# Mindprint - Math - 5 bins

# Felicia Zhang 2018-07-30

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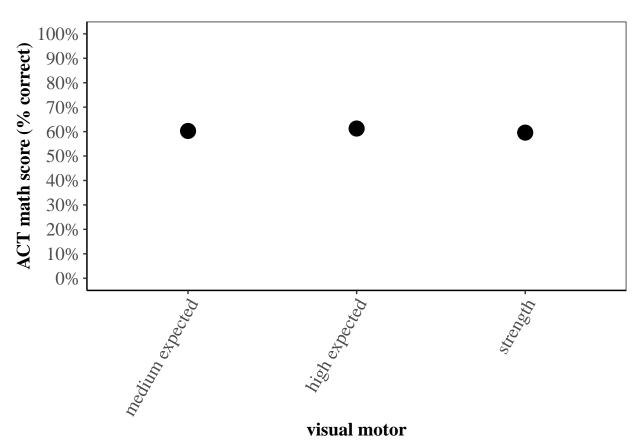
${ m CT~Math~(n=62)}$							
Overall score	 	 		 			
Visual motor	 	 		 			
Verbal memory	 	 		 			
Flexible thinking	 	 		 			
Verbal reasoning	 	 		 			
Abstract reasoning							
Working memory							
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EA/ Pre-Algebra/Elementary Algebra Subsect							
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Visual memory							
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Spatial perception							
AG/ Intermediate Algebra/Coordinate Geome							
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Visual motor $(p=0.077)$							
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Flexible thinking	 	 		 	•	 •	•

	Verbal reasoning
	Abstract reasoning
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	Attention
	Visual memory
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Sumi	nary

# ACT Math (n = 62)

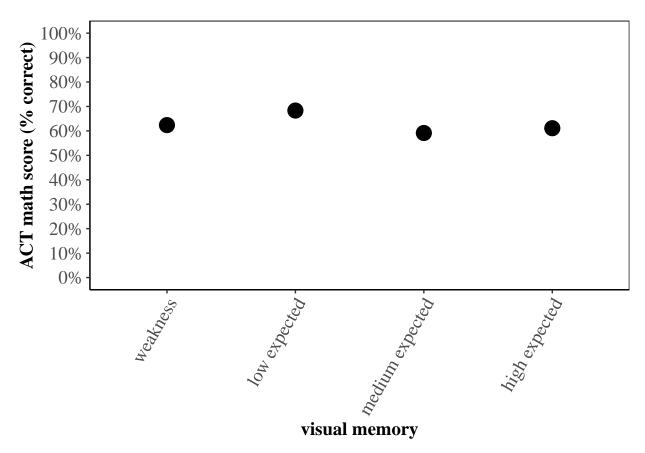
### Overall score

#### Visual motor



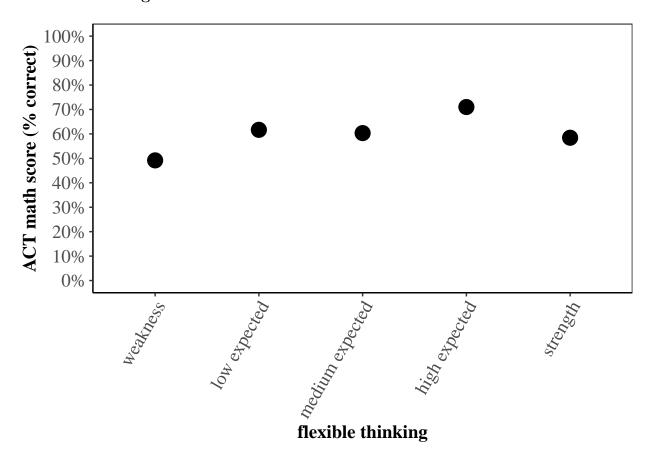
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = -0.43823, df = 1, p-value = 0.7371
## alternative hypothesis: true correlation is not equal to 0
## sample estimates:
## cor
## -0.4013797
```

### Verbal memory



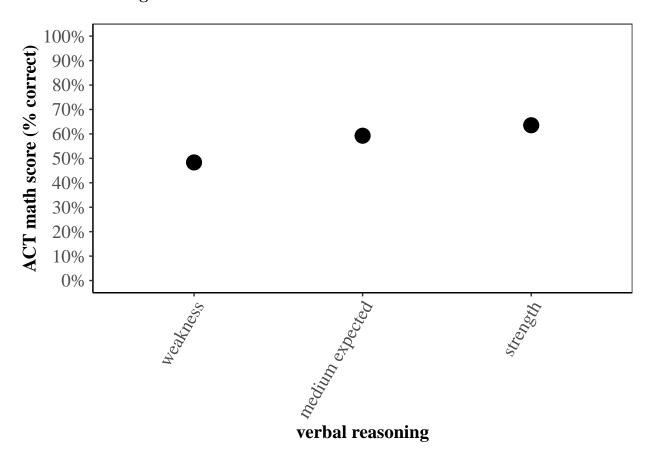
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = -0.66205, df = 2, p-value = 0.576
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.9840747 0.9064816
## sample estimates:
## cor
## -0.4239812
```

### Flexible thinking



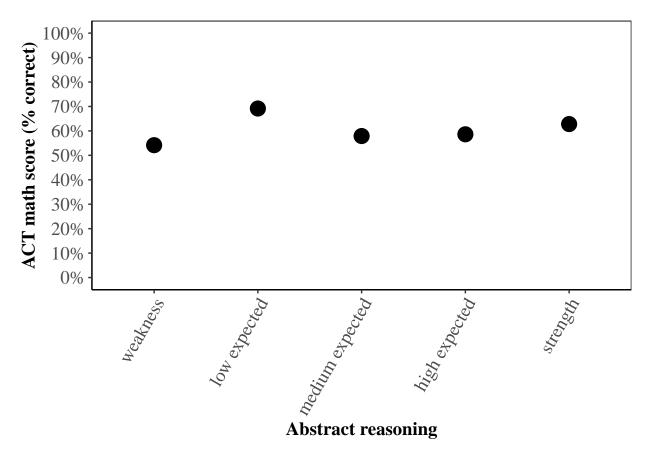
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 1.1853, df = 3, p-value = 0.3212
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.6328264 0.9657984
## sample estimates:
## cor
## 0.5647547
```

### Verbal reasoning



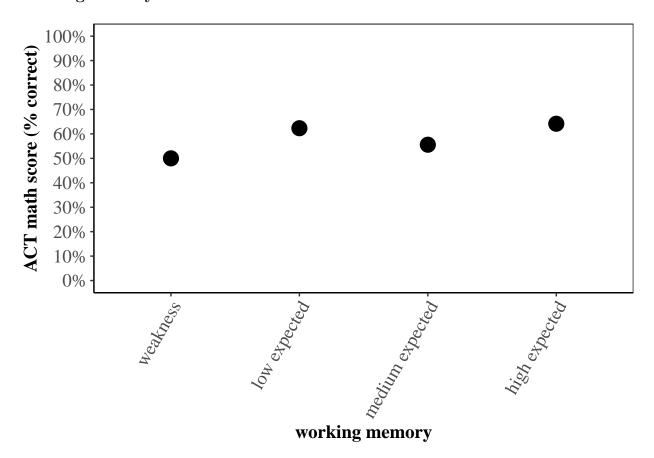
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 3.965, df = 1, p-value = 0.1573
## alternative hypothesis: true correlation is not equal to 0
## sample estimates:
## cor
## 0.969637
```

### Abstract reasoning



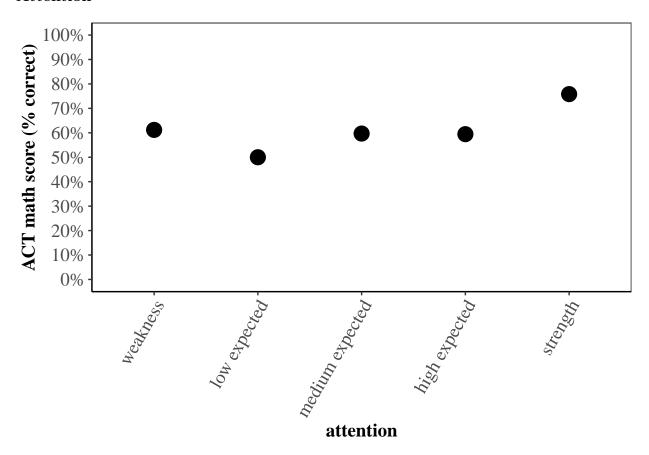
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 0.32705, df = 3, p-value = 0.7651
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.8331010 0.9175996
## sample estimates:
## cor
## 0.1855418
```

### Working memory



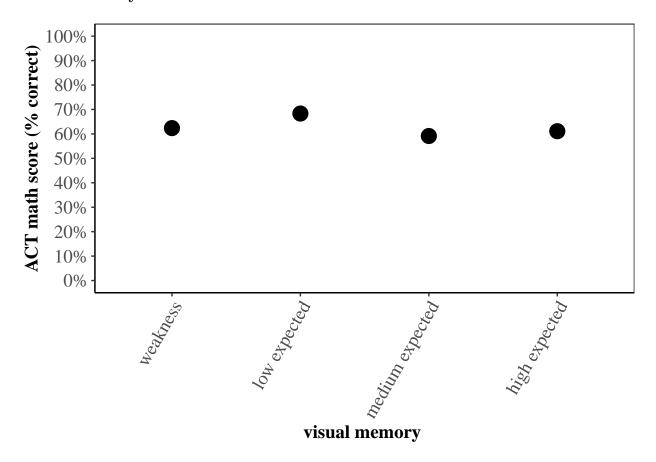
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 1.4264, df = 2, p-value = 0.2899
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.7904090 0.9932958
## sample estimates:
## cor
## 0.7101287
```

### Attention



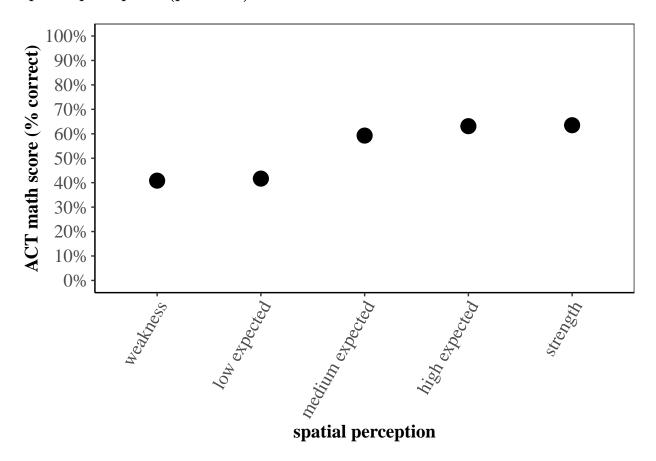
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 1.5194, df = 3, p-value = 0.226
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.5328108  0.9746531
## sample estimates:
## cor
## 0.6594512
```

### Visual memory



```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = -0.66205, df = 2, p-value = 0.576
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.9840747 0.9064816
## sample estimates:
## cor
## -0.4239812
```

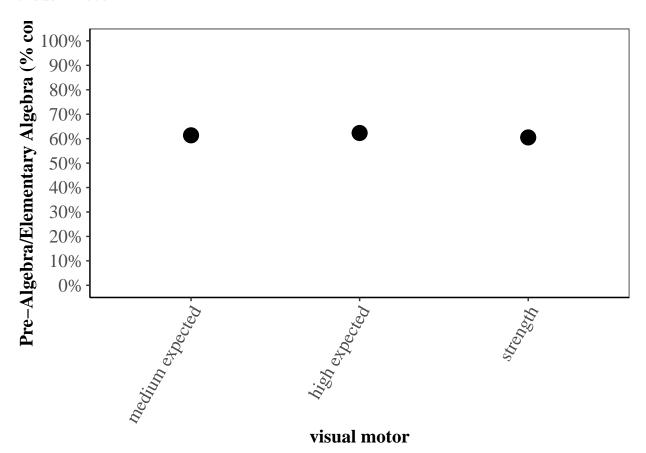
### Spatial perception (p = 0.02)



```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 4.0892, df = 3, p-value = 0.02643
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## 0.2054178 0.9948554
## sample estimates:
## cor
## 0.9208039
```

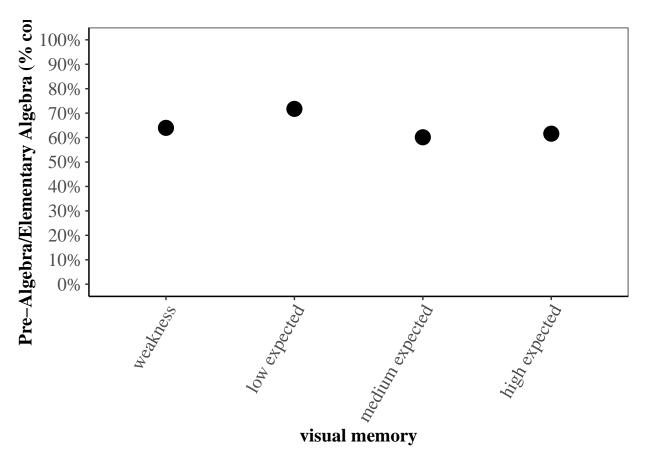
### EA/ Pre-Algebra/Elementary Algebra Subsection

#### Visual motor



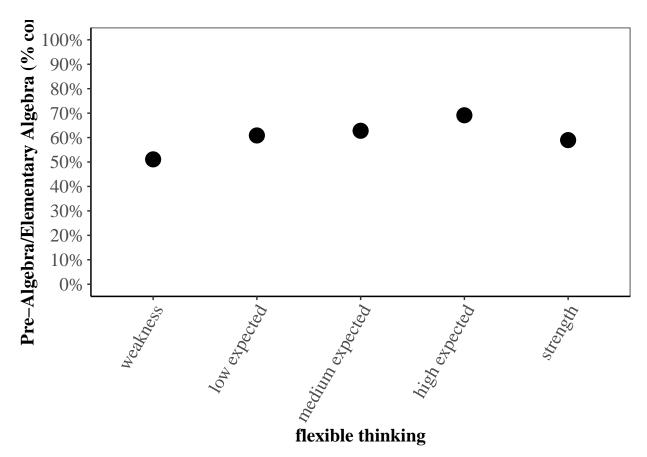
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = -0.54236, df = 1, p-value = 0.6836
## alternative hypothesis: true correlation is not equal to 0
## sample estimates:
## cor
## -0.4767538
```

### Verbal memory



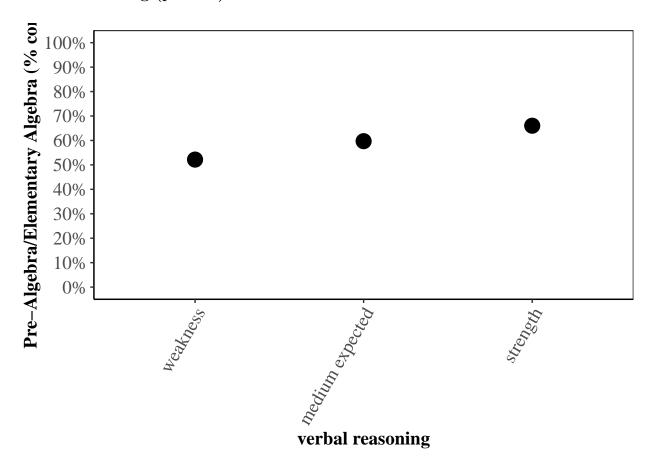
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = -0.74972, df = 2, p-value = 0.5316
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.9857349 0.8960808
## sample estimates:
## cor
## -0.4683843
```

### Flexible thinking



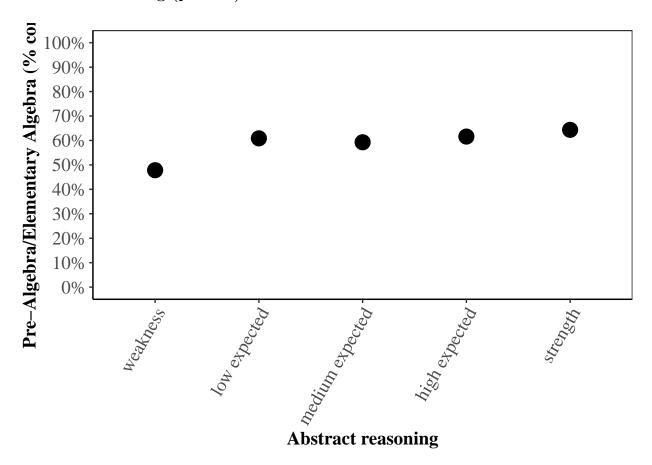
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 1.2374, df = 3, p-value = 0.304
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.6178159  0.9674170
## sample estimates:
## cor
## 0.5813099
```

### Verbal reasoning (p=0.03)



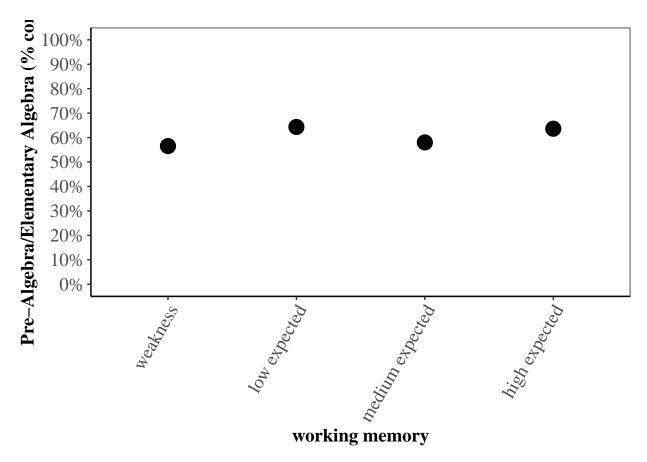
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 19.776, df = 1, p-value = 0.03216
## alternative hypothesis: true correlation is not equal to 0
## sample estimates:
## cor
## 0.998724
```

### Abstract reasoning (p=0.07)



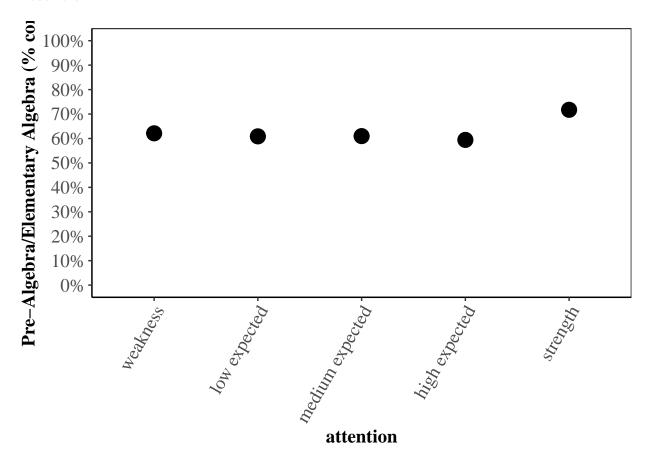
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 2.6295, df = 3, p-value = 0.07836
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.1791700 0.9888222
## sample estimates:
## cor
## 0.8351064
```

### Working memory



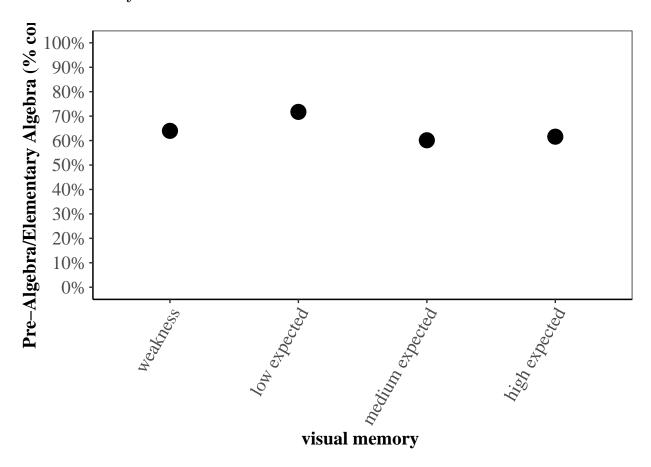
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 0.79848, df = 2, p-value = 0.5083
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.8899568 0.9865666
## sample estimates:
## cor
## 0.491659
```

### Attention



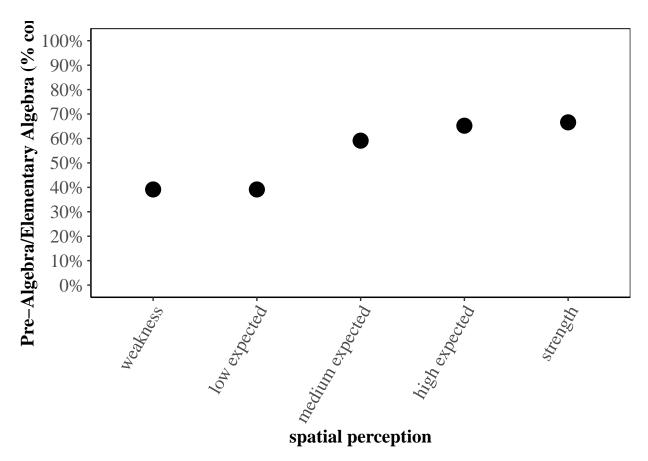
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 1.1921, df = 3, p-value = 0.3189
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.6308841 0.9660151
## sample estimates:
## cor
## 0.5669526
```

### Visual memory



```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = -0.74972, df = 2, p-value = 0.5316
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.9857349 0.8960808
## sample estimates:
## cor
## -0.4683843
```

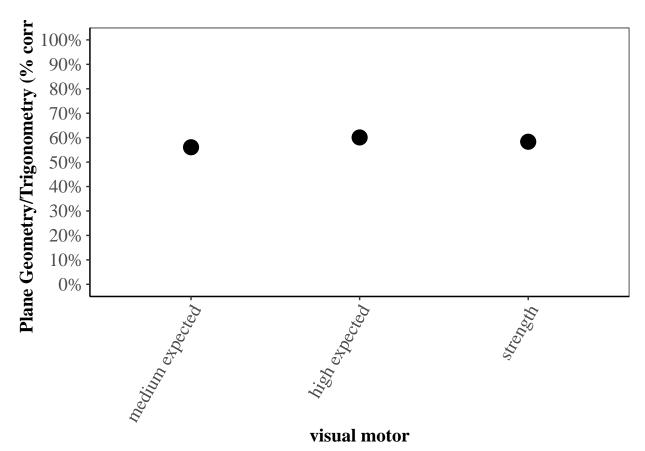
### Spatial perception (p = 0.02)



```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 4.5225, df = 3, p-value = 0.02022
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## 0.2929674 0.9957304
## sample estimates:
## cor
## 0.9338553
```

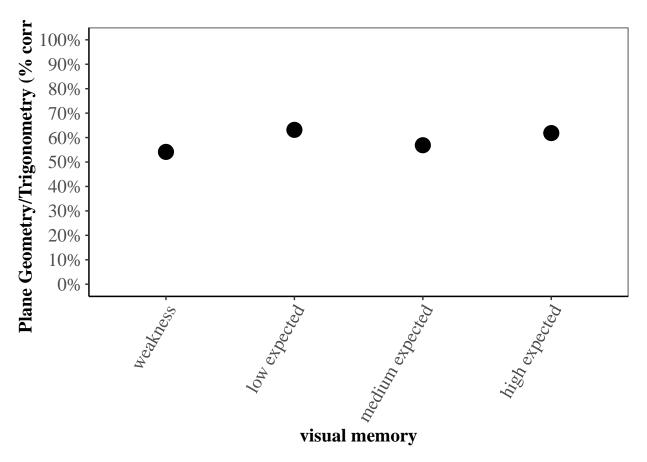
### GT/ Plane Geometry/Trigonometry Subsection

#### Visual motor



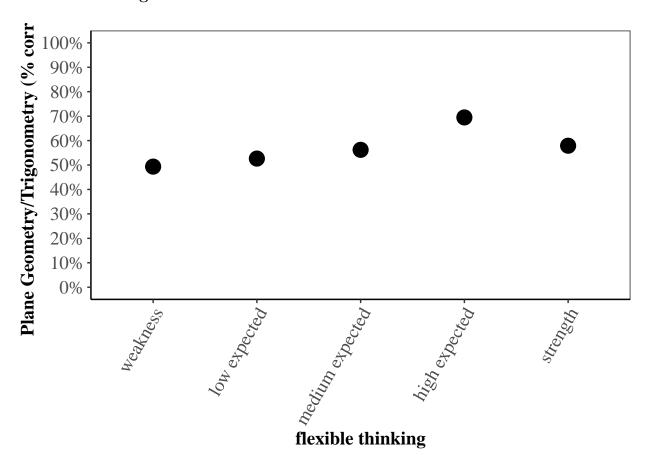
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 0.67864, df = 1, p-value = 0.6204
## alternative hypothesis: true correlation is not equal to 0
## sample estimates:
## cor
## 0.5615401
```

### Verbal memory



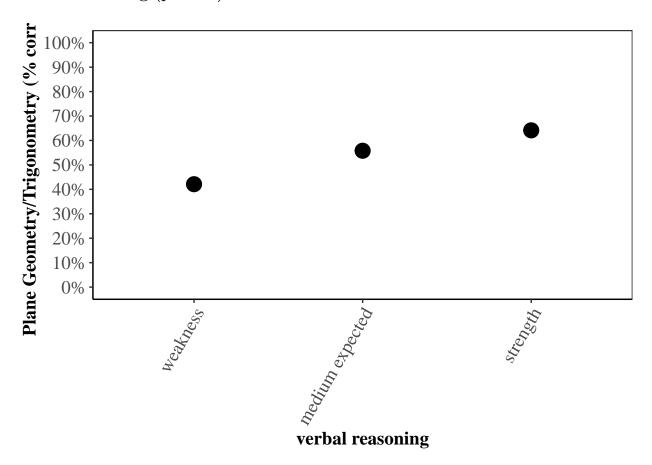
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 0.84774, df = 2, p-value = 0.4859
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.8835262 0.9873465
## sample estimates:
## cor
## 0.5141442
```

### Flexible thinking



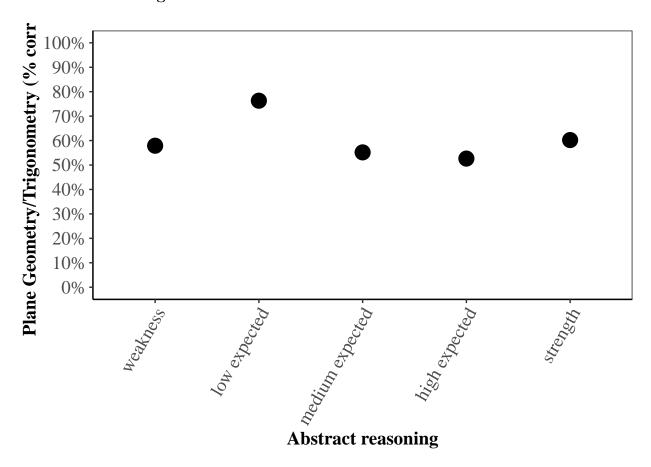
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 1.7013, df = 3, p-value = 0.1874
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.4754752 0.9782289
## sample estimates:
## cor
## 0.700755
```

### Verbal reasoning (p=0.08)



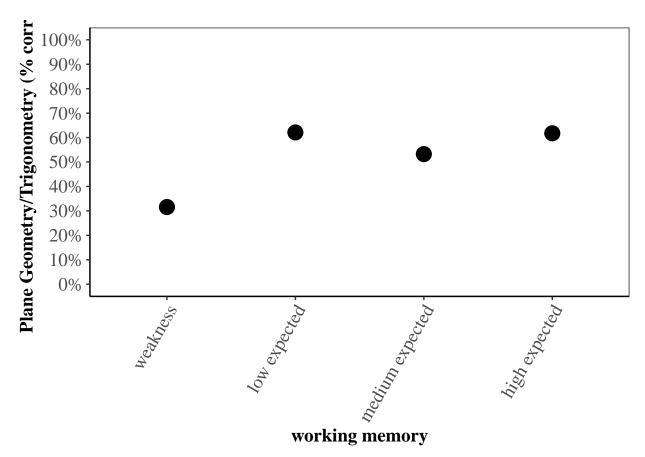
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 7.1634, df = 1, p-value = 0.0883
## alternative hypothesis: true correlation is not equal to 0
## sample estimates:
## cor
## 0.9903963
```

### Abstract reasoning



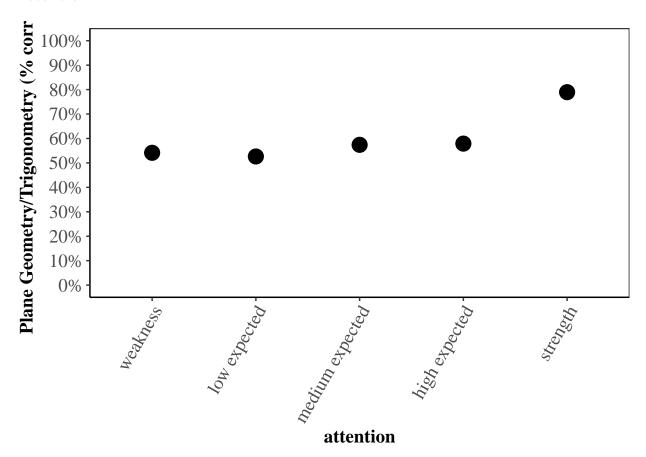
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = -0.59169, df = 3, p-value = 0.5957
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.9380070 0.7820436
## sample estimates:
## cor
## -0.3232691
```

### Working memory



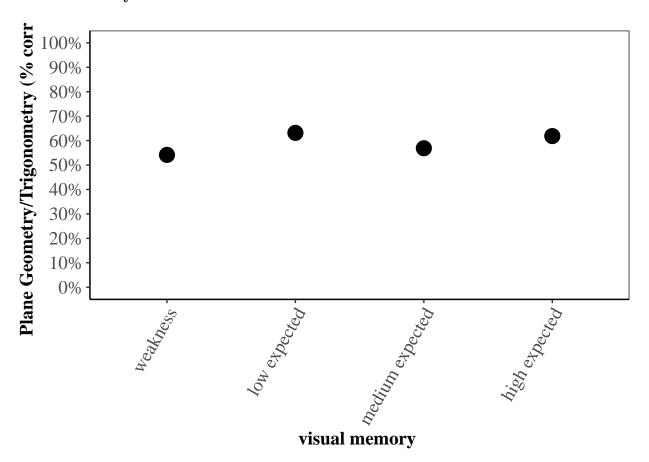
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 1.537, df = 2, p-value = 0.2641
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.7692659 0.9939800
## sample estimates:
## cor
## 0.7358817
```

### Attention



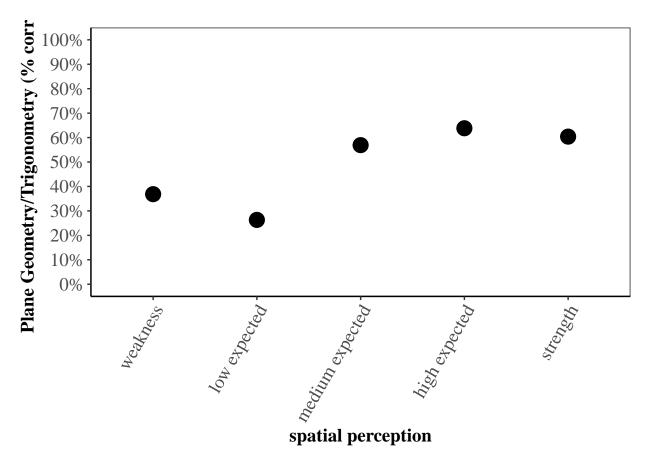
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 2.3963, df = 3, p-value = 0.09619
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.2519955  0.9869884
## sample estimates:
## cor
## 0.8104577
```

### Visual memory



```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 0.84774, df = 2, p-value = 0.4859
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.8835262 0.9873465
## sample estimates:
## cor
## 0.5141442
```

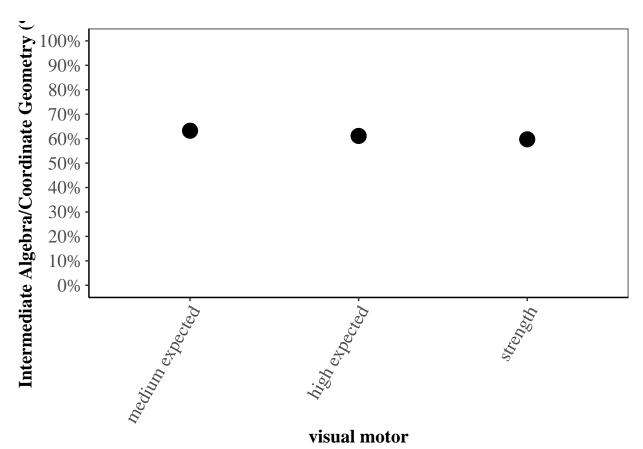
### Spatial perception



```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 2.4473, df = 3, p-value = 0.0919
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.2359004 0.9874234
## sample estimates:
## cor
## 0.8162496
```

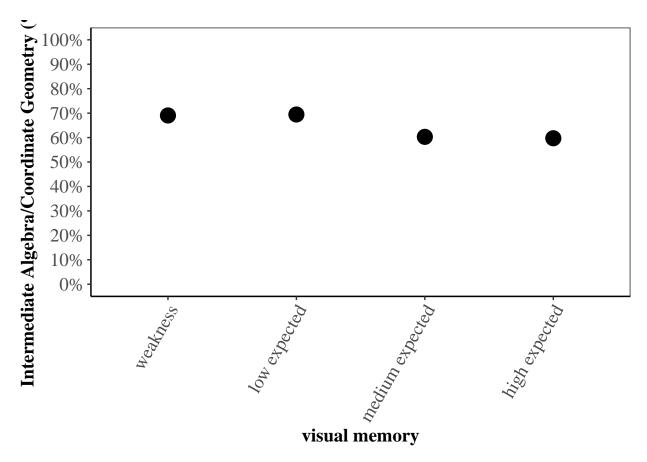
### AG/ Intermediate Algebra/Coordinate Geometry Subsection

Visual motor (p=0.077)



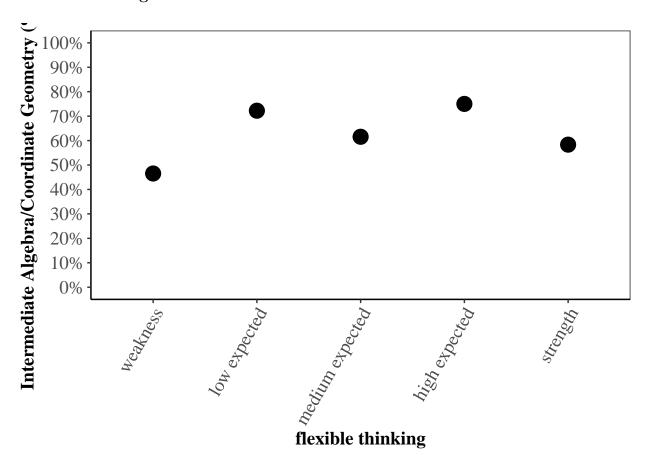
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = -8.1654, df = 1, p-value = 0.07758
## alternative hypothesis: true correlation is not equal to 0
## sample estimates:
## cor
## -0.9925841
```

### Verbal memory



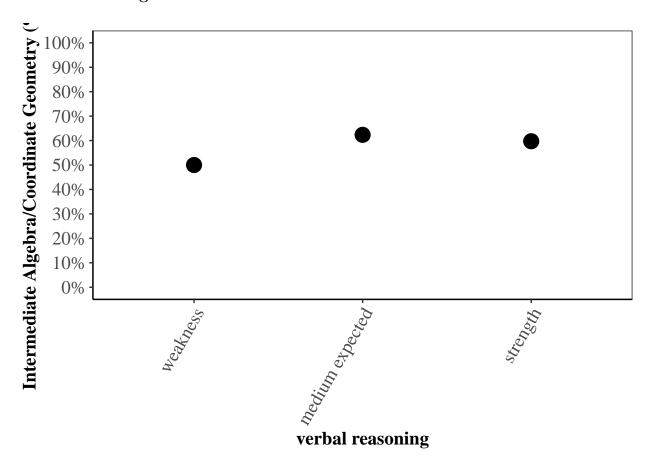
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = -2.8777, df = 2, p-value = 0.1025
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.9978581  0.4628004
## sample estimates:
## cor
## -0.8974767
```

### Flexible thinking



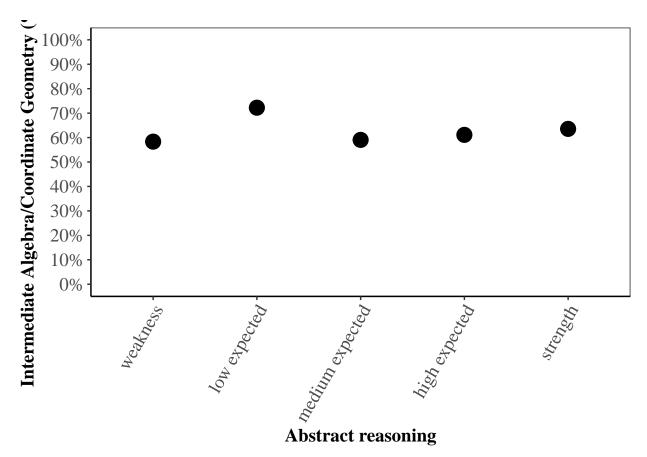
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 0.67817, df = 3, p-value = 0.5463
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.7631574 0.9433980
## sample estimates:
## cor
## 0.3645914
```

### Verbal reasoning



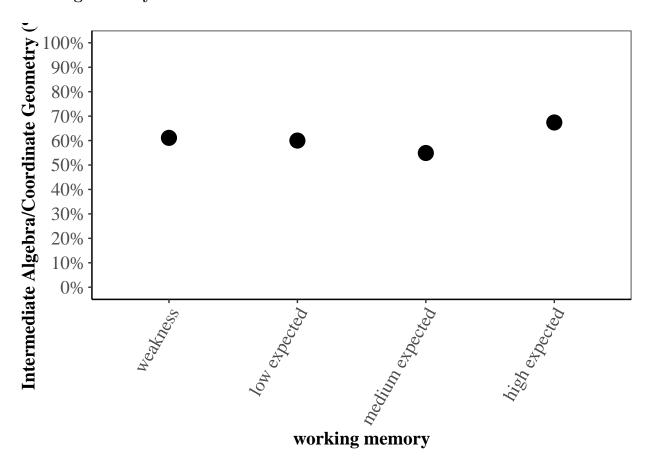
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 1.1249, df = 1, p-value = 0.4626
## alternative hypothesis: true correlation is not equal to 0
## sample estimates:
## cor
## 0.7473918
```

### Abstract reasoning



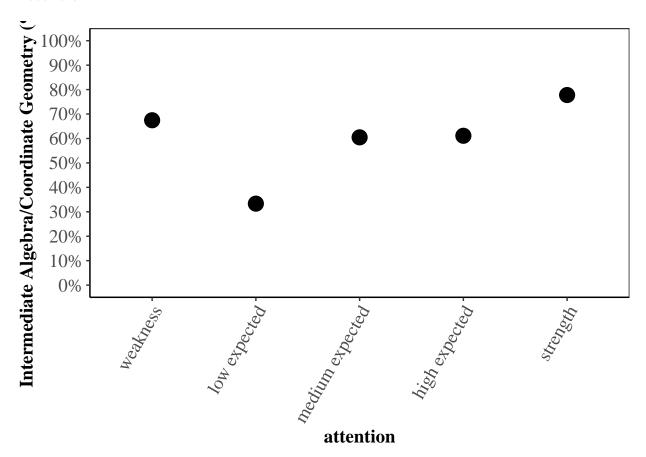
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = -0.032513, df = 3, p-value = 0.9761
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.8863578  0.8780372
## sample estimates:
## cor
## -0.01876828
```

### Working memory



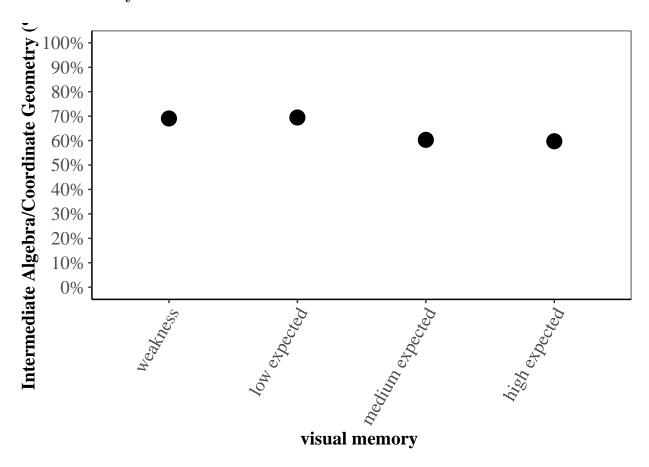
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 0.52362, df = 2, p-value = 0.6528
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.9213195  0.9809541
## sample estimates:
## cor
## 0.3472192
```

### Attention



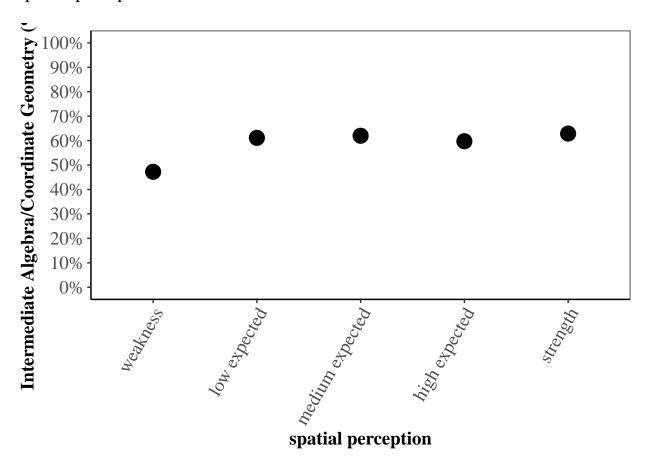
```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 0.90958, df = 3, p-value = 0.4301
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.7075773 0.9553288
## sample estimates:
## cor
## 0.4649346
```

### Visual memory



```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = -2.8777, df = 2, p-value = 0.1025
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.9978581  0.4628004
## sample estimates:
## cor
## -0.8974767
```

### Spatial perception



```
##
## Pearson's product-moment correlation
##
## data: goo$bin and goo$avgMath
## t = 1.8632, df = 3, p-value = 0.1593
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.4235211 0.9808630
## sample estimates:
## cor
## 0.7324204
```

### Summary

Spatial perception predicts overall math score and pre-algebra Verbal reasoning predicts pre-algebra Nothing predicts geometry or intermediate algebra