923 -0.3772

1.0(0.0) 0.5200 0.5030 -0.2241

2.0(1.0) 0.2933 0.4584 0.4320

q17 Overall 0.2667 0.7229 0.7217

0.0(-1.0) 0.1600 0.3691 -0.5807

1.0(0.0) 0.4133 0.4957 -0.3378

2.0(1.0) 0.4267 0.4979 0.6632

q18 Overall 0.9333 0.3002 0.1178

0.0(-1.0) 0.0133 0.1155 -0.0625

1.0(0.0) 0.0400 0.1973 -0.1953

2.0(1.0) 0.9467 0.2262 0.1509

q19 Overall 0.8800 0.3661 0.3017

0.0(-1.0) 0.0133 0.1155 0.0049

1.0(0.0) 0.0933 0.2929 -0.4658

2.0(1.0) 0.8933 0.3108 0.3766

q20 Overall -0.3333 0.7229 0.2690

0.0(-1.0) 0.4800 0.5030 -0.3174

1.0(0.0) 0.3733 0.4869 -0.0219

2.0(1.0) 0.1467 0.3562 0.2898

q21 Overall 0.5867 0.6387 0.6196

0.0(-1.0) 0.0800 0.2731 -0.3969

1.0(0.0) 0.2533 0.4378 -0.5427

2.0(1.0) 0.6667 0.4746 0.6494

q22 Overall 0.2933 0.7310 0.6293

0.0(-1.0) 0.1600 0.3691 -0.5081

1.0(0.0) 0.3867 0.4903 -0.3455

2.0(1.0) 0.4533 0.5012 0.6034

q23 Overall -0.4400 0.7396 -0.1993

0.0(-1.0) 0.5867 0.4957 0.0412

1.0(0.0) 0.2667 0.4452 -0.0758

2.0(1.0) 0.1467 0.3562 -0.1461

q24 Overall 0.4267 0.7199 0.6092

0.0(-1.0) 0.1333 0.3422 -0.5010

1.0(0.0) 0.3067 0.4642 -0.3753

2.0(1.0) 0.5600 0.4997 0.5914

q25 Overall 0.1333 0.7593 0.6538

0.0(-1.0) 0.2267 0.4215 -0.5590

1.0(0.0) 0.4133 0.4957 -0.2373

2.0(1.0) 0.3600 0.4832 0.6115

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TEST LEVEL STATISTICS

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Number of Items = 25

Number of Examinees = 75

Min = -13.0000

Max = 25.0000

Mean = 6.6533

Median = 6.0000

Standard Deviation = 8.6186

Interquartile Range = 12.0000

Skewness = 0.0262

Kurtosis = -0.3517

KR21 = 0.9732

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RELIABILITY ANALYSIS

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Method Estimate 95% Conf. Int. SEM

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Guttman's L2 0.9072 (0.8740, 0.9350) 2.6430

Coefficient Alpha 0.8914 (0.8526, 0.9240) 2.8588

Feldt-Gilmer 0.9033 (0.8687, 0.9323) 2.6982

Feldt-Brennan 0.9008 (0.8654, 0.9306) 2.7322

Raju's Beta 0.8914 (0.8526, 0.9240) 2.8588

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