Qualitative Analysis Data Espinoza

Each of the following pieces of data reflect some of the comments of a teacher participating in a focus group. Teachers are identified by a unique number to protect their anonymity. Their comments have been edited by the researcher in two ways: The first used common grammatical conventions to enhance the readability of the transcript, while the second removed data perceived to be extraneous to the purpose of the study.

2 The teacher must have a complete understanding of the mathematics content. She must have the capabilities of being multi-tasked like placing students, tutoring students, disciplining students…all at the same time! The teacher needs to be flexible and willing to individualize the program for each student.

4 You must have a firm grasp of content and be able to switch from topic to topic without difficulty. You must be able to spot and correct errors on the screen, and you must be able to explain concepts a variety of ways so students who cannot follow the speaker can follow you. You really need to be aware of what is going on so that you can keep students on task and monitor the class to be sure the equipment is being cared for properly.

6 Good organization skills to track each student and keep up with their pace so that you know when they are spending too much time on a lesson. Some students don't ask for help and will continue failing if you don't know when to step in. The task is more physically demanding than a regular classroom. After a day of tutoring individuals and going from station to station where everyone is on a different concept it can be draining but I feel much more effective than delivering a concept to a group.

7 You must be able to rapidly switch gears to aim instruction at the individual students in words they understand, rather than aim it toward the overall group as you would in a traditional classroom. Because you are dealing predominantly one on one, you must be able to tailor your vocabulary, your presentation, your entire methodology to a single student's knowledge core.

8 You must have a really good knowledge of math. It is also really important to be able to manage everything going on.

11 Nerves of steel. There are moments when 30 children have questions and you can't get to any of them quickly enough.

16 You must be well organized and able to run a structured classroom in order to handle all the situation and problems that must be taken care of in this classroom. The teacher needs to be able to plan thoroughly in order to coordinate the computer lessons, which correlate with the course outline. There is also a need to be able to manage student behavior in an experienced, effective teacher this program will live up to its potential and really give the students a good head start and a strong foundation in algebra. However, the administrators must not see it as a cure-all for weak teachers who cannot teach or manage a classroom. The teacher must not expect to just put the students on the computers and let the computers do all the teaching, as this is taking away from the effectiveness of this program. The teacher must be able to help the students pull together what they are learning on the computer lessons and transfer that knowledge to traditional lessons and test that they will run into later on in this class as well as in other math classes.

23 A teacher should have a good knowledge of algebra and algebraic methods and should be able to translate and simplify instructions from the program to the students. I almost forgot something really important—you also need basic computer skills.

24 Flexibility is the most important attribute that a teacher can have while using this program. I've learned a lot over this past year, and I have had to adjust the order of lessons, the structure of the class, and the grading procedures many times to best benefit the students' learning. Excitement is also a key to effectively using the program. If the teacher is excited about the program, they are more apt to learn more and pass the excitement on to the students. I really don't think that one has to have any special skills to effectively use the program because it is very user friendly. Being able to solve complex math problems is important so that you can help students work through them. Oh, I just remembered one more very important skill—a teacher has to be able to maintain order in the classroom. Otherwise, the students will not benefit from the program and the equipment will get stolen and/or destroyed.

25 I feel you need more planning time and the ability to multi-task.

26 There are only three things you really need: organization, patience, and flexibility.

Analysis of Data

Segments – List below, number by the teacher who is the source of the data. Extend the data table as needed.

Teacher Number	Segment	Topic
2	a complete understanding of the mathematics content.	Content
2	multi-tasked	Teacher function
2	capabilities of placing students	Teacher function
2	capabilities of…tutoring students,	Teacher function
2	capabilities of … disciplining students	Teacher ability
2	flexible	Teacher attitude
2	willing to individualize	Teacher attitude
4	firm grasp of content	Content
4	able to switch from topic to topic	Teacher ability
4	able to spot and correct errors	Teacher ability
4	able to explain concepts a variety of ways	Teacher ability
4	keep students on task and monitor the class	Teacher function
4	be sure the equipment is being cared for properly.	Teacher function
6	good organization skills	Teacher skill
6	know when to step in	Teacher function

6	it can be draining	Teacher attitude
6	feel much more effective than delivering a concept to a group	Teacher attitude
7	able to rapidly switch gears	Teacher ability
7	aim instruction at the individual students	Teacher skill
7	able to tailor your vocabulary, your entire methodology,	Teacher ability
7	able to tailor…your presentation	Teacher ability
7	able to tailor… your entire methodology,	Teacher ability
8	must have a really good knowledge of math.	Content
8	able to manage everything going on.	Teacher ability
11	nerves of steel	Teacher attitude
16	be well organized	Teacher skill
16	able to run a structured classroom	Teacher ability
16	able to handle all the situation and problems	Teacher ability
16	able to plan thoroughly	Teacher ability
16	coordinate the computer lessons,	Teacher function
16	correlate with the course outline.	Content
16	able to manage student behavior	Teacher ability
16	give the students a good head start and a strong foundation in algebra.	Content
16	teacher must not expect to just put the students on the computers and let the computers do all the teaching	Teacher attitude

16	able to help the students pull together what they are learning on the computer lessons test that they will run into later on in this class as well as in other math classes.	Content
16	transfer that knowledge to traditional lessons	Content
16	test that they will run into later on in this class as well as in other math classes.	Content
23	have a good knowledge of algebra and algebraic methods.	Content
23	should be able to translate and simplify instructions from the program to the students	Teacher ability
23	need basic computer skills.	Teacher skill
24	flexibility	Teacher function
24	adjust the order of lessons, and the grading procedures	Teacher function
24	excitement is…key	Teacher attitude
24	no need to have any special skills	Teacher attitude
24	program…is very user friendly	Teacher attitude
24	able to solve complex math problems	Content
24	help students	Teacher function
24	maintain order in the classroom.	Teacher function
25	need more planning time and the ability to multi-task.	Teacher function
26	organization	Teacher function
26	patience,	Teacher attitude
26	flexibility	Teacher function

Categories

Teacher Number	Segment	Topic
	Math Content	
2	a complete understanding of the mathematics content.	Content
4	firm grasp of content	Content
8	must have a really good knowledge of math.	Content
16	able to help the students pull together what they are learning on the computer lessons test that they will run into later on in this class as well as in other math classes.	Content
16	transfer that knowledge to traditional lessons	Content
16	test that they will run into later on in this class as well as in other math classes.	Content
16	correlate with the course outline.	Content
16	give the students a good head start and a strong foundation in algebra.	Content
23	have a good knowledge of algebra and algebraic methods.	Content
24	able to solve complex math problems	Content
	Teacher	
2	capabilities of … disciplining students	Teacher ability

4	able to switch from topic to topic	Teacher ability
4	able to spot and correct errors	Teacher ability
4	able to explain concepts a variety of ways	Teacher ability
7	able to rapidly switch gears	Teacher ability
7	able to tailor your vocabulary, your entire methodology,	Teacher ability
7	able to tailor…your presentation	Teacher ability
8	able to manage everything going on.	Teacher ability
16	able to run a structured classroom	Teacher ability
16	able to handle all the situation and problems	Teacher ability
16	able to plan thoroughly	Teacher ability
16	able to manage student behavior	Teacher ability
23	should be able to translate and simplify instructions from the program to the students	Teacher ability
24	maintain order in the classroom.	Teacher ability
2	willing to individualize	Teacher attitude
6	feel much more effective than delivering a concept to a group	Teacher attitude
6	it can be draining	Teacher attitude
11	nerves of steel	Teacher attitude
16	teacher must not expect to just put the students on the computers and let the computers do all the teaching	Teacher attitude
24	excitement is…key	Teacher attitude
24	no need to have any special skills	Teacher attitude
24	program…is very user friendly	Teacher attitude
26	patience,	Teacher attitude

2	flexible	Teacher function
2	capabilities of…tutoring students,	Teacher function
2	capabilities of placing students	Teacher function
4	keep students on task and monitor the class	Teacher function
4	be sure the equipment is being cared for properly.	Teacher function
6	know when to step in	Teacher function
16	coordinate the computer lessons,	Teacher function
24	flexibility	Teacher function
24	adjust the order of lessons, and the grading procedures	Teacher function
24	help students	Teacher function
25	need more planning time and the ability to multi-task.	Teacher function
26	flexibility	Teacher function
2	multi-tasked	Teacher skill
6	good organization skills	Teacher skill
7	aim instruction at the individual students	Teacher skill
16	be well organized	Teacher skill
23	need basic computer skills.	Teacher skill
26	organization	Teacher skill

Analysis, Findings and Conclusions

After having interviewed the wonderful and hard working teachers at your educational institution, I was able to document how they use the new math computer program. Equally as important to our research is what these teachers feel is needed to make this program work at its best. I took their statements and organized them into

categories. The main ones that stand out are *teacher ability, teacher attitude* and *teacher function*. Although computer skills was talked about, it was planning, organizing, accommodations, management and mastery of content that seemed of most importance to them. It is worth noting that computer skills was the least mentioned aspect of this program. In regards to *content,* a common concern amongst the teachers is the ability to connect the computer program to the curriculum. As for *teacher ability* common themes were structure, discipline, monitoring and correction. *Teacher attitude* was a big topic with a wide range of feelings from excitement to needing patience to feeling drained. Also mentioned was the feeling that the program is easy to use and that no special computer skills are needed for the program. Flexibility, adaptability and coordination were spoken about frequently as *teacher functions.* And lastly the *teacher skills* mentioned were basic computer knowledge, multitasking and organization. In conclusion, Some teachers viewed the implementation of the program as a challenge to tackle while most saw it as a great tool and opportunity to help their students. As stated earlier, a main theme was integrating the program to the standards and how the use of this program translates to acquiring the math skills needed to succeed. For the most part, the teachers interviewed shared a common view; regardless of how advanced this new math computer program is, it is the traditional role of the teacher and students that will make the program work.