

COLLEGE OF THE CANYONS

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Office of Institutional Development and Technology

Math Preparation Workshop Survey: Spring 2014

Report #288

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Introduction

At the request of the Math Learning Consortium, the Office of Institutional Development surveyed students who participated in Math Preparation Workshops at Golden Valley High School and College of the Canyons' Valencia and Canyon Country campuses. Students were recruited through a Wm. S. Hart Union High School District parent information night. This workshop was designed to help graduating seniors from the Wm. S. Hart Union High School District prepare for the math placement test and math courses at College of the Canyons. This survey intended to obtain information on the following research questions:

- 1.) Were various aspects of the workshop helpful?
- 2.) What was the most useful or valuable thing gained from participating in the workshop?
- 3.) Were there any topics that needed more time on task?
- 4.) Are there any additional topics recommended for future workshops?
- 5.) Were there any topics that were not helpful?
- 6.) Are there any additional comments?

Results of this survey will be used to inform planning for future Math Preparation Workshops.

Methods

The Office of Institutional Development and Technology in cooperation with the Math Learning Consortium, developed a survey that contained closed- and open-ended questions assessing respondents' feedback on their participation in Math Preparation Workshops.

Procedures

Surveys were distributed to graduating high school seniors attending the Saturday Math Preparation Workshops held at Golden Valley High School on March 8, COC Valencia campus on March 22, and COC Canyon Country campus on April 19, 2014. Students who attended these workshops were placed into two groups: Group 1 and Group 2. Group 1 consisted of students who missed more of the arithmetic questions on a pre-test compared to all other students in the workshop, who were then labeled as Group 2. Group 1 began the workshop reviewing arithmetic and Group 2 began the workshop reviewing algebra.

A total of 27 students attended the March 8 meeting at Golden Valley High School and 26 surveys were completed and returned, resulting in a response rate of 96 percent. A total of 42 students

attended the March 22 meeting at COC's Valencia campus and 35 surveys were completed and returned, resulting in a response rate of 83 percent. A total of 15 students attended the April 15 meeting at COC's Canyon Country campus and 14 surveys were completed and returned, resulting in a response rate of 93 percent.

Completed surveys were analyzed using Excel (2013) and SPSS (2013). Please refer to Appendix A for a copy of the questionnaire.

Results

Golden Valley High School

Evaluation of Workshop: As indicated in Table 1, the majority of respondents from both the Arithmetic Group (Group 1) and the Algebra Group (Group 2) who participated in the Math Preparation Workshop at Golden Valley high School indicated that they “strongly agreed” or “agreed” with various aspects of the math preparation workshops held at Golden Valley High School. See Table 1 for details. Specifically 100 percent of respondents from Group 1 indicated that they “strongly agreed” or “agreed” that the workshop was helpful, handouts provided during the workshop were helpful and will be used in the future to review material, each, and 69 percent indicated that the time allowed for the workshop was sufficient. From Group 2, just over three-quarters of respondents indicated that the workshop was helpful (77 percent), 85 percent indicated that the handouts provided were helpful, 93 percent indicated that they will use the handouts provided in the future to review material, and just about two-thirds indicated that the time allowed for the workshop was sufficient (61 percent).

Table 1. Level of Agreement with Math Preparation Workshop: Golden Valley High School (Percentage) Group 1 (N=13); Group 2 (N=13).

Level of Agreement	Strongly Agree/Agree		Neutral		Strongly Disagree/Disagree	
	Group 1 (%)	Group 2 (%)	Group 1 (%)	Group 2 (%)	Group 1 (%)	Group 2 (%)
This workshop was helpful	100%	77%	0%	15%	0%	8%
The handouts given to me during the workshop were helpful	100%	85%	0%	8%	0%	8%
I will use the handouts given to me during the workshop in the future to review material	100%	93%	0%	0%	0%	8%
The time allowed for this meeting was sufficient	69%	61%	8%	23%	23%	15%

Most Useful or Valuable Aspects of the Workshop: Respondents from Group 1 indicated the following as most useful or valuable aspects of the workshop: refreshed memory (6 comments); percentages (2 comments); fractions, clarification, rational expressions, packets, teacher, and other (1 comment, each). Please refer to Appendix C for detailed comments. Sample comments by category are as follows:

- *Refreshed memory*
 - “Remind me of things I had learned but forgot.”
 - “it was a good refresher. Better job here than I would've done myself.”
 - “Just being able to take a practice of the test and see where I'm at there.”
- *Percentages*
 - “going over...percents were very helpful.”
 - “...percent word prob.”
- *Fractions*
 - “going over fractions...were very helpful.”
- *Clarification*
 - “Went over many things that clarified topics I was struggling [sic] on.”

Respondents from Group 2 also indicated the following as most useful or valuable aspects of the workshop: review (5 comments); equation of lines and packets (3 comments, each); percentages, exponents, and instructors (2 comments, each); fractions, decimals, pretest, and small class size (1 comment, each).

- *Review*
 - “A log of review of things I had forgotten.”
 - “reviewing the packet. [G]oing over it.
 - “Review was excellent....”
- *Equation of lines*
 - “Equation of lines/ Graphing lines....”
 - “the lines were helpful....”
 - “It helped me going over the lines and graphing....”
- *Packets*
 - “....2. Good worksheets.”
 - “the packet....”
- *Percentages*
 - “...Percent word problems.”
 - “It helped me going over...the percent rules.”
- *Exponents*
 - “exponents (dividing, mult, add, sub.).”

- *Instructors*
 - “Review was...taught property.”
 - “1. Teacher very passionate, kept students attention and was great at explaining....”
- *Pretest*
 - “The pretest was very useful because it gave me an idea of what the test questions are like.”
- *Small class size*
 - “...Small class provided a 1 on 1 feel.”

More Time on Task: Respondents from Group 1 indicated a variety of topics in which they would liked to have spent more time on that were grouped into the following categories: rational expressions, equations of lines, and topic coverage was sufficient (2 comments, each); fractions, geometry, trigonometry, percentages, factoring, and other comments (1 comment, each). Please see Appendix C for detailed comments.

Respondents from Group 2 also indicated a variety of topics in which they would have liked to have spent more time on that were grouped into the following categories: geometry (4 comments); trigonometry (3 comments); integers, decimals, nothing, rational expressions, and other comment (1 comment, each). Please see Appendix C for detailed comments.

Recommended Additional Topics: Respondents from Group 1 indicated additional topics they would recommend for future Math Preparation Workshops, including: nothing/NA (5 comments), geometry (3 comments), and more teachers and decimals (1 comment, each). Please see Appendix C for detailed comments.

Respondents from Group 2 also indicated additional topics they would recommend for future Math Preparation Workshops, including: calculus (3 comments), nothing (2 comments), and geometry and other comment (1 comment, each). Please see Appendix C for detailed comments.

Topics That Were Not Helpful: Respondents from Group 1 indicated topics that were not helpful during their workshop that were grouped into the following categories: all topics were helpful/none/NA (7 comments), graphs (2 comments), and fractions and integers (1 comment, each). Please see Appendix C for detailed comments.

Respondents from Group 2 also indicated topics that were not helpful during their workshop that were grouped into the following categories: all topics were helpful/none/NA (5 comments) and fractions were confusing (1 comment). Please see Appendix C for detailed comments.

Additional Comments: Respondents from Group 1 provided additional comments that were grouped into the following categories: value of the workshop (5 comments), instructor (2 comments), and length of workshop and NA (1 comment each). Please see Appendix C for detailed comments. Sample comments by category are as follows:

- *Value of the workshop*
 - “it was very helpful and I needed a lot this time.”

- “I enjoyed it. Thank you.”
- “Thank you so much really HELPED!!”
- *Instructor*
 - “She was very helpful, helped me understand the topics.”
 - “She was a good teacher.”
- *Length of workshop*
 - “5 hours is a little long.”

Respondents from Group 2 also provided additional comments that were grouped into the following categories: value of the workshop (4 comments), length of workshop (2 comments), and easy to follow and nothing (1 comment, each). Please see Appendix C for detailed comments. Sample comments by category are as follows:

- *Value of the workshop*
 - “it helped a lot and you guys did good reteaching the subjects.”
 - “Very helpful!!”
 - “Thank you for dedicating time & helping!”
- *Length of workshop*
 - “More time would be very useful.”
 - “Needs to be longer.”
- *Easy to follow*
 - “You guys have great, easy on the ears vocals.”

College of the Canyons – Valencia Campus:

Evaluation of Workshop: Similar to the results from Golden Valley High School, the majority of respondents from both the Arithmetic Group (Group 1) and the Algebra Group (Group 2) who participated in the Math Preparation Workshop at the College of the Canyons Valencia campus indicated that they “strongly agreed” or “agreed” with various aspects of the math preparation workshops held at the College of the Canyons Valencia campus. See Table 2 for details. Specifically, 92 percent of respondents from Group 1 indicated that they “strongly agreed” or “agreed” that the workshop was helpful, handouts provided during the workshop were helpful and will be used in the future to review material, and that the time allowed for the workshop was sufficient, each. From Group 2, 92 percent indicated that the workshop was helpful, 91 percent indicated that the handouts provided were helpful, 96 percent indicated that they will use the handouts provided in the future to review material, and 87 percent indicated that the time allowed for the workshop was sufficient.

Table 2. Level of Agreement with Math Preparation Workshop: COC Valencia Campus (Percentage) Group 1 (N=12); Group 2 (N=23).

Level of Agreement	Strongly Agree/Agree		Neutral		Strongly Disagree/Disagree	
	Group 1 (%)	Group 2 (%)	Group 1 (%)	Group 2 (%)	Group 1 (%)	Group 2 (%)
This workshop was helpful	92%	92%	8%	9%	0%	0%
The handouts given to me during the workshop were helpful	92%	91%	0%	9%	0%	0%
I will use the handouts given to me during the workshop in the future to review material	92%	96%	8%	0%	0%	4%
The time allowed for this meeting was sufficient	92%	87%	0%	13%	8%	0%

Most Useful or Valuable Aspects of the Workshop: Respondents from Group 1 indicated the following as most useful or valuable aspects of the workshop: material provided and review (6 comments, each); instructor (3 comments); and math knowledge (1 comment). Please see Appendix C for detailed comments. Sample comments by category are as follows:

- **Material provided**
 - “The handouts...help....”
 - “Handouts, Practice exercises.”
 - “The packets were very helpful and valuable as well as the mini test to see where we were at and to separate [sic] us according to.”
- **Review**
 - “I got to review all the basics that I had forgotten about.”
 - “Going over answers in the prompt.”
 - “Helped prepare me for math test and gave me a better understanding on problems.”
- **Instructor**
 - “...teachers help [Name].”
 - “The instructor helped answer my questions.”
 - “...the teachers.”

Most Useful or Valuable Aspects of the Workshop: Respondents from Group 2 also indicated the following as most useful or valuable aspects of the workshop: materials provided (10 comments), review (8 comments), instructor (4 comments), review of placement (2 comments), equation of lines, percentages, and PowerPoint on time management (1 comment, each). Please see Appendix C for detailed comments. Sample comments by category are as follows:

- **Materials provided**
 - “Test at beginning, packet covered graphing etc.”
 - “I thought that the worksheet & pretest was a good study material.”
 - “the packet...helped a lot”

- **Review**
 - “Reviewing the old lessons we learned in the past years. Helping me with older stuff and relearned old things.”
 - “getting refreshed on basic math from long ago.”
 - “the choice to go over whatever needed.”
- **Instructor**
 - “...I also found the instructor very good at explaining things.”
 - “...nice teacher.”
 - “...the teachers help.”
- **Review of placement**
 - “Showing the levels they place you in...”
 - “how the placement works. [W]hat is on the test.”
- **PowerPoint on Time Management**
 - “The power point on how to build up your schedule and notes he added on.”

More Time on Task: Respondents from Group 1 indicated a variety of topics in which they would have liked to have spent more time on that were grouped into the following categories: geometry (5 comments); graphing and decimals (2 comments, each); reviewing pretest, logarithms, integers, pre-calculus, algebra, and nothing (1 comment, each). Please see Appendix C for detailed comments.

Respondents from Group 2 also indicated a variety of topics in which they would have liked to have spent more time on that were grouped into the following categories: trigonometry and geometry (4 comment, each); discounts, percentages, nothing, and fractions (2 comments, each); tax, decimals, other comment, formulas, graphing, exponents, and packet (1 comment, each). Please see Appendix C for detailed comments.

Recommended Additional Topics: Respondents from Group 1 indicated additional topics they would recommend for future Math Preparation Workshops, including: nothing/none and geometry (2 comments, each) and other comment (1 comment). Please see Appendix C for detailed comments.

Respondents from Group 2 also indicated additional topics they would recommend for future Math Preparation Workshops, including: none/nothing (8 comments); geometry, pre-calculus, higher level math, trigonometry, and cover all topics (2 comments, each); and radicals (1 comment). Please see Appendix C for detailed comments.

Topics That Were Not Helpful: Respondents from Group 1 indicated topics that were not helpful during their workshop that were grouped into the following categories: all topics were helpful/none/NA (4 comments) and geometry (1 comment). Please see Appendix C for detailed comments.

Respondents from Group 2 also indicated topics that were not helpful during their workshop that were grouped into the following categories: all topics were helpful/none/NA (11 comments), other comments (3 comments), and addition and multiplication (1 comment). Please see Appendix C for detailed comments.

Additional Comments: Respondents from Group 1 provided additional comments that were grouped into the following categories: value of the workshop and length of workshop (3 comments, each); and instructor (1 comment). Please see Appendix C for detailed comments. Sample comments by category are as follows:

- ***Value of the workshop***
 - “I think this is a great how you guys offer this with no cost and it is very helpful. This is set up great! Thank you.”
 - “It was helpful...”
- ***Length of workshop***
 - “I would like the workshop to be longer.”
 - “maybe for the future not as long of a class.”
 - “the workshop was sort of long. I got tired after a while.”
- ***Instructor***
 - “...the teacher was very nice.”

Respondents from Group 2 also provided a variety of additional comments that were grouped into the following categories: value of the workshop (11 comments), instructor (4 comments), recommendations and none/nothing (3 comments, each). Please see Appendix C for detailed comments. Sample comments by category are as follows:

- ***Value of the workshop***
 - “Thanks for providing this very helpful.”
 - “The math preparation workshop is great.”
 - “Thank you so much for your time! Very mush [sic] appreciated.”
- ***Instructor***
 - “The teachers were very helpful with everyone.”
 - “Very helpful teachers.”
 - “[Name] was THE MAN! [H]e helped a lot!
- ***Recommendations***
 - “Please consider going over pre-calc & trig.”
 - “review higher levels like pre-calc”
 - “More time to do the pre-test, felt rushed and left some answers blank because of it.”

College of the Canyons – Canyon Country Campus:

Evaluation of Workshop: Similar to the results from Golden Valley High School and the College of the Canyons' Valencia campus, the majority of respondents from the Algebra Group (Group 2) who participated in the Math Preparation Workshop at the College of the Canyons' Canyon Country campus indicated that they “strongly agreed” or “agreed” with various aspects of the math preparation workshops held at the College of the Canyons Valencia campus. Due to a low sample size, results are not reported for Group 1. See Table 3 for details. Specifically, 80 percent of respondents from Group 2 indicated that they “strongly agreed” or “agreed” that the workshop was helpful, 90 percent indicated that handouts provided during the workshop were helpful, 80 percent indicated that they will use the handouts in the future to review material, and 70 percent indicated that the time allowed for the workshop was sufficient.

Table 3. Level of Agreement with Math Preparation Workshop: COC Canyon Country Campus (Percentage) Group 1 (N=4); Group 2 (N=10).

Level of Agreement	Strongly Agree/Agree		Neutral		Strongly Disagree/Disagree	
	Group 1 (%)	Group 2 (%)	Group 1 (%)	Group 2 (%)	Group 1 (%)	Group 2 (%)
This workshop was helpful	--	80%	--	10%	--	10%
The handouts given to me during the workshop were helpful	--	90%	--	0%	--	10%
I will use the handouts given to me during the workshop in the future to review material	--	80%	--	10%	--	10%
The time allowed for this meeting was sufficient	--	70%	--	20%	--	10%

Most Useful or Valuable Aspects of the Workshop: Respondents from Group 1 indicated the following as most useful or valuable aspects of the workshop: review (2 comments) and packets and everything was valuable (1 comment, each). Please see Appendix C for detailed comments. Sample comments by category are as follows:

- **Review**
 - “relearning the material.”
 - “I reviewed everything I forgot over the years.”
- **Packets**
 - “Review Packets”
- **Everything was valuable**
 - “The whole workshop was helpful.”

Most Useful or Valuable Aspects of the Workshop: Respondents from Group 2 also indicated the following as most useful or valuable aspects of the workshop: review and materials provided

(4 comments, each) and everything was valuable, instructor, and video (1 comment, each). Please see Appendix C for detailed comments. Sample comments by category are as follows:

- **Review**
 - “Explaining all subjects in math.”
 - “The explanations were clear, teacher was patient.”
 - “examples & the explaining.”
- **Materials provided**
 - “The practice test & worksheets.”
 - “It was very in-depth and there was a lot of helpful stuff in the packet.”
 - “The handout gave me a great study tool.”
- **Everything was valuable**
 - “Everything!”
- **Instructor**
 - “teacher was patient.”

More Time on Task: Respondents from Group 1 indicated that nothing needed to have more time spent on (2 comments). Please see Appendix C for detailed comments.

Respondents from Group 2 indicated topics in which they would have liked to have spent more time on that were grouped into the following categories: nothing (4 comments), absolute value (2 comments), other comments, higher level math, trigonometry, and basic math (1 comment, each). Please see Appendix C for detailed comments.

Recommended Additional Topics: Respondents from Group 1 indicated that they would have liked to have spent more time on word problems and graphing (1 comment, each). Please see Appendix C for detailed comments.

Respondents from Group 2 also indicated additional topics they would recommend for future Math Preparation Workshops that were grouped into the following categories: none/nothing (4 comments), quadratics, geometry, conics, and word problems (1 comment, each). Please see Appendix C for detailed comments.

Topics That Were Not Helpful: Respondents from Group 1 indicated that all topics were helpful (1 comment, each). Please see Appendix C for detailed comments.

Four respondents from Group 2 indicated that all topics were helpful (4 comments) and one respondent indicated that the workshop was too far ahead. Please see Appendix C for detailed comments.

Additional Comments: For additional comments, one respondent from Group 1 indicated that the workshop was a great review class. Please see Appendix C for detailed comments.

Respondents from Group 2 provided a variety of additional comments, including: value of the workshop (3 comments), recommendations (2 comments), instructor and length of time (1

comment, each). Please see Appendix C for detailed comments. Sample comments by category are as follows:

- ***Value of the workshop***
 - “It was helpful.”
 - “Great workshop.”
 - “Everything was great.”
- ***Recommendations***
 - “...I'd like workshops to be held for higher level math. ex:) Calculus, Stats, Algebra II.”
 - “When we go over the tests you should ask which questions we need you to work out.”
- ***Instructor***
 - “Teaching was great.”
- ***Length of time***
 - “Dragged on a little too long.”

Summary of Findings

- Overall, the majority respondents who participated in the Math Preparation Workshops at Golden Valley High School and College of the Canyons' Valencia and Canyon Country campuses had high levels of agreement with regard to various aspects of the Math Preparation Workshop, including: helpfulness of the workshop, helpfulness of handouts and the likelihood that the handouts will be used in the future to review material, and that the time allowed for the workshop was sufficient (see Table 4).

Table 4. Overall Level of Agreement with Math Preparation Workshop (Percentage) Group 1 (N=29); Group 2 (N=46)

Level of Agreement	Strongly Agree/Agree		Neutral		Strongly Disagree/Disagree	
	Group 1 (%)	Group 2 (%)	Group 1 (%)	Group 2 (%)	Group 1 (%)	Group 2 (%)
This workshop was helpful	97%	85%	3%	11%	0%	4%
The handouts given to me during the workshop were helpful	97%	89%	0%	17%	3%	4%
I will use the handouts given to me during the workshop in the future to review material	94%	91%	7%	2%	0%	6%
The time allowed for this meeting was sufficient	83%	76%	3%	17%	13%	6%

- While the majority “strongly agreed” or “agreed” that the time allowed for the workshop was sufficient, several comments from respondents indicated that the length of the workshop was too long.
- Overall, open-ended comments provided by participants in the Math Preparation Workshop indicated that the workshop was valuable; the review, instructors, and handouts were helpful; and provided recommendations for future Math Preparation Workshops. More specifically, respondents indicated the following:
 - For Group 1, material reviewed in the workshop, such as geometry, fractions, graphing, decimals, and word problems were helpful and valuable.
 - For Group 2, material reviewed in the workshop, such as word problems, geometry, trigonometry, pre-calculus, calculus, fractions, and decimals were helpful and valuable.
 - Overall, materials provided, such as packets and the pre-test were helpful.
 - Overall, instructors were friendly and helpful.
 - Overall, recommendations were offered for future workshops, such as shorten the length of time of the workshop and spend more time on and add higher level math.

Recommendations

Upon review of the survey results the following recommendations should be taken into consideration:

- Continue Math Preparation Workshops, while considering minor changes suggested by respondents, including spending more time on higher level math, and other topics suggested by Groups 1 and 2, and shortening the length of the workshop.
- Consider ways to increase participation in Math Preparation Workshops.