Math Ed
Signature Assignment Data Report
AY 2012-14

Figure Description:

- **SLO Comparison Summary Graph:** compares aggregate data by SLO for a two-year period based on points earned.
- **SLO Trend Comparison Graph:** displays trends in SLO data across two years based on points earned.
- **SLO Score Distribution Graph:** displays score distribution trends for SLOs across two years based on the percentage of students who earned a particular score
- **SLO Criteria Score Means Graph:** displays aggregate criteria data for SLOs for a two-year period based on the average percentage of points earned.

Student Learning Outcomes

Outcome 1: Describe contemporary issues in mathematics education addressed in NCTM and California principles and standards.

Outcome 2: Design various assessments, interpret, and use assessment results for planning and teaching mathematics.

Outcome 3: Apply research-based instructional strategies in teaching.

Outcome 4: Integrate contemporary technologies in mathematics planning, teaching, and assessment at the K-8 level.

Outcome 5: Integrate pre-algebra and algebra content and pedagogy in K-8 classrooms.

Outcome 6: Design research in their own teaching settings relating to mathematics education.

Outcome 7: Collect, analyze and interpret data related to research questions.

Figure 1

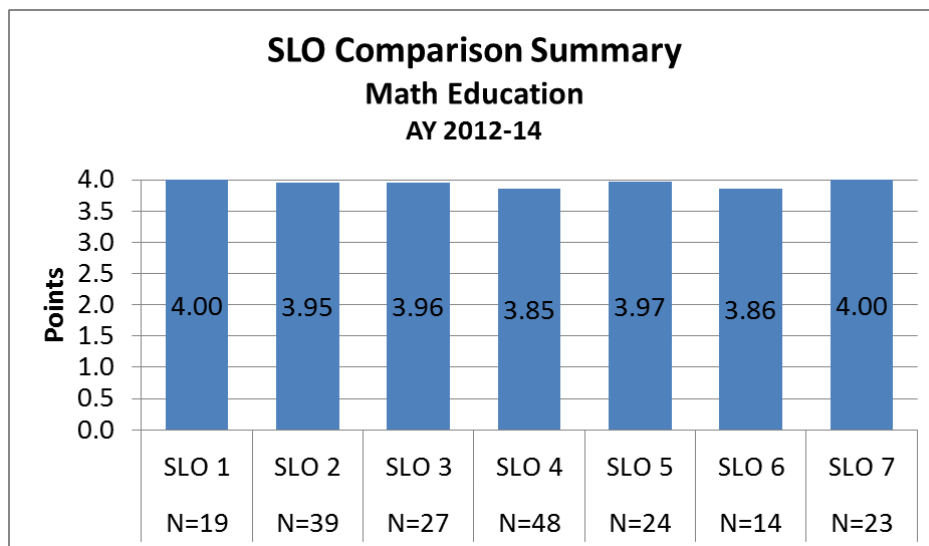Figure 1 shows aggregate data by SLO for a two-year period based on points earned.

SLO Comparison Summary
Math Education
AY 2012-14

	SLO 1	SLO 2	SLO 3	SLO 4	SLO 5	SLO 6	SLO 7
Points	4.00	3.95	3.96	3.85	3.97	3.86	4.00
	N=19	N=39	N=27	N=48	N=24	N=14	N=23

Figure 1 provides mean scores for each of the seven program SLOs. It shows SLO 2 and SLO7 have the highest mean scores at 4, followed by SLO 5, SLO 3, SLO 2, SLO 6, and SLO 4 that has the lowest mean score at 3.85.

Figure 2

Figure 2 shows trends in SLO data across two years based on points earned.

SLO Trend Comparison
Math Education
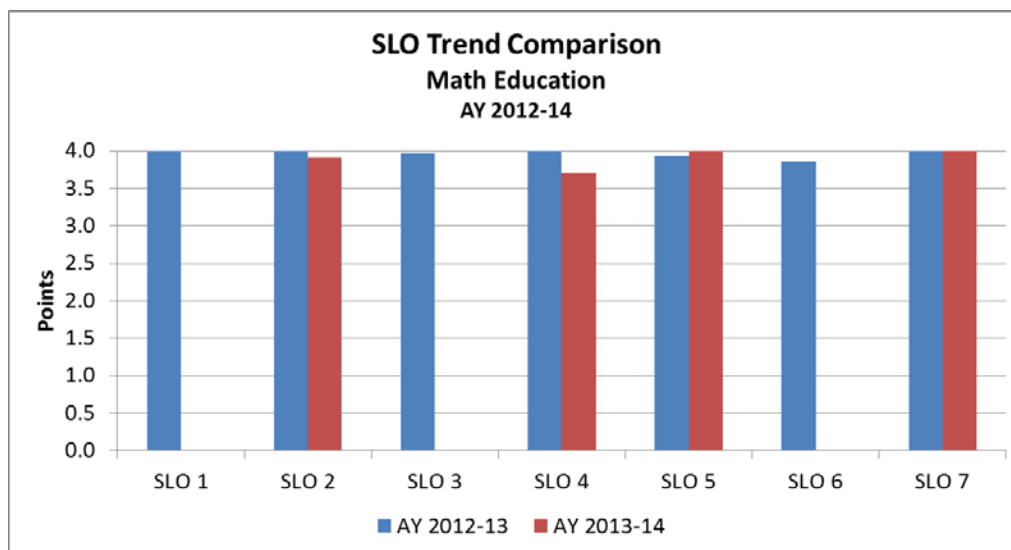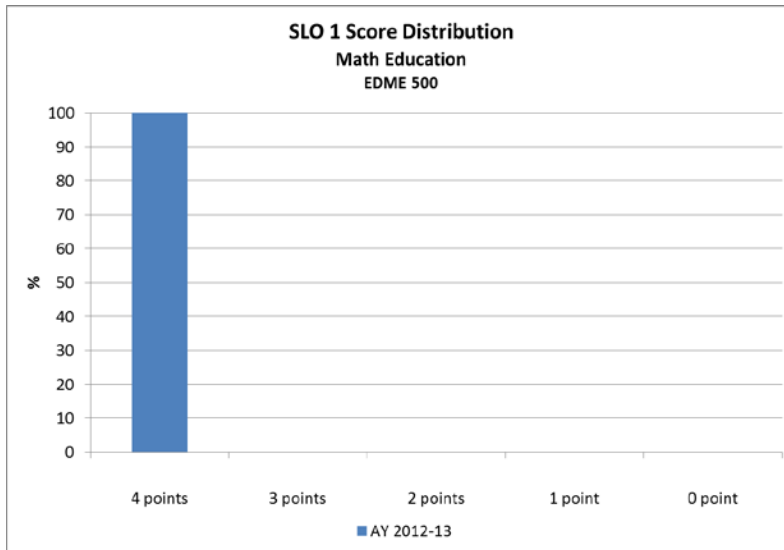**AY 2012-14**

■ AY 2012-13   ■ AY 2013-14

Figure 2 shows the trends in SLO data across two years based on points earned. The comparison of mean scores ranging from 0 to 4 points between two years from Figure 1 indicates that scores in SLO 5 were increased from year one to year 2, and scores in SLO 7 were maintained the highest 4-point in both years. The results in Figure 1 also show slight declines in in SLO 2 and SLO 4 mean scores from year one to year two.

The following Figures 3 to 8 show the percentage of mean scores ranging from 0 to 4 points for each program SLO.

Outcome 1: Describe contemporary issues in mathematics education addressed in NCTM and California principles and standards.

Figure 3

Figure 3 indicates that all 19 students scored at a 4 on describing contemporary issues in mathematics education addressed in NCTM and California principles and standards.


SLO 1 Score Distribution
Math Education
EDME 500

AY	N	Mean	SD
AY 2012-13	19	4.00	0.00

Outcome 2: Design various assessments, interpret, and use assessment results for planning and teaching mathematics.

Figure 4

Figure 4 below shows that a total of 17 students scored a 4 on deigning various assessments, interpreting, and using assessment results for planning and teaching mathematics.   No student had the mean score below 4-point with SLOs 2 in the Academic Year 2012-2013. In the Academic Year 2012-2014, a total of 22 students scored a 3.91 with SD .42. The slightly decreased mean score in year 2 had a SD at 0.42 for SLO 2


SLO 2 Score Distribution
Math Education
EDME 501
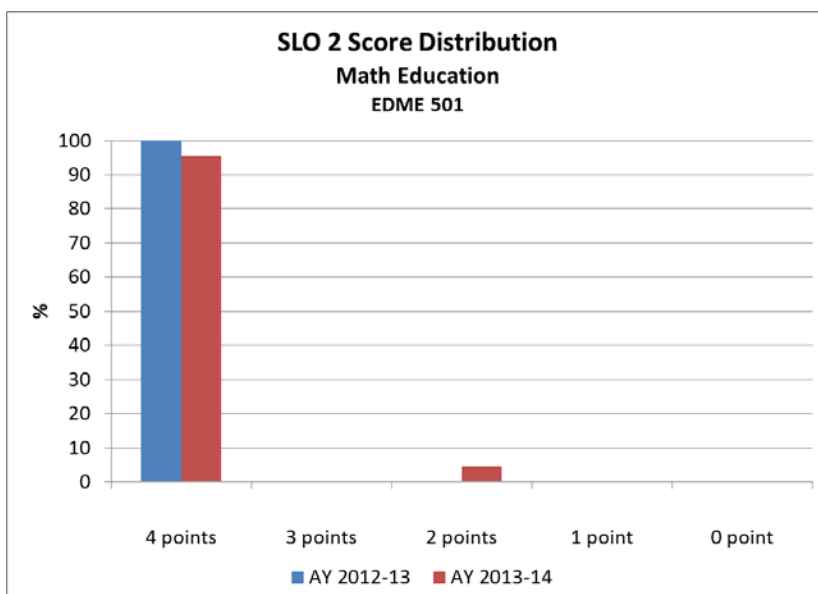
AY	N	Mean	SD
AY 2012-13	17	4.00	0.00
AY 2013-14	22	3.91	0.42

Outcome 3: Apply research-based instructional strategies in teaching.

Figure 5

Figure 5 below shows that more than 95% of students scored a 4 on applying research-based instructional strategies in teaching. Only less than 5% of student scored a 3, and no student had the mean score below 3-point with SLOs 3.
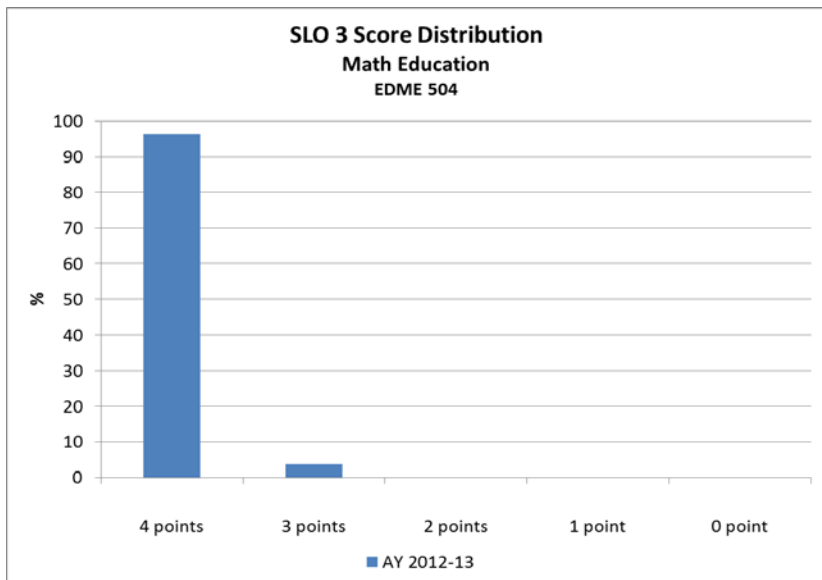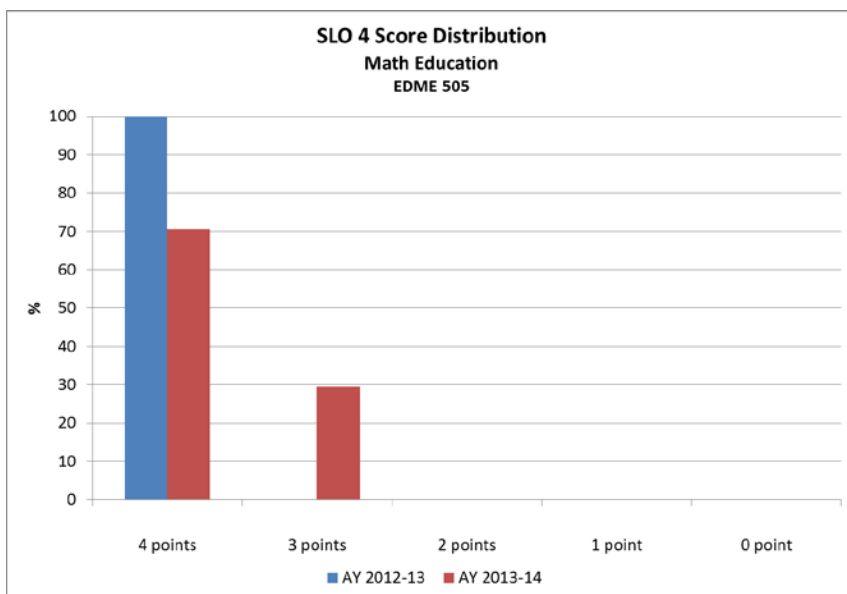

AY	N	Mean	SD
AY 2012-13	27	3.96	0.19

Outcome 4: Integrate contemporary technologies in mathematics planning, teaching, and assessment at the K-8 level.

Figure 6

Results from Figure 6 show that a total of 14 students scored a 4 on integrating contemporary technologies in mathematics planning, teaching, and assessment at the K-8 level in year one. The mean score of the SLO 4 from a total of 34 students was 3.71 with a 0.46 SD in year two.
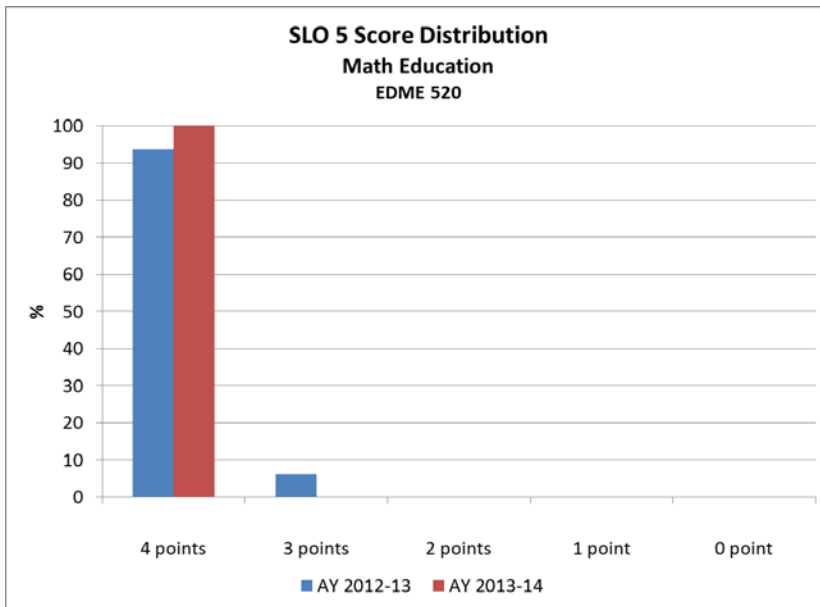

AY	N	Mean	SD
AY 2012-13	14	4.00	0.00
AY 2013-14	34	3.71	0.46

Outcome 5: Integrate pre-algebra and algebra content and pedagogy in K-8 classrooms.

Figure 7

Figure 7 below indicates that the mean scores of SLO 5 on integrating pre-algebra and algebra content and pedagogy in K-8 classrooms were increased from 3.94 in year one to 4 in year two. All students scored a 4 with the SLO 5 in year two.

SLO 5 Score Distribution
Math Education
EDME 520

AY	N	Mean	SD
AY 2012-13	16	3.94	0.24
AY 2013-14	8	4.00	0.00

Outcome 6: Design research in their own teaching settings relating to mathematics education.

Figure 8

Figure 8 shows that the mean score of the SLO 6 on designing research in their own teaching settings relating to mathematics education from 14 students was 3.86 with during the 2013-2014 Academic Year.
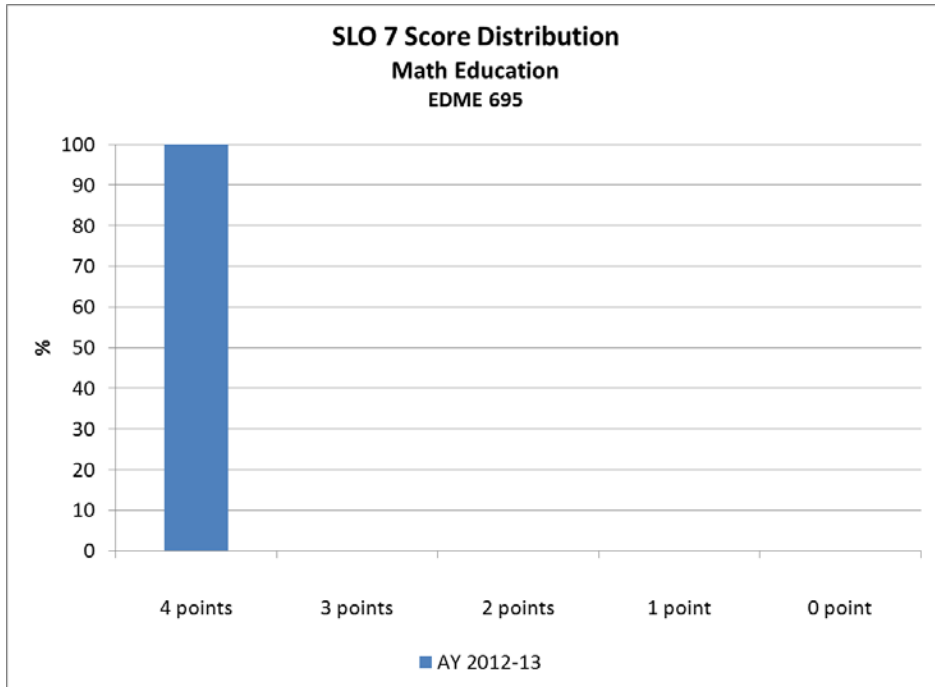
SLO 6 Score Distribution
Math Education
EDME 502
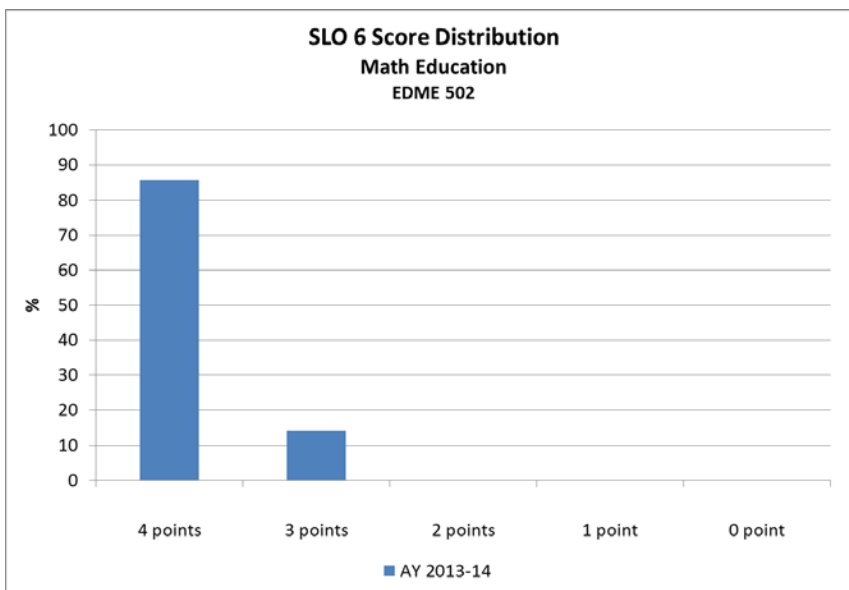
AY	N	Mean	SD
AY 2013-14	14	3.86	0.35

Outcome 7: Collect, analyze and interpret data related to research questions.

Figure 9

Figure 9 indicates that all 22 students scored a 4 on collecting, analyzing and interpreting data related to research question with the SLO 7.

SLO 7 Score Distribution
Math Education
EDME 695

AY	N	Mean	SD
AY 2012-13	11	4.00	0.00
AY 2013-14	12	4.00	0.00

Chart showing 100% at 4 points, with categories 4 points, 3 points, 2 points, 1 point, 0 point. Legend: AY 2012-13