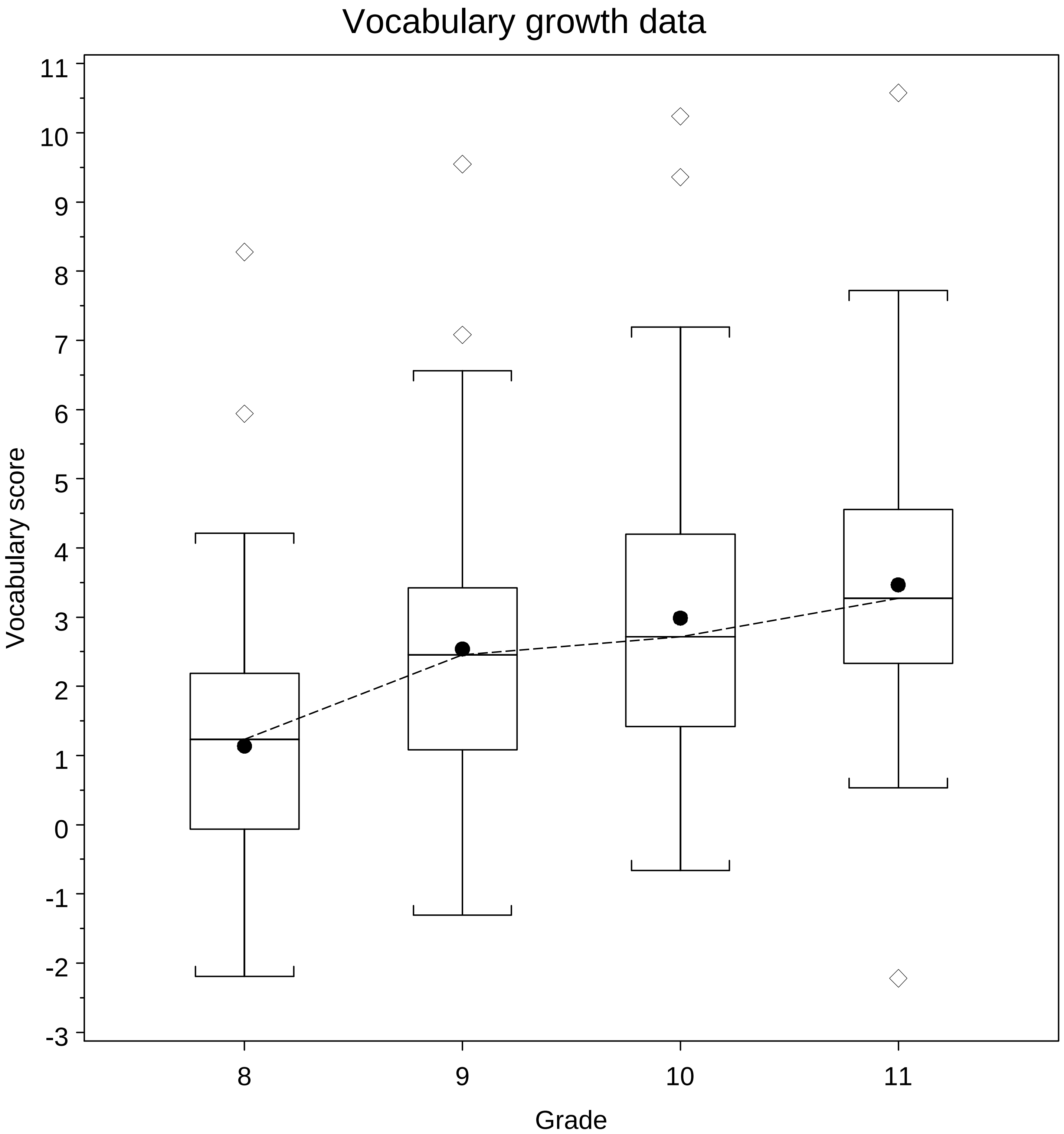
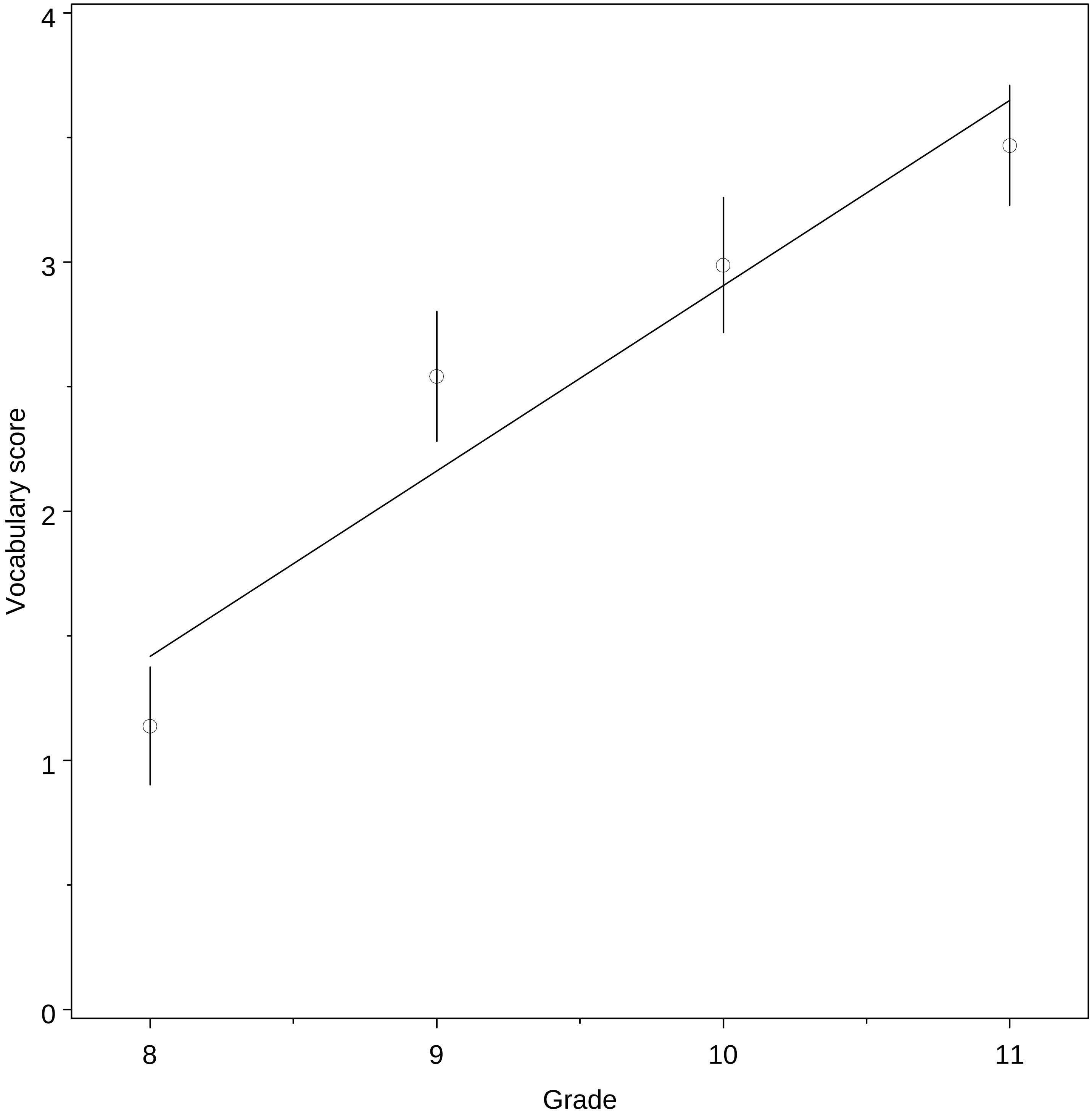
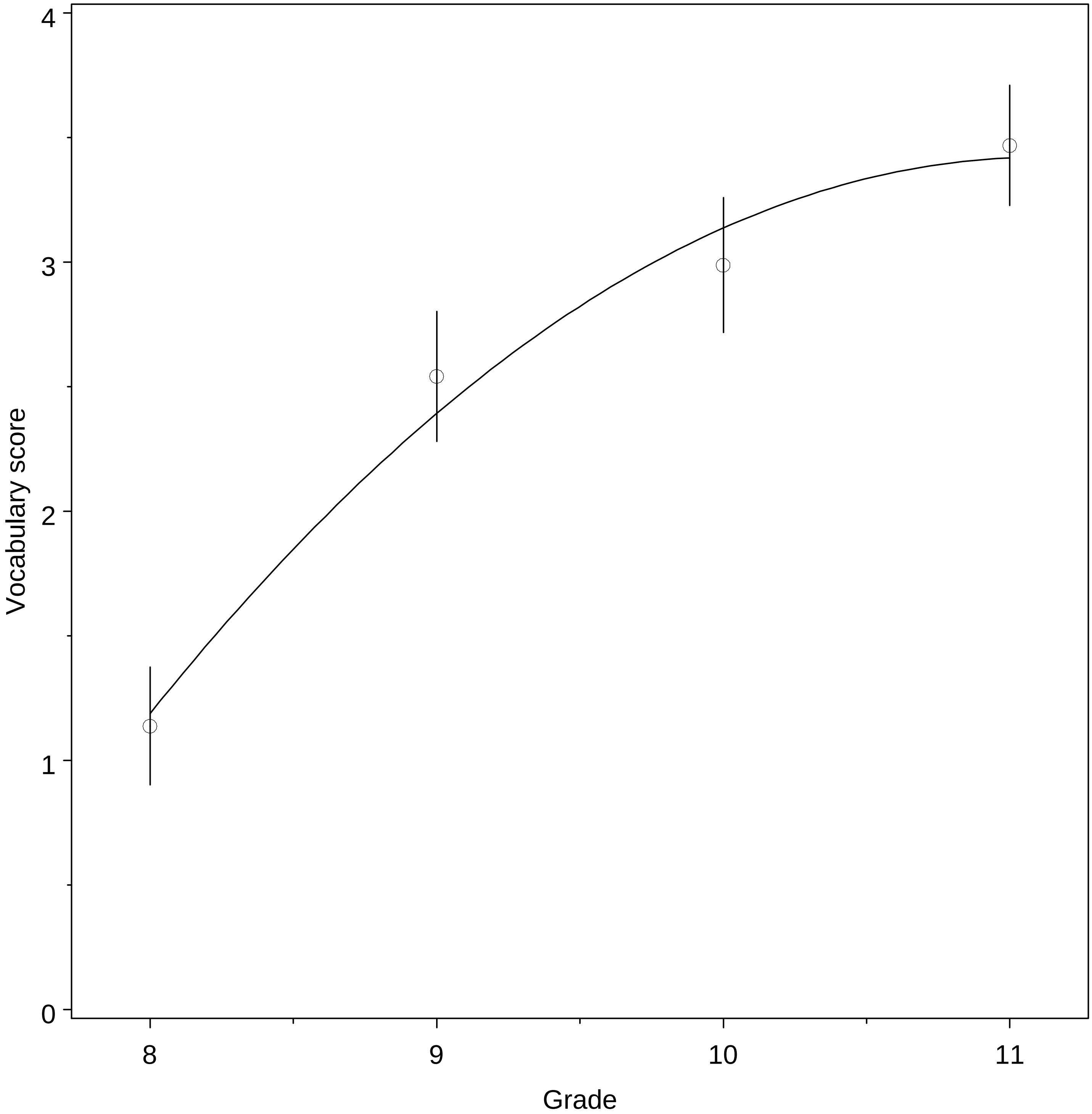
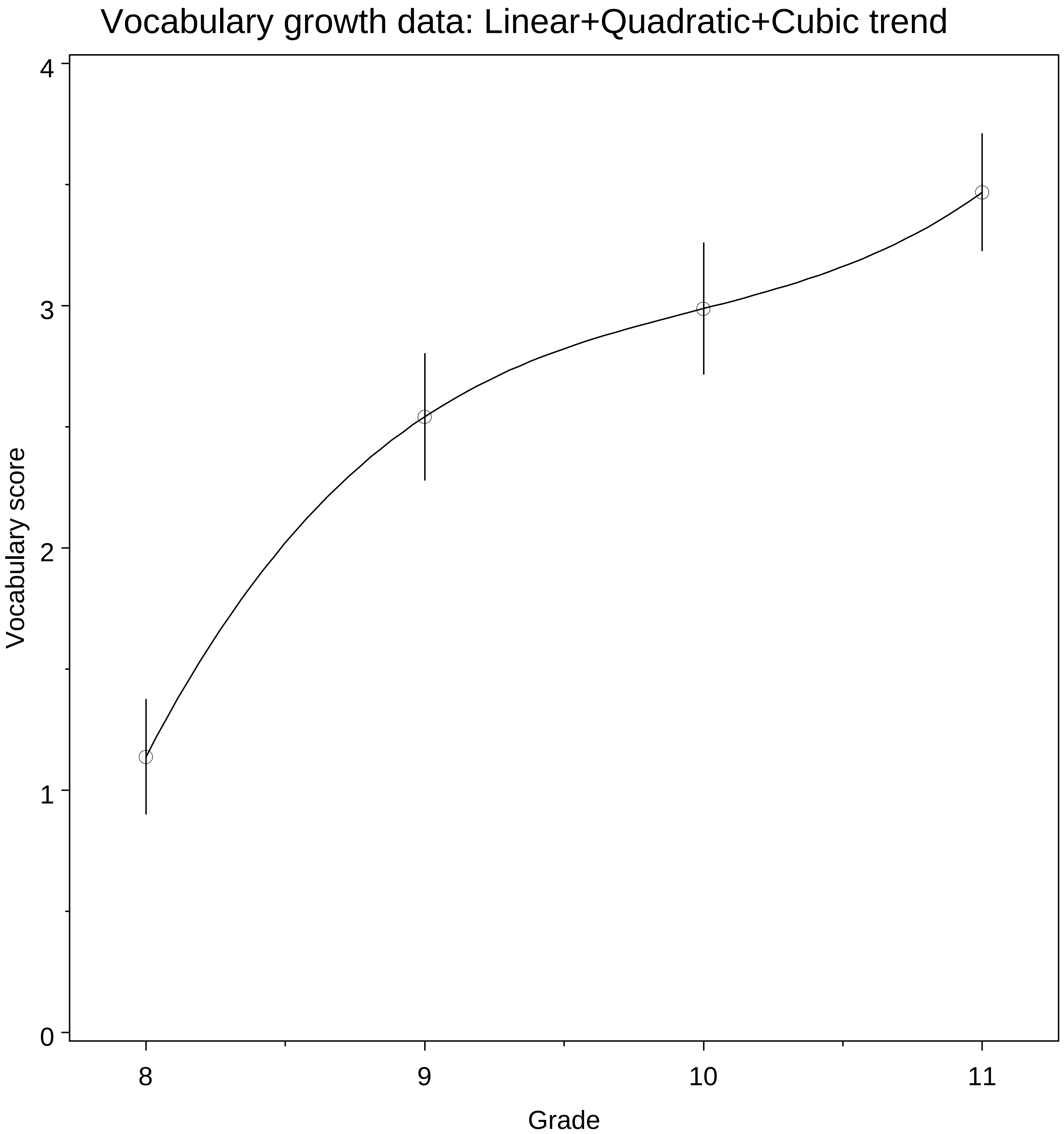

Vocabulary growth data
Vocabulary score
Grade
11
10
9
8
7
6
5
4
3
2
1
0
-1
-2
-3
8
9
10
11

Vocabulary growth data: Linear trend



Vocabulary growth data: Linear+Quadratic trend




Vocabulary growth data: Linear+Quadratic+Cubic trend
Vocabulary score
Grade
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3
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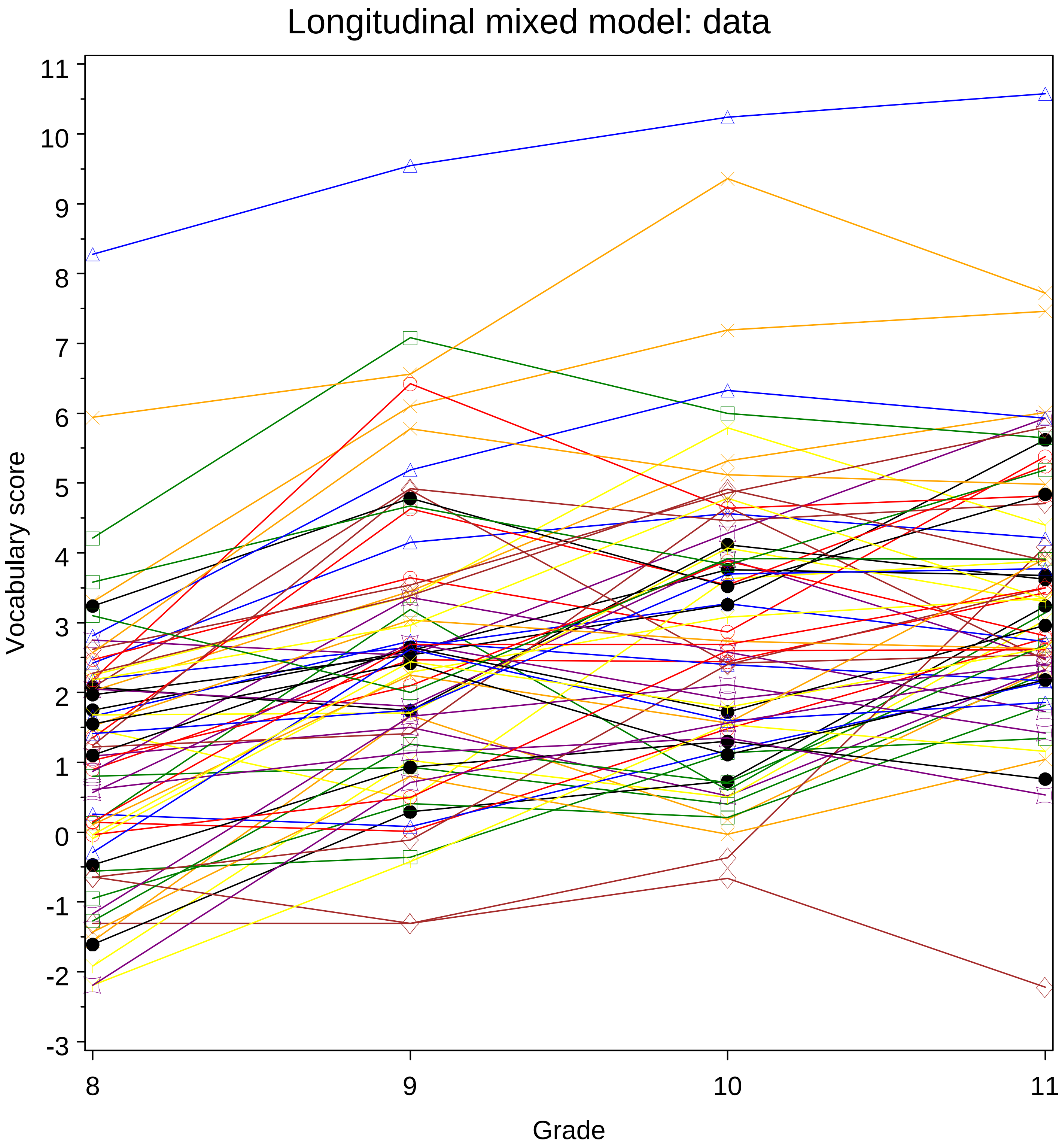
10
11


Longitudinal mixed model: data
Vocabulary score
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8
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6
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4
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2
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-2
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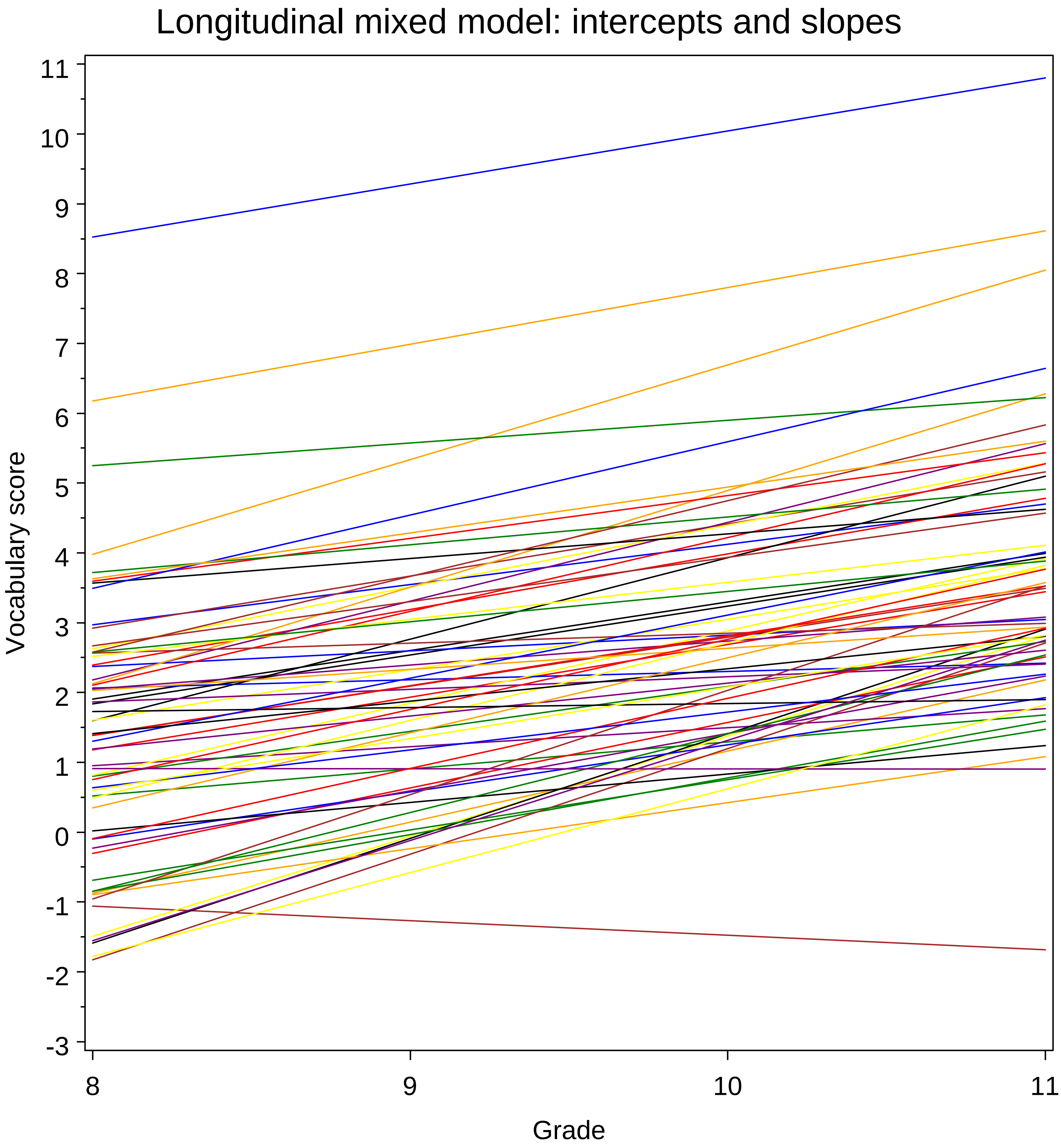
8
9
10
11
Grade



Longitudinal mixed model: intercepts and slopes
Vocabulary score
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-1
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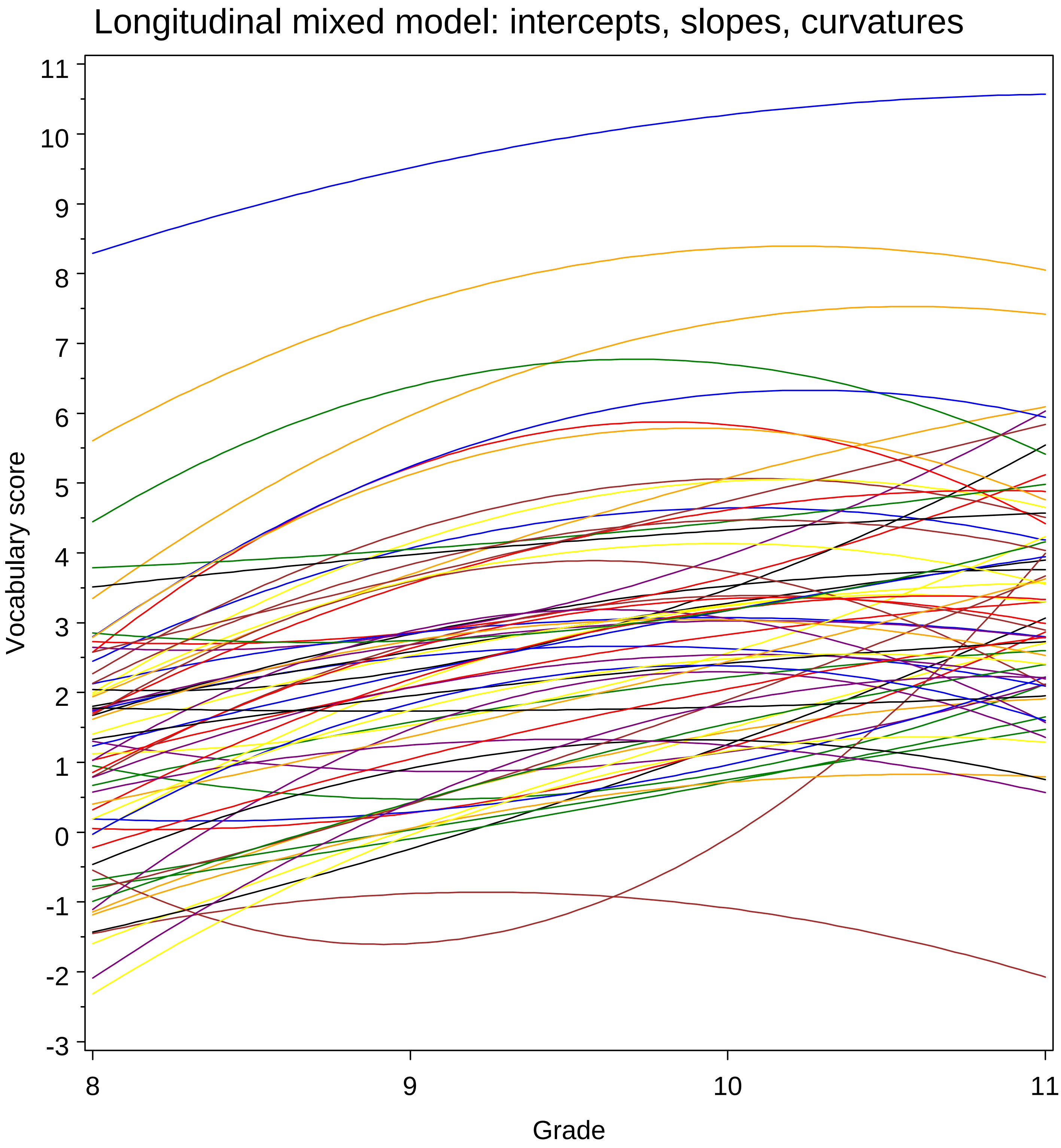
Grade


Longitudinal mixed model: intercepts, slopes, curvatures
Vocabulary score
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8
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-2
-3
8
9
10
11
Grade