

*MID-TERM CONFERENCE ON
EDUCATIONAL QUALITY AND OUTCOMES*



*INSTITUTE OF AFRICAN STUDIES
UNIVERSITY OF GHANA, LEGON*

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*Learning Achievement and the Cycle of
Poverty across urban and rural districts in
Ghana.*

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Purpose of the Study



- *To determine the level of performance in English and Mathematics in selected regions in Ghana.*
- *To compare performances in English and Mathematics between deprived and non-deprived areas as well as between rural and urban areas in selected regions.*

Research Questions



- 1. What is the level of performance in English and Mathematics in the National Educational Assessment in the Eastern, Greater Accra, Northern and Western Regions of Ghana?*
- 2. What is the level of performance in English and Mathematics, by districts, in the National Educational Assessment in the Eastern, Greater Accra, Northern and Western Regions of Ghana?*

Research Questions



- 3. How did children from deprived areas compare with children from non-deprived areas in performance in the NEA nationally and within the four regions in English and Mathematics in 2005?*
- 4. How did children from rural areas compare to children from urban areas performance in the BECE in English and Mathematics?*

Research Questions



- 5. How did children from the four regions perform across the four regional capitals?*
- 6. How did children from the four regions and respective districts perform in the BECE based on the deprived and non-deprived status of the districts in Ghana?*

Research Questions



7. *What differences exist (if any) by gender in academic performance across the four regions in English and Mathematics in BECE in Ghana?*

Poverty Profile in Ghana: 2005/2006

Poverty Line = 3,708,900 cedis



| <i>Locality</i> | <i>Poverty incidence (%)</i> | <i>Contribution to national poverty (%)</i> |
|-----------------------|------------------------------|---|
| <i>Accra (GAMA)</i> | 10.6 | 4.4 |
| <i>Urban Coastal</i> | 5.5 | 1.1 |
| <i>Urban Forest</i> | 6.9 | 3.5 |
| <i>Urban Savannah</i> | 27.6 | 5.2 |
| <i>Rural Coastal</i> | 24.0 | 9.2 |
| <i>Rural Forest</i> | 27.7 | 27.2 |
| <i>Rural Savannah</i> | 60.1 | 49.3 |
| <i>Urban</i> | 10.8 | 14.3 |
| <i>Rural</i> | 39.2 | 85.7 |

Poverty Profile in Ghana: 2005/2006

Poverty Line = 3,708,900 cedis



| <i>Region</i> | <i>Pop. Share (%)</i> | <i>Avg. Welfare (000s cedis)</i> | <i>Poverty incidence (%)</i> | <i>Contribution to national poverty (%)</i> |
|--------------------|-----------------------|----------------------------------|------------------------------|---|
| <i>Western</i> | <i>10.1</i> | <i>7813.3</i> | <i>18.4</i> | <i>6.5</i> |
| <i>Central</i> | <i>8.8</i> | <i>8394.3</i> | <i>19.9</i> | <i>6.1</i> |
| <i>Gt. Accra</i> | <i>13.9</i> | <i>10871.2</i> | <i>11.8</i> | <i>5.8</i> |
| <i>Volta</i> | <i>7.5</i> | <i>9590.9</i> | <i>31.4</i> | <i>8.2</i> |
| <i>Eastern</i> | <i>13.4</i> | <i>7805.7</i> | <i>15.1</i> | <i>7.1</i> |
| <i>Ashanti</i> | <i>16.8</i> | <i>8284.9</i> | <i>20.3</i> | <i>11.9</i> |
| <i>Brong Ahafo</i> | <i>9.2</i> | <i>6718.2</i> | <i>29.5</i> | <i>9.5</i> |
| <i>Northern</i> | <i>12.2</i> | <i>4779.8</i> | <i>52.3</i> | <i>22.3</i> |
| <i>Upper East</i> | <i>4.8</i> | <i>3409.3</i> | <i>70.4</i> | <i>11.7</i> |
| <i>Upper west</i> | <i>3.6</i> | <i>2354.4</i> | <i>87.9</i> | <i>10.9</i> |

Research Design

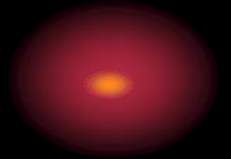


- *Descriptive survey research*
- *Combination of cross-sectional and longitudinal approaches were used.*
- *Cross-sectional*
 - ⇒ *NEA conducted July 2005*
- *Longitudinal*
 - ⇒ *BECE results for 2002, 2003, 2004, 2005, 2006*

Data Source

There were 2 data sources

- 1. Ghana Basic Education Comprehensive Assessment System (BECAS) project .*
 - ⇒ NEA (P3 & P6) in English & Maths*
 - ⇒ 3% of schools in Ghana*
 - ⇒ 423 schools*
 - ⇒ 18,651 P3 & 17,754 P6 pupils*
 - ⇒ Test was conducted in July 2005*



Data Source



2. Basic Education Certificate Examination (BECE) conducted by West African Examinations Council (WAEC)

⇒ Used results for 2002, 2003, 2004, 2005, 2006

⇒ Used % obtaining grades 1 – 6.

Sample



NEA: 4 Regions and 12 Districts

Western

Wassaw East

Eastern

*Koforidua, Manya Krobo
Yilo Krobo*

Gt. Accra

*Dangbe East, Dangbe West,
Accra, Ga Rural*

Northern

*Savelugu, Tamale, West
Mamprussi, Yendi*

BECE: 10 Regions, 110 Districts

40 Rural, 70 Urban



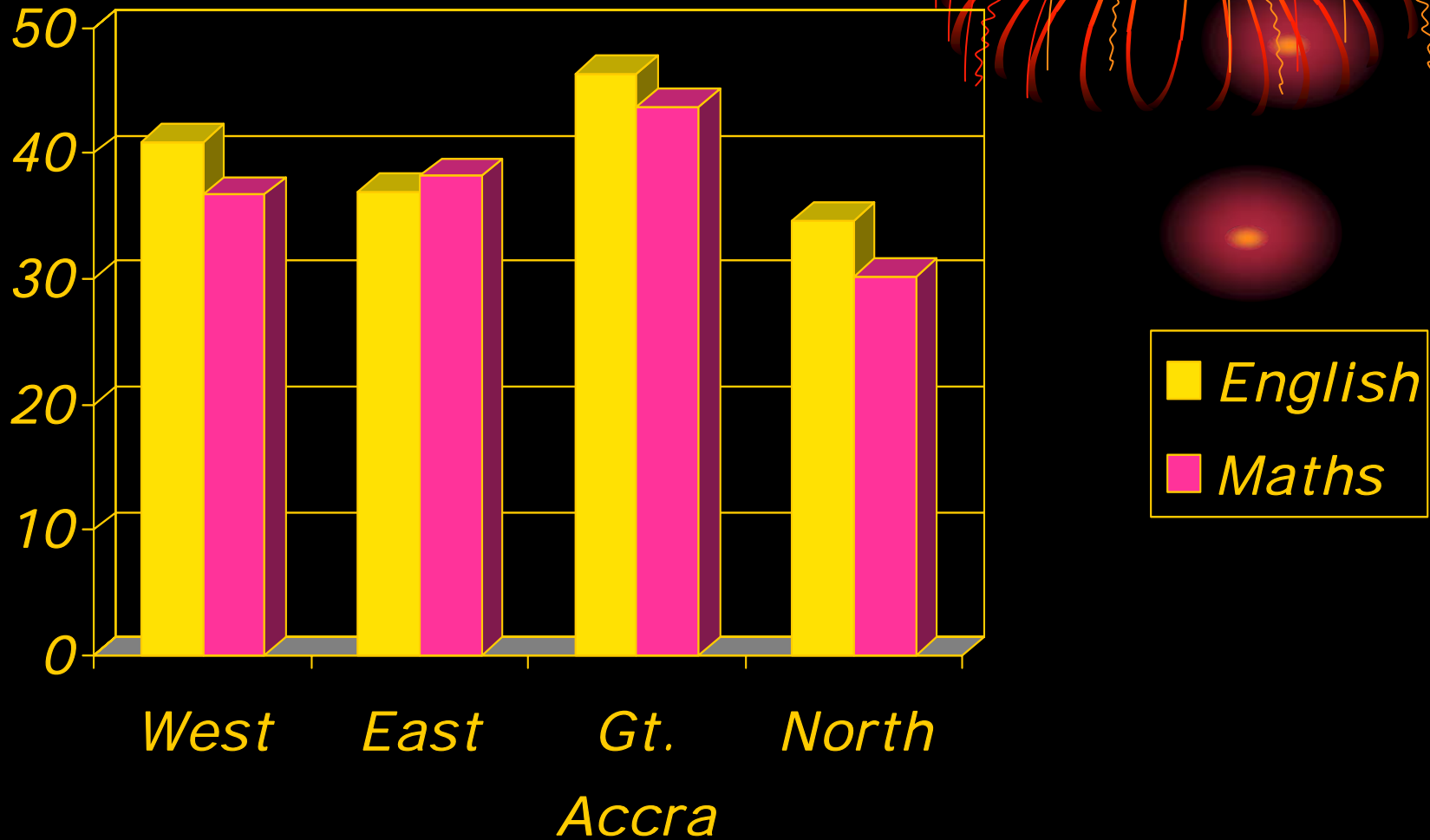
The Results

Research Question 1

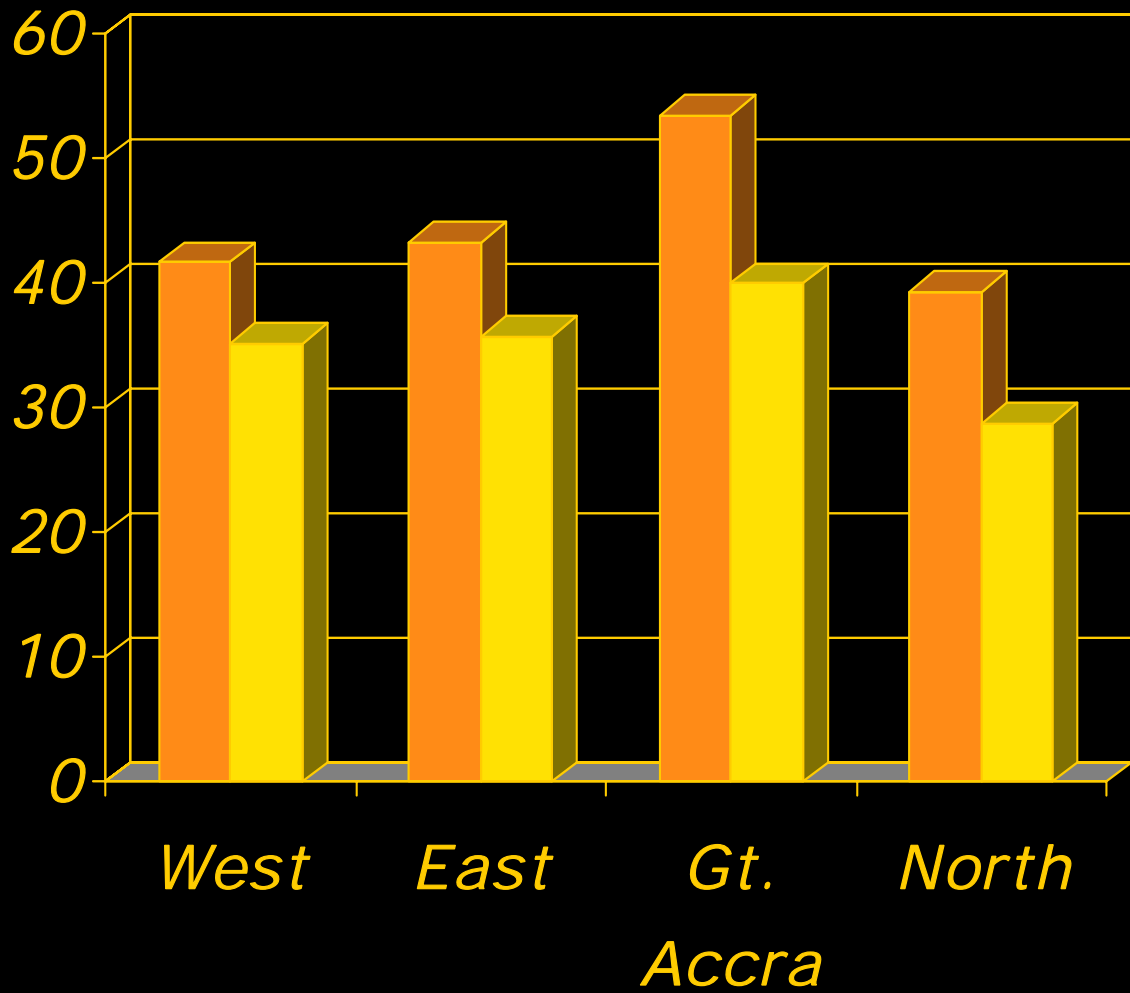
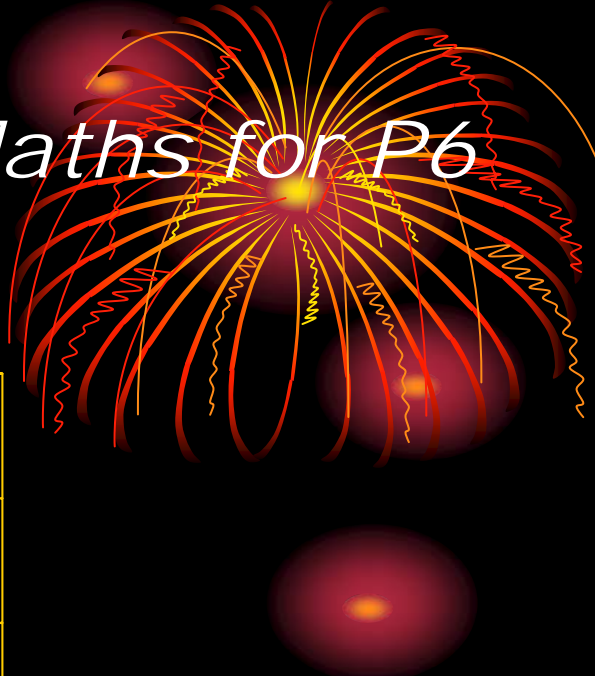


What is the level of performance in English and Mathematics in the National Educational Assessment in the Eastern, Greater Accra, Northern and Western Regions of Ghana?

Performance in English & Maths for P3



Performance in English and Maths for P6



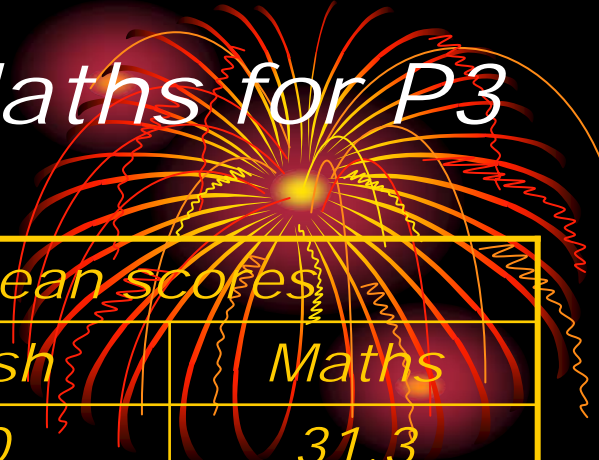
English
Maths



Research Question 2

What is the level of performance in English and Mathematics, by districts, in the National Educational Assessment in the Eastern, Greater Accra, Northern and Western Regions of Ghana?

Performance in English & Maths for P3



| <i>Region</i> | <i>District</i> | <i>Mean scores</i> | |
|----------------------|-----------------------|--------------------|--------------|
| | | <i>English</i> | <i>Maths</i> |
| <i>Western</i> | <i>Wassaw E</i> | <i>37.0</i> | <i>31.3</i> |
| <i>Eastern</i> | <i>Koforidua</i> | <i>58.7</i> | <i>50.8</i> |
| | <i>Manya Krobo</i> | <i>28.0</i> | <i>31.1</i> |
| | <i>Yilo Krobo</i> | <i>29.6</i> | <i>26.1</i> |
| <i>Greater Accra</i> | <i>Dangbe East</i> | <i>32.5</i> | <i>50.3</i> |
| | <i>Dangbe West</i> | <i>41.0</i> | <i>37.3</i> |
| | <i>Accra</i> | <i>52.9</i> | <i>46.5</i> |
| | <i>Ga Rural</i> | <i>48.7</i> | <i>43.0</i> |
| <i>Northern</i> | <i>Savelugu</i> | <i>30.2</i> | <i>19.1</i> |
| | <i>Tamale</i> | <i>43.1</i> | <i>41.5</i> |
| | <i>West Mamprussi</i> | <i>34.9</i> | <i>25.4</i> |
| | <i>Yendi</i> | <i>31.6</i> | <i>19.6</i> |

Performance in English & Maths for P6

| Region | District | Mean scores | |
|---------------|----------------|-------------|-------|
| | | English | Maths |
| Western | Wassaw E | 28.4 | 27.2 |
| Eastern | Koforidua | 57.6 | 49.9 |
| | Manya Krobo | 37.8 | 32.1 |
| | Yilo Krobo | 29.1 | 22.4 |
| Greater Accra | Dangbe East | 37.9 | 33.9 |
| | Dangbe West | 44.5 | 35.2 |
| | Accra | 56.5 | 43.8 |
| | Ga Rural | 58.6 | 43.9 |
| Northern | Savelugu | 35.2 | 20.1 |
| | Tamale | 45.1 | 37.8 |
| | West Mamprussi | 36.2 | 26.3 |
| | Yendi | 35.1 | 22.5 |

Research Question 3



How did children from deprived areas compare with children from non-deprived areas in performance in the NEA nationally and within the four regions in English and Mathematics in 2005?

National performance in NEA in 2005 by poverty status in P3



| <i>Subject</i> | <i>Status</i> | <i>N</i> | <i>Mean</i> | <i>t</i> | <i>Sig.</i> |
|----------------|---------------------|----------|-------------|----------|-------------|
| <i>English</i> | <i>Deprived</i> | 4569 | 33.8 | - 23.84 | 0.000 |
| | <i>Non-Deprived</i> | 13917 | 40.2 | | |
| <i>Maths</i> | <i>Deprived</i> | 4553 | 33.5 | -16.55 | 0.000 |
| | <i>Non-Deprived</i> | 13912 | 38.5 | | |

Regional performance in NEA in 2005 by poverty status in P3



| <i>Subject</i> | <i>Status</i> | <i>N</i> | <i>Mean</i> | <i>t</i> | <i>Sig.</i> |
|----------------|---------------------|-------------|-------------|----------------|--------------|
| <i>English</i> | <i>Deprived</i> | <i>1706</i> | <i>33.7</i> | <i>- 21.78</i> | <i>0.000</i> |
| | <i>Non-Deprived</i> | <i>5676</i> | <i>43.6</i> | | |
| <i>Maths</i> | <i>Deprived</i> | <i>1703</i> | <i>31.4</i> | <i>-19.29</i> | <i>0.000</i> |
| | <i>Non-Deprived</i> | <i>5692</i> | <i>40.9</i> | | |

National performance in NEA in 2005 by poverty status in P6



| <i>Subject</i> | <i>Status</i> | <i>N</i> | <i>Mean</i> | <i>t</i> | <i>Sig.</i> |
|----------------|---------------------|--------------|-------------|----------------|--------------|
| <i>English</i> | <i>Deprived</i> | <i>3897</i> | <i>38.1</i> | <i>- 28.91</i> | <i>0.000</i> |
| | <i>Non-Deprived</i> | <i>13436</i> | <i>45.6</i> | | |
| <i>Maths</i> | <i>Deprived</i> | <i>4016</i> | <i>30.2</i> | <i>-27.55</i> | <i>0.000</i> |
| | <i>Non-Deprived</i> | <i>13631</i> | <i>36.8</i> | | |

Regional performance in NEA in 2005 by poverty status in P6



| <i>Subject</i> | <i>Status</i> | <i>N</i> | <i>Mean</i> | <i>t</i> | <i>Sig.</i> |
|----------------|---------------------|-------------|-------------|----------------|--------------|
| <i>English</i> | <i>Deprived</i> | <i>1619</i> | <i>37.3</i> | <i>- 27.82</i> | <i>0.000</i> |
| | <i>Non-Deprived</i> | <i>5401</i> | <i>48.5</i> | | |
| <i>Maths</i> | <i>Deprived</i> | <i>1661</i> | <i>28.0</i> | <i>-30.74</i> | <i>0.000</i> |
| | <i>Non-Deprived</i> | <i>5568</i> | <i>39.3</i> | | |



Research Question 4

How did children from urban areas compare with children from rural areas in performance in the BECE in English and Mathematics?

Performance in BECE by locality in 2006



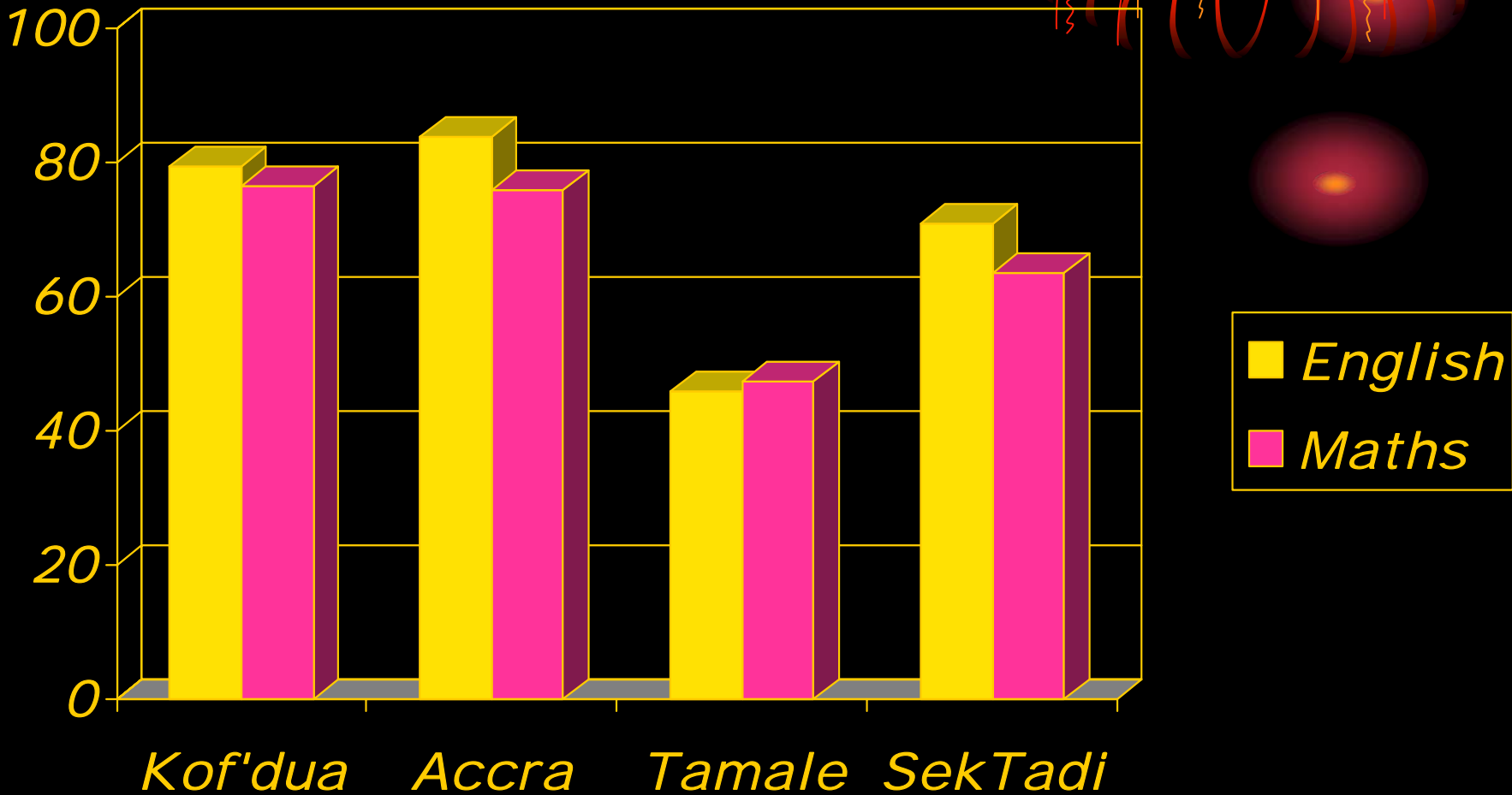
| <i>Subject</i> | <i>Status</i> | <i>N</i> | <i>Mean %</i> | <i>t</i> | <i>Sig.</i> |
|----------------|---------------|-----------|---------------|----------------|--------------|
| <i>English</i> | <i>Rural</i> | <i>40</i> | <i>42.1</i> | <i>- 5.566</i> | <i>0.000</i> |
| | <i>Urban</i> | <i>70</i> | <i>55.2</i> | | |
| <i>Maths</i> | <i>Rural</i> | <i>40</i> | <i>49.8</i> | <i>-3.412</i> | <i>0.001</i> |
| | <i>Urban</i> | <i>70</i> | <i>56.6</i> | | |



Research Question 5

How did children from the four regions perform in the BECE in English and Mathematics across the four regional capitals?

Performance in BECE in 2006 by regional capitals



Research Question 6



How did children from the four regions perform in the BECE in English and Mathematics based on the deprived and non-deprived status of districts in Ghana?

Regional performance in BECE in 2006 by poverty status



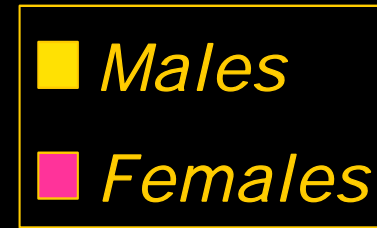
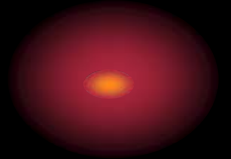
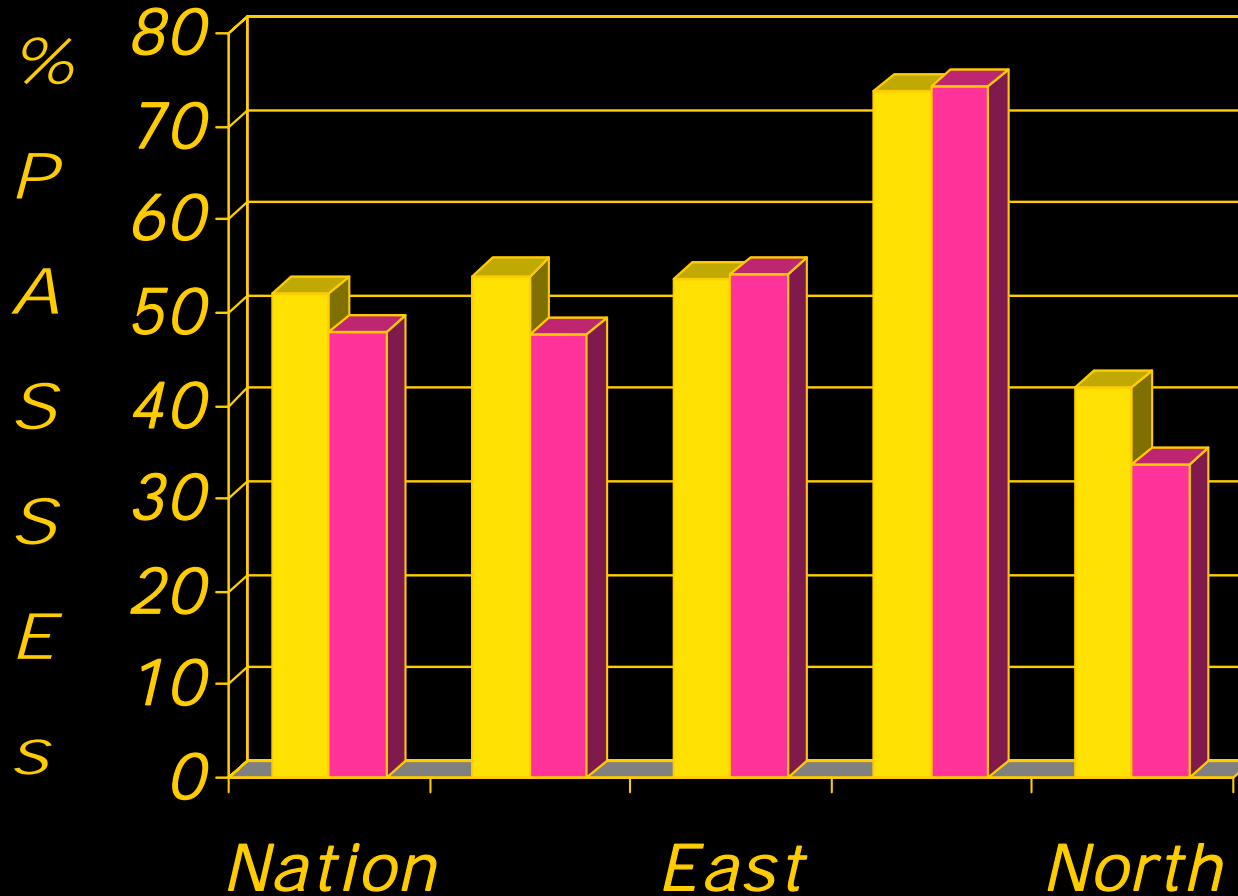
| <i>Subject</i> | <i>Status</i> | <i>Districts</i> | <i>Mean %</i> | <i>t</i> | <i>Sig.</i> |
|----------------|---------------------|------------------|---------------|----------------|--------------|
| <i>English</i> | <i>Deprived</i> | <i>19</i> | <i>69.9</i> | <i>- 2.475</i> | <i>0.017</i> |
| | <i>Non-Deprived</i> | <i>25</i> | <i>76.4</i> | | |
| <i>Maths</i> | <i>Deprived</i> | <i>19</i> | <i>41.7</i> | <i>-4.402</i> | <i>0.000</i> |
| | <i>Non-Deprived</i> | <i>25</i> | <i>58.3</i> | | |

Research Question 7

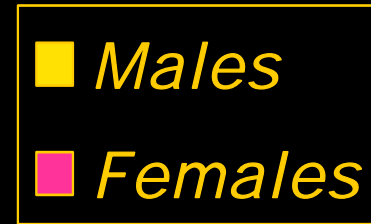
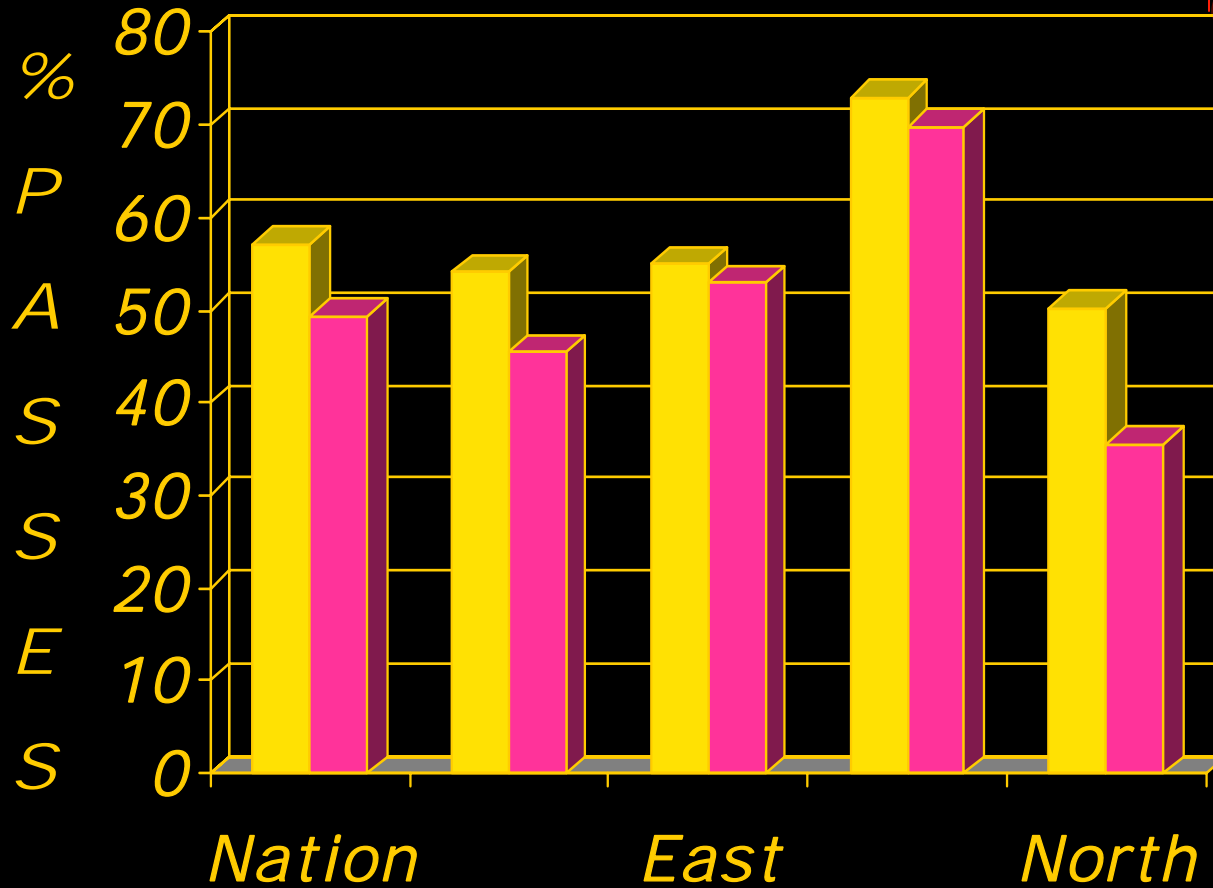


What differences exist (if any) by gender in academic performance nationally and across the four regions in English and Mathematics?

Gender differences in performance in English in 2006



Gender differences in performance in Mathematics in 2006





Findings

Rural Urban

Children in urban districts performed better by 11 percentage points in English and 9 percentage points in Mathematics in the BECE.

Deprived Not Deprived

- 1. P3 Children in non-deprived districts performed better in NEA by 6 percentage points in English and 5 percentage points in Mathematics.*
- 2. P6 Children in non-deprived districts performed better in NEA by 8 percentage points in English and 7 percentage points in Mathematics.*

Deprived Not Deprived

- 3. P3 Children in non-deprived districts performed better in BECE by 8 percentage points in English.*

Gender


Males performed better than females in English by 6 percentage points in BECE

Males performed better than females in Mathematics by 8 percentage points in BECE

POLICY IMPLICATIONS



- 1. Government invests in employment-generating activities for parents in the deprived and rural areas to increase their income levels*
- 2. Supervision should be strengthened and circuit supervisors should be more regular in the rural and deprived schools.*

- 
- 3. Government should encourage teachers with incentive packages to increase their motivation to teach in the deprived and rural areas. access to soft-term loans, study-leave with pay and rural/deprived living allowance and increased pay.*
 - 4. There should be more input into the rural and deprived areas in terms of school furniture and teaching learning resources to enhance teaching and learning.*



THE END

THANK YOU