

Action Research Project

CIT 767

Sherene Carter

University Las Vegas Nevada

Introduction

This year at J.D. Smith, teachers are expressing more frustration than ever over a plate that is too full. The administration has required a teaming effort for 6th and 8th grade teachers. In coordination with the Special Education Department, the administration has required several teachers to be trained on co-teaching and successfully implement it into one or more class periods. Student enrollment is so high (1200) that 2 portables have been ordered, three new teachers are on their way, and several teachers have sold their planning and preparation periods. It is less than two months into the school year, and teachers are so frustrated with students that the Dean's office is receiving over twenty referrals a day. At TAC meetings and any other teacher gathering, there is an overwhelming and almost in unison gripe about the overload of paperwork and things to do. And yet. . .

On October 8th, 2004, on a Friday afternoon, from 2:30 to 4:30 p.m., twenty middle school teachers from J.D. Smith in North Las Vegas were paid 23.00/hour to attend a 2 hour training session on a program called Instructional Data Management System (IDMS). Teachers in attendance were chosen by the administration and represented the subjects of History/Geography, Science, Reading, English and Math. Over half the school's 'general ed' teachers were in attendance and their thoughts and attitudes will be a correct reflection of all teachers at the school.

IDMS is a new web-based database that allows teachers to view their students' scores on various criterion-referenced and norm-referenced tests that students take throughout a school year. There is currently very little data in the database to look through, but much more will be added as the new testing season arrives (in November for JD Smith).

Fullan (2001), and others, have stressed the importance of teachers being involved in a Professional Learning Committee that is “assessment literate.” Fullan suggests that teachers must be able to retrieve data from high-stakes testing, analyze it, and be able to act upon that information. By logging into the IDMS website at www.idmsweb.com a teacher can: 1) See the accountability plan for Clark County Schools and view (and analyze) objectives from the class, grade, site, region or district level. 2) See scores on state assessments, from the student level all the way up to the district level. 3) Create your own assessments and upload them to the site (that feature is not yet available). 4) Get help with analysis tools and interventions to help students focus on what their individual needs are.

Despite the prevalent notion among teachers that these state tests are inaccurate measures of student achievement, their importance in this profession continues to grow. Government funding is directly linked to test scores, schools are labeled by their test scores; in fact, if a school scores low enough to be on the “Needs Improvement” list, parents can request for their child to attend another, “better” school. With all this testing pressure it only makes sense for an administration and its teachers to join in analyzing test data and striving to improve test scores. However, to add another innovation atop an already heaping plate, is it plausible? Unfortunately, what determines how much the IDMS website is used and data is analyzed, will not be how useful the program is, but what priority it is given among teachers who are already stretched to the limit for time. “One can immediately see how *unwanted* innovations can be another source for annoyance” – emphasis added (Fullan, 2001).

Supposing that the November CRT test includes 60 items, a teacher who has 160 students, would have available for analysis 9,600 data points. It is enough to boggle anyone’s

mind, let alone public school teachers who were never required to take a statistics course in college.

Comments made by teachers at the Friday afternoon training included: “I can’t do this for all 160 of my students!” “I want to show the parents this data, but the parents who will come in are not the ones who *need* to see it.” “When you give us a lot of data about students, the students become the numbers.” “Unfortunately, we are focusing on scores.”

I would like to find out, from the teachers in attendance on October 8th, how valuable the IDMS program is going to be to them and their students. I would also like to find out from administration what requirements teachers will have concerning IDMS and if there is anyway to simplify the process of analyzing data for the teachers.

Methods

To find out how valuable this new innovation will be to the teachers at J.D. Smith, I will provide two anonymous questionnaires for those involved in the IDMS training. One will be distributed and collected before students take their November CRTs, and the second will be distributed after the tests have been taken, scored, and data is available in the IDMS database. In order to evaluate my purpose for this research, I will need to know about the teachers’ current procedures (or lack thereof) for analyzing test data, how well they can navigate through the IDMS program, how much of a priority it is (or will become), and if they will use the data to restructure their lesson plans or teaching styles.

For the teacher questionnaire, the questions that will be asked are:

- Are you excited about IDMS? Why or why not?

- From the training, are you confident you could find what individual students need to work on in your subject area?
- How do you feel about the fact that IDMS is accessible from home and that the trainer suggested that to be a great feature?
- On average, how much time do you feel that you will spend on the IDMS database per month?
- Have you ever analyzed the items on a class test by using the scantron machine? If not, why?

For the post-CRT test questionnaire, the questions that will be asked are:

- Have you used IDMS since the November tests?
- Has your previous opinion of IDMS changed after using it?
- Give an example of something you found and how it affected your planning or teaching.
- Do you plan on using it? What would you like to find by using it?
- Will there be more training on IDMS? And how much more?

For the administration questionnaire, the questions that will be asked are:

- Will teachers be required to analyze data? If so, how much and when are they to do this?
- How would you like to see teachers using the results of a test analysis?
- Could one person be trained from each department, be given a sub day to go through IDMS data, and print out the areas each teacher needs to work on in their department?

Results

Due to a lecture by Dr. Gene R. Hall in class, the surveys that were originally going to be used were altered. Instead one survey was used that was adapted from Gene Hall's *Concerns*

Based Systems International generic survey that was passed out during class (Hall, 1974). A questionnaire was created for the teachers in attendance at the IDMS training (Figure 1) and a similar questionnaire was created for administration and technology personnel at JD Smith (Figure 2). The questionnaires were distributed to the twenty teachers who were in attendance at the October training. A questionnaire was also distributed to the two Educational Computing Strategists (ECS), the Learning Strategist (LS), the Assistant Principal and Principal (Administration) of JD Smith Middle School.

The results of items 1-35 were tallied by inserting the survey participants' answers into a spreadsheet created in Excel for interpreting these items (Figure 3). The short answer questions were analyzed by comparing the thoughts and feelings of similar teachers to one another and those of the implementers of the innovation.

Of the twenty questionnaires distributed to teachers, eighteen were completed and returned. The five other questionnaires distributed to those persons at JD Smith who have a leadership role in implementing IDMS were also completed and returned.

By using Gene Hall's model of change implementation, Concerns Based Adoption Model, the level of each participant's *Stage of Concern* was analyzed individually (see appendix) and sub-grouped by teachers and implementers (Table 1)(Table 2).

Table 1:

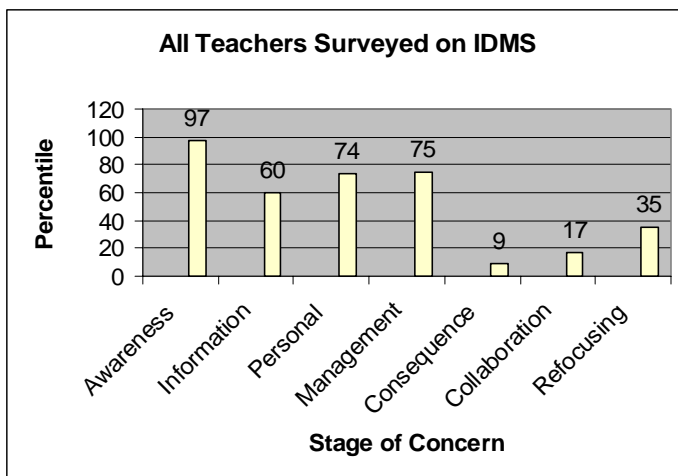
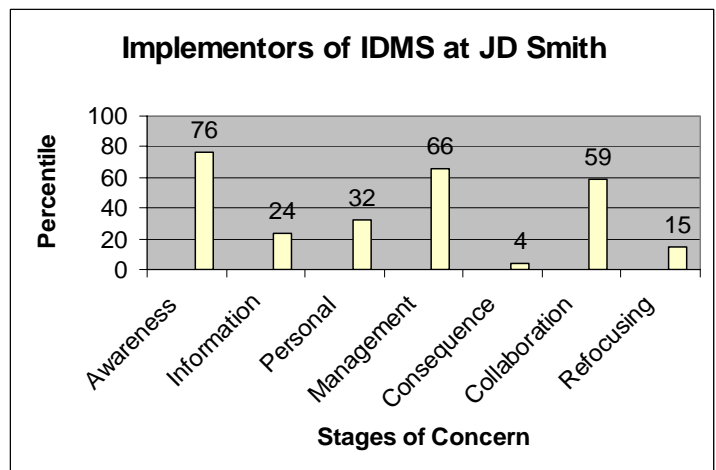


Table 2:



Stage 0 Awareness

All teachers surveyed were above the 96th percentile for *Awareness* indicating that implementing IDMS is not a focused priority for any of them right now. The JD Smith Learning Strategist is also not concerned about implementing the innovation in the 97th percentile. The two full-time ECS's at the school are only slightly more concerned about its implementation than the teachers, averaging in the 88th percentile. The Administration (The Assistant Principal and Principal) are somewhat concerned about its implementation at the 55th percentile.

Stage 1 Informational

Teachers averaged in the 60th percentile for the *Informational* stage indicating that some of them would like to know more about IDMS. Some teachers commented that they weren't yet comfortable using IDMS and would like to learn more about the expectations, and how to use the product.

The implementers averaged in the 24th percentile indicating that they feel confident in what they already know about IDMS.

Stage 2 Personal

Teachers averaged in the 74th percentile for the *Personal* stage indicating that they are not comfortable with their role in regards to IDMS. Some commented that they feel IDMS will be a means by which teachers are harassed for their students low test scores. Others were frustrated with the program and require more training in order to be able to use it comfortably.

The implementers averaged in the 32nd percentile; they are not too concerned with their abilities in implementing this innovation. However, the ECS's are concerned with the non-user-friendliness of the IDMS interface and wonder when the reports will be automatically generated and given to each teacher to eliminate them from using the system.

Stage 3 Management

Teachers averaged in the 75th percentile indicating that they are concerned about the time, energy, and resources involved in beginning to use IDMS. Comments were made by the teachers about the time this data analysis will take when they are already so busy.

The implementers averaged in the 66th percentile not far from the teachers. They may also be concerned about the time factor; one of the ECS's mentioned that the system can take a long time to load data when a teacher is creating a report for their class.

Stage 4 Consequence

Teachers averaged in the 9th percentile for *Consequence* indicating that they are not interested in improving their skill with the IDMS database or helping others. However, some comments were made about wanting more training because they have forgotten how to login and use the program.

The implementers are also not currently concerned with their skills in using IDMS as they are in the 4th percentile. The Assistant Principal and the Principal did not write down that they had any questions about IDMS; they are satisfied with what they know.

Stage 5 Collaboration

Teachers are not concerned about working with others on this project; they are in the 17th percentile of *collaboration*.

Implementers are more interested in working with others (possibly their staff) as they average in the 59th percentile.

Stage 6 Refocusing

Scoring in the 35th percentile, it appears that some of the teachers have more ideas of another innovation that would be better than IDMS compared to the implementers who scored in the 15th percentile.

Of the teachers that have administered an interim test in their subject, 10% have looked up their students' scores on IDMS (one math teacher). It is not that they are not interested in how their students scored; the problem is the amount of time required for generating and analyzing these test scores. Thirty percent of the teachers are concerned about the amount of time it takes to go through how much data is available.

Discussion

If we consider Hall's *Levels of Concern* (1974) a linear path of progression, it is evident that the teachers of JD Smith will have to be more concerned about implementing the innovation in order to increase their desire to learn more about it; thereby, decreasing their discomfort with the database website (Table 1). Due to their lack of concern after the recent training, they will have to be motivated to be concerned either by paid time to use the innovation or pressure from administration.

Because the original training on October 8th left attendants with more questions about IDMS, I volunteered to attend a more in-depth IDMS training with teachers from all over the district on December 4th. At this training, the IDMS on-line database took a back seat to what the presenters were calling "STPT" – Structured Teacher Planning Time. Those in attendance were taught how to correctly use the data from IDMS (reports were previously printed out for us to analyze) in a team or subject meeting at their school site. Teachers need to use the information that IDMS provides to determine which students need remediation, who are right on

track, and who need enrichment. This training, which was only offered to four teachers at each school site, was much different than the first training in October and made it evident that the innovation being implemented has very little to do with the actual data management system! IDMS is simply a test results database that will allow teachers to analyze their students' results in order to identify their attainment levels of the material. It is exactly what teachers do (or should be doing) already except that the tests to be used now come from the district, so they are uniform across the district.

Early concerns, or what Ellsworth calls "glitches," are prevalent among the beginning implementation of IDMS in the district and however slight they may be, if they can deter enough teachers from using the innovation, it will not be successful (Ellsworth, 2000). Many teachers at JD Smith are concerned about the time it takes to go through this much data, and wonder when they will be expected to complete analyses of their students' test results. One of the ECS's feels that in order for IDMS to be implemented there will have to be paid time set aside for this Structured Teacher Planning Time.

Another concern is the usability of the IDMS website. Both Educational Computing Technologists at the site mentioned the interface of IDMS was clumsy or complicated to use. It is already known that many current teachers struggle with technology no matter how many in-services or professional development classes are offered; therefore, requiring *all* teachers to use the less-than-user-friendly program to download information is bound to face resistance and frustrate many teachers. There were comments made on the teacher surveys about the complicated program and frustration that was felt by trying to use it. Yet, when the implementers were asked if one to two teachers from each department could do the report

generation and print them out for the whole department, they said no because the data is ‘teacher sensitive.’

Description and Speculation

The real innovation here is district-wide data analysis to guide students toward mastery of district objectives. IDMS is simply the tool through which data will be retrieved. If implementers will allow, that part of the innovation can be eliminated from teacher use.

Despite the plea from one of the surveys, “Leave me alone and let me teach!” data analysis is only just beginning in this district. Due to my interest in the implementation of IDMS at JD Smith, and my voluntary attendance at the last IDMS training, I have been asked by administration to present Structured Teacher Planning Time to the rest the JD Smith staff on the next staff development day, where I am to demonstrate how a report generated by IDMS should be analyzed.

Since IDMS is not the ultimate innovation here, why not have these reports automatically generated after each interim test and given to the teacher? That will eliminate all the ‘glitches’ that teachers have with the website and take their worries and time off something that is trivial to the big picture – a district-uniform student assessment program.

References

Ellsworth, J.B. (2000). "Surviving change: A survey of educational change models." Syracuse, NY: ERIC Clearinghouse on Information and Technology. (ED 443 417).

Fullan, M. (2001). *The new meaning of educational change* (3 ed.). New York, NY: Teachers College Press.

Hall, G. E. (1974). The concerns-based adoption model: A developmental conceptualization of the adoption process within educational institutions. *Research and Development Center for Teacher Education*.

Appendix



Figure 1:

The purpose of this questionnaire is to determine how teachers at J.D. Smith MS feel about using the Interim Data Management System (IDMS). Please circle the number that corresponds with the degree of truth each statement holds for you. Thank you!!

0	1	2	3	4	5	6	7
<u>Irrelevant</u>	<u>Not true of me now</u>			<u>Somewhat true of me now</u>		<u>Very true of me now</u>	
1. I would like more information about the purpose of IDMS.	0	1	2	3	4	5	6 7
2. I am more concerned about beginning use of another innovation.	0	1	2	3	4	5	6 7
3. I would like to develop working relationships with administrators and other teachers to facilitate the use of IDMS.	0	1	2	3	4	5	6 7
4. I am concerned because responding to the demands of staff relative to IDMS takes so much time.	0	1	2	3	4	5	6 7
5. I am not concerned about IDMS at this time.	0	1	2	3	4	5	6 7
6. I am concerned about how <i>my use</i> of IDMS affects the attitudes of other teachers involved in the use of IDMS.	0	1	2	3	4	5	6 7
7. I would like to know more about IDMS.	0	1	2	3	4	5	6 7
8. I am concerned about criticism of my work with IDMS.	0	1	2	3	4	5	6 7
9. Working with administrators and other teachers beginning to use IDMS is important to me.	0	1	2	3	4	5	6 7
10. I am preoccupied with things other than IDMS.	0	1	2	3	4	5	6 7
11. I wonder whether use of IDMS will help or hurt my relations with my colleagues.	0	1	2	3	4	5	6 7
12. I need more information about and understanding of IDMS.	0	1	2	3	4	5	6 7
13. I am thinking that IDMS could be modified or replaced with a more effective program.	0	1	2	3	4	5	6 7
14. I am concerned about using IDMS in view of limited resources.	0	1	2	3	4	5	6 7
15. I would like to coordinate my efforts with other teachers using IDMS.	0	1	2	3	4	5	6 7
16. I would like to know what resources are necessary to use IDMS.	0	1	2	3	4	5	6 7
17. I want to know what priority my superiors want me to give IDMS.	0	1	2	3	4	5	6 7
18. I would like to excite those directly involved in the use of IDMS about their part in it.	0	1	2	3	4	5	6 7
19. I am considering use of another innovation that would be better than IDMS.	0	1	2	3	4	5	6 7
20. I would like to help others in facilitating the use of IDMS.	0	1	2	3	4	5	6 7
21. I would like to determine how to enhance my IDMS skills.	0	1	2	3	4	5	6 7
22. I spend little time thinking about IDMS.	0	1	2	3	4	5	6 7
23. I see a potential conflict between using IDMS and overloading staff.	0	1	2	3	4	5	6 7
24. I am concerned about being held responsible for using IDMS.	0	1	2	3	4	5	6 7
25. Currently, other priorities prevent me from focusing my attention on IDMS.	0	1	2	3	4	5	6 7
26. I know of another innovation that I would like to see used in place of IDMS.	0	1	2	3	4	5	6 7

- 27. I am concerned about how my using IDMS affects other users of IDMS. 0 1 2 3 4 5 6 7
- 28. Communication and problem-solving relative to IDMS take too much time. 0 1 2 3 4 5 6 7
- 29. I wonder who will get the credit for implementing IDMS. 0 1 2 3 4 5 6 7
- 30. I would like to know where I can learn more about IDMS. 0 1 2 3 4 5 6 7
- 31. I would like to modify my mode of using IDMS based on the experiences of others using IDMS. 0 1 2 3 4 5 6 7
- 32. I have alternate innovations in mind that I think would better serve the needs of our situation. 0 1 2 3 4 5 6 7
- 33. I would like to familiarize other departments or persons with the progress of the use of IDMS. 0 1 2 3 4 5 6 7
- 34. I am concerned about finding and allocating time needed for using IDMS. 0 1 2 3 4 5 6 7
- 35. I have information about another innovation that I think would produce better results than IDMS. 0 1 2 3 4 5 6 7

Please complete the following:

What subject do you teach? _____ How many years teaching? _____

Since the IDMS training on October 4th, have you logged on to IDMS? _____

If yes, what did you accomplish by being on the site? _____

Have you administered an interim test in your subject yet? _____

If yes, since the test have you looked up your students' scores on IDMS? _____

If yes, how much time did you spend looking at them? _____

Based on the results, have you changed your class instruction for any students? _____

Have you ever analyzed the items of a unit test in your class using the scantron machines? _____

If IDMS works as promised, will it affect the way you teach your class? _____

If teachers are not required by administration, will you use IDMS anyway? _____

Please comment on your concerns of using IDMS:

What questions do you have about IDMS?

Questionnaire adapted from:
Concerns Based Systems International
A - 7

Reference:

Hall, et al., (1991). *Measuring Change Facilitator Stages of Concern: A Manual for the Use of the CFSocQ Questionnaire*. Greeley, CO: Center for Research on Teaching and Learning, University of Northern Colorado.

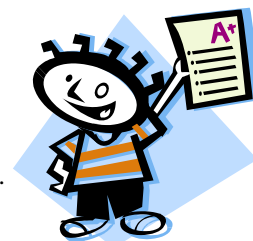




Figure 2:

The purpose of this questionnaire is to determine how administrators at J.D. Smith MS feel about implementing the Interim Data Management System (IDMS). Please circle the number that corresponds with the degree of truth each statement holds for you.

0	1	2	3	4	5	6	7
<u>Irrelevant</u>	<u>Not true of me now</u>			<u>Somewhat true of me now</u>			<u>Very true of me now</u>
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5. I am not concerned about IDMS at this time.	0	1	2	3	4	5	6 7
6. I am concerned about how <i>my use</i> of IDMS affects the attitudes of other teachers involved in the use of IDMS.	0	1	2	3	4	5	6 7
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17. I want to know what priority my superiors want me to give IDMS.	0	1	2	3	4	5	6 7
18. I would like to excite those directly involved in the use of IDMS about their part in it.	0	1	2	3	4	5	6 7
19. I am considering use of another innovation that would be better than IDMS.	0	1	2	3	4	5	6 7
20. I would like to help others in facilitating the use of IDMS.	0	1	2	3	4	5	6 7
21. I would like to determine how to enhance my IDMS skills.	0	1	2	3	4	5	6 7
22. I spend little time thinking about IDMS.	0	1	2	3	4	5	6 7
23. I see a potential conflict between using IDMS and overloading staff.	0	1	2	3	4	5	6 7
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25. Currently, other priorities prevent me from focusing my attention on IDMS.	0	1	2	3	4	5	6 7

- 26. I know of another innovation that I would like to see used in place of IDMS. 0 1 2 3 4 5 6 7
- 27. I am concerned about how my using IDMS affects other users of IDMS. 0 1 2 3 4 5 6 7
- 28. Communication and problem-solving relative to IDMS take too much time. 0 1 2 3 4 5 6 7
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- 34. I am concerned about finding and allocating time needed for using IDMS. 0 1 2 3 4 5 6 7
- 35. I have information about another innovation that I think would produce better results than IDMS. 0 1 2 3 4 5 6 7

Please complete the following:

Was it your choice to implement the use of IDMS at J.D. Smith MS? _____

Will there be more training on IDMS? _____ If yes, how often? _____

Will all teachers be required to analyze their own students data? _____

If yes, will there be paid time allotted? _____ If yes, when? _____

How would you like to see teachers using the results of a test analysis? _____

Would it be possible for one or two teachers from each department to analyze test results on IDMS and relay information back to each teacher of the items their students are struggling with (instead of having each teacher look through thousands of data sets)? _____

Please comment on your concerns of using IDMS:

What questions do you have about IDMS?

Questionnaire adapted from:
Concerns Based Systems International
B - 5

Reference:

Hall, et al., (1991). *Measuring Change Facilitator Stages of Concern: A Manual for the Use of the CFSocQ Questionnaire*. Greeley, CO: Center for Research on Teaching and Learning, University of Northern Colorado.

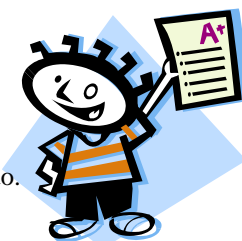


Figure 3:

Five Item Raw Scale Score Total	Percentiles For:						
	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
0	0	1	0	0	0	0	0
1	1	2	1	1	0	0	1
2	2	3	2	1	0	0	3
3	4	5	4	2	1	0	5
4	7	8	7	2	1	0	8
5	14	13	12	5	1	0	13
6	22	18	18	8	1	1	18
7	31	21	24	11	1	1	23
8	40	26	30	15	2	2	31
9	48	30	34	19	2	3	39
10	55	34	38	22	2	3	47
11	61	37	43	28	2	4	55
12	69	40	49	30	2	5	63
13	75	43	56	35	3	7	68
14	81	46	62	40	3	8	78
15	87	49	68	44	4	9	81
16	91	53	73	50	5	12	86
17	94	56	77	55	6	15	89
18	96	59	79	60	7	18	90
19	97	61	81	66	9	21	92
20	98	64	84	71	11	24	95
21	99	66	87	74	13	28	96
22	99	69	89	78	16	32	97
23	99	72	91	82	20	36	97
24	99	76	93	86	27	40	98
25	99	79	95	89	33	43	98
26	99	81	97	91	38	48	99
27	99	84	98	93	46	54	99
28	99	87	99	94	54	60	99
29	99	89	99	94	62	67	99
30	99	92	99	95	68	72	99
31	99	94	99	96	74	77	99
32	99	96	99	97	82	82	99
33	99	98	99	98	87	85	99
34	99	99	99	99	91	91	99
35	99	99	99	99	97	97	99

Stage	0	1	2	3	4	5	6							
B	2	6	1	6	8	1	4	5	6	1	3	5	13	4
	5	1	7	7	11	1	14	7	18	2	9	4	19	7
	10	6	12	7	17	7	23	7	21	4	15	0	26	1
	22	6	16	1	24	1	28	6	27	1	20	2	32	0
	25	7	30	6	29	1	34	7	31	1	33	5	35	1
C		26		27		11		32		9		16		13
E		99		84		43		97		2		12		68

Awareness	99
Information	84
Personal	43
Management	97
Consequence	2
Collaboration	12
Refocusing	68

