

DOCUMENT RESUME

ED 341 772

CE 060 138

AUTHOR Schlossberg, Nancy K.; And Others
 TITLE The Mattering Scales for Adult Students in Postsecondary Education.
 INSTITUTION American Council on Education, Washington, DC. Center for Adult Learning and Educational Credentials.
 PUB DATE 90
 NOTE 23p.
 PUB TYPE Tests/Evaluation Instruments (160) -- Guides - General (050)

EDRS PRICE MF01/PC01 Plus Postage.
 DESCRIPTORS Adult Counseling; *Adult Students; *Counselors; Educational Administration; *Educational Environment; Higher Education; Individual Needs; *Institutional Evaluation; Need Gratification; Peer Relationship; Program Effectiveness; Program Evaluation; Rating Scales; Role Theory; Satisfaction; *Student Attitudes; *Student College Relationship; Teacher Student Relationship

ABSTRACT

The mattering scales are designed to assess the perceptions of adult learners about their educational environment. They answer these questions: Do I feel I matter to the institution? and Do I feel noticed, appreciated, welcomed? To determine the extent to which adult learners feel they matter, five scales are designed to assess their perceptions in these dimensions of postsecondary education: administration, advising, interaction with peers, multiple roles, and interaction with faculty. For administrators and faculty, the scales identify critical aspects of an institution's response to the needs of adult learners, where those needs are well met, and where adult learners perceive deficiencies. For adult learners, the scales provide a forum for evaluation of the institutional environment and specific aspects of campus activities. The five-point mattering scales are followed by scoring instructions. A manual for using the scales is then presented. It contains these sections: background, administration of the scales, scoring and interpreting the scales, normative data, and reliability and validity. Five references are listed. Appendixes include frequency distribution of respondents' reported college majors and distribution responses for all institutions, for four-year institutions, and for two-year institutions. (YLB)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED341772

MATTERING SCALES

FOR ADULT STUDENTS
IN POSTSECONDARY EDUCATION

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

This document has been reproduced as
received from the person or organization
originating it.
 Minor changes have been made to improve
reproduction quality.

• Points of view or opinions stated in this docu-
ment do not necessarily represent official
OERI position or policy.

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

N. J. ...

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

CE 060138

American Council on Education ■ Center for Adult Learning and Educational Credentials

2 BEST COPY AVAILABLE

THE MATTERING SCALES FOR ADULT STUDENTS
IN HIGHER EDUCATION

NANCY K. SCHLOSSBERG
ANN D. LASSALLE
RENNIE R. GOLEC

Department of Counseling and Personnel Services
University of Maryland, College Park

Originally Developed with a Grant from the
Center For Educational Research and Development
College of Education
University of Maryland, College Park

**MATTERING SCALES FOR ADULT STUDENTS
IN HIGHER EDUCATION***The Mattering Scales for Adult Students in Higher Education*

(MHE) were designed to assess the perceptions of adult learners about their educational environment. The questions were: Do I feel I matter to the institution? Do I feel noticed, appreciated, welcomed (Rosenberg and McCullough, 1981)? To determine the extent to which adult learners feel they matter, five scales were designed to assess their perceptions in the following dimensions of postsecondary education (administration, advising, peers, multiple roles, and faculty).

For administrators and faculty, the MHE identifies critical aspects of your institution's response to the needs of adult learners, where those needs are well met, and where there are deficiencies as perceived by the adult learners. For adult learners, the MHE provides a forum for evaluation of the institutional environment and specific aspects of campus activities (e.g., faculty/student interaction, negotiations with campus bureaucracy).

The MHE can provide valuable insight into your institution's successes and problems in providing good education to adult learners. You might administer the MHE before the evaluation process begins and then again after the evaluation has been completed. You can compare different subgroups of adult learners, asking whether some groups feel they matter more than others. In addition, you can determine if those high in mattering (i.e., those that feel the educational environment is responsive to their needs) have a lower dropout/stopout rate than those adult learners who score low on the mattering scales (Schlossberg, 1989).

MATTERING SCALES

Purpose

We are interested in learning more about the different ways in which adult learners feel they matter--to whom, under what circumstances, and what this means to them. To help us learn more about mattering, we would appreciate your taking the time to fill out this form. Also, please feel free to add any comments you wish to make.

Please circle the response which best describes your feelings. Please select a response for each item.

SD = STRONGLY DISAGREE D = DISAGREE N = NEITHER AGREE OR DISAGREE
A = AGREE SA = STRONGLY AGREE

	SD	D	N	A	SA
1. The university's policy of transfer credits penalizes non-traditional students.					
2. My advisor doesn't seem to remember things we have discussed before.					
3. I will have a hard time finishing my degree because of time limits on completing course requirements.					
4. The administration seems to consider adult student priorities as important as traditional student priorities.					
5. I get support from my classmates when I need it.					
6. My questions seem to put faculty members on the defensive.					
7. The faculty and administrators are sensitive to my other responsibilities.					
8. I sometimes feel alone and isolated at the university.					
9. The administrative rules and regulations are clear to me.					
10. My professors interpret assertiveness as a challenge to their authority.					
11. The administration sets things up to be easy for them, not the students.					

MATTERING SCALES

		SD	D	N	A	SA
12. It's hard for me to go back to the school environment.						
13. If my advisor didn't know the answer to my questions, I'm sure he or she would seek out the answers.						
14. The classroom atmosphere encourages me to speak out in class.						
15. I feel my classmates react positively to my experience and knowledge.						
16. My professors seem to recognize the younger students but not me.						
17. I don't have time to complete the administrative tasks this institution requires.						
18. There has always been someone on campus who could help me when I had a question or problem.						
19. I feel like I fit in my classes.						
20. The administration offices are not open at times when I need them.						
21. The administration makes efforts to accommodate adult students.						
22. I have a good relationship with my younger classmates.						
23. Sometimes i feel out of date in the classroom.						
24. The university does not commit enough resources to off-campus courses.						
25. There has always been an adviser available to talk with me if I need to ask a question.						

MATTERING SCALES

	SD	D	N	A	SA
26. My classmates would help me catch up to the new technologies if I needed it.					
27. My experience-based comments are accepted by my professors.					
28. It takes too long to register or correct registration problems.					
29. Administrative staff are helpful in answering my questions.					
30. Fellow students don't seem to listen to me when I share my life experiences.					
31. Unless I have another student my age in class, no one really understands how hard it is to be here.					
32. The university offers alternatives to the traditional semester-length course (like weekends).					
33. I have had adequate opportunities to get to know fellow students.					
34. Campus rules and regulations seem to have been made for traditional-age students.					
35. My age sometimes gets in the way of my interactions with fellow students.					
36. Some of the jokes my professors tell make me feel uncomfortable.					
37. Classes are offered at times that are good for me.					
38. As an adult student, I feel welcome on campus.					
39. The desks weren't made for adults.					

MATTERING SCALES

SD D N A SA

40. I feel my activities fees are spent in a way that is meaningful to me.

--	--	--	--	--	--

41. My advisor has office hours at times that I am on campus.

--	--	--	--	--	--

42. Departmental rules sometimes make my goals difficult or impossible.

--	--	--	--	--	--

43. The school newspaper doesn't discuss adult student issues.

--	--	--	--	--	--

44. My professors sometimes ignore my comments or questions.

--	--	--	--	--	--

45. I sometimes feel my professors want me to hurry up and finish speaking.

--	--	--	--	--	--

MATTERING SCALES

DEMOGRAPHIC INFORMATION

Please provide the following information about yourself:

Racial/Ethnic Descriptions *(please check one)*

Black Non-Hispanic
American Indian or Alaskan Native
Asian or Pacific Islander
Hispanic
White Non-Hispanic
Non-Resident Alien
Unknown
Other

Education

High school graduate
College (but less than a bachelor's degree)
B.A. (or equivalent) or higher

Gender Female Male

Occupation

Hours worked/week

Do you work on campus? Yes No

Do you have dependents? Yes No

How many?

Their ages?

How many hours are you on campus each week?

What is your enrollment status?

full-time student

part-time student

How many years have you been a student at this institution?

Are you enrolled in a degree program?

yes

no

If yes, major area of study.

MATTERING SCALES

SCORING INSTRUCTIONS

Factor 1 - Administration

1.*
4.
7.
11.*
21.
24.*
28.*
32.
34.
40.
43.*

Factor 2 - Advising

2.*
9.
13.
18.
25.
29.
37.
41.

Factor 3 - Interaction with Peers

5.
8.*
14.
15.
19.
22.
26.
30.*
33.
35.*
38.

Factor 4 - Multiple Roles

3.*
12.*
17.*
20.*
31.*
39.*
42.*

Factor 5 - Interaction with Faculty

6.*
10.*
16.*
23.*
27.
36.*
44.*
45.*

* Items are scored on a 5 point scale with "5" meaning high on matting *except* with those items that are reversed and marked with an asterisk. A score of "5" on such items means low on matting and a score of "1" means high on matting.

THE MATTERING SCALES FOR ADULT STUDENTS IN HIGHER EDUCATION

FIRST EDITION

**ANN D. LASSALLE
RENNIE R. GOLEC**

MANUAL FOR THE MHE

SECTION 1. THE MATTERING SCALES FOR ADULT STUDENTS IN HIGHER EDUCATION

The Mattering Scales for Adult Students in Higher Education (MHE; Schlossberg, Lassalle, and Golec, 1989) were developed to operationalize the construct "mattering" as it relates to adult learners. Mattering was conceptualized by Rosenberg and McCullough (1981, p. 165) as "a motive: the feeling that others depend on us, are interested in us, are concerned with our fate, or experience us an ego-extension." Generalizing this construct to the higher education environment, five dimensions of mattering were identified—Administration, Advising, Peers, Multiple Roles, and Faculty.

The MHE was designed to assess the perceptions of adult students concerning the five dimensions of the higher education environment and how well this particular group of students feels they fit in this environment. As such, the instrument is characterized as a campus ecology measure. Baird and Hartnett (1980, p. ix) discuss the use of campus environmental assessment to provide "a relatively new kind of information that can help administrators, professors, and students make better choices, act more effectively, and evaluate the success of their activities more accurately."

For administrators and faculty, the MHE points out critical aspects of the institution's response to this particular population's perceived needs, where needs are particularly well met or where there are deficiencies (as perceived by the stu-

dents). For adult students, the MHE provides the forum for a judgmental evaluation of the institutional environment and specific aspects of campus activities such as faculty/student interaction, interactions with other students, and negotiations with the campus bureaucracy.

Users are cautioned not to extend individual or non-representative group scores to the general adult student population. The MHE was designed to be used as a campus ecology measure, to provide information about the campus environment which is more comprehensive than that obtained from personal experience, intuitive assessment, chance remarks of colleagues, or random complaints or compliments from the very satisfied or the very dissatisfied. The instrument was not designed to assess individual satisfaction but instead examines the general perceptions adult students have of the higher education environment.

SECTION 2. ADMINISTRATION OF THE SCALES

Subject Populations

The MHE is designed to be used with undergraduate students who are 23 years of age or older. Although some items apply to traditional aged students, most items are specific to adult students and consequently responses of younger students are not relevant.

Administration and Timing

The MHE has been designed to assess the perceptions of groups of adults enrolled in higher education programs. Individual responses cannot

MANUAL FOR THE MHE

be interpreted.

The scales take approximately fifteen to twenty minutes to complete and are not timed. The instrument can be administered in either a group setting or to individuals. Instructions for completion are included on the instrument, are self-explanatory, and are adequate for self-administration, for example through the mail.

SECTION 3. SCORING AND INTERPRETING THE SCALES

The Mattering Scales for Adult Students in Higher Education are a set of perceptual measures consisting of 45 items that generate five subscale scores. Respondents indicate whether they agree or disagree with items that describe their feelings about the institution at which they are enrolled.

Items are scored on a 5-point scale, with 5 representing a high score on mattering. For items noted as reversed, a score of 5 represents a low score on mattering. These items were reversed to avoid response sets. Please note that item 37 is scored twice. Subscale raw scores are the sum of the item scores.

Scores are generated for each of the subscales. Analyses of subscale intercorrelations suggest that a total instrument score is not interpretable. Consequently, five subscales are obtained and are to be reported individually. The five subscales for which scores will be reported are—Administration, Advising, Peers, Multiple Roles, and Faculty.

Scoring instructions for the subscales are included in Table 1.

MANUAL FOR THE MHE

Table 1: Scoring Instructions

A. Administration

Items 1, 4, 7, 11, 21, 24, 28, 32, 34, 37, 40, 43
Score 1, 11, 24, 28, 34, 43 in reverse direction before
totaling subscale raw scores.

Administration Subscale Total: Sum the item scores.

B. Advising

Items 2, 9, 13, 18, 25, 29, 37, 41
Score 2 in reverse direction before totaling subscale
raw scores.

Advising Subscale Total: Sum the item scores.

C. Peers

Items 5, 8, 14, 15, 19, 22, 26, 30, 33, 35, 38
Score 8, 30, 35 in reverse direction before totaling
subscale raw scores.

Peers Subscale Total: Sum the item scores.

D. Multiple Roles

Items 3, 12, 17, 20, 31, 39, 42
Score 3, 12, 17, 20, 31, 29, 42 in reverse direction
before totaling subscale raw scores.

Multiple Roles Subscale Total: Sum the item scores.

E. Faculty

Items 6, 10, 16, 23, 27, 36, 44, 45
Score 6, 10, 16, 23, 36, 44, 45 in reverse direction
before totaling subscale raw scores.

Faculty Subscale Total: Sum the item scores.

Subscale Descriptions

Subscale descriptions and possible characteristics of high score respondents are as follows:

The **Administration Subscale** measures adult students' perceptions of the extent to which campus policies and procedures are sensitive to adult student concerns. **High scorers** may describe their campus policies as accommodating in terms of timing of class offerings, payment of fees, and registration scheduling. They may also report campus activities and student newspaper articles relevant to adult students' concerns.

The **Advising Subscale** measures adult students' perceptions of the extent to which advisors and other information providers attend to their questions and concerns. **High scorers** may describe positive experiences with faculty advisors who are available at convenient times and who appear interested in their concerns. They may also report a clear understanding of administrative rules and regulations and accessibility of administrative staff.

The **Peers Subscale** measures adult student's perceptions of the extent to which they feel they

belong on campus and are accepted as peers in the classroom. **High scorers** may describe feeling comfortable in the classroom and a sense of camaraderie with other students. They may report a give-and-take relationship where their different strengths and weaknesses are as accepted as those of traditional aged students.

The **Multiple Roles Subscale** measures adult students' perceptions of the extent to which the campus acknowledges competing demands on their time. **High scorers** may describe rules and policies flexible enough to allow students to meet other responsibilities. They may report evening hours for administrative offices, options for part-time students, or some acknowledgement of their other responsibilities.

The **Faculty Subscale** measures adult students' perceptions of the extent to which faculty members accept them in the classroom. **High scorers** may describe a feeling of comfort in the classroom. They may report that they are treated equitably in comparison with traditional aged students. They may describe faculty members who are accepting of their life experiences and who welcome diversity in the classroom.

MANUAL FOR THE MHE

SECTION 4. NORMATIVE DATA

Description of the Institutions

Initial analyses for the MHE were performed using instruments distributed to 605 non-traditional aged students at 23 institutions of higher education. This normative sample of institutions included 16 four-year colleges and universities and seven two-year colleges. Eight of the four-year institutions had undergraduate enrollments of less than 10,000 students, as did three of the two-year colleges. The majority of the schools were public, with only three private colleges included in the sample.

Description of the Sample

The demographic questionnaire provided the following description of the normative sample.

TABLE 2
Ages of Normative Sample

Age	n	%*
23-30	213	35.2
31-40	235	38.9
41-50	120	19.8
51-60	31	5.2
over 60	6	1.0

*Total does not sum to 100% due to rounding.

Respondents were predominantly female (71%). Fifty-four percent reported their marital status as married, 16% were divorced, 26% single, and the remaining were separated or widowed. The sample was also predominantly White (87%) with 6% Black, 3% Native American, 2% Hispanic, 1% Asian-American, and 1% Other. The ages of the respondents are reported in Table 2.

The majority of the respondents were enrolled part-time (61%), but were enrolled with the intention of earning a degree (81%), although 53% reported spending less than ten hours a week on campus. A frequency distribution of respondents' reported college majors is included in Appendix A. Reported hours spent in outside employment indicated a bimodal distribution (see Table 3). Ten percent of the sample reported they worked on campus.

TABLE 3
Hours Spent in Outside Employment

Hours Worked	n	%*
0-10	233	38.5
11-20	76	12.6
21-30	48	7.9
31-40	186	30.7
over 40	62	10.2

*Total does not sum to 100% due to rounding.

MANUAL FOR THE MHE

Description of Subscale Norms

Normative data for responses grouped by type of institution have been computed. Table 4 provides a description of responses for each of the five subscales for two-year institutions, four-year institutions, and the total sample. The distribution of responses for each subscale for all institutions, for four-year institutions only, and two-year institutions only are presented in Appendices B, C, and D.

TABLE 4
Descriptive Statistics for Subscales

Subscale	Group	Mean	SD	N
Administration	2-year	39.25	3.13	7
	4-year	33.04	4.13	16
	Combined	34.93	4.78	23
Advising	2-year	30.22	1.95	7
	4-year	27.97	2.58	16
	Combined	29.63	2.53	23
Peers	2-year	41.36	.89	7
	4-year	37.84	3.30	16
	Combined	39.02	3.20	23
Roles	2-year	22.66	.95	7
	4-year	21.90	2.08	16
	Combined	22.13	1.82	23
Faculty	2-year	29.65	1.45	7
	4-year	27.84	2.12	16
	Combined	28.39	2.08	23

MANUAL FOR THE MHE

SECTION 5. RELIABILITY AND VALIDITY

Mattering is an individual psychological construct. In designing the MHE, the construct has been applied to the assessment of group perceptions of an environment. It is suggested that the collective perceptions of individuals can provide some evidence of an environmental trend, but that individual data in the absence of confirming data from others is of no value. Individual responses are considered to be uninterpretable. Evidence of reliability and validity refer to group applications and reflect the current state of research on the scales.

Content Validity

Content validity arises from the operationalization of the theory of mattering in higher education to a table of specifications, and from an adherence to a table of specifications in writing items (Crocker and Algina, 1986). The table of

specifications was defined as the result of a review of the literature on adult students and structured interviews with adult students. Instrument items were written to describe those dimensions.

Construct Validity

Based on the table of specifications, six dimensions of mattering were hypothesized—Resources, Policies, Faculty, Administration, Peers, and Classroom. A factor analysis was used to test the structural integrity of the construct as measured by the scales. That factor analysis found five dimensions—items from Administration and Faculty were combined to create the Advising Subscale; items from Administration and Policy were combined into the Administration Subscale; items from Policy and Resources were combined into the Multiple Roles Subscale, the Faculty and Peers Subscales remained in the model.

Reliability

Evidence of reliability is presented in Table 5.

TABLE 5
Internal Consistency Coefficients (Cronbach Alpha) for The Mattering Scale for Adults in Higher Education (n=511)

Subscale	Number of Items	Mean	S.D.	Cronbach Alpha
Administration	11	32.42	7.12	.85
Advising	8	28.40	5.46	.82
Peers	11	39.66	6.41	.86
Roles	7	22.14	4.80	.77
Faculty	8	28.73	5.02	.82

MANUAL FOR THE MHE

REFERENCES

Baird, L.L., & Hartnett, R.T., (Eds.). (1980). *Understanding student and faculty life*. San Francisco: Jossey Bass.

Crocker, L., & Algina, J. (1986). *Introduction to classical and modern test theory*. New York: Holt, Rinehart and Winston.

Rosenberg, M., & McCullough, B.C. (1981). Mattering: Inferred significance to parents and mental health among adolescents. In R. Simmons (Ed.), *Research in community and mental health* (Vol. 2). Greenwich, CT: JAI Press.

Schlossberg, N.K. (1989). Marginality and mattering: Key issues in building community. In D.C. Roberts (ed.), *Designing Campus Activities to Foster a Sense of Community*. San Francisco: Jossey-Bass.

Schlossberg, N.K., Lassalle, A.D., & Golec, R.R. (1989). *The Mattering Scales for Adult Students in Higher Education*. Washington, DC: Center for Adult Learning, The American Council on Education.

MANUAL FOR THE MHE

Appendix A

FREQUENCY DISTRIBUTION OF RESPONDENTS' REPORTED COLLEGE MAJORS

Major	Frequency	Percent	Major	Frequency	Percent
Agriculture	3	.5	Horticulture	1	.2
American Studies	2	.3	Hotel, Restaurant Management	1	.2
Anthropology	8	1.3	Liberal Arts	29	4.8
Applied Science	1	.2	Library Science	1	.2
Art, Architecture, Design	7	1.2	Math	1	.2
Biology	1	.2	Medical Technology, Medical Secretary	8	1.3
Botany	1	.2	Music	3	.5
Business, Accounting	68	11.2	Nursing	87	14.4
Child Study	1	.2	Nutrition	2	.3
Communication and Speech	2	.3	Physical Therapy	1	.2
Computer Electronics	5	.8	Physics	3	.5
Computer Science	13	2.2	Political Science, Government	9	1.5
Criminal Justice, Law Enforcement	4	.7	Procurement	1	.2
Economics	3	.5	Psychology	31	5.1
Education	23	3.8	Public Relations	1	.2
Electronics	11	1.8	Real Estate	1	.2
Engineering	31	5.1	Religious Studies	4	.7
English	30	5.0	Robotics	7	1.2
Film, Broadcasting	3	.5	Secretarial	7	1.2
Food Service Management	2	.3	Social Science	8	1.3
Foreign Languages	3	.5	Sociology	3	.5
General Studies	8	1.3	Technical Studies	11	1.8
Health & Human Services	9	1.5	Women's Studies	1	.2
Health Science	2	.3	Not Reported	132	21.8
History	11	1.8			

MANUAL FOR THE MHE

Appendix B DISTRIBUTION RESPONSES FOR ALL INSTITUTIONS

Subscale:	Administration	Advising	Peers	Roles	Faculty	
n:	23	23	23	23	23	
Raw Score	%ile	%ile	%ile	%ile	%ile	
43.5	94		95		43.5	
42.5	89		92		42.5	
41.5	83		73		41.5	
40.5	82		62		40.5	
39.5	80		48		39.5	
38.5	77		40		38.5	
37.5	73		32		37.5	
36.5	67		26		36.5	
35.5	55		18		35.5	
34.5	46	95	12		34.5	
33.5	42	92	9		33.5	
32.5	36	89	6		32.5	
31.5	34	83		87	31.5	
30.5	26	80		75	30.5	
29.5	17	66		55	29.5	
28.5	5	56		57	28.5	
27.5		30		40	27.5	
26.5		18		22	26.5	
25.5		11		92	7	25.5
24.5		7		87		24.5
23.5		5		78		23.5
22.5				63		22.5
21.5				39		21.5
20.5				16		20.5
19.5				10		19.5
18.5				5		18.5

MANUAL FOR THE MHE

Appendix C DISTRIBUTION RESPONSES FOR 4-YEAR INSTITUTIONS

Subscale:	Administration	Advising	Peers	Roles	Faculty	
n:	16	16	16	16	16	
Raw Score	%ile	%ile	%ile	%ile	%ile	
43.5	94		93		43.5	
42.5	93		90		42.5	
41.5	92		85		41.5	
40.5	91		78		40.5	
39.5	90		67		39.5	
38.5	89		56		38.5	
37.5	86		45		37.5	
36.5	82		37		36.5	
35.5	74		25		35.5	
34.5	65		17		34.5	
33.5	59	93	13		33.5	
32.5	51	90	9		32.5	
31.5	48	88	6	86	31.5	
30.5	37	84		80	30.5	
29.5	24	76		77	29.5	
28.5	6	67		69	28.5	
27.5		43		57	27.5	
26.5		26		32	26.5	
25.5		16		88	9	25.5
24.5		10		82		24.5
23.5		6		78		23.5
22.5				70		22.5
21.5				50		21.5
20.5				23		20.5
19.5				14		19.5
18.5				6		18.5

MANUAL FOR THE MHE

Appendix D DISTRIBUTION RESPONSES FOR 2-YEAR INSTITUTIONS

Subscale:	Administration	Advising	Peers	Roles	Faculty
n:	7	7	7	7	7
Raw Score	%ile	%ile	%ile	%ile	%ile
43.5	87				43.5
42.5	79		87		42.5
41.5	62		44		41.5
40.5	57		24		40.5
39.5	53		13		39.5
38.5	47				38.5
37.5	40				37.5
36.5	28				36.5
35.5	14				35.5
34.5					34.5
33.5		87			33.5
32.5		78			32.5
31.5		71		85	31.5
30.5		65		61	30.5
29.5		45		52	29.5
28.5		20		28	28.5
27.5				13	27.5
26.5					26.5
25.5					25.5
24.5					24.5
23.5				73	23.5
22.5				44	22.5
21.5				18	21.5
20.5					20.5
19.5					19.5
18.5					
18.5					