LASER PULSE

Long-term Assistance and Services for Research (LASER)

Partners for University-Led Solutions Engine (PULSE)

Bar ama Baro - "Teach or Learn"

Somalia's Accelerated Quality Learning Program

Baseline Evaluation

SUPPLEMENT TO AGREEMENT NO. AID-7200AA18CA00009

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About LASER PULSE

LASER (Long-term Assistance and SErvices for Research) PULSE (Partners for University-Led Solutions Engine) is a five-year, $70M program funded through USAID's Innovation, Technology, and Research Hub, that delivers research-driven solutions to field-sourced development challenges in USAID partner countries.

A consortium led by Purdue University, with core partners Catholic Relief Services, Indiana University, Makerere University, and the University of Notre Dame, implements the LASER PULSE program through a growing network of 2,500+ researchers and development practitioners in 61 countries.

LASER PULSE collaborates with USAID missions, bureaus, and independent offices and other local stakeholders to identify research needs for critical development challenges, and funds and strengthens capacity of researcher-practitioner teams to co-design solutions that translate into policy and practice.

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ABBREVIATIONS AND ACRONYMS

ABEs	Accelerated Basic Education Programs
AGES	Adolescent Girls Education in Somalia
AMELP	Activity Monitoring Evaluation Learning Plan

ANOVA	Analysis of Variance
AY	Advancing Youth
BAB	Bar ama Baro
CA	Community Assessment
CDCS	Country Development Cooperation Strategy
CEC	Community Education Committee
CMA	Center Management Assessment
CPE	Community and Parent Engagement
cwpm	Correct Words Per Minute
DEO	District Education Officers
EGMA	Early Grade Math Assessment
EGRA	Early Grade Reading Assessment
ESSP	Education Sector Strategic Plan
FGD	Focus Group Discussions
FGS	Federal Government of Somalia
IDP	Internally Displaced Persons
INGOs	International Non-Governmental Organizations
IRs	Intermediate Results
IRT	Item Response Theory
ISELA	International Social and Emotional Learning Assessment
L	Level
LFI	Learning Facilitator Interviews
LFS	Learning Facilitator Survey
LKFAP	Learning Facilitator Knowledge-Attitudes and Practices
LP	Learner Profiles and Reading, Math, and SEL Assessments
MEL	Monitoring, Evaluation, and Learning
MOE	Ministry of Education
MoECHE	Ministry of Education, Culture, and Higher Education

NDP	Somali National Development Plan
NGOs	Non-Governmental Organizations
OOSCY	Out-of-school children and youth
ORF	Oral Reading Fluency
PGCI	Parent/Caregiver Interviews
PGCS	Parent/Caregiver Survey
RLA	Rapid Learning Assessments
RTI	Research Triangle Institute
SEL	Social Emotional Learning
SES	Social Economic Status
SLEC	Student Learning in Emergency Checklist
SORDI	Somali Research and Development Institute
ToC	Theory of Change
UNFPA	United Nations Populations Fund
USAID	United States Agency for International Development

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EXECUTIVE SUMMARY

PROJECT BACKGROUND

The Bar ama Baro - "Teach or Learn" program (BAB), supported by USAID/Somalia, aims to increase access to quality accelerated basic education for out of school children and youth ages 9-16 in targeted areas of Somalia. An international consortium, led by Creative Associates, International, began program implementation in August 2021 in 197 schools with 808 classrooms across 11 target districts in Somalia. They recruited 808 teachers (24% female) and enrolled 39,930 learners (48% female). Over the course of this 5-year project, BAB plans to establish 500-700 Accelerated Basic Education (ABE) centers/schools using the BAB model across 11-15 districts in Somalia and reach 100,000 unique learners.

EVALUATION APPROACH

USAID contracted with a multidisciplinary evaluation team led by the Evaluation and Learning Research Center (ELRC) at Purdue University, in collaboration with Makerere University (Uganda) and the Somali Research and Development Institute (SORDI) in Somalia, a member of Makerere University's Resilient Africa Network (RAN), to conduct an external evaluation of the BAB program. The evaluation has three primary objectives, namely to: (1) understand the effectiveness of the Bar ama Baro (BAB) ABE program in urban, rural, and IDP contexts; (2) document learning outcomes of diverse learners and examine the impact of learner, community, and school characteristics on learning outcomes; and (3) supply feedback to improve program operations and inform evidence-based decision making. **This baseline evaluation lays the groundwork for program evaluation by: (1) establishing starting values for project indicators and serving as a baseline for calculating growth in learning outcomes after one and two years of BAB and formal school instruction; (2) identifying/verifying contextual factors that may affect outcomes; and (3) informing sample selection and program implementation strategies.**

In addition to investigating the effectiveness of the BAB program, this evaluation is examining learning outcomes for children and youth attending public, community, and private education programs that are co-located with or near BAB sites. Data from this investigation will provide information to the Ministry of Education, Culture, and Higher Education (MoECHE) and other education stakeholders to inform education policy, benchmarking for reading and math, and understanding of the impacts of different educational models on diverse learner populations in Somalia. Because a variety of internal and external factors can influence learning outcomes, this evaluation takes a holistic approach that examines the interplay among learner, family, teacher and school, community, and environmental factors.

The external evaluation uses a multiple measure longitudinal cohort design to examine learner growth over time. This design will allow us to document changes in outcomes for individual learners through two years of programming. By following individual learners over time, the external evaluation will be able to examine the impacts of educational interventions on each learner -- both BAB and Formal Primary -- (including learning outcomes, retention, and dropout rates) based on

gender, age, SES (Social Economic Status), location, and other relevant demographic and contextual factors.

METHODS

The external baseline evaluation focused on describing learner, teacher, and head teacher characteristics for both BAB and Formal Primary components of a longitudinal cohort; testing the quality and performance of data collection tools; and examining expected correlational associations between variables of interest. Data for this baseline evaluation came from two sources, primary longitudinal cohort data collected by the evaluation team (teacher, head teacher, and learner surveys – including EGRA and EGMA) and secondary data collected by the ABE implementing partner, Creative Associates (including community and household surveys and cross-sectional cohort EGRA and EGMA data). Data collection for both the longitudinal and cross-sectional samples took place in September-October 2021 using random sampling methodologies.

The longitudinal evaluation includes children and youth beginning as level one (BAB) or grade 1 or 2 (Formal Primary) learners in late August 2021. The longitudinal cohort used a random sampling approach that purposefully oversampled rural and IDP locations to mitigate expected challenges in these areas due to population mobility, access, and other considerations. The sampling framework also considered state and district distribution, as well as funding type for Formal Primary schools (community, public, or private). The evaluation team also randomly selected formal school classrooms from each site hosting a BAB longitudinal sample classroom to create the Formal Primary longitudinal cohort. In cases where a BAB longitudinal site did not host a Formal Primary grade 1 or grade 2 class, we identified a Formal Primary sample from a nearby school in the same community.

The longitudinal baseline sample included 2912 learners (1714 BAB learners and 1198 Formal Primary learners), 54 teachers, and 42 head teachers from three states (Jubaland, Southwest, and Hirshabelle) and the Benadir region and 11 districts. Additional contextual information and baseline evaluation measures (Household survey, Community Survey, cross-sectional learner measures) derived from data collected by BAB as part of their AMELP, program records, or other secondary sources.

KEY FINDINGS

The longitudinal evaluation cohort showed **little variation between BAB and Formal Primary learner samples at baseline on learner characteristics including age distribution, gender distribution, and prior school attendance.** Both the accelerated program learners and learners attending non-accelerated schools varied in age from below 5 to above 19 years of age with median ages for grade 1, BAB ABE learners, and grade 2 at 10, 11, and 12 years, respectively. While overall, both the BAB and Formal Primary cohorts showed gender balance, disaggregation by school funding type revealed higher enrollment of male learners in community and private schools, while public schools enrolled more females than males and BAB schools were gender balanced.

Examining the baseline data for differences across school type (community, public, private, and BAB) revealed distinct patterns suggesting that **the various school types serve different populations of Somalia children and youth.** Cohort learners attending private schools scored highest on all

baseline indicators. Private school learners are relatively affluent with more boys than girls, speak Maxaa tiri as their primary language and are more likely to have both prior personal educational experiences and more educated mothers. Not surprisingly, private school learners also scored highest on baseline assessments of literacy and numeracy.

Community schools, at the other end of the spectrum, also serve more boys than girls, but they are significantly poorer, speak predominately Maay, and their mothers are less likely to be literate. Learners attending community schools also scored lowest on all psychosocial scales, except safety, and had the lowest baseline literacy and numeracy scores.

Public schools in the longitudinal cohort sample enrolled more girls than boys and served children that are only slightly more affluent than their community-school peers, although they report maternal literacy rates that fall midway between those of private and community school children. Public school learner scores on psychosocial indicators and baseline numeracy and literacy scores are also intermediate to private and community schools.

BAB schools served boys and girls in about equal proportions. Children attending BAB schools report among the lowest levels of maternal education and SES scores. Despite these indicators of economic deprivation, BAB learner scores on psychosocial measures and baseline literacy and numeracy scores are very similar to those measured for public school learners and between community and private school learners.

Where learners live also influences socioeconomic indicators, psychosocial measures, and baseline skills and competencies. While we saw little difference in gender balance, median learner age, or prior educational experience based on location type, learners from IDP and rural areas were far more likely to report low maternal literacy rates and fewer family resources than their urban counterparts. Rural learners reported the lowest perceptions of equity, engagement, and quality of life indicators of all groups and all scored significantly lower on baseline literacy and numeracy tests than learners from either IDP or urban areas. Contrary to expectations, learners from IDP areas, while resource poor, outperformed both rural and urban learners on baseline literacy and numeracy tests – perhaps indicative of other support resources available in these areas.

SAMPLE SELECTION CONSIDERATIONS

The external evaluation compared literacy and numeracy scores at baseline for the longitudinal sample with a cross-sectional sample collected by Creative Associates. Sample selection for both cohorts used a random sampling approach, however there were key differences. The longitudinal cohort purposefully oversampled rural and IDP schools and included all learners in selected classrooms. The cross-sectional cohort drew sample classrooms proportionally and randomly selected 10-12 learners in each. The differences in sample selection methodologies reflected the different purposes for the data and resulted in quite different samples. The longitudinal sample is significantly different from the cross-sectional sample in every demographic aspect except gender. Most notably, the longitudinal sample includes a larger proportion of lower age learners, rural learners, and IDP learners.

The external evaluation compared results from BAB's cross-sectional EGRA and EGMA baseline assessments with results from the longitudinal cohort assessments to examine the effect of sampling on baseline measures of learner skills and competencies. The longitudinal sample has many more learners categorized as non-learner or emergent learners on both the EGRA (64%) and EGMA 61%) at baseline than the cross-sectional sample (43% on both)[1].

The baseline evaluation verified expected correlations between a variety of factors and learner performance on baseline measures of skills and competencies (literacy and numeracy). Baseline learner skills and competencies in our analysis correlate most strongly with student age, but they also correlate significantly with learner SES, maternal literacy, and quality of life indicators. Urban learners outperformed rural and IDP learners on all measures. As the longitudinal cohort over-represents rural learners, who score lower on these constructs in our analysis, it is not surprising that longitudinal baseline scores at all age levels are lower than the cross-sectional scores at the same age.

Sample characteristics are important when considering education targets. For example, benchmark scores for literacy are commonly set using the first quartile of the Oral Reading Fluency score (in correct words per minute) plotted against reading comprehension scores at the 80% correct level. These measurements yield varying results based on cohort characteristics. The score derived by this method for the longitudinal sample is 49 correct words per minute, compared to 32 correct words per minute for the cross-sectional sample.

CONCLUSIONS

This baseline evaluation 1) established starting values and identified key differences among learners based on location, school type, demographics and family characteristics, and psychosocial measures; 2) verified correlations among these variables and measures of learner skills and competencies, and 3) identified sample selection and program implementation considerations. Key conclusions and recommendations include:

- Both formal (community, public, and private) and ABE classes in the baseline sample included learners across a broad spectrum of ages from 5-19 in entry level classes. This indicates a strong need for ABE to help older learners gain basic education skills rapidly, while making room in formal classrooms for larger numbers of younger learners.
- Baseline data reveals resource inequities across location types, with rural learners under-resourced compared to both urban and IDP learners. As skills and competencies at baseline are strongly correlated with socioeconomic and psychosocial indicators, directing resource allocations to these high need communities should yield positive outcomes.
- Natural disasters, violence, or unrest in the community resulted in depressed learner scores on psychosocial indicators. These results highlight the need to equip teachers through ongoing training and mentoring to meet the educational needs of all learners while

[1] As Somalia does not currently have defined national literacy and numeracy performance levels, we adopted the performance levels described in the Leave No Girl Behind, AGES project (page 97) (Machova, Miettunen and Peterson 2020)

supporting positive socioemotional development and health, especially during times of uncertainty, stress, or trauma.

- Moreover, these findings underscore the need to collect data that captures the role of external factors on student outcomes.
- Although learner gender balance varied by school type, males dominated the teacher workforce by a ratio of nearly 3:1. Developing and implementing school policies and procedures that prioritize gender-balanced teacher recruitment will enhance education and role models, especially for girls.
- Finally, variations in baseline measures resulting from different sampling strategies illustrates the need to use holistic data collection strategies that provide adequate representation across location and populations and to understand the strengths and limitations of data sources when developing educational standards, benchmarking, or making other policy decisions.

1 INTRODUCTION

1.1 PROJECT CONTEXT

Somalia has one of the lowest rates of school enrollment in the world with estimates of out-of-school children and youth (OOSCY) ranging from 60-70% of the total school-aged population (Somalia Education Cluster, 2017; USAID, 2016). The combination of widespread violence, food insecurity, and recurring droughts and floods over more than two decades has resulted in many internally displaced persons (IDPs) and disrupted Somalia's educational infrastructure. Currently, the gross school enrollment rate in Somalia is only 21% for primary learners and 18% for secondary learners. Even those children in school often do not learn (Wafula 2020). Furthermore, there are sharp regional disparities in educational opportunities for children, with South Central Somalia being the most affected by the collapse of Somalia's formal education systems. Earlier studies found barriers to primary school education that include finances (prohibitive costs of tuition, textbooks, uniforms, and transportation), child labor (especially within poor households, pastoralist communities and the female gender), and lack of parental support for education (Machova, Miettunen and Peterson 2020).

1.2 PROJECT BENEFICIARIES

The Somali National Development Plan (NDP) for 2020-2024 (The Ministry of Planning, Investment and Economic Development 2020) calls for improvements in the education sector that support the development of an adequate and well-educated workforce that can help move the country forward both economically and socially. In line with the 2018-2020 Federal Government of Somalia (FGS) Education Sector Strategic Plan (ESSP) (Federal Government of Somalia Ministry of Education, Culture and Higher Education 2018) and the country's vision and mission for education priorities, USAID aims to support increased access to quality education for OOSCY ages 9-16 years in targeted regions of Somalia by implementing effective Accelerated Basic Education Programs (ABEs).

In Somalia, international non-governmental organizations (NGPs), non-governmental organizations (NGOs), and donors are the primary implementers and funders of accelerated basic education programming -- which is part of the non-formal education system. Accelerated basic education programming aims to reintegrate and fast-track over-aged OOSCY by giving them the opportunity to complete two years of the basic education curriculum in a single year -- typically done by compressing the curriculum, thus reducing the amount of classroom time required. Accelerated basic education programming is consistent with the vision and mission stated in Somalia's national education priorities.

1.3 IMPLEMENTATION DESCRIPTION AND THEORY OF CHANGE

To increase access to quality education for OOSCY, USAID/Somalia is supporting Bar ama Baro (BAB) – "Teach or Learn." BAB is a 5-year USAID-funded program implemented by an

international consortium led by Creative Associates, Intl. that aims to increase access to quality ABE for OOSCY ages 9-16 in targeted regions and districts of Somalia.

BAB estimates it will establish 500-700 ABE centers/schools using the Bar ama Baro model across 11-15 districts[2] in Somalia, although numbers of centers overall, and by district, remain under discussion. ABE sites will represent a range of community settings (urban, rural, IDP). Over the course of the project, Bar ama Baro hopes to reach about 100,000 "unique" learners. All ABE centers will use the same basic BAB curriculum and approach; however, BAB will tailor program details to meet community needs.

Working closely with relevant government authorities and other partners, BAB aims to provide relevant, flexible, safe, and quality basic education opportunities for OOSCY in Somalia through ABE centers with the **goal of increasing access to quality education for Somali OOSCY ages 9-16.** Four intermediate results (IRs) and one crosscutting result support this goal.

- IR1: Enrollment in ABE is increased
- IR2: Safety of ABE learning environments is improved
- IR3: Student learning outcomes in ABE are improved
- IR4 Government capacity to regulate ABE is enhanced
- Crosscutting IR: Youth civic engagement is strengthened.

BAB's program theory of change (ToC) builds on the development hypothesis that if enrollment in ABE is increased; if the safety of ABE learning environments is improved; if youth's learning outcomes are improved; and if federal, state, and local government capacity to regulate ABEs using an evidence-based framework as a guide is enhanced; then greater numbers of OOSCY will access quality education. Figure 1 captures the BAB theory of change.

In late summer/fall 2021, BAB initiated ABE in 197 schools with 808 classrooms across 11 target districts in Somalia. They identified 808 teachers (24% female) and enrolled 39,930 learners (48% female) (BAB FY21 Annual Report).

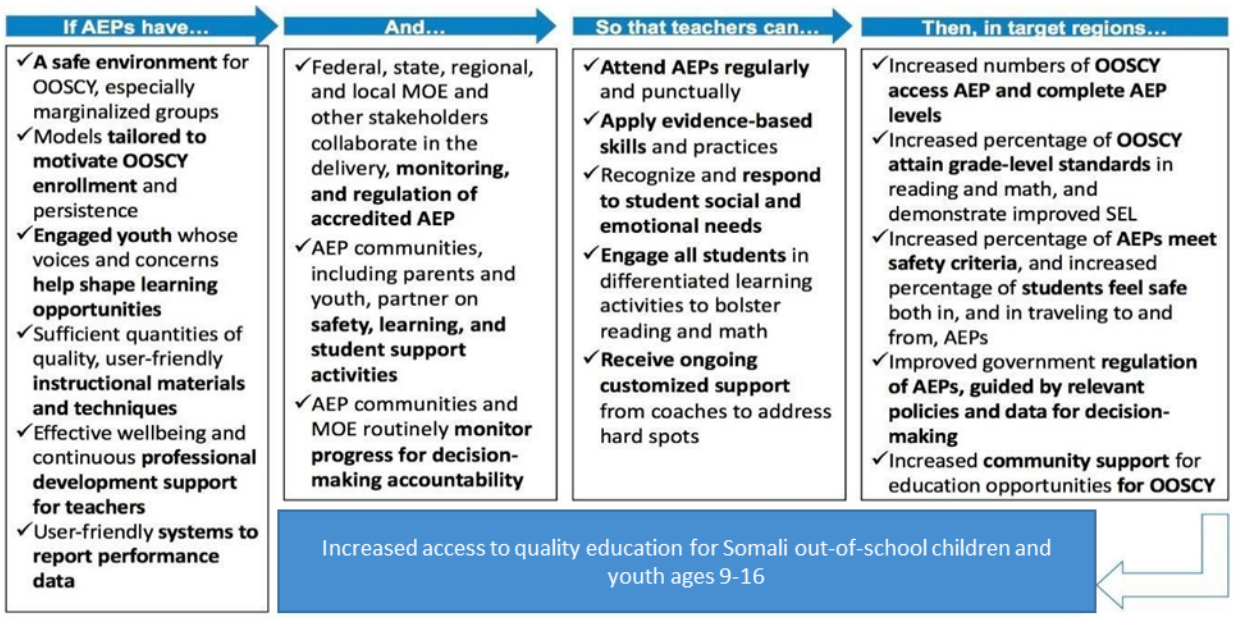
2 Evaluation Goals and Design

The LASER PULSE external evaluation, led by researchers in Purdue University's Evaluation and Learning Research Center (ELRC), leverages the knowledge and expertise of partners from Purdue University, Somali Research and Development Institute (SORDI) and the Resilient Africa Network (RAN). The evaluation has three primary objectives, namely to: (1) understand the effectiveness of the Bar ama Baro (BAB) ABE program across different implementation contexts;

[2] Baseline project intervention areas include: Daynile, Kahda, Shibis, and Hamarweyne in Benadir region; Baidoa and Dinsoor in the Bay region; Balcad and Jowhar districts in Middle Shabelle region; and Baraawe and Wanlaweyn districts in the Lower Shabelle region, and Kismayo in Lower Juba region. In discussion with USAID and the Ministry, the project will expand to additional districts of implementation in Year 3-4.

(2) document learning outcomes of diverse learners across community, public, private, and ABE options and examine the impact of contextual and demographic indicators on learning outcomes; and (3) supply prompt feedback to USAID and Creative (BAB) about effectiveness and cost effectiveness to inform decisions around continuous improvement, replication and scale up.

Figure 1: BAB Program Theory of Change



The external evaluation of BAB is examining the relationships between the BAB program and key outcomes to provide evidence for improving program operations and informing evidence-based decision making. The evaluation aids accountability and planning, as well as continuous improvement and learning. This evaluation also examines learning outcomes for learners attending public, community, and private education programs that are co-located with or near BAB sites. This data will provide information to the Ministry of Education, Culture, and Higher Education (MoECHE) and other education stakeholders to help set standards or benchmarks for reading and math and examine the impacts of different educational models on diverse learner populations in Somalia.

Understanding that a variety of internal and external factors influence learning outcomes, the BAB external evaluation takes a holistic approach that seeks to examine the interplay among learner, family, teacher and school, community, and environmental factors.

2.1 Key Evaluation Questions

Specific external evaluation questions for this project include:

1. To what extent is BAB effective in improving access to quality education for Somali out-of-school children and youth ages 9-16?

Evaluation questions in this category seek to understand the access, retention, safety, and learning outcomes achieved for targeted beneficiaries of the BAB ABE program; how and why outcomes differed across BAB implementation contexts; and differential impacts of BAB based on learner characteristics.

2. How do learning outcomes of diverse learners differ across private, community, and public-school options and interventions in the Country Development Cooperation Strategy (CDCS) focal zones? What is the impact of contextual and demographic indicators on learning outcomes?

   This evaluation question will provide data for benchmarking learning outcomes across educational models co-located with or near BAB schools with the goal of documenting variations in populations served, as well as impacts of educational models based on contextual and demographic variables. Results from this evaluation question can serve as a reference within which the BAB results can be situated and can inform USAID and the Somali governments' decision-making about programming and education models for different populations.

3. What can we learn from the BAB implementation to inform USAID and MoECHE decision-making for scale-up and sustainability?

   The final set of evaluation questions seeks to better understand the interactions among BAB components and outcomes by context, demographic group, and the costs associated with outcomes. This information can inform continuous improvement and decision making regarding what aspects of the BAB program to replicate, scale, and/or integrate this accelerated basic education model into MoECHE policies. These lessons learned may also contribute to future accelerated education programming in Somalia or other crisis and conflict-affected settings. Specifically, these questions examine the costs of implementation, the outcomes across different populations and contexts, the effects of various community and programmatic variations on program effectiveness, and unintended consequences (both positive and negative).

Appendix 1 supplies a detailed list of sub-questions for each evaluation question, as well as target indicators, and data collection and analysis strategies for the full evaluation.

2.2 Overall Evaluation Design

The BAB program external evaluation uses a theory-based, program-oriented evaluation approach with a mixed-methods design that employs a range of both qualitative (e.g., interviews, focus group discussions (FGD), and case studies) and quantitative (e.g., surveys, standardized assessments, program data) data collection tools to draw conclusions about project outcomes and impacts over time. **The evaluation's multi-measure longitudinal cohort design follows two cohorts (BAB ABE and a reference cohort from co-located or nearby Formal Primary programs) of learners for two years.**

Cross-sectional cohort data collected by Creative Associates from a unique random sample of BAB learners at the beginning and end of each program year will provide additional opportunities for analysis and model validation.

Evaluation of both BAB and Formal Primary cohorts will examine changes in key indicators and outcomes over time with primary data collection at baseline (September-October 2021), midline (May-June 2022), and endline (May-June 2023). The evaluation will track learning (literacy and numeracy), psychosocial measures, and retention for all cohort learners. Further, recognizing that a host of factors (both programmatic and non-programmatic) affect learner outcomes, the external evaluation examines the influences of learner, teacher, school, family, and community characteristics and context on learner outcomes.

2.3 Baseline Evaluation Design

The external evaluation created a longitudinal cohort sample by selecting a random sample of BAB level 1 and Formal Primary grade 1 and grade 2 learners to provide historical points of reference or starting points for measuring key project indicators that will form the basis for later stage examinations of BAB and Formal Primary educational impacts/outcomes at midline and endline. The baseline evaluation:

- establishes baseline values for project indicators and serves as a reference for calculating growth in learning outcomes after one and two years of BAB and formal school instruction;
- identifies/verifies contextual factors that may affect outcomes; and
- informs sample selection and program implementation strategies.

3 Methodology

The external baseline evaluation focused on describing learner, teacher, and head teacher characteristics for both BAB and Formal Primary components of the longitudinal cohort; testing the quality and performance of data collection tools; and examining expected correlational associations between variables of interest.

3.1 Data Collection Approach

Data for this baseline evaluation comes from two sources, primary longitudinal cohort data collected by the external evaluation team (teacher, head teacher, and learner surveys – including EGRA and EGMA) and secondary data collected by Creative Associates (including cross-sectional cohort learner data). Community assessment and household survey findings, collected by Creative Associates as part of their site selection process, provided contextual background.

Longitudinal Cohort Sample

The external evaluation uses a multiple measure longitudinal cohort design to examine learner growth over time. This design will allow us to document changes in learning outcomes for individual learners through two years of programming. By following individual learners over time, the external evaluation will be able to examine differential impacts of the intervention -- both BAB and Formal Primary -- (including learning outcomes, retention, and dropout rates) based on gender,

age, SES (Social Economic Status), location, and other relevant demographic and contextual factors.

The evaluation will follow the BAB cohort from entry into the BAB program as level 1 learners through completion of the level 2 curriculum (equivalent to grade 4).

The Formal Primary reference cohort consists of two sub-samples. Sub-sample A will follow learners from entry into grade 1 through the end of grade 2, while sub-sample B will follow a different group of learners from the beginning of grade 2 to the end of grade 3.

Including both first and second graders at baseline extends the value of the reference cohort by supplying benchmarking opportunities for first time learners at baseline, as well as learning growth across one and two years of both standard and accelerated instruction. As ABE aims to compress two years of the basic education curriculum into a single year, the reference cohort provides both a mechanism for examining similarities and differences between learners enrolled in standard instruction and those enrolled in ABE at baseline and an opportunity to examine differences in rate of learning growth for learners in each group. The evaluation will examine Formal Primary subgroups separately to better understand potential impacts of age/experience on constructs of interest.

The external evaluation used an independent sampling plan to select a random sample of BAB classes for the evaluation longitudinal cohort study that is distinct from the BAB cross-sectional sample (See Appendix 2). The longitudinal cohort sampling protocol focuses on all children in selected classrooms. The evaluation will compare data from the independent longitudinal study with BAB's cross-sectional data for a more robust understanding of the impact of sampling on project outcomes across cohorts (see section 7 for baseline comparisons and sampling differences).

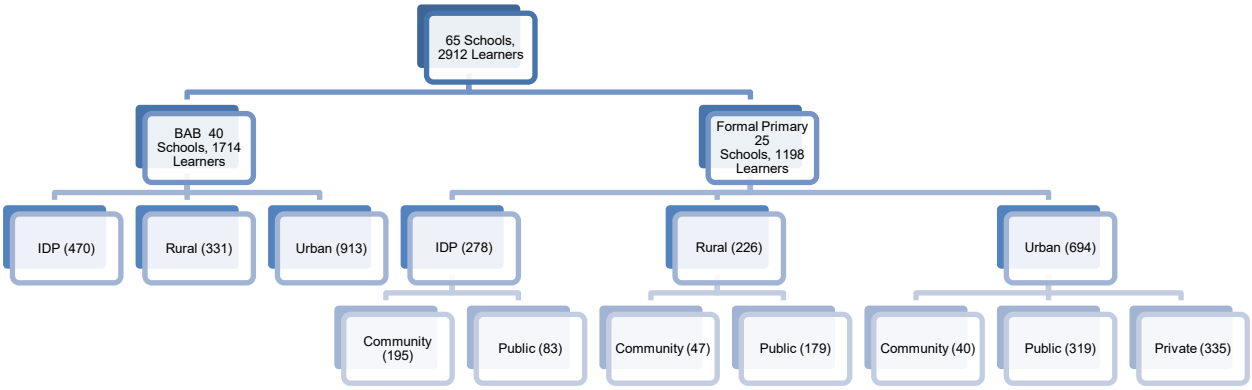
To create a longitudinal study cohort for Formal Primary schools (public, private, and community), the external evaluation team randomly selected a formal school classroom from each site hosting a BAB longitudinal sample classroom. In cases where a BAB longitudinal site did not host a Formal Primary grade 1 or grade 2 class, the evaluation team, in consultation with the district education officer and state/regional authority, identified a Formal Primary sample from a nearby school in the same community. This sampling scheme simplified data collection logistics and minimized variations associated with community characteristics and differences in physical facilities associated with schools. However, it may introduce spillover effects resulting from BAB activities with teachers, schools, and the community. External evaluation midline and endline data collection will explore both sources of spillover and impacts.

Based on sample size calculations and oversampling considerations to account for expected attrition over the 2-year study,[3] external evaluation baseline data collection targeted an initial

[3] The external evaluation used attrition rate calculations of 20% over the course of the study based on reported attribute rates from similar studies in Somalia and Somaliland (Machova, Miettunen, and Peterson, 2020, Leave No Girl Behind: Adolescent Girls' Education in Somalia (AGES) Baseline Evaluation, Consilient Research pg. 51)

sample of 1200-1500 BAB learners representing all learners in 40-50 classes, and 1000-1200 Formal Primary learners, representing all learners in 30-40 classes. Actual external evaluation baseline data collection exceeded targets, with data collected from 2,912 learners from 65 schools across 4 states and 11 districts. As illustrated in Figure 2, the baseline sample included 1,714 learners from 40 BAB schools and 1,198 learners from 25 Formal Primary schools. Both BAB and Formal Primary sample schools represented IDP, rural, and urban settings with Formal Primary schools further encompassing community, public, and private school learners.

Figure 2: Longitudinal Cohort Baseline Sample Distribution



The external evaluation sampling scheme used a site-based sampling approach that purposefully oversampled rural and IDP classrooms recognizing that rural and IDP areas in Somalia have fewer educational resources and so more OOSCY (as a percent) than urban areas (Federal Government of Somalia Ministry of Education, Culture and Higher Education 2018). Table 1 shows target and actual longitudinal classroom distributions for the baseline sample.

Table 1: Longitudinal Cohort Classroom Distribution

Community Type	Number of classrooms		
	Target BAB	Actual BAB	Actual Formal Primary
IDP	12	11	4

Rural	8	8	5
Urban	20	21	16
TOTAL	**40**	**40**	**25**

Cross-sectional Cohort Sample

The BAB MEL plan employs a random cross-sectional data collection approach that draws a **unique** set of Level 1 learners **for each data point** (beginning and end of each program year) to monitor program effectiveness at the population level. The BAB sampling protocol draws 10-12 learners per classroom to maximize the number of classrooms in the sample.

Creative Associates selected a random cross-sectional sample of 1208 learners across 92 schools from the same 4 states and 11 districts. The cross-sectional sample includes only BAB learners from urban, rural, and IDP locations. The evaluation team and BAB coordinated sample selection to prevent duplicate testing of individual learners by both the evaluation longitudinal study and BAB cross-sectional samples.

3.2 Data Collection Tools

The external evaluation conducted baseline longitudinal learner surveys at the sample school sites using a tablet, smartphone, or other electronic device running Tangerine™ electronic data collection software (RTI International, 2018). Longitudinal learner baseline surveys included demographic and psychosocial indicators, as well as measures of learner literacy and numeracy skills (Early Grade Reading Assessment -- EGRA, Early Grade Math Assessment -- EGMA). Trained enumerators read learner questions orally and recorded responses electronically. Enumerators also conducted teacher and head teacher surveys orally and recorded responses electronically using Tangerine™ software. In-country experts from SORDI led all external evaluation primary data collection activities, including recruiting and training both male and female in-country research associates to conduct baseline learner and teacher data collection activities.

3.3 Instruments and Instrument Development

The external evaluation baseline longitudinal cohort primary data collection focused on survey and learning data from learners and survey data from teachers and head teachers. Learner surveys examined four latent constructs (socio-economic status, safety, engagement, and quality of life) as well as learner performance on numeracy and literacy skills.

Building on BAB's log frame, the external evaluation team identified latent constructs for learner baseline data collection from a desk review of prior educational work in a Somali context and educational theory. Prior research supports the importance of these constructs, represented in relationship to three primary BAB intermediate results in Figure 3, in supporting positive learning environments. The external evaluation team developed a longitudinal learner survey based on validated scales to examine these proximal indicators that may impact learning, including changes

in learner attitudes and perceptions of education, barriers to education, perceptions of safety, and psycho-social indicators including engagement and quality of life indicators.

Figure 3: Simplified Learner Model Showing Relationships Among Key Constructs and Intermediate Outcomes

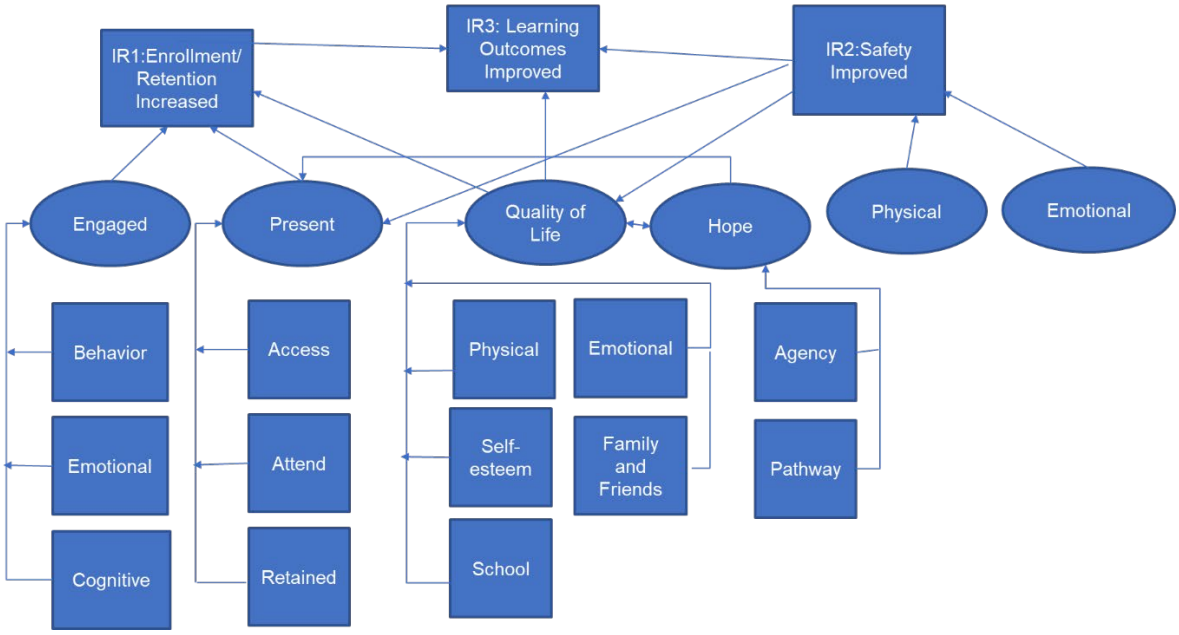


Table 2 describes specific latent variables included in the learner baseline survey and the source for questions/scale items for that variable included in the Longitudinal Learner Survey. The final column in Table 2 shows links between these variables and learning and life competencies included in BAB level 1 and level 2 curricula.

Table 2: Longitudinal Baseline Learner Variables and Measurement Item Sources

Variable	Definition	Measurement Tool	Link to BAB Life and Learning Competencies
Socioeconomic Status (SES)	Social or class standing of an individual or group. Measures often include a combination of education, income, and occupation.	Maternal literacy question (BAB Learner Survey) SES Items from ISELA and BAB Learner Survey	

Safety	Physical and emotional deriving from any combination of environmental, internal, and external threats to well-being.	Perceptions of safety -- Questions from various sources	
Engagement	Behavioral --- access, attendance, and retention (persistence). Emotional -- the extent to which children feel they have value and belong in school. Cognitive – the level of intellectual effort a learner devotes to mastering tasks.	School Engagement Scale (Fredricks, et. al.; 2005) 14 items. Only Emotional Scale items are included at baseline.	Cognitive Domain Emotional Domain
Quality of Life	Perception of well-being and functioning, including self-esteem, relationships with family and friends, and attitudes towards school and the future.	KINDL Quality of Life Survey (Ravens-Sieberer & Bullinger (1998) Three subscales included at baseline (Emotional, **S**elf-Esteem, Friends)	Social Domain Emotional Domain Values Domain
Learning	Numeracy and Literacy	EGMA and EGRA Baseline longitudinal data collection used the EGRA and EGMA adapted by Creative Assoc. and used with their cross-sectional sample.	Learning

The evaluation team administered the learner survey to both BAB and Formal Primary longitudinal learner cohorts at baseline. An expanded learner survey will be administered at midline and endline to examine changes in learner experiences and perspectives regarding academic, physical, emotional, and social need satisfaction.

The external evaluation incorporated the Level 1 Early Grade Reading Assessment (EGRA) and Early Grade Math Assessment (EGMA) instruments in the longitudinal learner survey. BAB adapted these instruments for the Somali context with the support of the MoECHE to measure

learner outcomes in their cross-sectional sample. The evaluation will also use the BAB level 1 EGRA and EGMA at midline to facilitate comparisons across educational models and between the cross-sectional and longitudinal samples. The evaluation team will develop new EGRA and EGMA tools for BAB longitudinal cohort Level 2 data collection to enable measurement of learning across 2 years of BAB ABE instruction.

The external evaluation also collected baseline information about teachers' background, training, professional attitudes and beliefs, self-efficacy, well-being, confidence, and feelings of support with a survey instrument developed using validated scales. The longitudinal teacher survey, developed using the same process as the learner survey. The evaluation will employ an expanded version of this survey at midline and endline to 1) capture changes in key teacher constructs of interest, and 2) gain teacher perceptions of learner, curricular, school, family, and community characteristics that may affect their learners' achievement.

The learner and teacher surveys draw from existing validated instruments. The evaluation team checked survey reliability by conducting item analyses (Factor Analysis and estimation of Cronbach's Alphas) for each construct of interest to verify that survey items function as intended in the Somali context. Results of the item analysis showed overall good reliability and will inform minor modifications to midline and endline surveys to ensure a strong basis for valid inferences and interpretations of our results (See Appendix 3 for a complete discussion of survey validity and reliability).

Community characteristics, including population attributes, educational infrastructure, community support, attitudes and beliefs about education, safety concerns, and other attributes that might affect learner recruitment, retention and success were touched on in the Head Teacher Survey and collected as part BAB's community assessment used for site selection purposes and summarized by SORDI researchers for the baseline report.

3.3 Instruments and Instrument Development

The external evaluation baseline longitudinal cohort primary data collection focused on survey and learning data from learners and survey data from teachers and head teachers. Learner surveys examined four latent constructs (socio-economic status, safety, engagement, and quality of life) as well as learner performance on numeracy and literacy skills.

Building on BAB's log frame, the external evaluation team identified latent constructs for learner baseline data collection from a desk review of prior educational work in a Somali context and educational theory. Prior research supports the importance of these constructs, represented in relationship to three primary BAB intermediate results in Figure 3, in supporting positive learning environments. The external evaluation team developed a longitudinal learner survey based on validated scales to examine these proximal indicators that may impact learning, including changes in learner attitudes and perceptions of education, barriers to education, perceptions of safety, and psycho-social indicators including engagement and quality of life indicators.

3.4 Enumerator Training, Field Testing, and Quality Assurance

SORDI researchers, with support from RAN (Resilient Africa Network), recruited, trained, and oversaw experienced Somali enumerators to carry out baseline evaluation data collection.

Training

Enumertors practice using data collection software during training. (SORDI, 2021)

Enumerator training used a mixed methodology that combined presentations with extensive practice sessions to develop both theoretical and practical expertise. Overall, the mode of conduct was participatory with the use of reflection sessions, question and answer sessions, and comments by both the facilitators and trainees. Enumerators took part in seven days of training followed by pilot testing. A full description of enumerator training and training schedules are included in Appendix 4.

Field Testing

The last step in enumerator training included a pilot test that allowed enumerators to practice their skills in the field with children and teachers that represented the target audience. Enumerators conducted the pilot test in Formal Primary schools that were not among the evaluation sample schools but fit the category of examination. Pilot testing took place on the 9th and 10th of October 2021, in Mogadishu, Kismayo, and Baidao. Prior to deployment, supervisors divided enumerators into groups with team leaders. Senior supervisors and researchers were present at each pilot site to observe, answer questions, and ensure quality. Enumerators administered final versions of all tools to pilot audiences to determine the average administration time for learners, teachers, and head teachers. The teams found that, on average, a single learner took around 40 minutes, a teacher took 40 minutes, and a head teacher took 50 minutes.

Field-testing revealed the need for some minor adjustments to the surveys in the software application. The evaluation team updated all surveys accordingly and finalized them for data collection activities (Appendix 6).

Data Collection and Field Notes

Enumerators administer oral surveys to each learner cohort participant (SORDI, 2021)

Teams of SORDI enumerators collected all evaluation primary data for this baseline study, including Learner Surveys (including demographics, SES, safety, and psychosocial scales, and EGRA and EGMA assessments), Teacher Surveys, and Head Teacher Surveys. Enumerators, drawn from the sample communities, worked in mixed-gender teams whenever possible. Enumerators collected data from schools in three states (Jubaland, Hirshabelle and Southwest) and the Benadir region, and 11 districts. The original sampling protocol called for selecting Formal Primary classes from the same school as the BAB sample classes. However, enumerators found that some BAB schools did not have associated Formal Primary classes. When this occurred, enumerators worked with the district education officers and state/regional education authority to identify and access Formal Primary schools in the same community. Table 3 lists cohort schools by district with the total number of learners sampled broken down by BAB and Formal Primary classes.

Table 3: Longitudinal Cohort Sample by State, District, School and Program

State	Districts/Schools	BAB L1 Learner	% Total L1 Learner	Long. Sample	% Long. Sample	BAB	Formal Primary
Benadir	Deynile (7)	3198	11	299	10	177	12
	Kahada (4)	2374	8	244	8	149	9
	Hamarwayne (1)	647	2	77	3	45	3
	Shibis (1)	1060	4	51	2	34	1
Southwest	Baidoa (10)	3965	13	610	21	383	227
	Barawe (2)	1905	6	140	5	88	5
	Diinsor (2)	1602	5	106	4	40	6
	Walanweyn (3)	2623	9	176	6	152	24
Jubaland	Kismayo (7)	4643	16	650	22	316	334
Hirshabelle	Balcad (4)	3575	12	262	9	160	102
	Jowhar (4)	4309	14	297	10	178	119
Total		**29,901**	**100**	**2912**	**100**	**1722**	**1190**

SORDI enumerators collected longitudinal learner cohort data on a whole class basis, which often required multiple visits to each school to accommodate large classes, classes with disruptions, and absences. Enumerators noted a variety of challenges with the data collection process. Table 4 describes several, along with remediation strategies. Field notes in Appendix 7 detail additional insights into data collection challenges.

Table 4: Data Collection Challenges and Remedies, and Recommendations

Challenge	Assumption	Findings	Remedy	Recommendation
Class Selection	Sample randomization assumed all BAB classes co-located with Formal Primary classes	A number of schools did not include both BAB and Formal Primary classes	SORDI enumerators worked with the district education officers and state/regional education authority to identify and access Formal Primary schools in the same community	Better communicate with implementing partner to understand site characteristics
Learner Registration	All learners are registered, and registration lists are accurate	Frequent mismatch between rosters and actual learners in the class.	Enumerators updated registration logs and collected data from all learners currently in the class.	Document all learners in class and conduct periodic verifications on learners and registers to minimize discrepancies
Infrastructure and Safety	All classrooms are safe and learning ready for 35-50 learners.	Many schools (especially IDP) had poor infrastructure, poor or insufficient resources for the number of children (e.g., chairs, tables, blackboards), and unsafe conditions.	All learners in the class (regardless of number) were included in the sample. Data collection approaches were modified based on field conditions.	Learner hazards (e.g., open wells) documented and remediated. Target more resources for infrastructure and resources to under-resourced areas.
Environmental Challenges	Schools and classrooms are	Schools in some areas (e.g.,	Data collection was delayed until	Build time and redundancy into

	accessible for data collection	Hirshabelle) were inaccessible due to flash floods.	the area became accessible.	the sample frame to accommodate needed changes.
Security	All schools are located in a safe location	The security situation, especially in some of the remote areas, was volatile. Urban roads were sometimes blocked for security reasons.	Project team communicated with communities prior to data collection to assess and consider safety and security concerns that might affect data collection personnel. The safety office provides frequent updates to data collection teams about current and potential threats.	Increase linkages between BAB staff and communities to foster better information exchange.

Quality Assurance

As the quality of data is a direct reflection of enumerator skill and training, the evaluation team used a multistep process for ensuring enumerator and data quality that encompassed candidate selection, continuous monitoring, and pretesting before deployment, as described below:

a) SORDI initially selected enumerator candidates based on their prior experience in the relevant field, competency, and relevance to the process of data collection.
b) Training facilitators continuously checked the trainees throughout the training to ensure understanding of both the material and the importance of collecting the data ethically and according to protocol.
c) Senior SORDI researchers tested all trainees on the final day of the training to ensure they met all requirements prior to piloting. The test examined the trainee's ability to carry out and follow protocols accurately, adhere to ethical standards, and effectively and efficiently use data collection tools. The test proficiency cut off percentage was 80%. Trainees scoring below the cut off were eliminated from the training program. One candidate in Mogadishu, who could not conduct the assessment as expected and scored less than the cutoff percentage, was eliminated. A second trainee, in Baidoa, was unable to effectively use the data collection tools and was also eliminated.

d) SORDI field supervisors reviewed data in real time to identify and address quality issues during data collection.

The evaluation team also examined all data for quality and integrity post collection. During analysis, the research team noticed large variations in EGRA and EGMA scores (all longitudinal baseline data together) between enumerators. The overall EGRA mean was 82.72 (Figure 4), while the mean of data collected by enumerators ranged from 35.64 to 272.72 (Figure 5); the overall EGMA mean was 38.48 (Figure 6), while the mean of data collected by enumerators ranged from 21.18 to 79.25 (Figure 7). These results raised questions about the potential for data bias resulting from errors or inconsistencies in the way enumerators were using the data collection tools. To test for possible enumerator bias, we used box plots to identify outliers and replaced learner IDs with the corresponding enumerator IDs. Analysis revealed four outliers for EGRA, three collected by enumerator ID 48, and one collected by enumerator ID 91 (Figure 8). All four outliers were remarkably close to the maximum value of the boxplot. Analysis detected no outliers for EGMA (Figure 9). Thus, we concluded that variation is within acceptable levels and evidence of enumerator bias is insignificant.

Figure 4: Longitudinal Cohort Baseline EGRA Mean

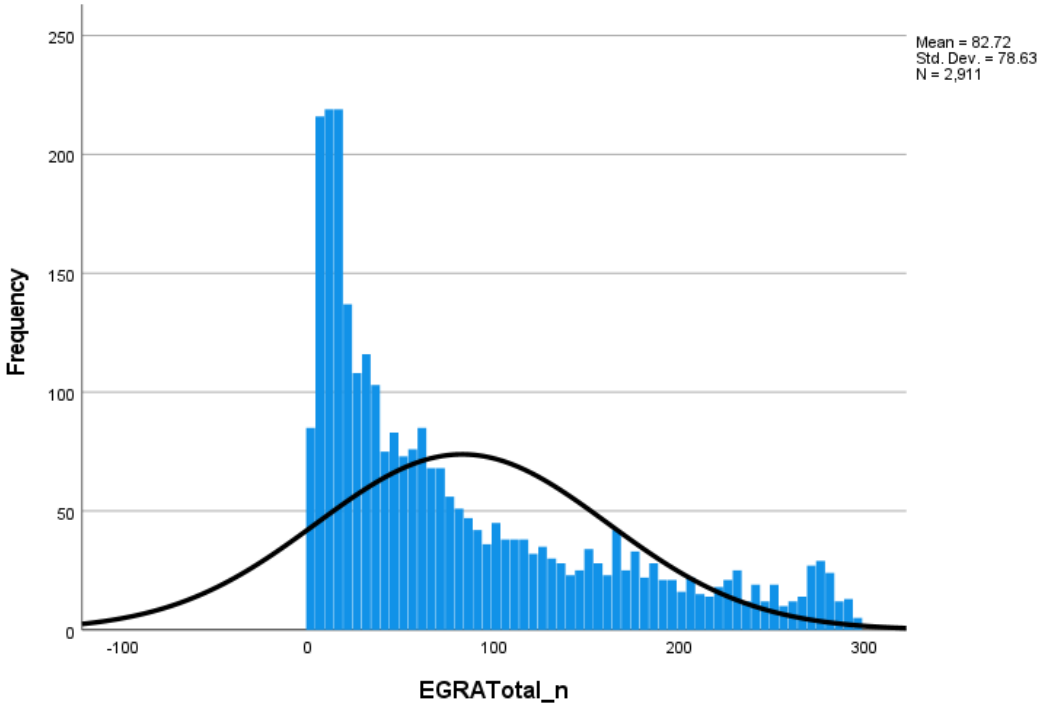


Figure 5: Longitudinal Cohort Baseline EGRA Mean Variation by Enumerator

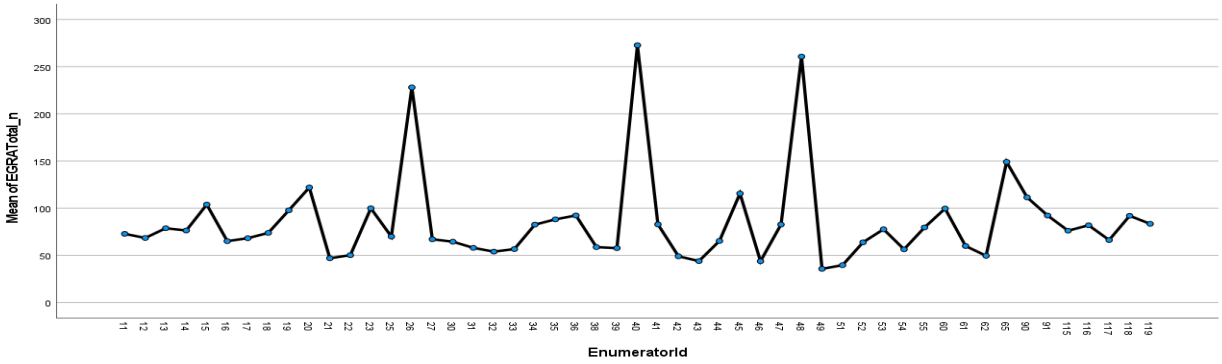


Figure 6: Longitudinal Cohort Baseline EGMA Mean

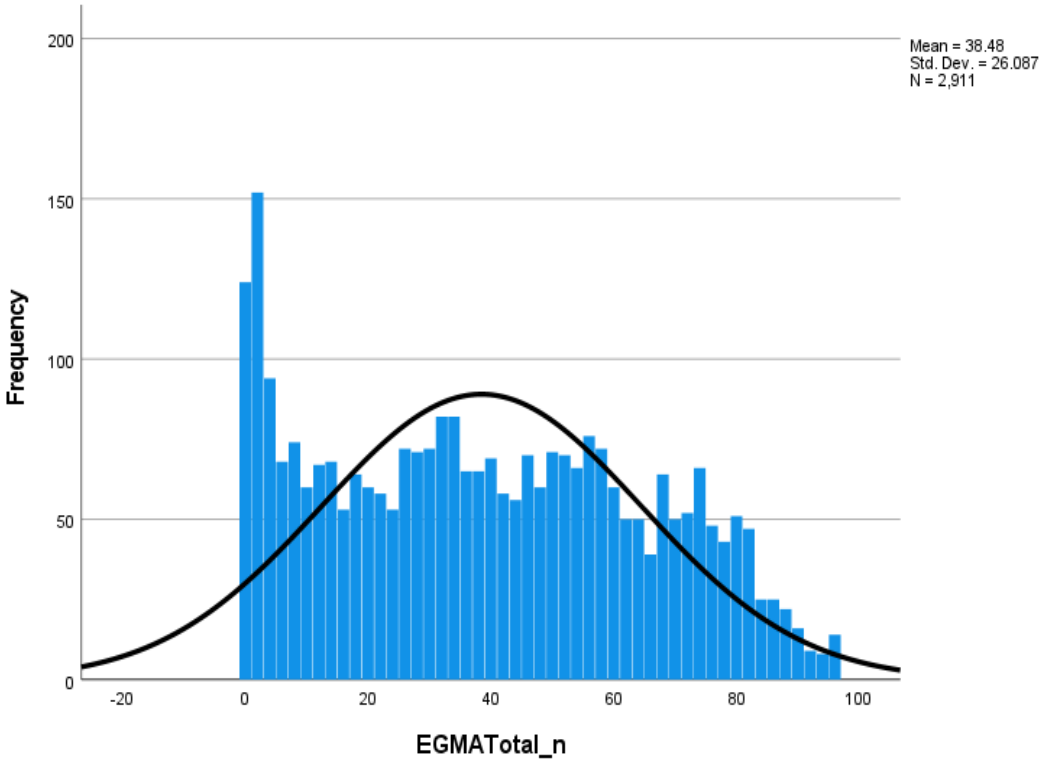


Figure 7: Longitudinal Cohort Baseline EGMA Mean Variation by Enumerator

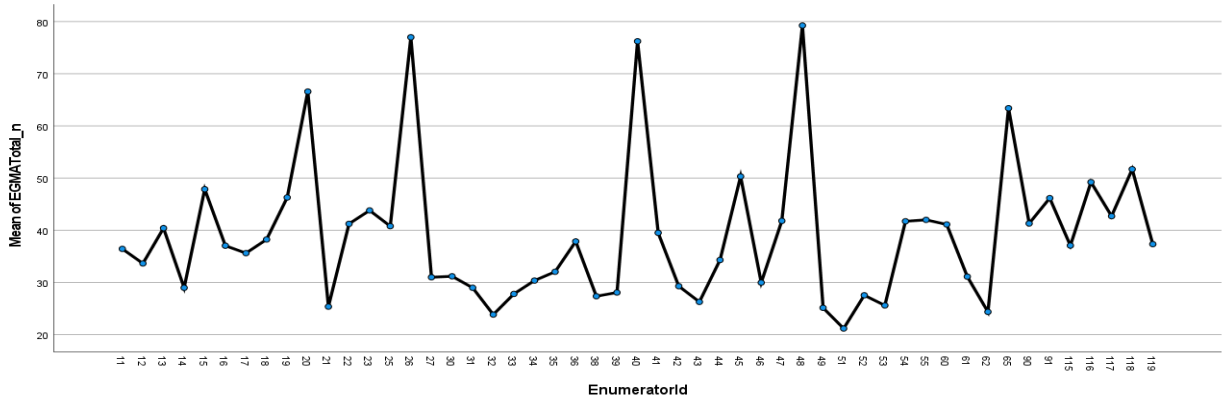


Figure 8: Box Plot Analysis of EGRA Baseline Enumerator Scores

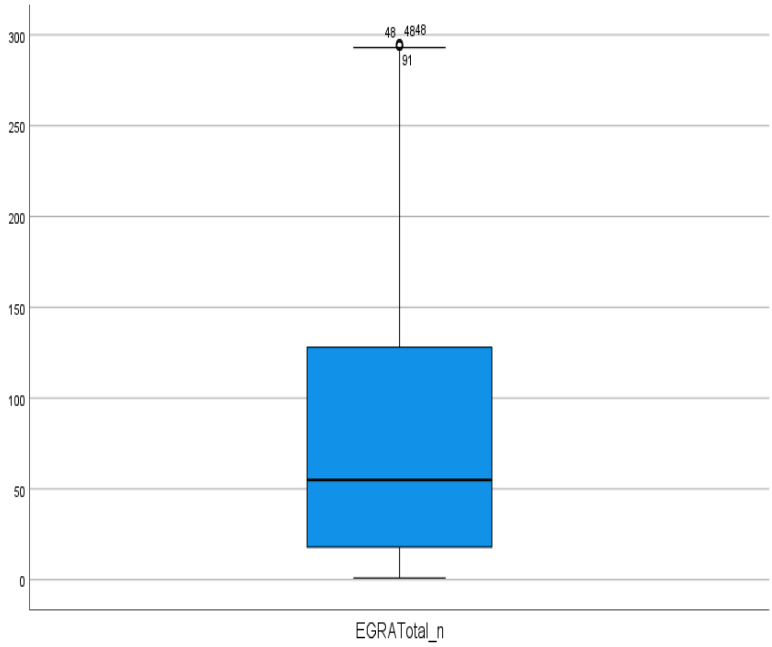
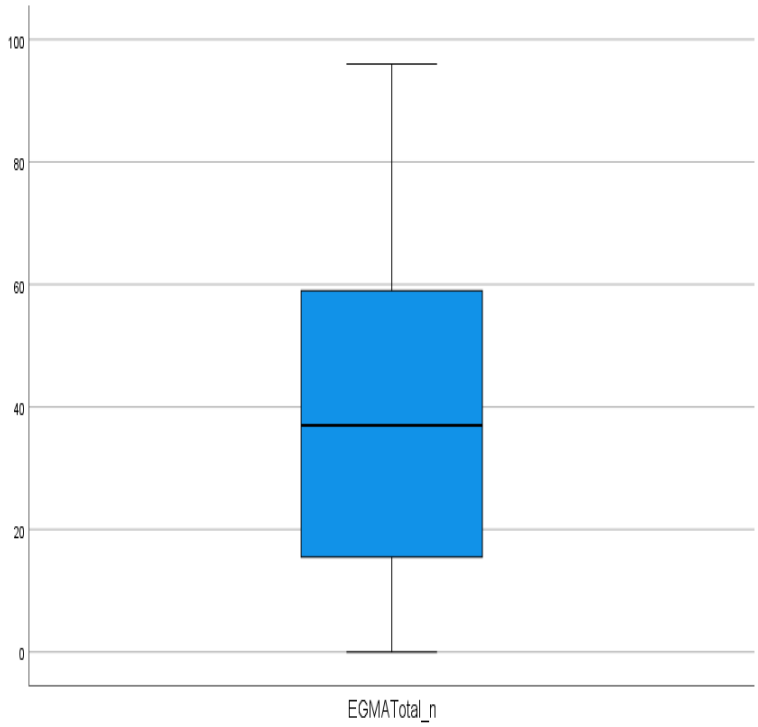


Figure 9: Box Plot Analysis of EGMA Baseline Enumerator Scores



3.5 Quantitative Analysis

The baseline evaluation focused on quantitative survey data collected from learners, teachers, and head teachers. We used quantitative analysis to describe the sample/ population, establishing baseline values for project indicators to serve as references for calculating growth in learning outcomes after one and two years of BAB and formal school instruction and identify the relationship between contextual factors and baseline measures.

We used frequencies, means, standard deviations, graphs, tables, and figures from descriptive analysis to describe, illustrate, or summarize variables. We used factor analysis to develop subscales for each survey and determine their reliability and validity of interpretation in the Somali context. Correlation analysis, cross tabulation/chi-square, t-tests, ANOVA, and regression analysis provide comparisons and show relationships between different subgroups (e.g., girls vs. boys). Density plots show the differential distribution of the same outcome across different settings (e.g., IDP vs. urban vs. rural).

LONGITUDINAL SAMPLE	
Total Schools	65
BAB School	40
Formal Primary Schools	25
Total Learners	2912
BAB Learners	1714
Formal Primary Learners	1198
Formal Primary Grade 1	620
Formal Primary Grade 2	578

3.6 Cost Analysis

External evaluation of the BAB ABE program includes cost-economy, cost-efficiency, and cost-effectiveness analysis that examines the costs associated with observed gains in educational outcomes of interest (e.g., math and literacy) and the variation of these costs across implementation sites, learning levels, participant characteristics and other constructs of interest.
Additional prospective cost analysis will estimate costs associated with expanding the BAB model and/or replicating it in other areas. This information will help future planning and budget management. BAB will provide the evaluation team with activity-related expenditures throughout the project life cycle in line with USAID cost-capture guidance using standard reporting categories for education activities. Cost effectiveness analysis will first calculate cost per output (e.g., cost to train a learning facilitator)
and the effectiveness of the intervention (e.g., improvement in math literacy outcomes per facilitator trained).

4 Baseline Findings -- Learners

4.1 Learner Sample Characteristics

The longitudinal baseline sample purposefully oversampled rural and IDP learners to ensure adequate representation of these learners at midline and endline for this repeated measure design. Thus, the baseline sample over-represents learners from IDP/Rural locations. Table 5 illustrates the difference between toal population and longitudinal sample population.

While increased representation of rural and IDP learners in the sample increases sensitivity of the results for these populations, it skews average results (see discussion in section 4.2 and section 7). Further, the evaluation drew both the BAB and Formal Primary samples only from those areas currently served by the BAB program. Therefore, results are not generalizable at the national level or to other geographical areas. The longitudinal sample included 65 school sites. Of these sites, 16 BAB sites had Formal Primary classes co-located. For sites without Formal Primary schools, SORDI field coordinators and supervisors reached out to district education officers (DEOs) and the state/region level education authority to provide a list of schools with similar socio-economic characteristics in the area. SORDI randomly selected Formal Primary schools and classes from the list of schools and contact information provided. This approach maintained the representativeness of the sample.

Table 5: Longitudinal Baseline BAB Learners Sample Vs. Total BAB Population

Location	Longitudinal Baseline Sample		Total BAB Population	
	# of learners	# of sites	# of learners	# of sites
IDP	470 (27.4%)	11 (27.5%)	2659 (8.9%)	52 (8.7%)
Rural	331 (19.3%)	8 (20.0%)	4101 (13.7%)	80 (13.4%)
Urban	913 (53.3%)	21 (52.5%)	23141 (77.4%)	466 (77.9%)
Total	1714 (100.0%)	40 (100.0%)	29901 (100.0%)	598 (100.0%)

4.2 Sample Distribution

As discussed previously, and described in detail in Appendix 2, external evaluation of the BAB project employs a longitudinal cohort derived using a stratified sampling approach that ensures accurate sampling and proper representation across the population (including rural, urban, and IDP locations). The external evaluation purposefully oversampled rural and IDP locations to mitigate expected challenges in these areas due to population mobility, access, and other considerations. The sampling framework also considered state and district distribution, as well as funding type for Formal Primary schools (community, public, or private). The following tables show longitudinal sample breakdown for each program (BAB or Formal Primary) by school funding type (Table 6), location type (Table 7) school and learner counts by state, location, and program type (Table 8), location and school funding type for Formal Primary learners (Table 9) and breakdown of first and second grade learners by location type for Formal Primary learners (Table 10).

Table 6: Longitudinal Study Learner Counts by School Funding Type

Funding Type	School Total	Learner Total
BAB	40	1,714
Community	6	282
Public	10	581
Private	9	335

Table 7: Longitudinal Study Learner Counts by School Location Type

Location Type	BAB Schools	Formal Primary Schools	Total Schools	BAB Learners	Formal Primary Learners	Total Learners
IDP	11	4	15	470	278	748
Rural	8	5	13	331	226	557
Urban	21	16	37	913	694	1,607

Table 8: Longitudinal School and Learner Counts by State, Location and Program Type

State	Location Type	Program Type	School Subtotal	School Total by Location	School Total by State	Learner Subtotal	Learner Total by Location	Learner Total by State
Benadir	IDP	BAB	4			169		
	IDP	Formal Primary	2	6		128	298	
	Urban	BAB	6			236		
	Urban	Formal Primary	5	11	17	137	373	671
Hirshabelle	Rural	BAB	4			166		
	Rural	Formal Primary	2	6		50	216	
	Urban	BAB	4			168		
	Urban	Formal Primary	4	8	14	175	343	559
Jubaland	Rural	BAB	2			82		
	Rural	Formal Primary	2	4		152	234	
	Urban	BAB	5			234		
	Urban	Formal Primary	4	9	13	182	416	650
Southwest	IDP	BAB	7			301		
	IDP	Formal Primary	2	9		149	450	
	Rural	BAB	2			83		

State	Location Type	Program Type	School Subtotal	School Total by Location	School Total by State	Learner Subtotal	Learner Total by Location	Learner Total by State
	Rural	Formal Primary	1	3		24	107	
	Urban	BAB	6			275		
	Urban	Formal Primary	3	9	21	200	475	1,032

Table 9: Formal Primary Program Learner Counts by Location and School Funding Type

Location Type	Funding Type	School Subtotal	School Total	Learner Subtotal	Learner Total
IDP	Community	3		195	
	Public	1	4	83	278
Rural	Community	2		47	
	Public	3	5	179	226
Urban	Community	1		40	
	Private	9		335	
	Public	6	16	319	694

Table 10: Formal Primary Program Learner Counts by Location and Grade Level

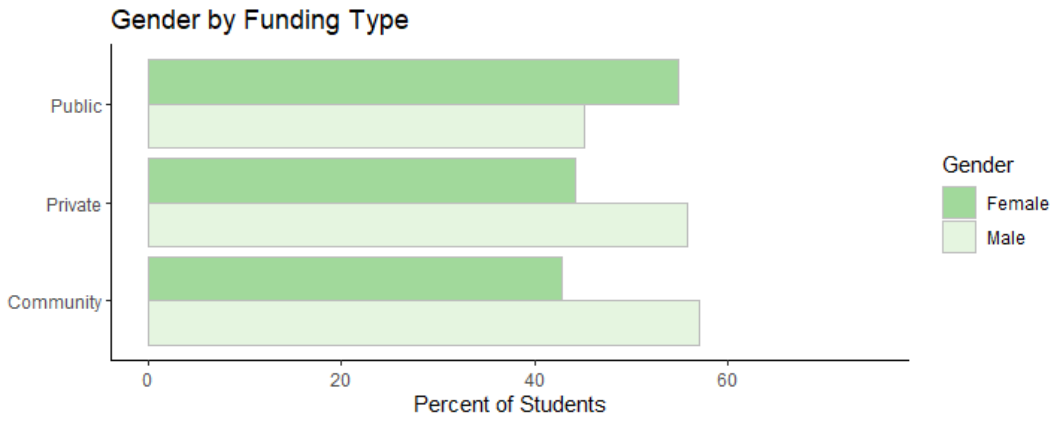
Location Type	Grade Level	School Subtotal	Learner Subtotal	Learner Total
IDP	Grade 1	4	140	
	Grade 2	4	138	278
Rural	Grade 1	5	144	
	Grade 2	3	82	226
Urban	Grade 1	13	336	
	Grade 2	15	358	694

4.3 Learner Demographic Characteristics

Gender Disaggregation

Gender balance varied by program, location, and school funding type (Figure 10). Overall, the BAB sample included an almost even number of girls and boys (in-line with BAB reported female enrollment of 48%), while the Formal Primary classes had slightly more boys at baseline in grade 1 and more girls in grade 2. Gender differences by location are relatively small, with slightly more boys overall in urban classes and more girls in rural and IDP classes. The largest gender differences occurred when disaggregating data by school funding type. While the BAB classes were gender balanced, public schools enrolled significantly more girls than boys, while the converse was true for both private and community schools, where boys predominated.

Figure 10: Baseline Longitudinal Sample Distribution by Gender



Age Disaggregation

Sample disaggregation by age (Figures 11-13) shows similarly broad age distributions for learners enrolled in BAB level 1 and for learners enrolled in grades 1 and 2 at public, private and community schools -- ranging from below 5 years of age to over 19. The median age for BAB level 1 learners at baseline was 11 years old, falling between the medians for Formal Primary learners in grade 1 (10 yrs.) and grade 2 (12 yrs.).

There was no difference in median learner age for the combined BAB and Formal Primary longitudinal baseline cohort across location types, although the urban sample showed less age variation than the IDP and rural samples. The median age for learners in community schools was slightly lower than BAB, public, and private school samples (Figure 14).

Figure 11: Baseline Longitudinal BAB Cohort Distribution by Age

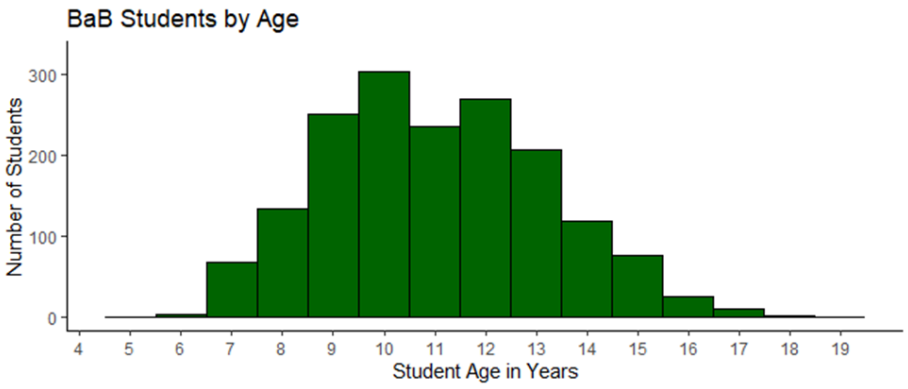


Figure 12: Baseline Longitudinal Formal Primary Grade 1 Cohort Distribution by Age

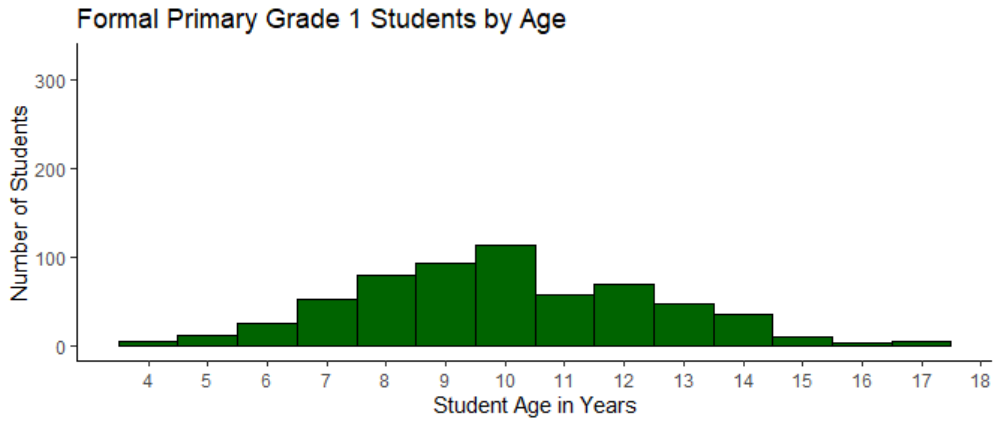


Figure 13: Baseline Longitudinal Formal Primary Grade 2 Cohort Distribution by Age

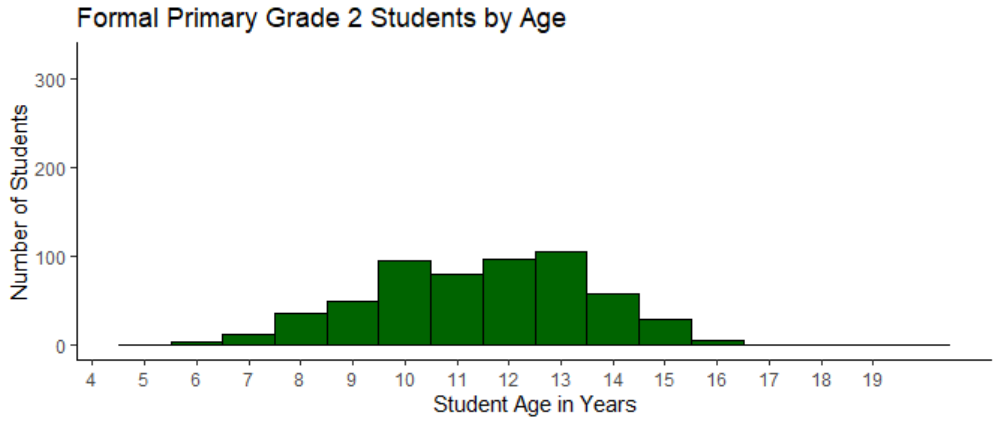
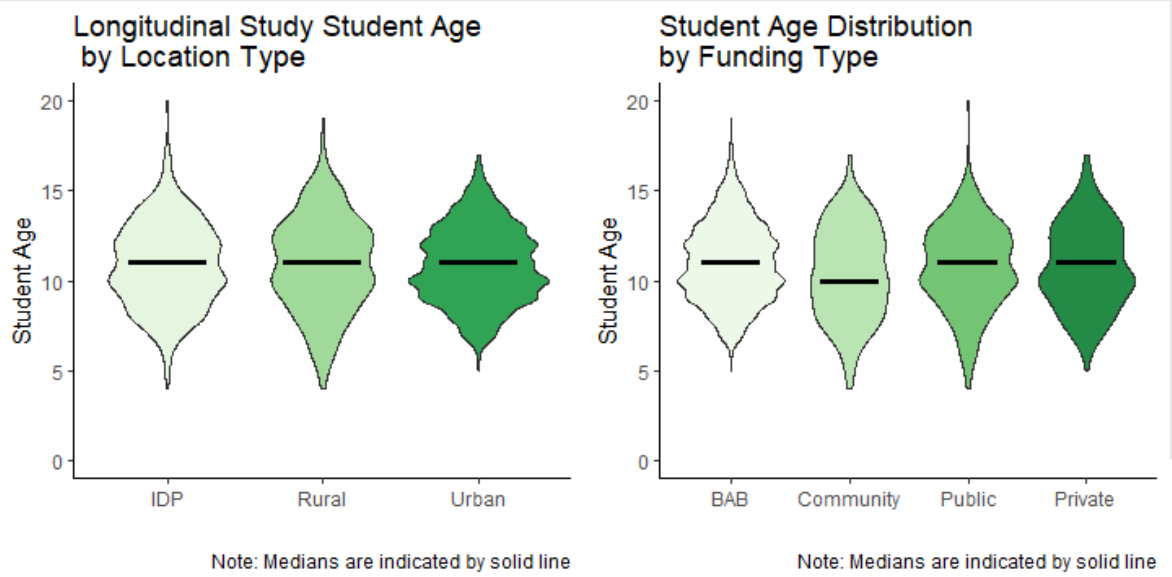


Figure 14: Baseline Longitudinal Sample Age Distrbution by Location and Program Funding Type



Prior Educational Experiences

While many Somali children and youth have little or no formal academic experience, it is common for Somali families to seek religious instruction for their children through attendance at Qur'anic School. As illustrated in Figure 15, more than 80% of learners in the longitudinal cohort sample responded in the affirmative when asked about Qur'anic School attendance. Results for this question show insignificant variation across program, location, or school funding type. Similarly, the graph in Figure 16 shows that most of the learners in the sample are still attending Qur'anic school with little variation amongst the program, location, or school funding type. The learner survey also asked longitudinal cohort sample learners if they had attended any other type of school prior to their BAB enrollment. Figure 17 show that fewer than 30% of learners report school attendance other than Qur'anic prior to the current enrollment.

Figure 15: Baseline Longitudinal Learner Prior Experience with Qur'anic School by Program, Location, and Funding Type

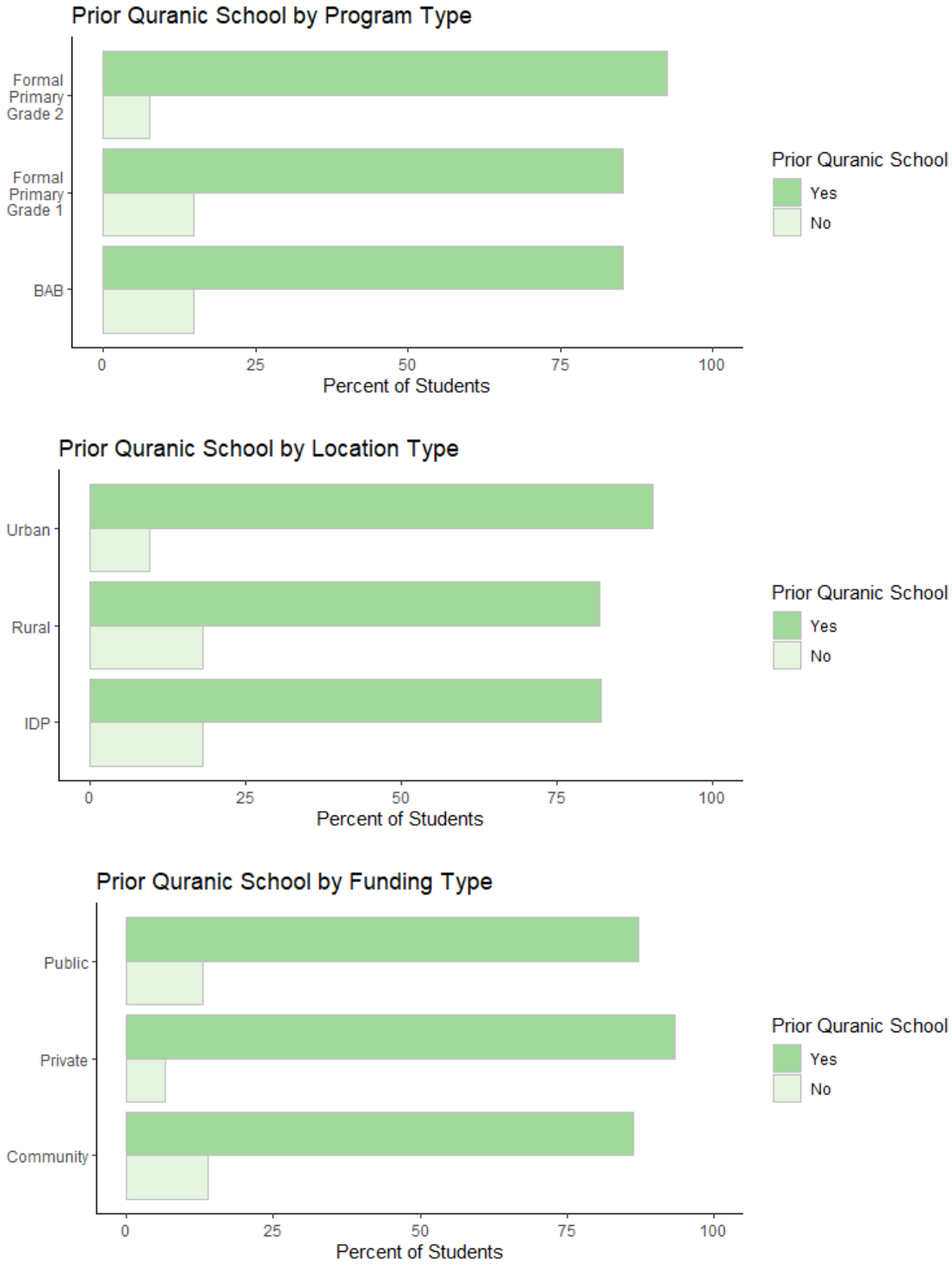


Figure 16: Baseline Longitudinal Learner Still Attending Qur'anic School by Program, Location, and Funding Type

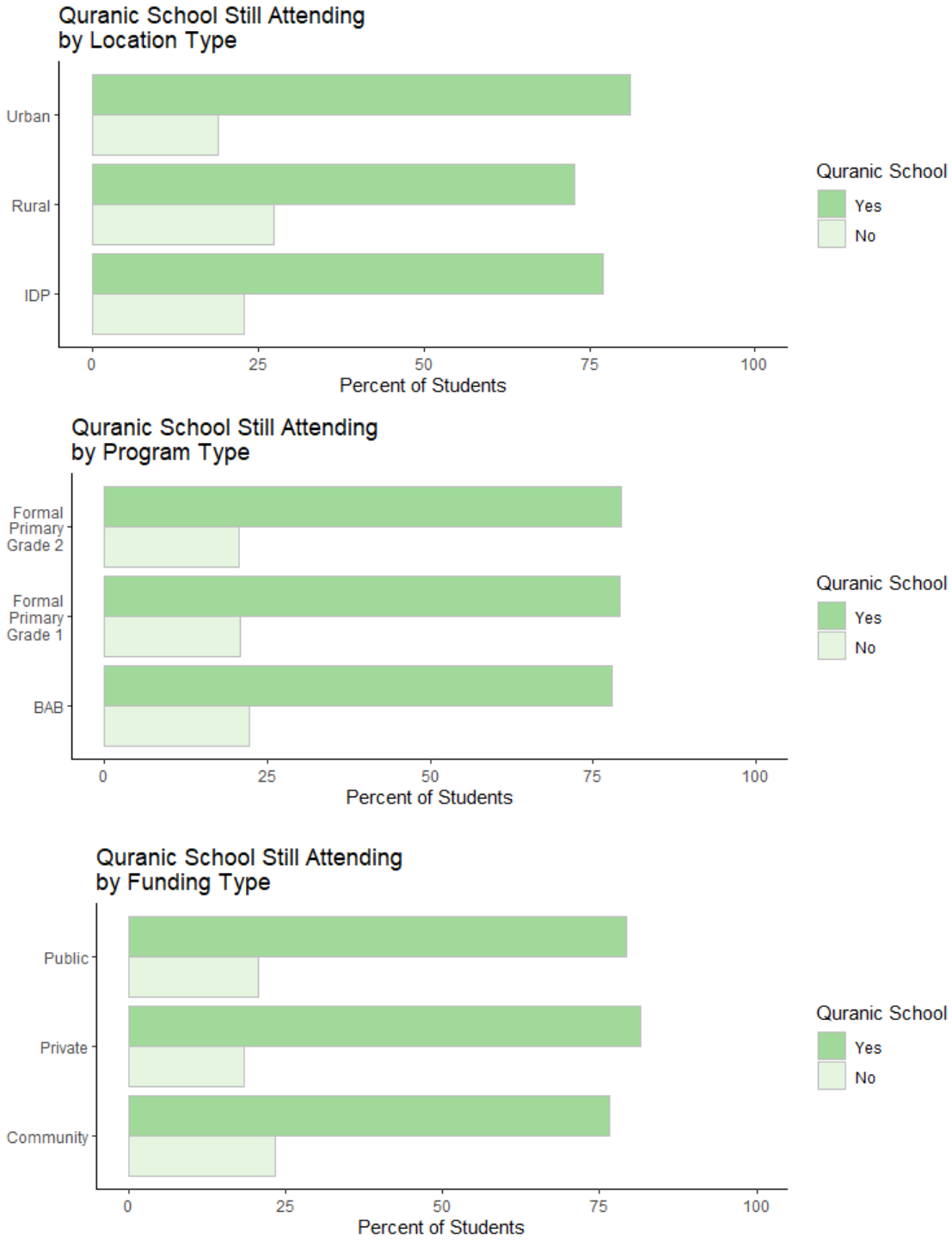
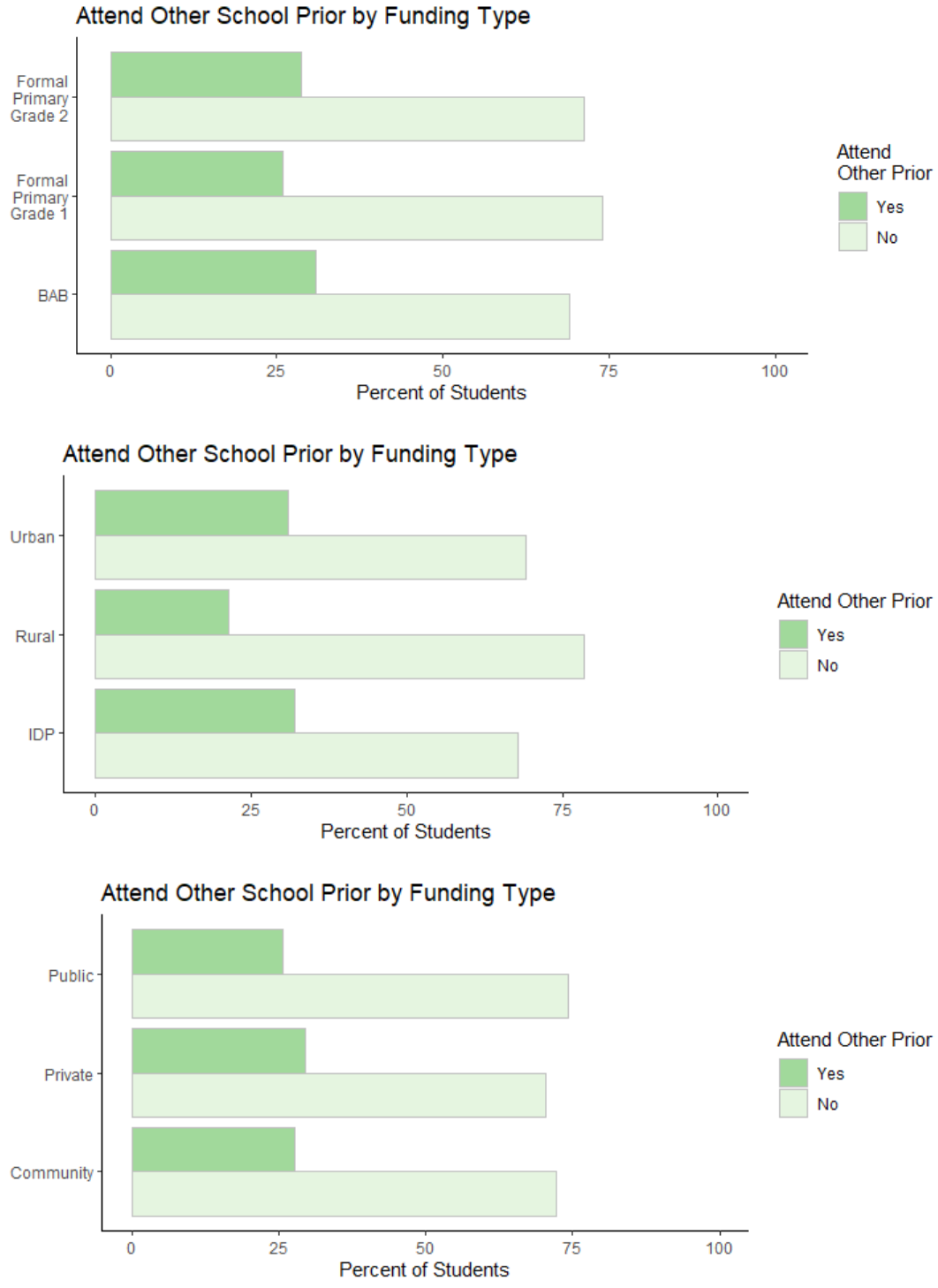


Figure 17: Baseline Longitudinal Learner Prior Other School Attendance by Program, Location, and Funding Type



Summary of Learner Demographic Characteristics

The longitudinal evaluation cohort showed little variation between BAB and Formal Primary learner samples at baseline on learner characteristics including age distribution, gender distribution, and prior school attendance. Both the accelerated program learners and learners attending non-accelerated schools varied in age from below 5 to above 19 years of age with median ages for grade 1, BAB ABE learners, and grade 2 at 10, 11, and 12 years, respectively. While overall, both the BAB and Formal Primary cohorts showed gender balance, disaggregation by school funding type revealed higher enrollment of male learners in community and private schools, while public schools enrolled more females than males and BAB schools were gender balanced.

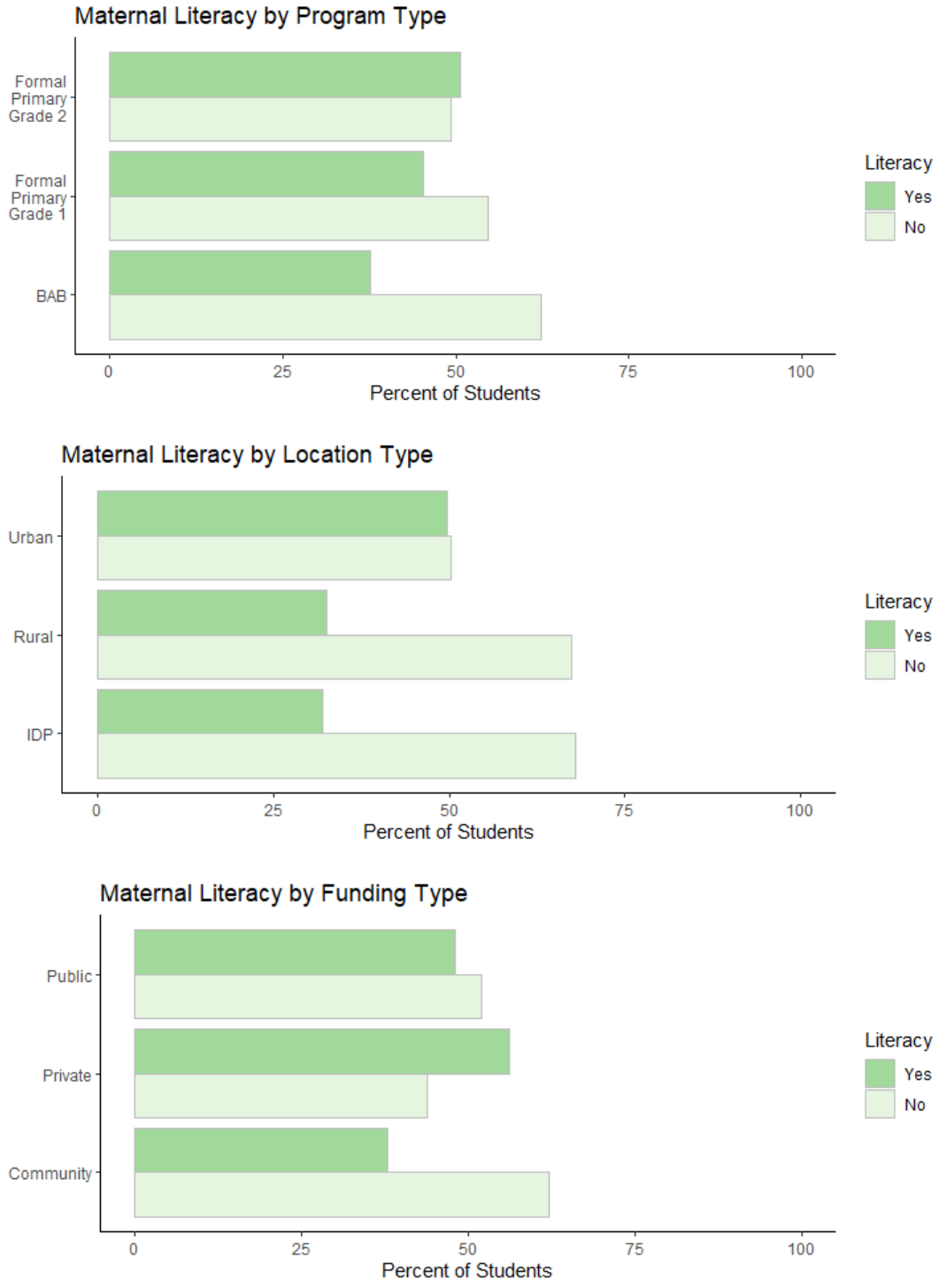
4.4 Educational Marginalization (SES indicators)

Socio-Economic Status (SES) is widely correlated with educational outcomes. Children from lower SES backgrounds typically underperform compared to more affluent peers (Sirin 2005). Indicators of SES in the context of this study include maternal education level, dialect spoken at home (as an indicator of learner's clan affiliation), and home resources (e.g., electricity, indoor plumbing, radios, mobile phones, books). The evaluation sourced SES questions for the longitudinal survey from the BAB learner survey and the ISELA.

Maternal Literacy

Maternal education, recognized as a key element of socioeconomic status, is strongly associated with predictors of children's well-being and cognitive development (Jackson, Kiernan and McLanahan 2017), and school retention (Kamanda, Madise and Schnepf 2016). The learner survey included a question asking learners to indicate if their mother is literate (Can your mother read and write?). Responses to this item show significantly lower rates of reported maternal literacy for BAB learners compared to Formal Primary learners. Nearly 75% of learners in IDP and rural schools responded that their mother could not read, as compared to about 50% of the learners from urban schools. Finally, private school learners reported the highest levels of maternal literacy (over 60%) and community schools the lowest (less than 40%) (Figure 18).

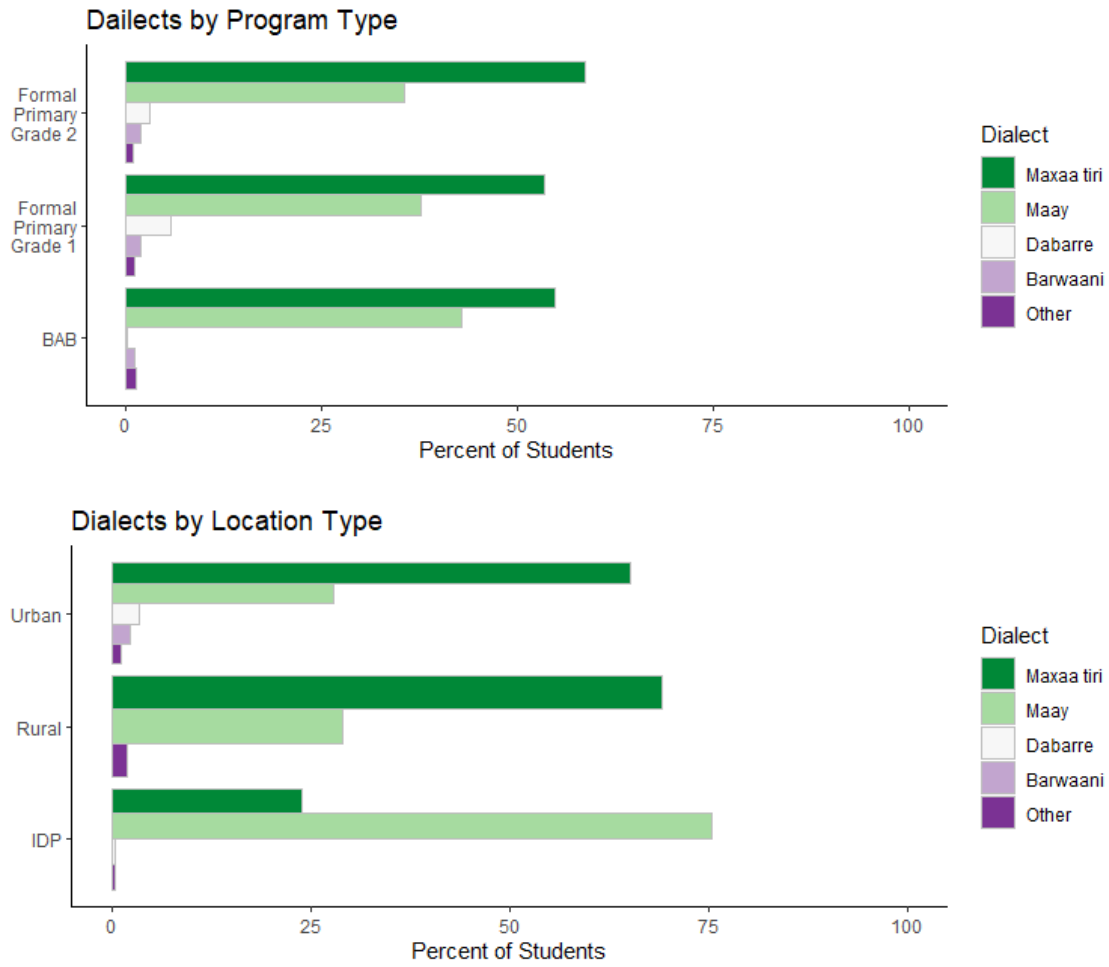
Figure 18: Baseline Longitudinal Sample Maternal Literacy by Program, Location, and Funding Type

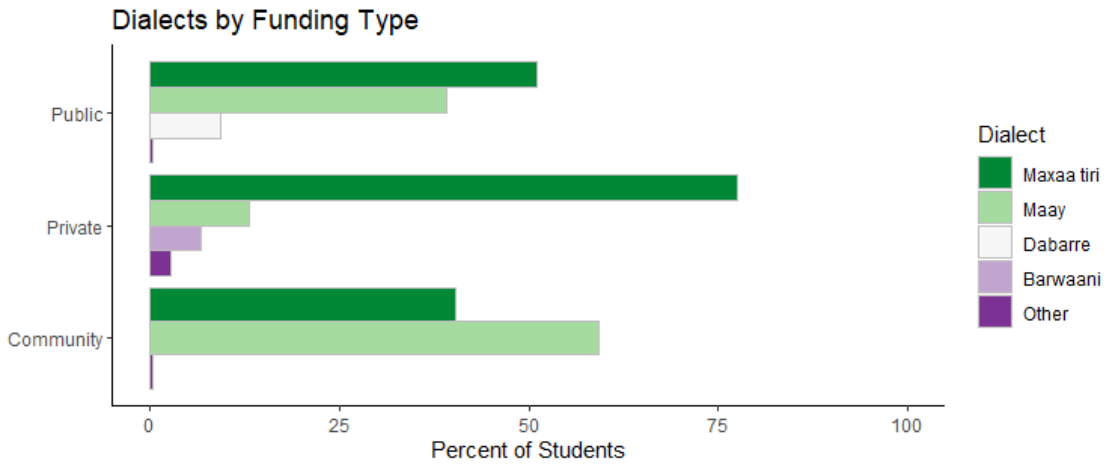


Dialects Spoken

In Somalia, the dialect learners speak at home is an indicator of clan, social status, and economic status. Maxaa tiri is the predominant dialect and Maay the second most common dialect spoken in both the BAB and Formal Primary samples. The diversity of dialects spoken is slightly lower in the BAB sample than the Formal Primary sample. Prevalence and diversity of dialects spoken in a school varied by both school location and school funding type. Maxaa tiri was the dominant dialect spoken in both urban and rural schools, with Maay more common in IDP schools. Community school learners spoke Maay more often than Maxaa tiri, while over ¾ of private school learners speak Maxaa tiri (Figure 19).

Figure 19: Baseline Longitudinal Sample Primary Dialect by Program, Location, and Funding Type





Family Resources

The Longitudinal Learner Survey also includes four questions that together make up a scale intended to measure home resources as a proxy for SES. Each item was a no=0 and yes=1 question with a higher value indicating a higher perceived SES level. The scale comprises the summation of the following 4 items with a range of 0 (none of the 4 resources are present in the home) to 4 (all 4 resources are present in the home):

- Do you have electricity at home?
- Do you have a radio at home?
- Does your house have an indoor bathroom/toilet?
- Does your house have a telephone or mobile phone?

Learners attending the BAB program averaged statistically fewer (2.1) resources compared to Formal Primary learners (2.36), as illustrated in Figure 20. We noted significant differences for both BAB and Formal Primary learners based on location, with IDP learners significantly under-resourced (1.53 BAB/1.67 Formal Primary) compared to rural learners (1.82 BAB/1.92 Formal Primary) and urban learners (2.49 BAB/2.78 Formal Primary). Older BAB learners (12-20 yrs.) reported significantly fewer resources than their younger (4-11 yr. old) counterparts did, but we found no differences by age for the Formal Primary group. Finally, family resources varied significantly for both BAB and Formal Primary learners based on state, with learners in Jubaland scoring lowest with just 1.54 (BAB) or 1.81 (Formal Primary), while learners in Hirshabelle reported the highest number of resources, with 2.71 (BAB) or 3.17 (Formal Primary). Figure 20 illustrates the difference in SES for BAB and Formal Primary students. Table 11 summarizes SES differences by location, gender, age, and state for both BAB and Formal Primary students. The Data Annex (Section 2.2; 8.1) includes additional figures.

Figure 20: Baseline Longitudinal Sample SES by Program Type

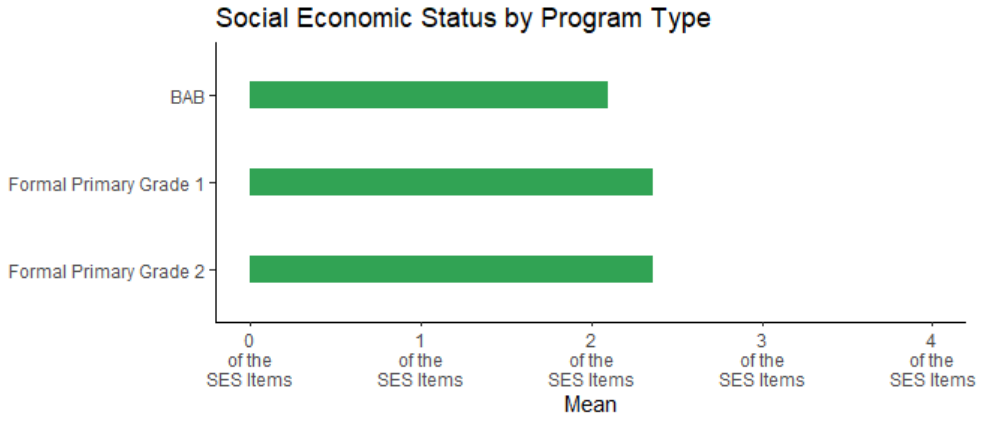


Table 11: Baseline Longitudinal Sample SES by LocationType, Gender, Age, and State

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Social Economic Status			**2.10**	**1.19**	
Location Type	*	IDP	1.53	0.91	-0.57
		Rural	1.82	1.16	-0.28
		Urban	2.49	1.19	0.39
Gender		Male	2.13	1.19	0.03
		Female	2.06	1.19	-0.03
Age		4 to 8 year olds	2.20	1.25	0.11
		9 to 16 year olds	2.09	1.18	-0.01
		17 to 20 year olds	1.62	0.77	-0.48
State	*	Benadir	2.19	1.03	0.09
		Hirshabelle	2.71	1.22	0.61
		Jubaland	1.54	1.24	-0.56
		Southwest	2.00	1.10	-0.09
All Formal Primary Students Word Problems			**51.39**	**35.02**	
IDP		All Districts	41.31	31.40	
		Baidoa	47.43	31.10	6.12
		Deynile	29.25	26.54	-12.06
		Kahada	37.72	32.47	-3.59
Rural		All Districts	40.41	34.30	
		Balcad	45.06	31.63	4.65
		Jowhar	31.16	36.69	-9.25

Group	Subgroup	Mean	SD	Diff from Overall Mean
	Kismayo	38.27	34.46	-2.15
	Walanweyn	57.64	29.07	17.23
	Baidoa	74.80	29.19	34.38
Urban	All Districts	59.01	34.70	
	Balcad	74.17	27.93	15.16
	Barawe	67.95	34.75	8.94
	Deynile	64.49	30.24	5.49
	Diinsor	55.05	30.80	-3.96
	Hamarwayne	67.19	25.22	8.18
	Jowhar	48.07	39.11	-10.94
	Kahada	70.18	30.21	11.17
	Kismayo	47.53	35.63	-11.48
	Shibis	33.33	27.00	-25.67

4.5 LEARNER EQUITY PERCEPTIONS

Productive learning environments provide equitable support for learners of all backgrounds and abilities. The Organization for Economic Cooperation and Development (OECD 2012) defines equity in education in the following way, "equity in education means that personal or social circumstances, such as gender, ethnic origin or family background, are not obstacles to achieving educational potential…" The Longitudinal Learner Survey included two items designed to assess learner feelings of equity in their classroom. The scale is composed of the average of the following 2 items:

- My teacher treats me fairly at school.
- Reverse of item: In my classroom, some children are treated better than others.

All items were measured on a 6-point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where learners indicated the frequency of perceived equity with each statement.

All learners at the baseline expressed positive feelings regarding equitable treatment in their classroom. No significant differences were noted in perceptions of equity based on gender, age, or program (BAB, Formal Primary). However, significant differences in perception of equity did emerge for both BAB and Formal Primary learners based on location, with learners in Hirshabelle reporting significantly less favorable feelings of equity than learners in Benadir, Jubaland or Southwest. At the program level, BAB learners in rural areas reported significantly lower perceptions of equity than their peers in IDP and urban areas. No differences were noted by location type for Formal Primary

learners, however community school children expressed significantly lower perceptions of equity than learners in private or public schools. Table 12 shows perceptions of equity by location, school funding type, gender, age, and state. Additional results are included in the Data Annex (Section 2.3; 8.2; 9.4).

Table 12: Baseline Longitudinal Learner Sample Perceptions of Equity by Location, School Funding Type, Gender, Age, and State

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Student Equity Perceptions			**3.73**	**1.06**	
Location Type	*	IDP	3.86	1.08	0.12
		Rural	3.53	1.00	-0.20
		Urban	3.74	1.07	0.01
Gender		Male	3.70	1.08	-0.03
		Female	3.76	1.05	0.03
Age		4 to 8 year olds	3.82	1.00	0.09
		9 to 16 year olds	3.72	1.07	-0.01
		17 to 20 year olds	3.69	0.95	-0.04
State	*	Benadir	3.76	1.07	0.02
		Hirshabelle	3.30	0.87	-0.43
		Jubaland	3.69	1.02	-0.04
		Southwest	3.95	1.10	0.22

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student Equity Perceptions			**3.78**	**0.99**	
Location Type		IDP	3.80	1.03	0.02
		Rural	3.79	0.95	0.01
		Urban	3.77	1.00	-0.01
School Funding Type	*	Community	3.66	0.98	-0.12
		Public	3.77	1.00	-0.01
		Private	3.89	1.00	0.11
Gender		Male	3.78	1.01	0.00
		Female	3.78	0.98	0.00
Age		4 to 8 year olds	3.86	0.96	0.08
		9 to 16 year olds	3.76	1.00	-0.02
		17 to 20 year olds	4.43	0.67	0.65

Group		Subgroup	Mean	SD	Diff from Overall Mean
State	*	Benadir	3.92	0.88	0.14
		Hirshabelle	3.44	0.85	-0.34
		Jubaland	3.78	1.01	0.00
		Southwest	3.89	1.09	0.11

4.6 SAFETY

USAID's Safer Learning Environments Working Group (USAID 2016) defined a safe learning environment as, "a place where structured learning is free from environmental, internal, and external threats to the learners' and educators' well-being … where infrastructure of a learning environment (and also the people within a learning environment) is deemed safe." Threats to safety can be internal (e.g., bullying, corporal punishment, or gang violence) or external (e.g., attacks on the school or natural disasters). All threats to safety have the potential to significantly decrease the academic performance of learners. Learners that feel physically or emotionally unsafe at school or on the way to school are prone to poor attendance and increased dropout rates (Dunne et. al., 2005; Mullis, et. al., 2012b; Kibriya et. al., 2018). Research suggests that learner perceptions of safety may have a greater impact on learner success than actual measures of safety (Goldstein, S.E., Young, A., and Boyd, C., 2008). Safety items on the Learner Baseline Survey derive from several instruments and the BAB Learner Survey, as no appropriate brief quantitative measure was found.

The Safety scale items were used to assess learners' perception of safety in the school environment. The scale is composed of the average of the following 3 items:

- I feel safe at school.
- I feel safe on my way to school.
- Reverse of item: I am picked on or bullied at school.

All items were measured on a 6-point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where learners indicated their perceived safety regarding each statement.

All learners felt relatively safe both at school and on their way to school (mean of 3.67) with no significant differences based on gender or learner age. However, some significant differences appeared based on grade, school type, location type and state (Table 13; Data Annex, Section 2.5; 8.4; 9.6). Learners in Formal Primary grade 2 reported significantly higher perceptions of safety than learners in either grade 2, or BAB – perhaps reflecting their prior experience in school (Table 14). Urban learners also reported significantly higher perceptions of safety than learners in rural or IDP schools and private school learners felt safer than learners attending public, community, or BAB schools. Finally, learners in Hirshabelle reported significantly lower levels of safety than learners in

other states – perhaps due to the diversity of context including environmental and social challenges present in that state during sampling.

Table 13: Baseline Longitudinal Learner Sample Perceptions of Safety by Location, Gender, Age, and State

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student Perceptions of Safety in the School Environment			**3.74**	**0.93**	
Location Type		IDP	3.75	0.96	0.01
		Rural	3.70	0.83	-0.04
		Urban	3.75	0.96	0.01
School Funding Type	*	Community	3.65	0.94	-0.09
		Public	3.67	0.99	-0.08
		Private	3.94	0.78	0.20
Gender		Male	3.76	0.90	0.02
		Female	3.72	0.97	-0.02
Age	*	4 to 8 year olds	3.70	0.84	-0.04
		9 to 16 year olds	3.74	0.95	0.00
		17 to 20 year olds	4.71	0.41	0.97
State	*	Benadir	3.95	0.75	0.21
		Hirshabelle	3.34	0.93	-0.40
		Jubaland	3.74	0.87	0.00
		Southwest	3.83	1.03	0.09

Table14: Baseline Longitudinal Learner Sample Perceptions of Safety by Program and Grade Level

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Student Perceptions of Safety in the School Environment			**3.67**	**0.99**	
Program Inclusion	*	BAB	3.62	1.02	-0.05
		Formal Primary Grade 1	3.68	0.98	0.01
		Formal Primary Grade 2	3.80	0.88	0.13

4.7 LEARNING INDICATORS

In-line with the Somali National Education curriculum, the BAB curriculum includes instruction in numeracy, literacy, and socio-emotional learning (SEL). The baseline external evaluation examined indicators of psycho-social well-being that map to the SEL skills included in the BAB curriculum and are known to correlate with education outcomes, as well as baseline numeracy and literacy skills. These will also be measured at midline and endline.

Learner Emotional Engagement in School

For learners to benefit from a learning environment, they must be both present and engaged. School engagement is commonly considered a learner characteristic that can be influenced by the school environment in ways that are either harmful or protective. In a literature review on the subject, Fredricks and her coauthors identified three types of engagement, namely: behavioral, emotional, and cognitive (Fredricks, et al. 2005, Fredricks, et al. 2005). Behavioral engagement may include good behavior, following the rules, or taking part in academic, social, or extracurricular activities. Emotional engagement includes positive and negative reactions to the school and people within the school environment, feelings of belonging and being valued, and appreciation for success in school-related outcomes. Cognitive engagement encompasses the learner's investment in learning, desire to go beyond minimum requirements, willingness to accept challenges, and ability to self-regulate. High levels of behavioral and emotional engagement positively correlate with academic achievement (Ladd and Dinella 2009). Engagement items on the Learner Survey derive from the 14-item School Engagement Scale (Fredricks, et al. 2005). Only three of the five items associated with emotional engagement were included in the Baseline survey. We excluded behavioral and cognitive engagement items for baseline, as they need experience of the classroom that may not be present early in the school year. Items from all three scales will be included in the Midline and Endline surveys. The baseline emotional engagement scale is composed of the average of the following three items:

- I like being at school.
- I feel happy at school.
- I am interested in the work at school.

All items were measured on a 6-point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where learners indicated the frequency of each indicator of emotional engagement at school associated with each statement.

Emotional engagement scores at baseline showed no significant difference based on gender (3.16 for males and 3.19 for females) or between BAB (3.17) and Formal Primary learners (3.16) overall. However, Formal Primary grade 1 learners scored statistically lower on emotional engagement at baseline (2.99) than the grade 2 learners (3.33). We also noted significant differences for rural learners (2.69 and 2.98, respectively for BAB and Formal Primary learners) who scored lower than IDP (3.27/3.26) and urban (3.30/3.18) learners. Learner emotional engagement also varied by school funding type with the lowest scores among community school learners (2.90) followed by public school (3.09) and BAB learners (3.17), with private school learners scoring highest (3.49). As with other baseline indicators, learners in Hirshabelle scored significantly lower at baseline on the

emotional engagement scale than learners in Benadir, Julaland, or Southwest for cohort learners in both BAB and Formal Primary classes. Tables 15 and 16 summarize emotional engagement scores across sample subgroups. This data is presented graphically in the Data Annex (Section 2.4; 8.3; 9.5).

Table 15: Baseline Longitudinal Learner Sample Emotional Engagement by Program and Grade Level

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Student School Engagement Perceptions			**3.17**	**1.09**	
Program Inclusion	*	BAB	3.17	1.09	0.01
		Formal Primary Grade 1	2.99	1.13	-0.17
		Formal Primary Grade 2	3.33	0.99	0.17

Table 16: Baseline Longitudinal Learner Sample Emotional Engagement by Location, Gender, Age, School Funding Type, and State

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Student School Engagement Perceptions			**3.17**	**1.09**	
Location Type	*	IDP	3.27	1.13	0.10
		Rural	2.69	1.10	-0.48
		Urban	3.30	1.03	0.12
Gender		Male	3.16	1.10	-0.02
		Female	3.19	1.09	0.02
Age	*	4 to 8 year olds	2.96	1.08	-0.21
		9 to 16 year olds	3.21	1.09	0.03
		17 to 20 year olds	2.95	1.39	-0.23
State	*	Benadir	3.57	1.01	0.40
		Hirshabelle	2.41	1.02	-0.77
		Jubaland	3.31	0.93	0.13
		Southwest	3.25	1.07	0.08

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student School Engagement Perceptions			**3.16**	**1.08**	

Group		Subgroup	Mean	SD	Diff from Overall Mean
Location Type	*	IDP	3.26	1.04	0.10
		Rural	2.98	1.05	-0.18
		Urban	3.18	1.09	0.02
School Funding Type	*	Community	2.90	1.14	-0.25
		Public	3.09	1.09	-0.07
		Private	3.49	0.91	0.33
Gender		Male	3.15	1.08	0.00
		Female	3.16	1.08	0.01
Age	*	4 to 8 year olds	3.02	1.05	-0.14
		9 to 16 year olds	3.18	1.08	0.02
		17 to 20 year olds	4.43	0.74	1.27
State	*	Benadir	3.40	0.98	0.24
		Hirshabelle	2.53	1.06	-0.63
		Jubaland	3.23	0.99	0.07
		Southwest	3.30	1.09	0.14

Learner Quality of Life

Quality of Life is a general term that encompasses the learner's perception of well-being and functioning in physical, emotional, mental, social, and everyday areas of life. Quality of life indicators for children and youth include indicators of self-esteem, relationships with family and friends, and attitudes towards school and the future. Self-esteem, defined as an individual's subjective evaluation of their own worth (Harter 1988), includes both beliefs about self-worth and emotional states, like triumph, despair, pride, and shame. Low self-esteem can decrease desire to learn, ability to focus, and willingness to take risks – thus negatively impacting learning outcomes. Educational research suggests that increasing self-esteem is one of the best ways to improve academic achievement (Rubie, Townsend and Moore 2004). Likewise, increased feelings of school belonging are positively correlated with positive educational outcomes and negatively correlated with absence and dropout rates (Korpershoek, et al. 2020). Quality of life items on the Longitudinal Learning Survey derive from the 24-item KINDL^R Quality of Life Survey (Ravens-Sieberer and Bullinger 1998). This tool was developed to measure children and youth perceptions of quality of life related to physical and emotional well-being, self-esteem, family and friends, and school. It includes versions for children ages 7-17 with questions that are straightforward and easy to understand. The evaluation uses quality of life as a proxy for global self-worth and self-efficacy in this study. The baseline Learner Survey includes subscales for self-esteem, friendship, and school.

All items were measured on a 6-point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where learners scored each statement over the past week.

Learners in all groups scored relatively positively for quality of life indicators across all three subscales with no significant differences by gender or age for either BAB or Formal Primary learners. In-line with findings for learner emotional engagement in school, learners in Formal Primary 2nd grade classes scored significantly higher on quality of life indicators (3.43) than either Formal Primary first graders (3.22) or BAB learners (3.24). Rural (3.07/BAB, 3.22/Formal Primary) and IDP learners (3.19/BAB, 3.24/Formal Primary) had significantly lower Quality of Life scores than their urban counterparts (3.34/BAB, 3.39/Formal Primary). As with other indicators, private school learners scored significantly higher on quality of life scales (3.56) than community school learners (3.12) with public (3.29) and BAB (3.24) learners intermediate. Composite quality of life scores for learners in Hirshabelle (3.08/BAB, 3.21/Formal Primary) and Southwest (3.12/BAB, 3.23/Formal Primary) were significantly lower than for learners in Benadir (3.42/BAB, 3.42/Formal Primary) and Jubaland (3.45/BAB. 3.42 Formal Primary).

Patterns of scores on quality-of-life subscales (friendship, self-esteem, and emotional well-being) generally show little deviation from the overall patterns of the composite scores, except for quality-of-life subscales by state. Aggregates of the three subscales show learners in Hirshabelle and Southwest scoring significantly lower than learners in Benadir and Jubaland. However, there is considerable variation across subscales. Learners in Hirshabelle scored low on friendship and self-esteem scales, but matched Benadir learners with the highest scores on measures of emotional well-being. Learners in Southwest, on the other hand, had among the highest scores for friendship, but mixed scores for self-esteem (low for BAB and average for Formal Primary learner) and low scores for measures of emotional well-being.

Composite quality of life results are shown in Tables 17 and 18 below. Complete composite and subscale data is included in the Data Annex (Section 2.6; 8.5-8.8; 9.7).

Table 17: Baseline Longitudinal Learner Sample Composite Quality of Life Scores by Program and Grade Level

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Student Quality of Life			**3.28**	**0.64**	
Program Inclusion	*	BAB	3.24	0.64	-0.03
		Formal Primary Grade 1	3.22	0.63	-0.05
		Formal Primary Grade 2	3.43	0.60	0.15

Table 18: Baseline Longitudinal Learner Sample Composite Quality of Life Scores by LocationType, Gender, Age, School Funding Type, and State

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Student Quality of Life			**3.24**	**0.64**	
Location Type	*	IDP	3.19	0.64	-0.06
		Rural	3.07	0.63	-0.17
		Urban	3.34	0.63	0.09
Gender		Male	3.22	0.63	-0.02
		Female	3.26	0.65	0.02
Age	*	4 to 8 year olds	3.15	0.68	-0.09
		9 to 16 year olds	3.26	0.64	0.02
		17 to 20 year olds	2.95	0.71	-0.30
State	*	Benadir	3.42	0.60	0.18
		Hirshabelle	3.08	0.62	-0.16
		Jubaland	3.45	0.64	0.21
		Southwest	3.12	0.63	-0.13

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student Quality of Life			**3.32**	**0.62**	
Location Type	*	IDP	3.24	0.63	-0.08
		Rural	3.22	0.70	-0.11
		Urban	3.39	0.59	0.07
School Funding Type	*	Community	3.12	0.58	-0.21

Group		Subgroup	Mean	SD	Diff from Overall Mean
		Public	3.29	0.65	-0.04
		Private	3.56	0.53	0.24
Gender		Male	3.33	0.61	0.01
		Female	3.32	0.64	-0.01
Age		4 to 8 year olds	3.23	0.64	-0.09
		9 to 16 year olds	3.35	0.62	0.02
		17 to 20 year olds	3.34	0.69	0.02
State	*	Benadir	3.42	0.53	0.10
		Hirshabelle	3.21	0.61	-0.11
		Jubaland	3.43	0.64	0.10
		Southwest	3.23	0.65	-0.10

Numeracy and Literacy Levels

Numeracy and literacy baselines were measured using the Early Grade Reading Assessment (EGRA) (RTI International, Early Grade Reading Assessment (EGRA) Toolkit, Second Edition 2015) and Early Grade Math Assessment (EGMA) (RTI International 2014) models. These assessments are oral exams that focus on the basic skills underpinning reading and numeracy skill development. The reading exam includes letter recognition, phonemic awareness, reading simple words, and listening comprehension. The math test includes number recognition, comparisons, and ordering sets of objects. The BAB program, in collaboration with the MoCHE, adapted EGRA and EGMA versions appropriate for Level 1 learners in Somalia during a workshop held in summer, 2021. The evaluation team incorporated these same assessments into the learner survey for longitudinal cohort data collection at baseline to allow direct comparison with BAB's cross-sectional cohort. Literacy was assessed for the Somali (Af-Maxaa tiri) dialect.

The assessments test the general skills listed in Table 19 (see full text versions of the assessments in Appendix 6). In addition to the factor analysis, reliability, and item differentiation and discrimination, we calculated ceiling and floor effects by the percentage frequency of lowest or highest possible scores achieved by respondents on both the EGRA and EGMA (Appendix 3). For EGRA, 10.9% of respondents scored in the lowest 10%, while just 2.1% scored in the upper 10%. For EGMA, 25.8% scored in the lowest 10%, while nobody scored in the upper 10%. Ceiling and floor effects are generally considered significant if they are higher than 15% (Terwee, et al. 2007). For our sample, no ceiling effects were noted for either EGMA or EGRA. Although the EGRA showed a floor effect, it is not concerning, as learners in our cohort are new learners.

This section summarizes key results from the EGMA and EGRA baseline survey of longitudinal cohort learners. Additional longitudinal cohort results are included in the Data Annex (Section 3; 9.8-9.9). Comparison of the longitudinal cohort baseline results with BAB cross-sectional cohort results are included in section 7 below and in the Data Annex (Sections 7.1-7.5).

Table 19: EGRA and EGMA Subtasks

EGRA subtask	EGMA subtask
Listening Comprehension	Number Identification
Phonemic Awareness	Number Discrimination
Letter Sound Identification	Missing Number
Invented Words	Addition Level 1
Familiar/Real Words	Addition Level 2
Oral Reading Fluency	Subtraction Level 1
Reading Comprehension	Subtraction Level 2
Dictation 1	Word Problems
Dictation 2	

Each subtask included a set of one to 100 items. Subtasks were scored as the percentage of items correct out of the total number of items (from 0-100%). The aggregate score is the mean of all subtask scores.

Enumerators conducted numeracy assessments in the primary dialect spoken by the learner. Thus, we do not expect dialect to impact learner outcome scores for numeracy. For the literacy exam, numerators give instructions in the learner's primary dialect, but tasks were conducted in the official Somalia language (Af-Maxaa tiri) – thus, learners with a primary dialect other than the language of instruction may be disadvantaged.

We summed the 9 sub-sections of the EGRA in equal weights to create a Total EGRA Score out of 100 possible points. Likewise, we summed the 8 sub-sections of the EGMA in equal weights to create a Total EGRA Score out of 100 points. The means by demographic groupings are provided in Tables 20 and 21 below. EGRA and EGMA data disaggregated by subscale is included in the Data Annex (Section 3; 9.8-9.9).

Table 20: EGRA (Early Grade Reading Assessment) Overall Longitudinal Sample Test Results

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Learners EGRA Total Percent Correct			**38.18**	**23.50**	
Program Inclusion	*	BAB	37.22	22.97	-0.96
		Formal Primary Grade 1	31.10	22.47	-7.08
		Formal Primary Grade 2	48.63	22.64	10.45

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students EGRA Total Percent Correct			**37.22**	**22.97**	
Location Type	*	IDP	40.99	26.40	3.77
		Rural	31.80	19.02	-5.42
		Urban	37.25	21.98	0.03
Gender	*	Male	38.76	22.49	1.54
		Female	35.65	23.35	-1.57
Age	*	4 to 8 year olds	22.38	16.80	-14.84
		9 to 16 year olds	39.24	22.95	2.01
		17 to 20 year olds	44.92	23.20	7.70
State	*	Benadir	36.45	23.16	-0.77
		Hirshabelle	33.04	18.88	-4.18
		Jubaland	34.82	21.74	-2.40
		Southwest	40.97	24.72	3.74

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students EGRA Total Percent Correct			**39.56**	**24.19**	
Location Type	*	IDP	32.24	23.96	-7.32
		Rural	30.89	19.44	-8.67
		Urban	45.31	24.06	5.75
School Funding Type	*	Community	31.02	21.07	-8.54
		Public	39.57	24.00	0.01
		Private	46.73	24.69	7.17
Gender		Male	40.30	24.01	0.74
		Female	38.79	24.36	-0.77
Age	*	4 to 8 year olds	22.03	19.28	-17.53
		9 to 16 year olds	43.85	23.38	4.29
		17 to 20 year olds	30.14	13.46	-9.42
State	*	Benadir	38.23	23.43	-1.33
		Hirshabelle	43.07	22.30	3.51
		Jubaland	32.10	22.61	-7.46
		Southwest	45.07	25.39	5.51

Table 21: EGMA (Early Grade Math Assessment) Overall Longitudinal Sample Test Results

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students EGMA Total Percent Correct			**33.88**	**23.13**	
Program Inclusion	*	BAB	33.79	22.92	-0.09
		Formal Primary Grade 1	25.75	22.21	-8.13
		Formal Primary Grade 2	42.86	21.39	8.98

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Learners EGMA Total Percent Correct			**33.88**	**23.13**	
Program Inclusion	*	BAB	33.79	22.92	-0.09
		Formal Primary Grade 1	25.75	22.21	-8.13
		Formal Primary Grade 2	42.86	21.39	8.98
		Female	30.84	23.09	-2.95
Age	*	4 to 8 year olds	17.99	17.97	-15.80
		9 to 16 year olds	35.89	22.62	2.10
		17 to 20 year olds	46.77	27.15	12.98
State	*	Benadir	35.53	22.51	1.74
		Hirshabelle	27.53	19.77	-6.26
		Jubaland	27.73	19.48	-6.06
		Southwest	38.80	24.75	5.01

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students EGMA Total Percent Correct			**34.00**	**23.43**	
Location Type	*	IDP	27.29	23.37	-6.71
		Rural	23.68	21.13	-10.33
		Urban	40.05	22.25	6.05
School Funding Type	*	Community	28.60	22.37	-5.40
		Public	32.21	23.28	-1.80
		Private	41.67	22.71	7.67
Gender	*	Male	36.22	23.29	2.22
		Female	31.70	23.37	-2.30

Group		Subgroup	Mean	SD	Diff from Overall Mean
Age	*	4 to 8 year olds	14.18	17.67	-19.82
		9 to 16 year olds	38.73	22.16	4.72
		17 to 20 year olds	40.29	16.30	6.28
State	*	Benadir	33.05	23.02	-0.95
		Hirshabelle	36.32	21.35	2.32
		Jubaland	24.64	22.14	-9.36
		Southwest	41.67	23.10	7.67

BAB learners entered level 1 with higher overall skills in both literacy and numeracy than learners entering grade 1 in the same communities, despite similar reported prior educational experiences. As seen in Figures 21 and 22, at baseline, nearly 2/3 of BAB learners scored in the non-learner or emergent learner range on EGRA and EGMA assessments (64.2 and 61%, respectively). While nearly ¾ learners beginning first grade in a Formal Primary class fell into these categories (75.2 and 72.2%, respectively) [4]. As expected, beginning grade 2 learners in the longitudinal sample scored significantly higher at baseline on EGRA and EGMA assessments, with zero non-learners and only 43.4% scoring as an emergent learner on the EGRA and only 0.3% scoring as a non-learner and 43.4% as emergent on the EGMA assessment. Density plots of EGRA and EGMA total scores by subgroup (BAB, grade 1, and grade 2) provide another view of learner baseline skills and competencies and clearly position BAB learner mean scores between Formal Primary learners on baseline measures (Figure 23). The pattern of scoring, with BAB learners between grade 1 and grade 2 learners, repeats for all EGRA and EGMA subtasks, as illustrated in the radar plots in Figure 24.

[4] As Somalia does not currently have defined national literacy and numeracy performance levels, we adopted the performance levels described in the Leave No Girl Behind, AGES project (page 97) (Machova, Miettunen and Peterson 2020).

Figure 21: EGRA Learner Level at Baseline by Program and Grade

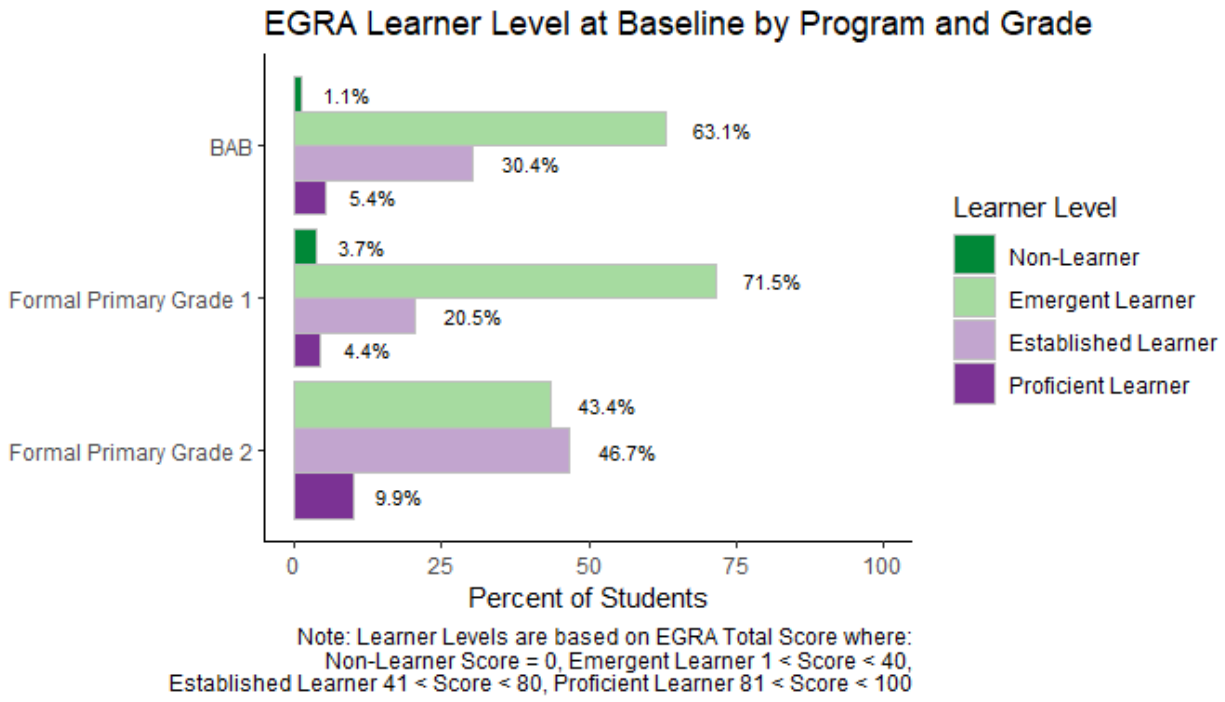


Figure 22: EGMA Learner Level at Baseline by Program and Grade

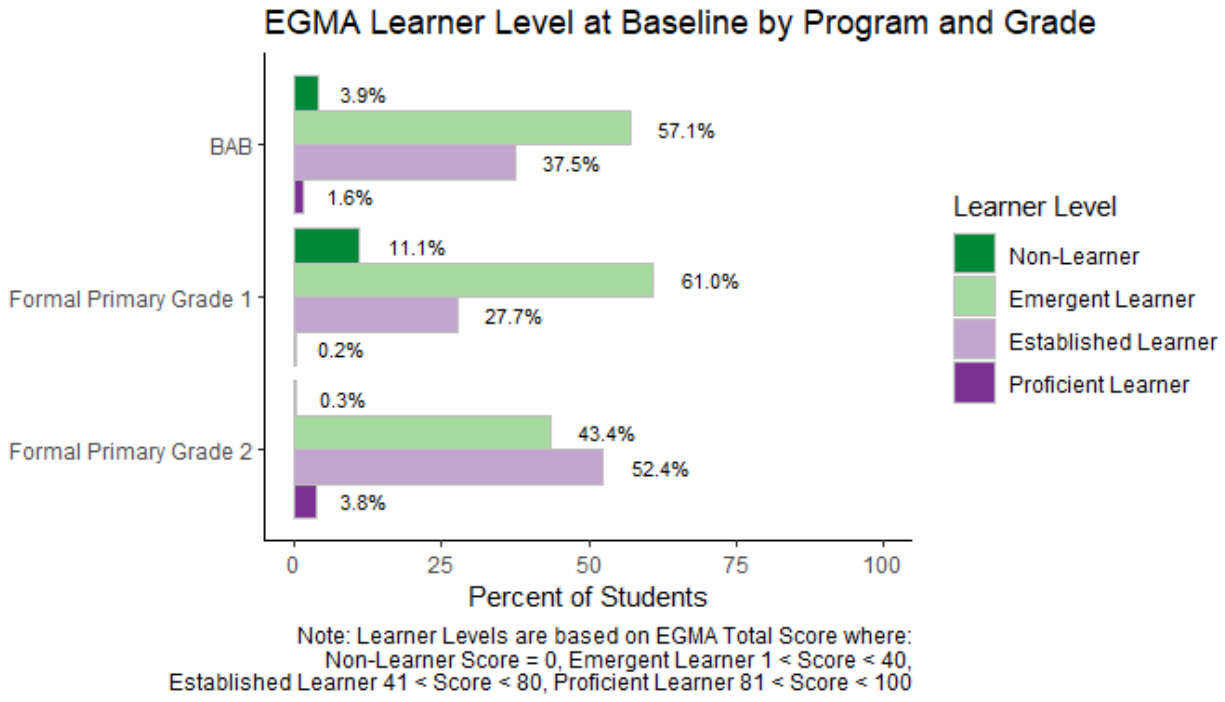
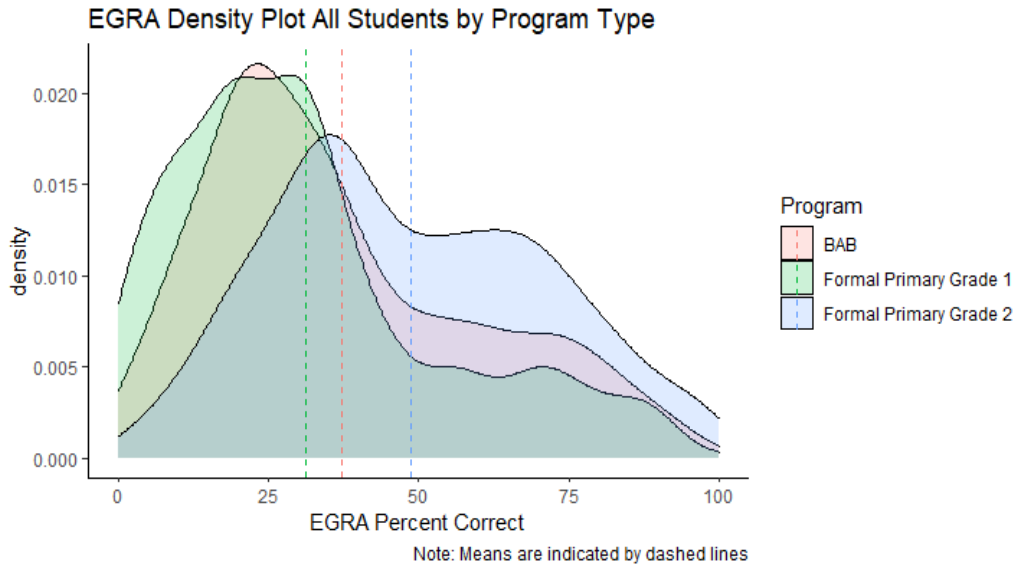


Figure 23: EGRA and EGMA Density Plots of Learner Baseline Scores by Program Type and Grade



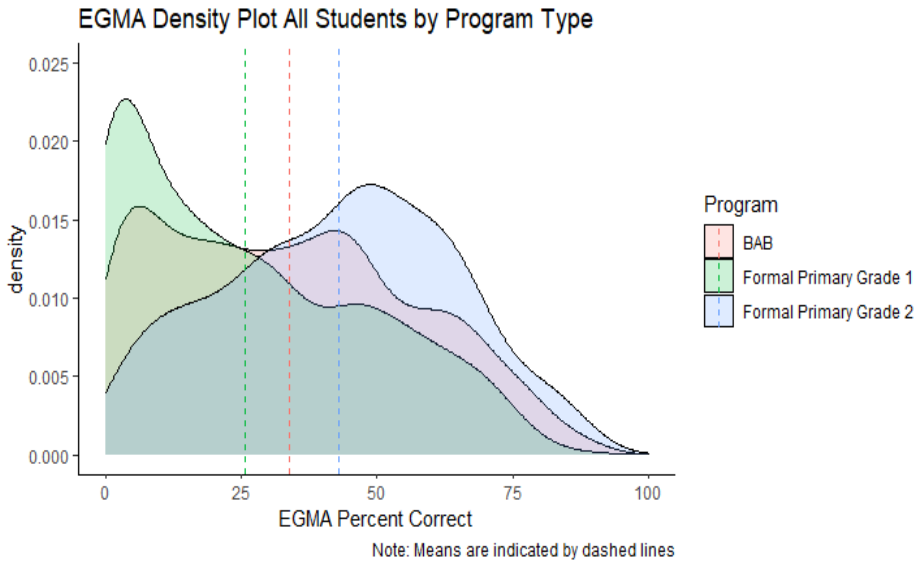
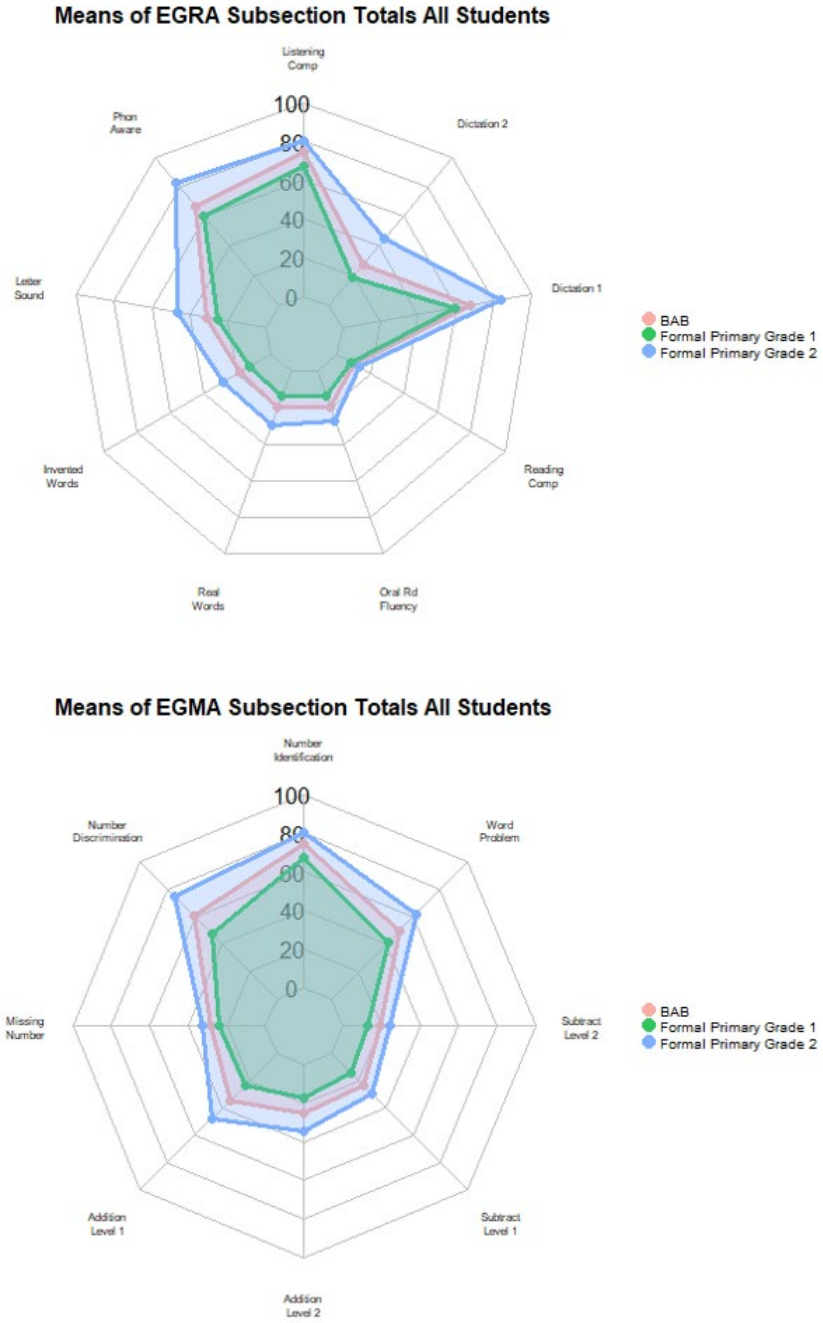


Figure 24: EGRA and EGMA Radar Graphs of Learner Baseline Subscale Scores by Program and Grade



Density plots of learner baseline performance on EGRA and EGMA exams show variations by gender (Figure 25), location type (Figure 26), school funding type (Figure 27), and state (Figure 28). At baseline, boys scored slightly higher than girls on literacy exams, but significantly higher than girls on the numeracy assessment.

Rural learners underperformed learners from urban and IDP areas on both literacy and numeracy assessments. Interestingly, learners in IDP schools outperformed their urban counterparts at baseline.

Private school learners significantly outperformed learners in all other school types at baseline, while community school learners had the lowest baseline scores. Public school and BAB learners had similar baseline scores for EGMA and EGMA – intermediate to community and private schools.

Learner baseline skill and competency levels also varied by state, with learners in Southwest significantly outperforming learners in other states while learners in Jubaland lagged.

Figure 25: Baseline Longitudinal Learner EGRA and EGMA Scores by Gender

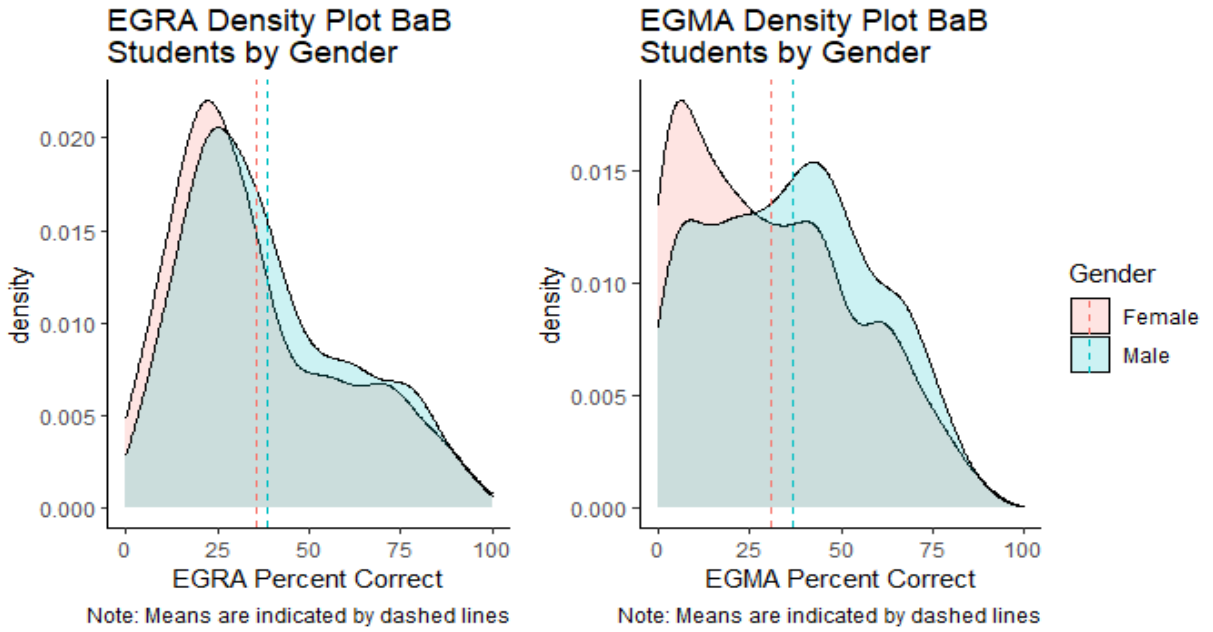


Figure 26: Baseline Longitudinal Learner EGRA and EGMA Scores by Location Type

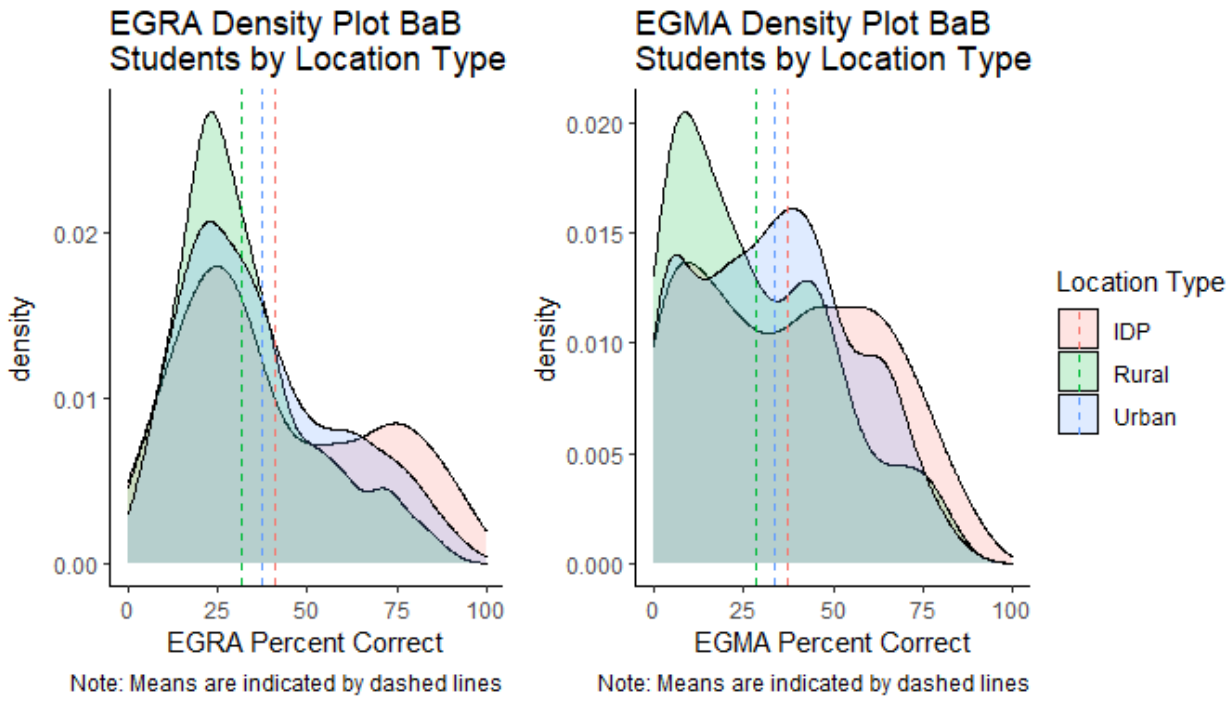


Figure 27: Baseline Longitudinal Learner EGRA and EGMA Scores by School Type

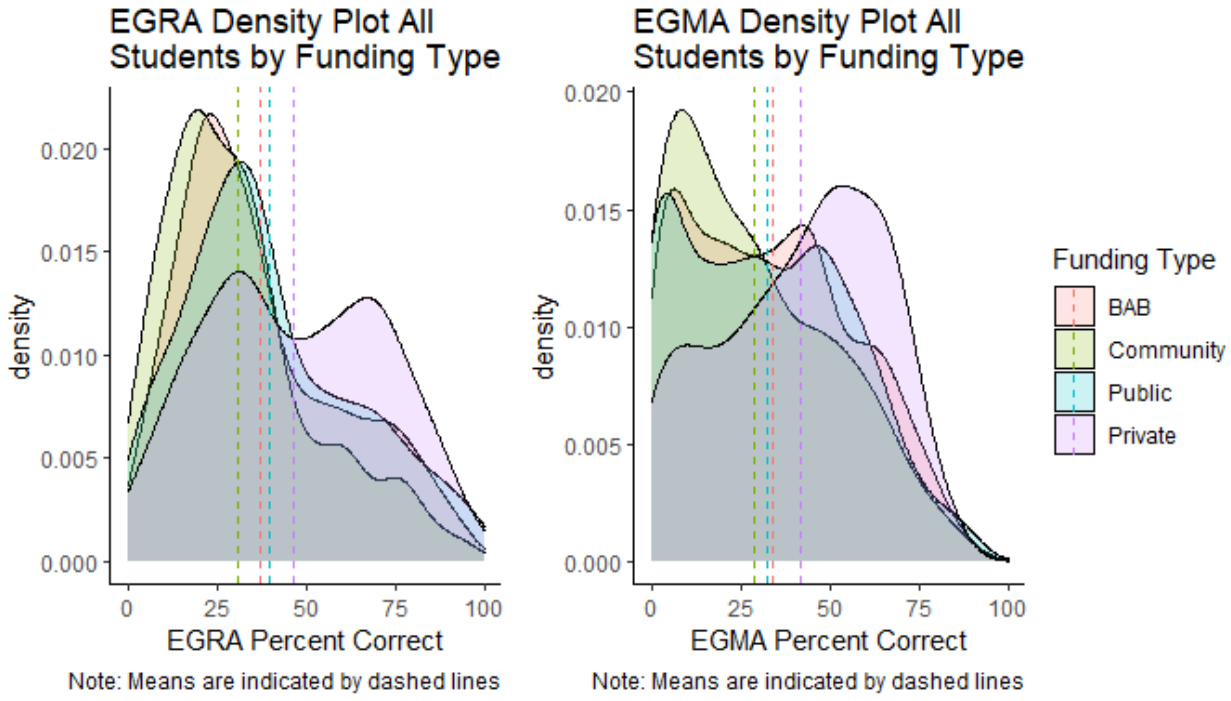
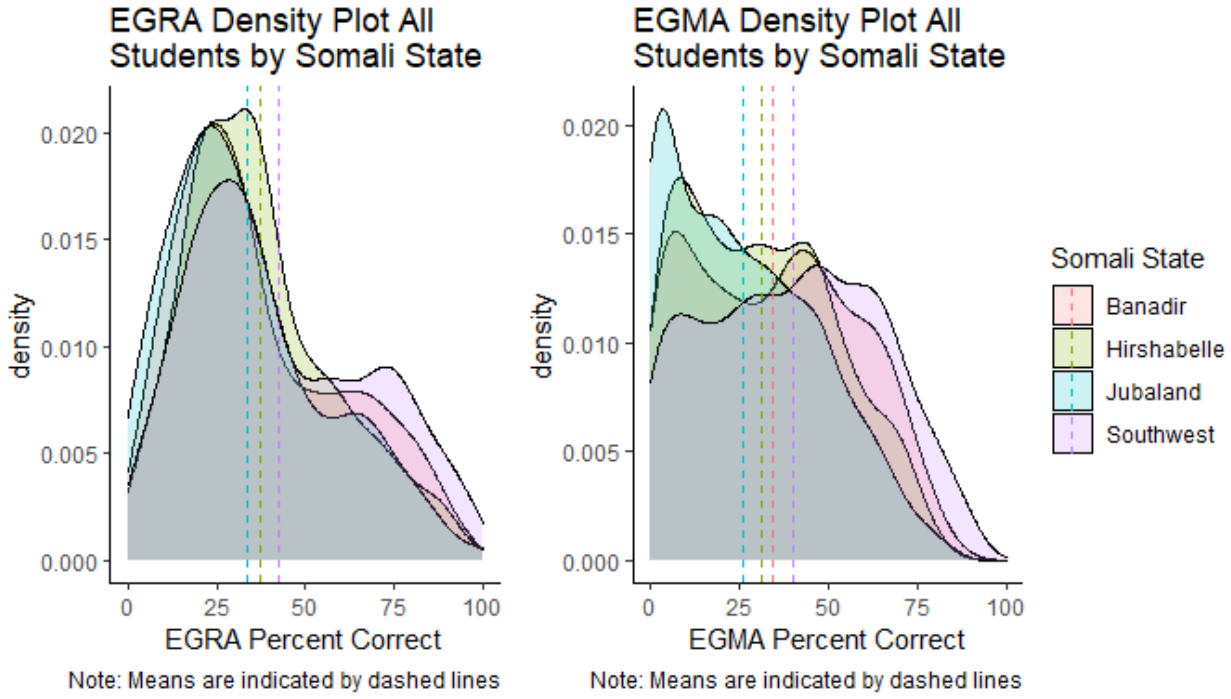


Figure 28: Baseline Longitudinal Learner EGRA and EGMA Scores by State

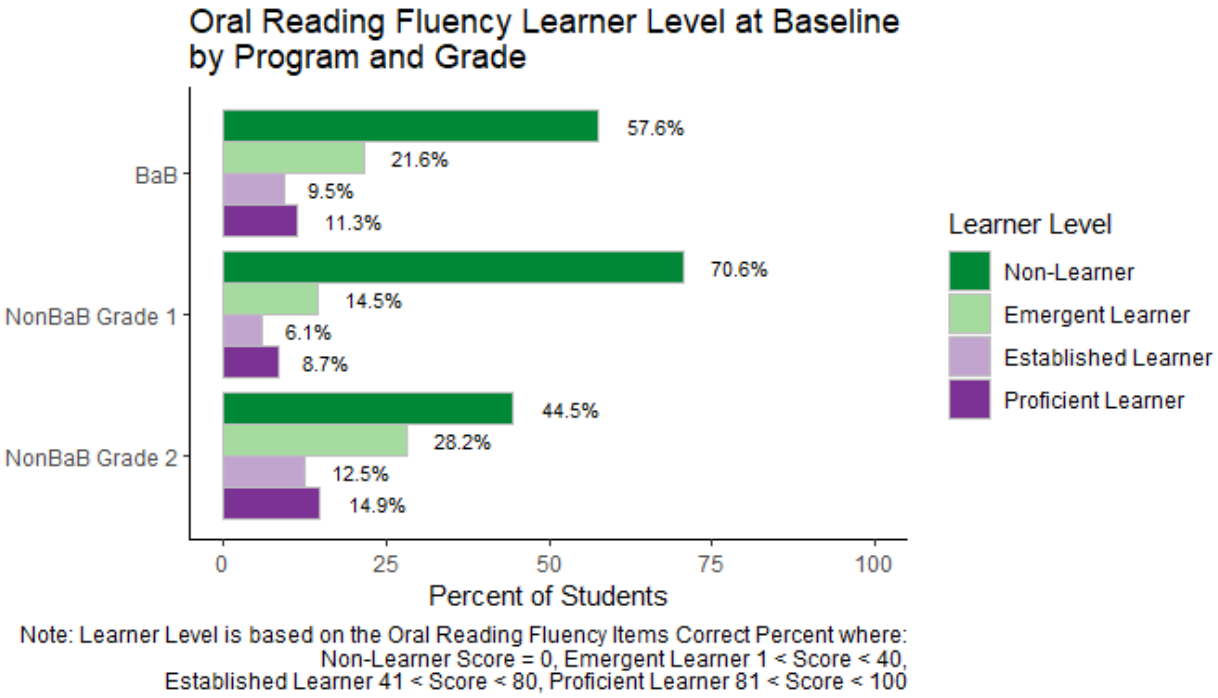


Baseline Oral Reading Fluency vs. Reading Comprehension

Minimum reading proficiency benchmarks are often set as the level of reading fluency, measured by correct words per minute (cwpm), where comprehension is at an acceptable level. Typically, 80% comprehension is taken as the standard for learners to demonstrate acceptable comprehension. While no benchmark currently exists for the country of Somalia, Ethiopia set a benchmark for the Af Somali language in either grade 2 or 3 at 50 cwpm (RTI International 2017). This corresponds to literacy in cwpm where 80% comprehension is reached.

The Oral Reading Fluency subsection of the EGRA measures how quickly and accurately a learner can read. It contains a paragraph with 66 words for the learner to read. This is a timed subsection and learners are given one minute to read the paragraph. Fluency results are depicted in Figure 29 by learner fluency level at baseline, where learners scoring zero (no correct answers) are categorized as non-learners, learners scoring between 1-40 cwpm as emergent readers, learners scoring between 41-80 cwpm as established readers, and learners scoring above 81 cwpm are categorized as proficient. As previously described, since Somalia does not currently have defined national literacy and numeracy performance levels, we adopted the performance levels described in the Leave No Girl Behind, AGES project (page 97) (Machova, Miettunen and Peterson 2020).

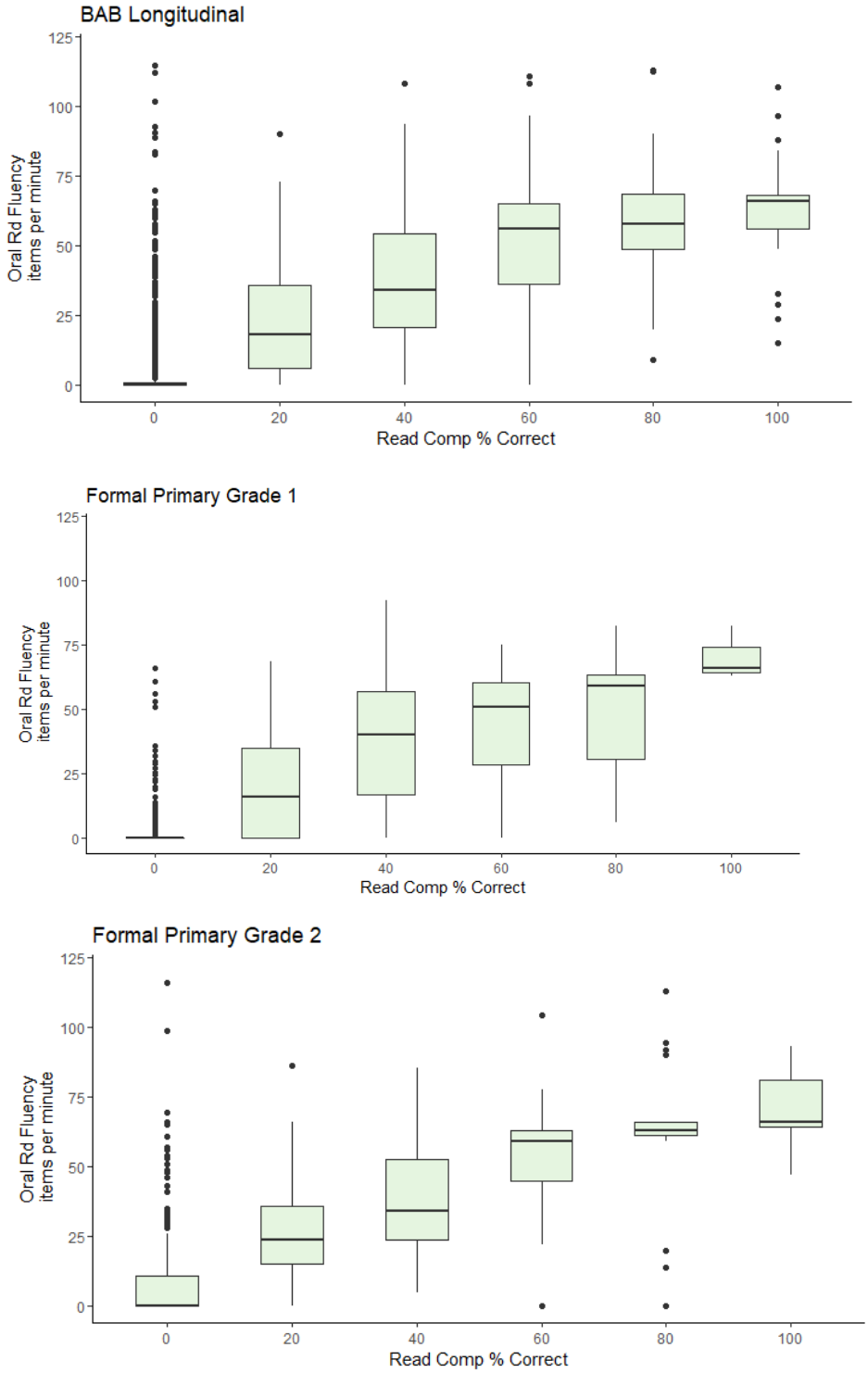
Figure 29: Baseline Oral Reading Fluency for Longitudinal Cohort Learners by Program and Grade



We plotted oral reading fluency scores against reading comprehension scores (Figure 30) to find the oral reading fluency items per minute at the first quartile where reading comprehension scores reached 80% correct, as a measure of proficiency.

The proficiency scores vary by cohort subgroup with BAB learners at 49 cwpm, Formal Primary Grade 1 learners at 31 cwpm, and Formal Primary Grade 2 learners at 62 cwpm.

Figure 30: Longitudinal Cohort Oral Fluency vs Comprehension



4.8 Intersection between learner Characteristics, School Types, Locations, and academic preparation

The External Evaluation Longitudinal sample data was disaggregated by gender, age, primary dialect, and prior educational experiences to understand the background and characteristics of learners. The summary table of learner demographic characteristics by school funding type (Table 22) and the bar graph showing SES, and learner safety and psychosocial perceptions (Figure 31) show distinct patterns and suggest that different populations of Somalia children and youth are served by the various school types.

Cohort learners attending private schools scored highest on all indicators in our analysis. They are relatively affluent with more boys than girls, speak Maxaa tiri as their primary language and are more likely to have both prior personal educational experiences and more educated mothers. Not surprisingly, private school learners also scored highest on baseline assessments of literacy and numeracy (Figure 32).

Community schools, at the other end of the spectrum, also serve more boys than girls, but they are significantly poorer, speak predominately Maay, and their mothers are less likely to be literate. Learners attending community schools also scored lowest on all psychosocial scales, except for safety, and had the lowest baseline literacy and numeracy scores.

Public schools in the longitudinal cohort sample enrolled more girls than boys and served children that are only slightly more affluent than their community-school peers, although they report maternal literacy rates that fall midway between those of private and community school children. Public school learner scores on psychosocial indicators and baseline numeracy and literacy scores are also intermediate to private and community schools.

BAB schools served boys and girls in about the same proportions. Children attending BAB schools report among the lowest levels of maternal education and SES scores. Despite these indicators of economic deprivation, BAB learner scores on psychosocial measures and baseline literacy and numeracy scores are very similar to those measured for public school learners.

Table 22: Learner Characteristics by School Type

	School Type			
Student Characteristic	**BAB**	**Community**	**Public**	**Private**
Predominant Gender	Male (50.5%)	Male (57.1%)	Female (54.9%)	Male (55.8%)
Median Age	11	10	11	11
Prior Ed*	88.7%	89.0%	89.8%	95.2%
Maternal Ed	37.7%	37.9%	48.0%	56.1%

	School Type			
Student Characteristic	**BAB**	**Community**	**Public**	**Private**
Primary Dialect	Maxaa tiri (54.8%)	Maay (59.2%)	Maxaa tiri (51.1%)	Maxaa tiri (77.6%)

*Including both religious and non-religious

Figure 31: Learner SES, Safety and Psychosocial Perceptions by School Type

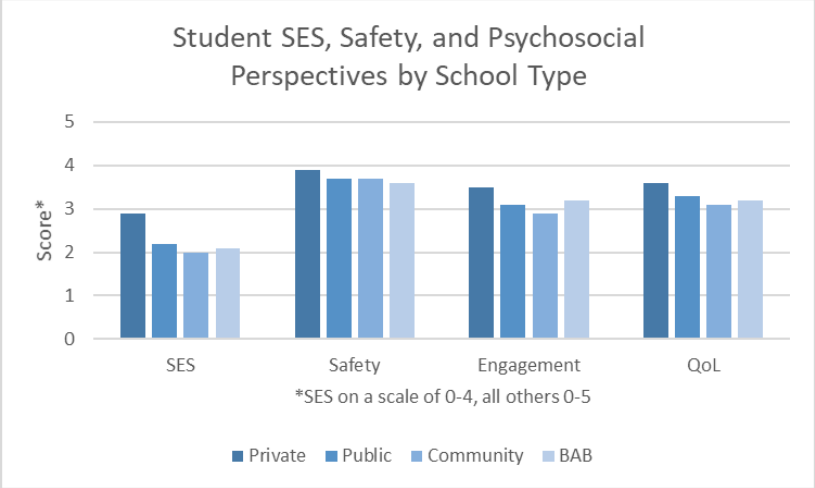
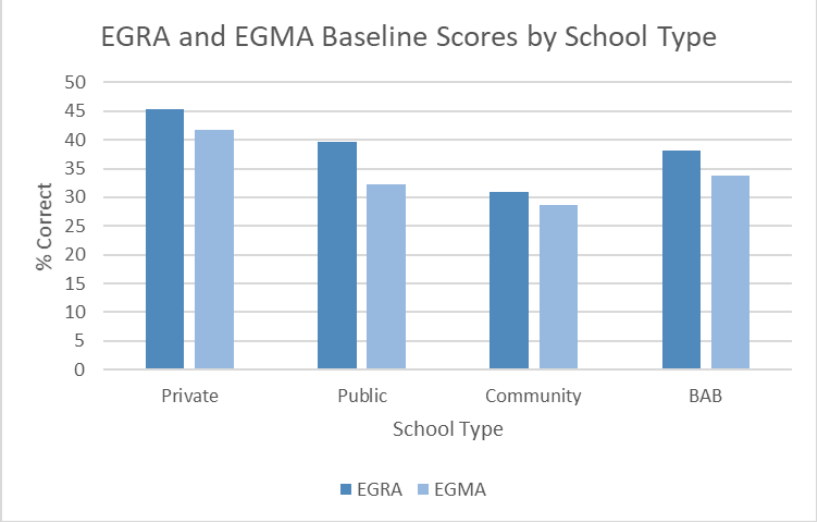


Figure 32: Numeracy and Literacy Baseline Scores by School Type



Socio-economic indicators, psychosocial measures, and baseline skills and competencies are also influenced by where learners live. While we saw slight difference in gender balance, median learner

age, or prior educational experience based on location type, learners from IDP and rural areas were far more likely to report low maternal literacy rates and fewer family resources than their urban peers. (Table 23 and Figure 33). Rural learners reported the lowest perceptions of equity, engagement, and quality of life indicators of all groups and all scored significantly lower on baseline literacy and numeracy tests than learners from either IDP or rural areas. Contrary to expectations, learners from IDP areas, while resource poor, outperformed both rural and urban learners on baseline literacy and numeracy tests – perhaps indicative of other support resources available in these areas (Figure 34).

Table 23: Learner Characteristics by Location Type

	School Type		
Student Characteristic	**IDP**	**Rural**	**Urban**
Predominant Gender	Female (50.9%)	Female (51.0%)	Male (52.0%)
Median Age	11	11	11
Prior Ed	86.4%	86.0%	92.5%
Maternal Ed	32.0%	32.5%	49.8%
Primary Dialect	Maay (75.3%)	Maxaa tiri (69.1%)	Maxaa tiri (65.2%)

Figure 33: Learner SES, Safety, and Psychosocial Perspectives by School Location

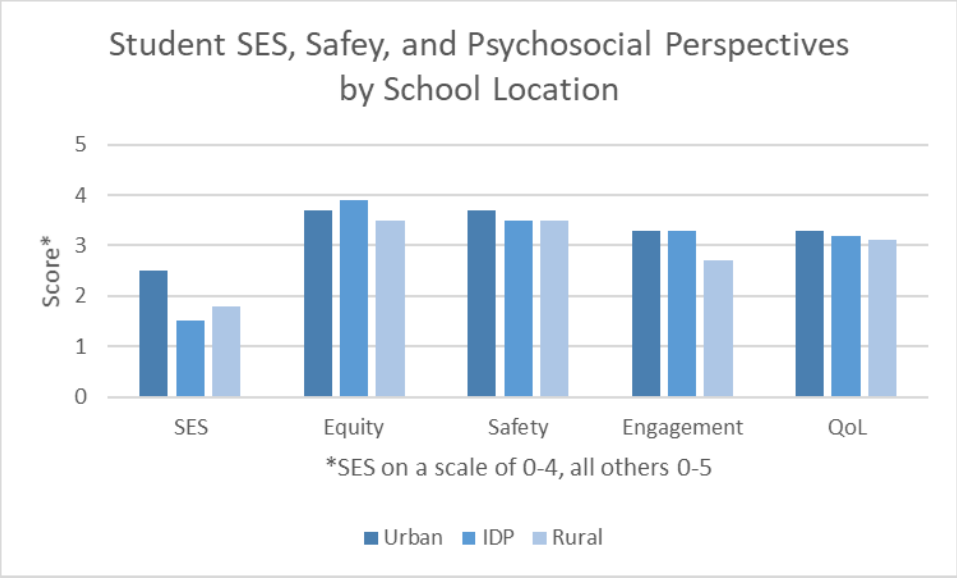
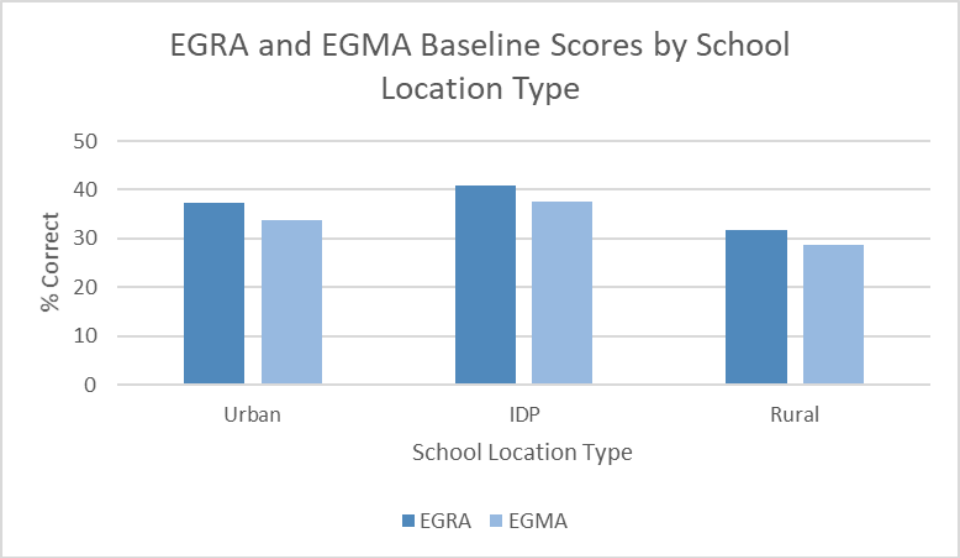


Figure 34: Numeracy and Literacy Baseline Scores by School Location Type



Learner baseline characteristics are described in more detail in the following sections and in the Data Annex (Section 1.1; 9.1-9.3).

BAB learners, on average, scored significantly lower on SES indicators, including maternal literacy and family resources, than Formal Primary learners suggesting that the BAB program is serving financially marginalized learners in the target communities. SES indicators are further affected by location, school funding type, and geographic location (state). Baseline data suggests stratification of learners by SES indicators across school types (community, BAB, public, and private). Community school learners reported the lowest levels of family resources, maternal literacy rates, and perceptions of equity in the classroom with public school learners intermediate and private school learners scoring highest on all indicators. BAB learners scored about the same as public school learners on measures of SES and perceptions of equity but reported low levels of maternal literacy that mirrored community school learners. Learners in urban areas appear more affluent than their rural and IDP counterparts, with significantly higher rates of maternal literacy and more resources. Finally, indicators of SES varied significantly by state, with learners in Hirshabelle and Benadir reporting higher SES indicators than learners in Southwest and Jubaland. Of note, while Hirshabelle learners had the highest reported SES indicators, they also had the lowest perceptions of equity.

5 INTERMEDIATE OUTCOMES AS PREDICTORS OF LEARNING

Correlation and multiple regression analyses were conducted to examine the relationship between EGRA/EGMA and potential predictors. Table 24 summarizes the descriptive statistics and analysis results for EGRA, while Table 25 summarizes the descriptive statistics and analysis results for EGMA. Results presented in Table 26 indicate that baseline EGRA scores are significantly positively correlated with all intermediate outcome variables of interest (socio-economic status [SES], learner

emotional engagement, learner age, maternal literacy, and quality of life), indicating that learners with higher scores on these variables tend to have higher baseline EGRA scores.

The multiple regression model with all five predictors produced R-squared = 0.134, F (5, 2768) = 85.649, p < .001, indicating that the model is a significant predictor of baseline EGRA scores and 13.4% of the variance in these scores is accounted for by the variables in the model. A close look at these results reveals that the intermediate outcome variables have significant positive regression weights, indicating that learners who score higher on these variables/scales are expected to have higher baseline EGRA scores, after controlling for other variables in the model. It is important to note that the low R-squared could be a result of a combination of low correlations between the intermediate outcomes and the baseline EGRA scores, on one hand, and the wide variability in the data as reflected in the large standard errors.

The results presented in Table 27 reveal that the baseline EGMA scores are also significantly positively correlated with all intermediate outcome variables in the model except maternal literacy which turned out not to be statistically significant. The regression model significantly predicts baseline EGMA scores with these intermediate outcomes, R-squared = .146, F (5, 2768) = 95.768, p < .001, indicating that 14.6% of the variance in baseline EGMA scores is accounted for by the variables in the model. Just like the regression results for the baseline EGRA scores, the R-squared here is low because of small correlation coefficients associated with the intermediate outcomes and the wide variability in the EGMA scores as evident in the standard errors.

To perform multiple linear regression, some key assumptions must be met to have precise parameters estimates. However, some minor deviations from these assumptions may not affect the precision of these estimates. The assumptions of normality and linearity were minimally violated in our data, but that did not significantly affect the parameter estimates. Typically, when there are violations in any or all the assumptions of linear regression (and Pearson's correlation, reported in a linear regression analysis), a non-parametric method like Spearman's rho is recommended for estimating the strength of association between variables and is interpreted the same way. Therefore, we performed Spearman's rho, also known as Spearman's rank order correlation analysis, to validate the estimates from the regression analysis. Results from that analysis are presented in Table 26, and it shows that the correlations estimates are not significantly different from the Pearson's correlation coefficients presented in the regression analysis. Please, note that Spearman's rho estimated here is comparable to Pearson's zero-order correlations in Tables 24 and 25.

Table 24: Multiple Regression and Correlation Results for EGRA

	Regression Coefficients			Correlations		
	B	*SE B*	β	Zero-order	Partial	Part
Constant	-3.383	2.575				
SES	10.292***	1.410	.134	.159***	.137***	.129***
Engagement	1.763***	.453	.081	.138***	.074***	.069***

Age	13.805***	.858	.287	.273***	.292***	.285***
Mother Literacy	5.310***	.875	.111	.118***	.115***	.107***
Quality of Life	2.692**	.785	.072	.139**	.065**	.061**

Notes: R-squared = .134 (p< .001), * p < .05, ** p < .01, ***p<.001

Table 25: Multiple Regression and Correlaton Results for EGMA

	Regression Coefficients			Correlations		
	B	*SE B*	β	Zero-order	Partial	Part
Constant	-2.674	2.508				
SES	9.990***	1.373	.132	.138***	.137***	.128***
Engagement	2.241***	.442	.105	.126***	.096***	.089***
Age	15.983***	.836	.338	.331***	.342***	.336***
Mother Literacy	3.048***	.852	.065	.060***	.068***	.063***
Quality of Life	.088	.765	.002	.079	.002	.002

Notes: R-squared = .147 (p< .001), * p < .05, ** p < .01, ***p<.001

Table 26: Spearman's Correlations Between EGRA/EGMA and Key Constructs

	EGRA	EGMA
	Spearman's rho	Spearman's rho
SES	0.173***	0.150***
Engagement	0.132***	0.122**
EGRA	1.000	0.791***
EGMA	0.791***	1.000
Age	0.277***	0.328***

Mother Literacy	0.109***	0.061**
Quality of Life	0.163***	0.089***

Notes: * p < .05, ** p < .01, ***p<.001

6 BASELINE RESULTS -- QUALITY OF INSTRUCTION

Teacher quality is considered a cornerstone of effective education. In 2014, the Director-General of UNESCO articulated the importance of teachers with these words, "A quality universal primary education will remain a distant dream for millions of children living in countries without enough trained teachers in classrooms" (UNESCO 2014). The Longitudinal Teacher Baseline Survey includes items that describe teacher background and preparation and measures key elements associated with learning outcomes, including teacher engagement, self-efficacy, content and pedagogical knowledge, attitudes and beliefs about learning, and perceptions of support and safety.

6.1 TEACHER SAMPLE CHARACTERISTICS

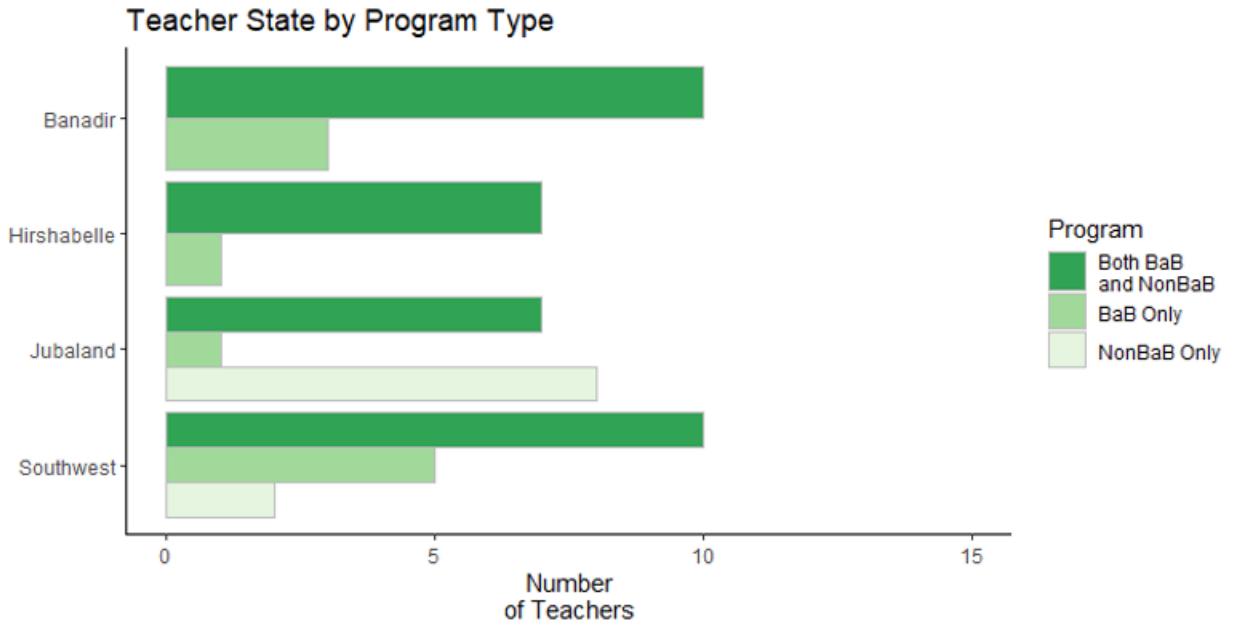
SORDI enumerators tried to collect survey data from teachers for each longitudinal cohort learner classroom. The sampling frame purposefully included teachers that teach both BAB and Formal Primary classes (typically working a double shift), and teachers that teach only BAB or Formal Primary classes. A total of 54 teachers from 44 schools completed the Teacher Survey, as shown in Table 27. Some of the Formal Primary teachers were not willing to be interviewed for this project.

Table 27: Number of Teachers by Type of Class Taught

Type of Class Taught	**# Teachers**	**# Schools**
Total	54	44
Both BAB and Formal Primary classes	34	33
Only BAB classes	10	10
Only Formal Primary classes	10	8

Teacher subgroup distribution by state is illustrated in Figure 35. Note that, although the longitudinal cohort sample includes Formal Primary classrooms in all four states (Benadir, Hirshabelle, Jubaland, and Southwest) sample teachers come exclusively from Jubaland and Southwest.

Figure 35: Sample Teacher Distribution by Program Type across States



In general, longitudinal cohort teachers are experienced, well-educated, and male. The following figures present baseline teacher characteristics for all longitudinal cohort teachers. Additional characteristics and data disaggregated by subgroup (both BAB and Formal Primary, BAB only, or Formal Primary only) are included in the Data Annex (Sections 4.1-4.3). Note that the small sample size for teacher subgroups and unequal subgroup distribution (e.g., all teachers in the Formal Primary group teach in either Jubaland or Southwest states), limit interpretation and generalizability of these data.

Teachers in all classroom types are most often male and in their 20's for both BAB and Formal Primary classes, regardless of program type, location, funding type (Figure 36), or state (Figure 37). Teachers overwhelmingly have at least a grade 12 education, with nearly ¾ reporting additional education levels, as shown in Figure 38. Moreover, more than half of the sampled teachers have five or more years of teaching experience and only 3 of the 54 reported less than one year of experience (Figure 39).

Figure 36: Teacher Gender by Program Type, Location, or School Funding

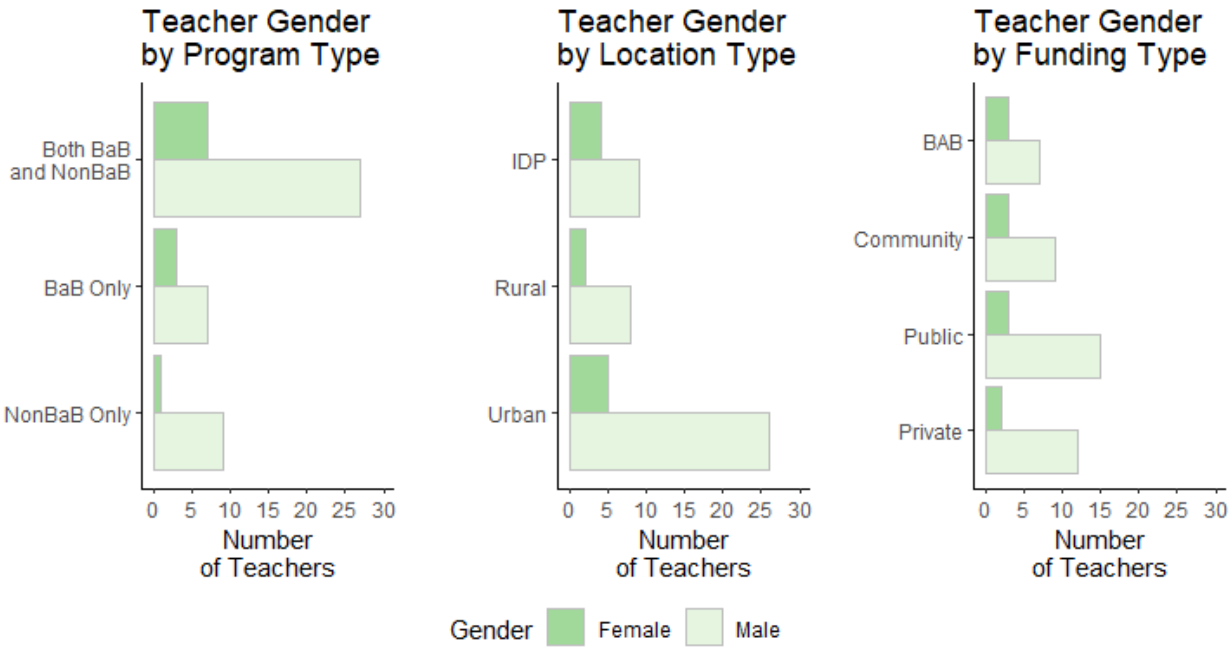


Figure 37: Teacher State by Gender

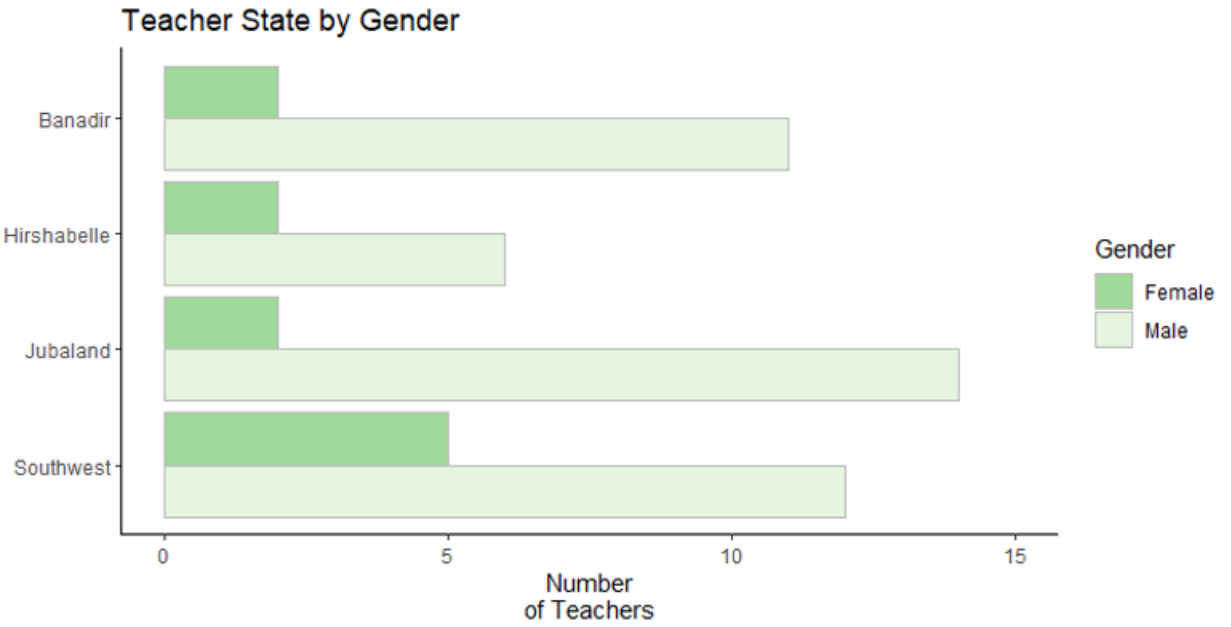


Figure 38: Teacher Education Level

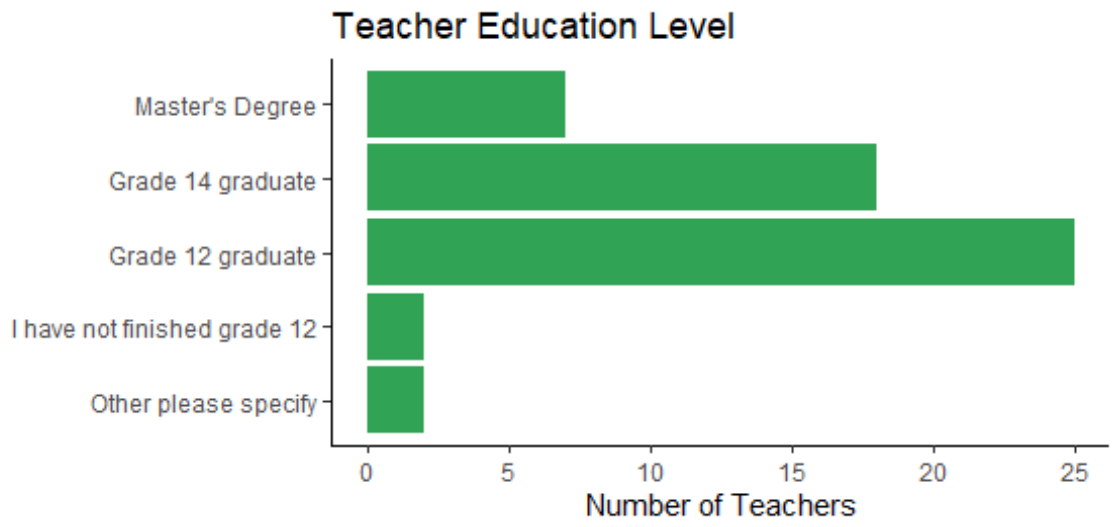
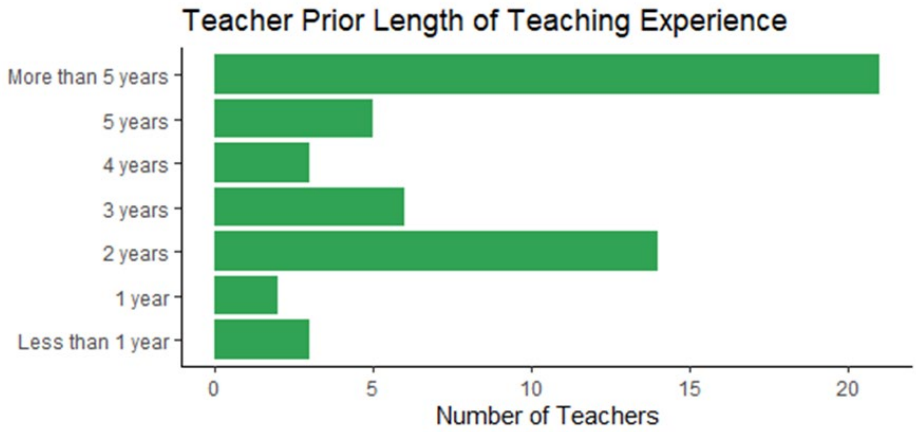


Figure 39: Teacher Experience in Years



6.2 CLASS SIZE

Class size, or learner/teacher ratio, correlates strongly with learner outcomes. Overall, research shows that learners in smaller classes are more engaged and perform better in all subjects than their peers in larger classes, particularly in early elementary school. Small classes are most beneficial for marginalized learners (Bedard and Kuhn 2006) (Dee and West 2011) (Flemming, Toutant and Raptis 2002). Longitudinal cohort teachers reported a wide range of class sizes for both BAB and Formal Primary classes (Figures 40 and 41). Some Formal Primary classes experienced extremely large numbers of learners (greater than 100). Enumerator field records noted insufficient tables and chairs to accommodate all learners in some classes. In some cases, this led to learners being sent home.

Figure 40: Teacher Reported BAB Class Sizes

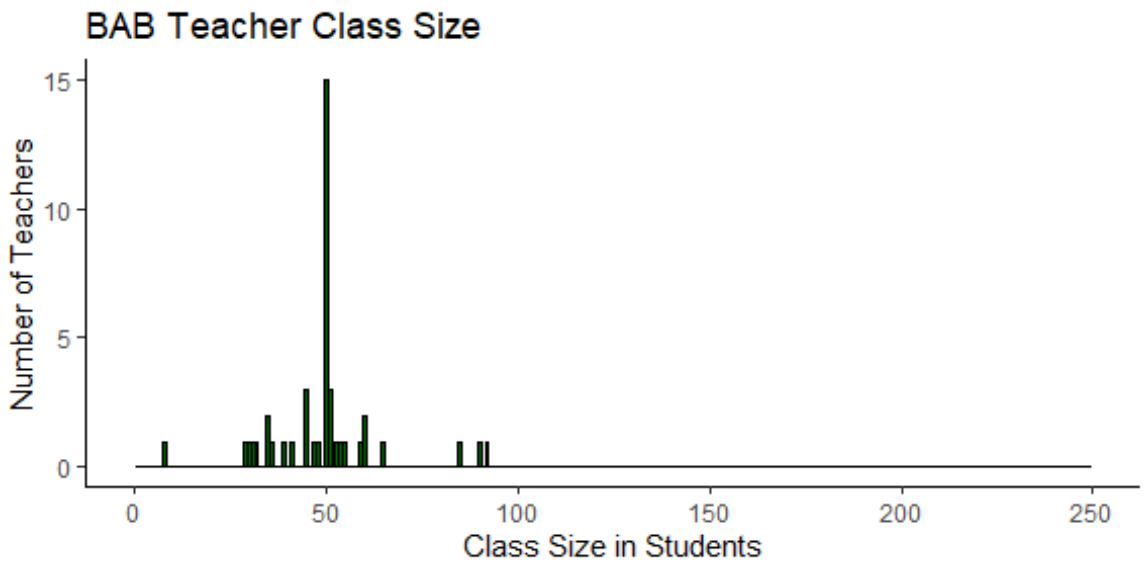
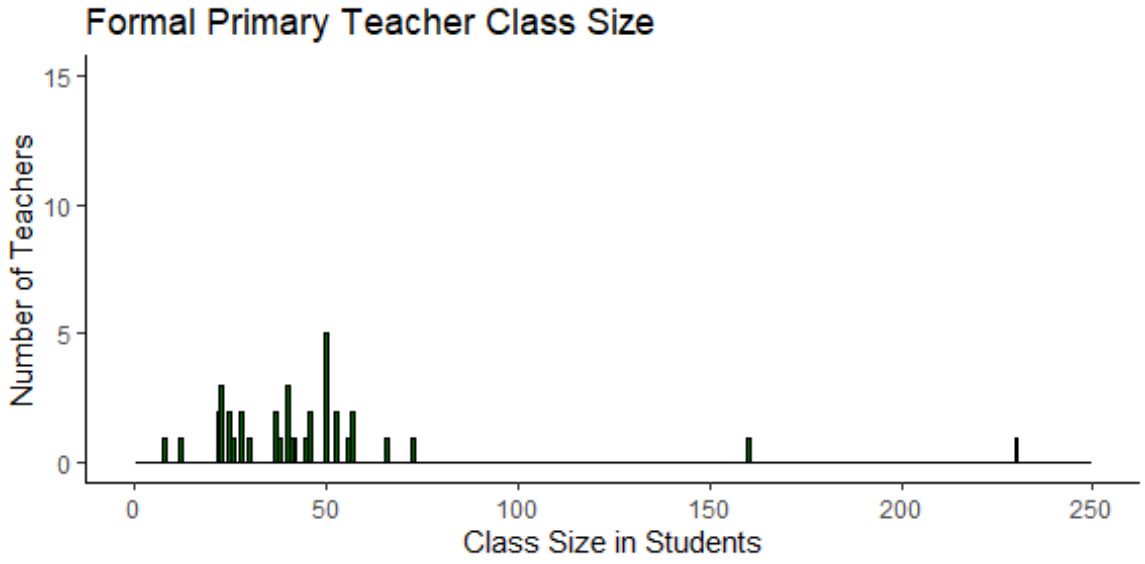


Figure 41: Teacher Reported Formal Primary Class Sizes



6.3 Teacher Perceptions of Safety

As previously described, threats to safety can significantly influence learner academic, social, and emotional outcomes. The Teacher Baseline Survey included items to assess the Teacher's perception of their own and their learners' physical and emotional safety in the school environment. The scale is composed of the average of the following four items modified from the BAB Teacher Survey:

- I feel physically safe at school.
- All my learners are physically safe at school, regardless of their gender, age, family background, disability, or other characteristics.
- All my learners, regardless of gender, age, disability, family background, or other characteristics are safe on their way to school.
- All my learners, regardless of gender, age, disability, family background, or other characteristics are accepted and emotionally supported in my school.

All items were measured on a 6-point Likert scale (0-strongly disagree, 1-disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-agree, 6-strongly agree) where teachers indicated their perceived safety of themselves and their learners.

Like their learners, teachers reported positive feelings of perceived safety regardless of program, location, school type, gender, teacher's age, or state (Figures 42 and Table 28). None-the-less, despite generally positive feelings of safety overall, baseline results showed variations in perceptions of safety based on location and program. Teachers in rural areas were less positive than their colleagues in urban or IDP areas. Likewise, those teachers that only taught in BAB classes reported less positive perceptions of safety. Mirroring learner perceptions, teachers from Hirshabelle reported the lowest levels of perceived safety (although still positive). The Data Annex (Section 5.1; 8.9) includes complete teacher safety data.

Figure 42: Teacher Perceptions of Safety by Program

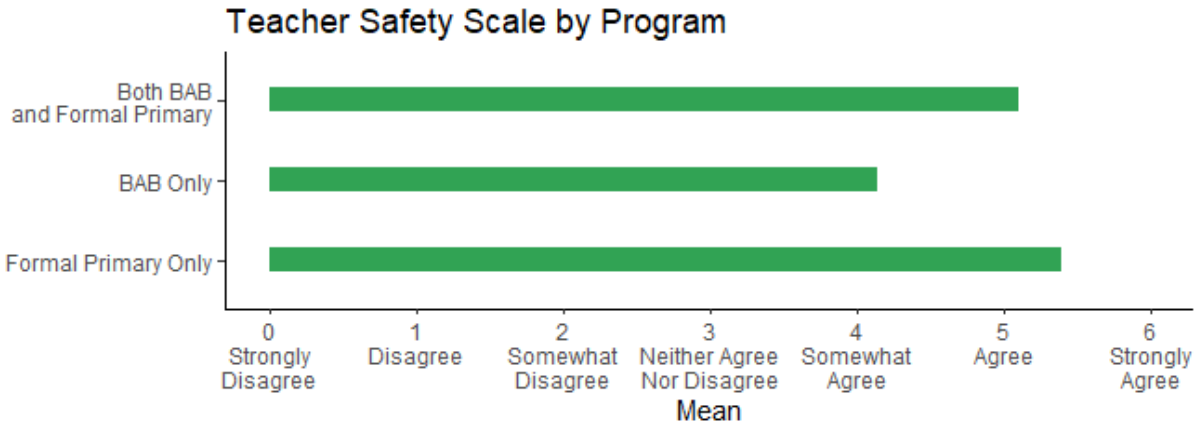


Table 28: Teacher Perceptions of Safety by Location, School Funding Type, Gender, Age, and State

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Teachers Safety Scale			**4.99**	**1.01**	
Program	*	Both BAB and Formal Primary	5.11	0.80	0.12
		BAB Only	4.15	1.56	-0.84
		Formal Primary Only	5.40	0.50	0.41
Location Type		IDP	4.75	0.95	-0.24
		Rural	4.50	1.87	-0.49
		Urban	5.24	0.49	0.26
Funding Type		BAB	4.15	1.56	-0.84
		Community	5.19	0.69	0.20
		Public	5.11	0.94	0.12
		Private	5.25	0.51	0.26
Gender		Male	5.01	1.07	0.02
		Female	4.91	0.80	-0.08
Age Group		Under 30 Year Olds	5.05	0.89	0.06
		30 - 40 Year Olds	5.19	0.40	0.20
		40 - 65 Year Olds	4.50	1.75	-0.49
State		Benadir	5.10	0.50	0.11
		Hirshabelle	4.69	1.84	-0.30
		Jubaland	5.17	0.93	0.19
		Southwest	4.87	0.91	-0.12

6.4 TEACHER'S FEELINGS OF SELF-EFFICACY

Teacher perception of self-efficacy refers to a teacher's beliefs in their ability to effectively handle the tasks and challenges they encounter in their work and positively impact learner learning. Teachers with a keen sense of self-efficacy exhibit behaviors and strategies in the classroom that support positive learning outcomes (Jerald 2007). Albert Bandura, a leader in the development of self-efficacy theory, links experience, or performance accomplishments, with self-efficacy and argues that self-efficacy may vary across activity types and tasks (Bandura 1977). For example, a person may feel high self-efficacy for teaching reading, but low self-efficacy for teaching math. Bandura created a 30-item teacher self-efficacy scale (unpublished) that includes 7 subscales. Self-efficacy questions on the Longitudinal Teacher Survey are modified from two of Bandura's subscales, instructional and disciplinary self-efficacy.

The Self-Efficacy scale questions were used to assess teacher's confidence in their abilities to effectively teach and manage the behavior of all children in their classroom. Aggregate measures that include both the composite of instructional and disciplinary subscales are included in Data Annex Section 5.4. Subscale results, which show the type of task-based variation Bandura described, are presented in the following sections.

Teacher Instructional Self-Efficacy Scale

We included 7 questions derived from Bandura's Teacher Self-Efficacy Scale that assess Teacher's self-efficacy regarding instruction. The scale is composed of the items below:

- How much can you do to get through to the most difficult learners?
- How much can you do to promote learning when there is a lack of support from the home?
- How much can you do to increase learners' memory of what they have been taught in previous lessons?
- How much can you do to motivate learners who show low interest in schoolwork?
- How much can you do to get learners to work together?
- How much can you do to overcome the influence of adverse community conditions on learners' learning?
- How much can you do to get children to do their homework?

All items were measured on a 5-point Likert scale (0-nothing, 1-very little, 2-some influence, 3-quite a bit, 4-a great deal) where teachers indicated their perception of self-efficacy.

Longitudinal cohort teachers expressed moderate to high levels of instructional self-efficacy. Male teachers expressed significantly higher levels of self-efficacy compared to female teachers. Interestingly, teachers in rural areas expressed higher feelings of instructional self-efficacy than teachers in IDP or urban areas. While community and private school teachers felt more self-efficacy than public or BAB teachers. Finally, instructional self-efficacy varied by state (Table 29). Figures of results are included in the Data Annex (Section 5.4.1; 8.15).

Table 29: Teacher Instructional Self-Efficacy

Group	Subgroup	Mean	SD	Diff from Overall Mean
All Teachers Instructional Self-Efficacy Scale		**3.15**	**0.62**	
Program	Both BAB and Formal Primary	3.25	0.67	0.10
	BAB Only	2.83	0.59	-0.32
	Formal Primary Only	3.14	0.32	-0.01

Group	Subgroup	Mean	SD	Diff from Overall Mean
Location Type	IDP	3.03	0.67	-0.12
	Rural	3.50	0.45	0.35
	Urban	3.09	0.62	-0.06
Funding Type	BAB	2.83	0.59	-0.32
	Community	3.42	0.45	0.27
	Public	3.03	0.71	-0.12
	Private	3.31	0.54	0.16
Gender *	Male	3.27	0.54	0.11
	Female	2.70	0.72	-0.45
Age Group	Under 30 Year Olds	3.11	0.63	-0.04
	30 - 40 Year Olds	3.41	0.68	0.26
	40 - 65 Year Olds	3.07	0.52	-0.08
State	Benadir	3.34	0.50	0.19
	Hirshabelle	3.21	0.81	0.06
	Jubaland	3.15	0.40	0.00
	Southwest	2.97	0.76	-0.18

Teacher Disciplinary Self-Efficacy Scale

We included 7 questions derived from Bandura's Teacher Self-Efficacy Scale that assesses teacher feelings of self-efficacy as it relates to managing classroom behavior. The scale is composed of the three items below:

- How much can you do to get children to follow classroom rules?
- How much can you do to control disruptive behavior in the classroom?
- How much can you do to prevent problem behavior on the school grounds?

All items were measured on a 5-point Likert scale (0-nothing, 1-very little, 2-some influence, 3-quite a bit, 4-a great deal) with higher numbers indicating higher feelings of self-efficacy.

As with instructional self-efficacy, longitudinal cohort teachers expressed moderate to high levels of disciplinary self-efficacy overall. Male teachers again felt significantly more confident than their female counterparts. Unlike instructional self-efficacy, no differences were noted based on school location type, but significant differences were noted based on the state in which the teacher was located. Teachers in BAB schools expressed the lowest perceptions of disciplinary self-efficacy compared to all other school types (community, public, private). Data are displayed in Table 30 below and in the Data Annex (Section 5.4.2; 8.16).

Table 30: Teacher Disciplinary Self-Efficacy

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Teachers Disciplinary Self-Efficacy Scale			**3.11**	**0.73**	
Program		Both BAB and Formal Primary	3.22	0.73	0.11
		BAB Only	2.73	0.61	-0.38
		Formal Primary Only	3.13	0.81	0.02
Location Type		IDP	3.10	0.74	-0.01
		Rural	3.10	0.82	-0.01
		Urban	3.12	0.73	0.01
Funding Type		BAB	2.73	0.61	-0.38
		Community	3.22	0.70	0.11
		Public	3.11	0.91	0.00
		Private	3.29	0.54	0.17
Gender	*	Male	3.23	0.69	0.12
		Female	2.64	0.72	-0.47
Age Group		Under 30 Year Olds	3.13	0.77	0.02
		30 - 40 Year Olds	3.38	0.57	0.26
		40 - 65 Year Olds	2.75	0.64	-0.36
State	*	Benadir	3.33	0.53	0.22
		Hirshabelle	3.00	0.96	-0.11
		Jubaland	3.37	0.72	0.26
	*	Southwest	2.75	0.65	-0.37

6.5 TEACHER KNOWLEDGE AND SUPPORT

The Longitudinal Teacher Survey included sets of questions that shed light on teachers' feelings of preparation and support. These questions include both internal measures of support (content and pedagogical knowledge) as well as external measures of support (materials, resources, people). The two separate dimensions can be found below. Composite scale results are included in the Data Annex (Section 5.2; 8.10).

Teacher Internal Support Dimension Subscale

The internal support subscale examines teachers' perceptions of the pedagogical and content knowledge they need to be an effective teacher. This scale included four statements, as follows:

- I have the content knowledge I need to effectively teach my class.
- I have a range of techniques to effectively teach all learners in my class.

- I have the knowledge and skills I need to effectively teach all children in my class, regardless of their gender, age, or family background, disability, or other characteristics.
- I have various strategies to effectively manage my classroom.

All items were measured on a 7-point Likert scale (0-very untrue, 1-untrue, 2-somewhat untrue, 3-neutral, 4-somewhat true, 5-true, 6-very true) where teachers indicated their perceived level of support.

Teachers generally had favorable beliefs about their knowledge, preparation, and skills for effective teaching. Those teachers that only have BAB classes were somewhat less positive than their peers teaching only Formal Primary or a combination of classes (Figure 43). Women, rural, and teachers in Hirshabelle also reported slightly lower perceptions of internal support (Table 31). A table of all data is included in the Data Annex (Section 5.2.1).

Figure 43: Teacher Perceptions of Knowledge, Preparation, and Skills by Program

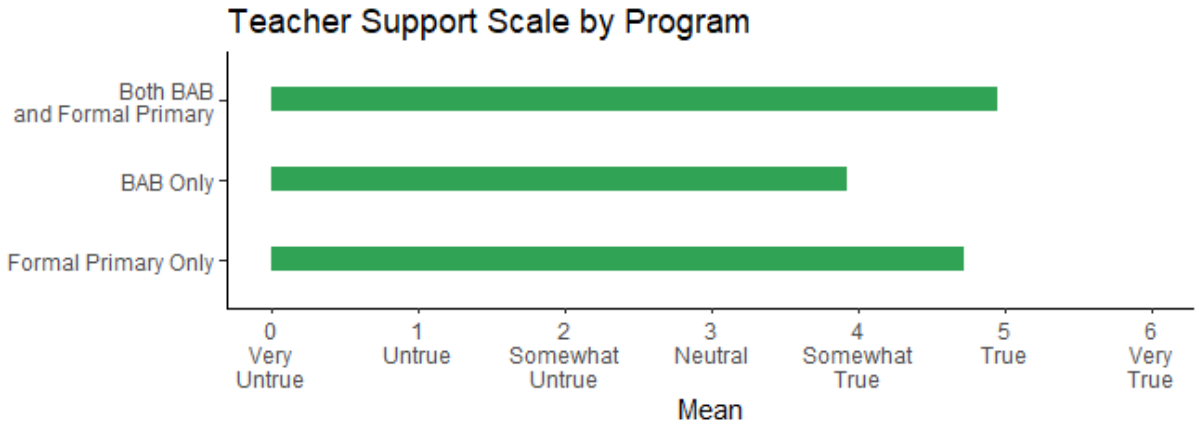


Table 31: Teacher Perceptions of Knowledge, Preparation and Skills by Program, Location Type, School Funding, Gender, Age, and State

Group	Subgroup	Mean	SD	Diff from Overall Mean
All Teachers Internal Support Scale		**4.85**	**1.05**	
Program	Both BAB and Formal Primary	5.05	0.76	0.20
	BAB Only	4.05	1.69	-0.80
	Formal Primary Only	4.95	0.80	0.10

Location Type	IDP	4.88	0.94	0.04
	Rural	4.68	1.86	-0.17
	Urban	4.89	0.73	0.04
Funding Type	BAB	4.05	1.69	-0.80
	Community	5.06	0.81	0.22
	Public	5.11	0.77	0.26
	Private	4.89	0.75	0.05
Gender	Male	4.90	1.05	0.05
	Female	4.66	1.07	-0.19
Age Group	Under 30 Year Olds	4.81	0.87	-0.04
	30 - 40 Year Olds	5.44	0.44	0.59
	40 - 65 Year Olds	4.44	1.87	-0.41
State	Benadir	5.25	0.27	0.40
	Hirshabelle	4.25	1.95	-0.60
	Jubaland	4.86	0.77	0.01
	Southwest	4.81	1.03	-0.04

Teacher External Support Dimension Subscale

Teacher measures of external support include those materials and resources (human and non-human) that a teacher needs to effectively teach. This can include desks and chairs, books, pens and paper, curricula, administrative and peer support, and a host of other resources. The external support scale included three questions, as follows:

- I have the support I need to effectively teach my class.
- I have the materials I need to effectively teach my class.
- I have people and resources I can draw on when I have challenges in my classroom.

All items were measured on a 7-point Likert scale (0-very untrue, 1-untrue, 2-somewhat untrue, 3-neutral, 4-somewhat true, 5-true, 6-very true) where teachers indicated their perceived level of support.

While teachers at community, public, and private schools had positive responses, teachers that taught only BAB classes and rural teachers had less favorable perceptions of resource availability and external support. Teacher perceptions of external support data are shown in Table 32 and graphically in the Data Annex (Section 5.2.2).

Table 32: Teacher Perceptions of Materials and Support by Program, Location, School Funding, Gender, Age, and State

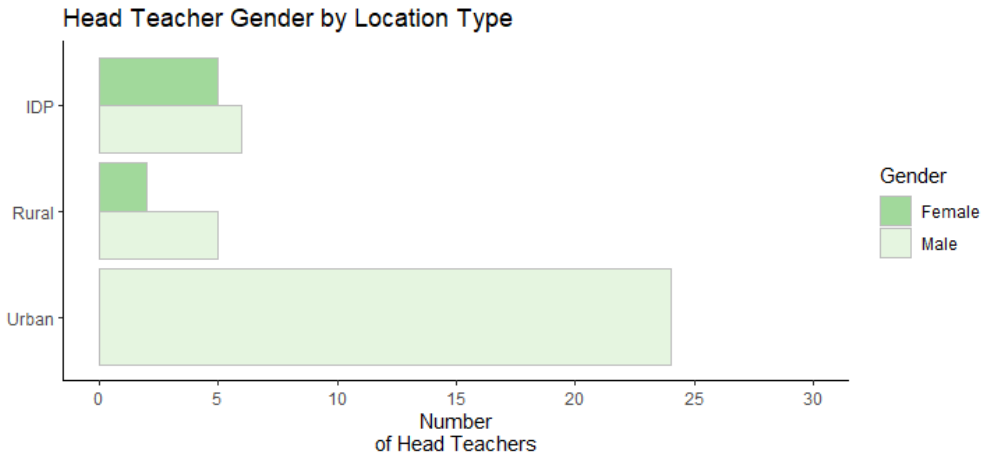
Group		Subgroup	Mean	SD	Diff from Overall Mean
All Teachers External Support Scale			**4.56**	**1.05**	
Program	*	Both BAB and Formal Primary	4.83	0.86	0.27
		BAB Only	3.77	1.44	-0.80
		Formal Primary Only	4.43	0.83	-0.13
Location Type	*	IDP	4.67	0.95	0.10
		Rural	3.77	1.60	-0.79
		Urban	4.77	0.74	0.21
Funding Type		BAB	3.77	1.44	-0.80
		Community	4.70	0.95	0.13
		Public	4.74	0.96	0.18
		Private	4.79	0.70	0.22
Gender		Male	4.63	1.11	0.07
		Female	4.30	0.78	-0.26
Age Group		Under 30 Year Olds	4.68	0.85	0.12
		30 - 40 Year Olds	4.58	0.89	0.02
		40 - 65 Year Olds	3.96	1.81	-0.60
State		Benadir	4.64	0.62	0.08
		Hirshabelle	4.13	1.97	-0.44
		Jubaland	4.60	0.94	0.04
		Southwest	4.67	0.86	0.10

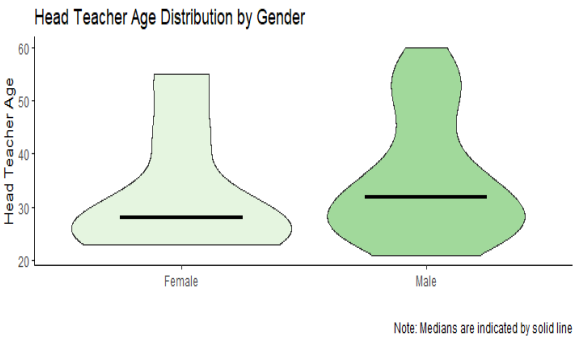
6.6 HEAD TEACHER SAMPLE CHARACTERISTICS

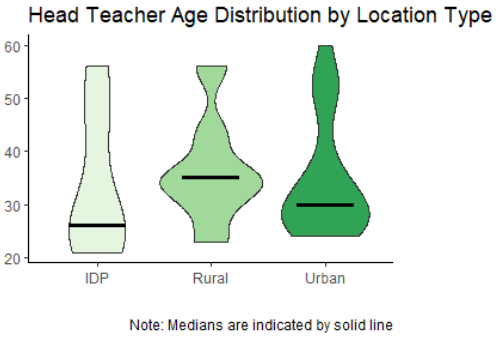
School leadership has a strong impact on nearly every aspect of teaching and learning and good school leadership has been empirically linked to improved learner achievement (Wallace Foundation. (2013). The Longitudinal Head Teacher baseline survey included questions aimed at understanding indicators of head teacher quality (e.g., preparation, training, attitudes and beliefs), questions related to school policies and procedures, and questions related to learner and community characteristics.

The head teacher baseline sample included 42 head teachers from 42 different schools across all four states. Head teachers are overwhelmingly male, with mean ages ranging from 28 (female) to 32 (male). Rural head teachers were older (35), on average, than urban head teachers (30) and head teachers in IDPs were significantly younger (25) (Figures 44).

Figure 44: Head Teacher Age and Gender





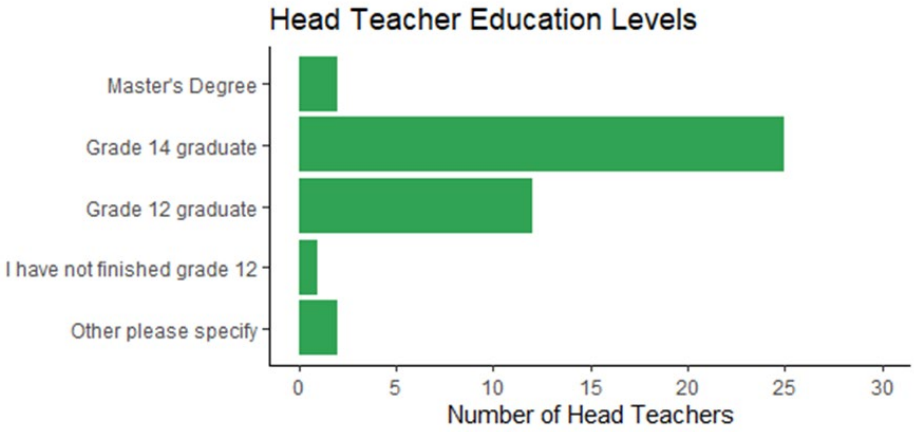


6.7 HEAD TEACHER EDUCATION AND EXPERIENCE

All but one head teacher reported at least a 12th grade education, with nearly 2/3 graduating from grade 14 or acquiring a master's degree (Figure 45).

All but 4 head teachers report at least a year of prior classroom teaching experience, see Data Annex (Section 4.3). Nearly 2/3 of the head teachers reported receiving training on leadership and management and the same number reported receiving training on child rights.

Fiaure: 45 Head Teacher Education Level



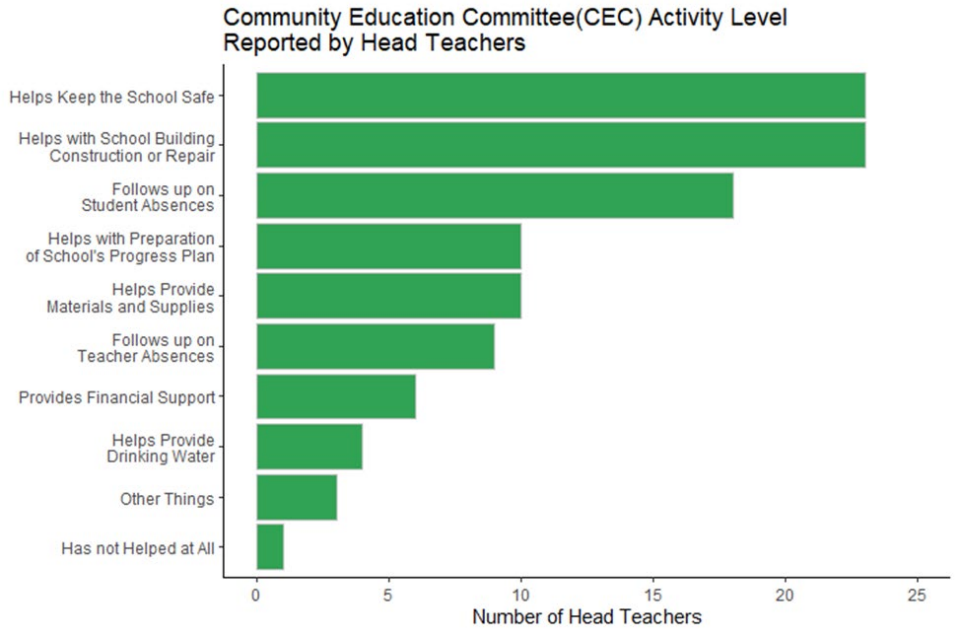
6.8 SCHOOL ATTRIBUTES AND POLICIES

Sixty percent (25/42) of the sample head teachers reported that their BAB school includes learners with disabilities, while only 50% (21/42) reported that their Formal Primary school includes learners with disabilities.

6.9 SUPPORT FOR EDUCATION

Nearly all head teachers (37/42) reported the presence of a Community Education Committee (CEC) in their school. The top two reported activities for the CECs include school safety and building construction and repair. Other common activities include following up on learner absences, preparing school progress plans, providing materials and supplies, and following up on teacher absences (Figure 46).

Figure 46: CEC Activities



Although most head teachers reported community support for the education of all learners, some teachers found this to be very untrue in their community (Figure 47). Learners identified most often as less likely to receive community support for education were girls and children with disabilities (Figure 48).

Figure 47: Head Teacher Perception of Community Support for Education

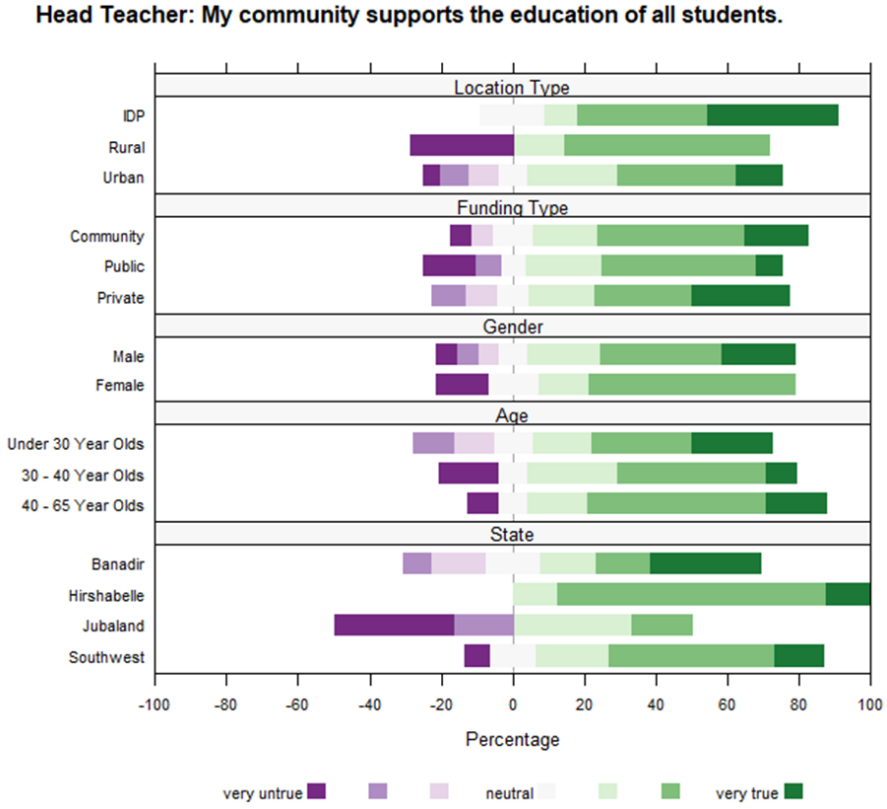
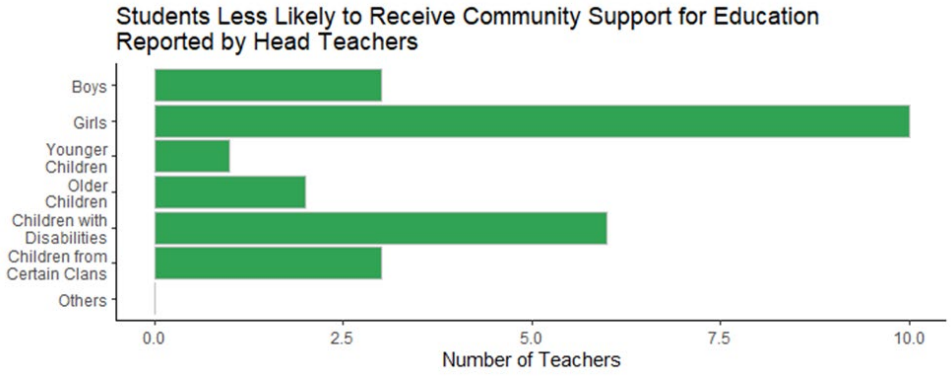


Figure 48: Student Less Likely to Receive Community Support for Education



On the contrary, head teachers felt very confident that their teachers provide the necessary support for all learners to be successful at school (Figure 49) but were split in their perception of their school's ability to accommodate the needs of girls when menstruating (Figure 50).

Figure 49: Head Teacher Perception of Teacher Support for All Learners

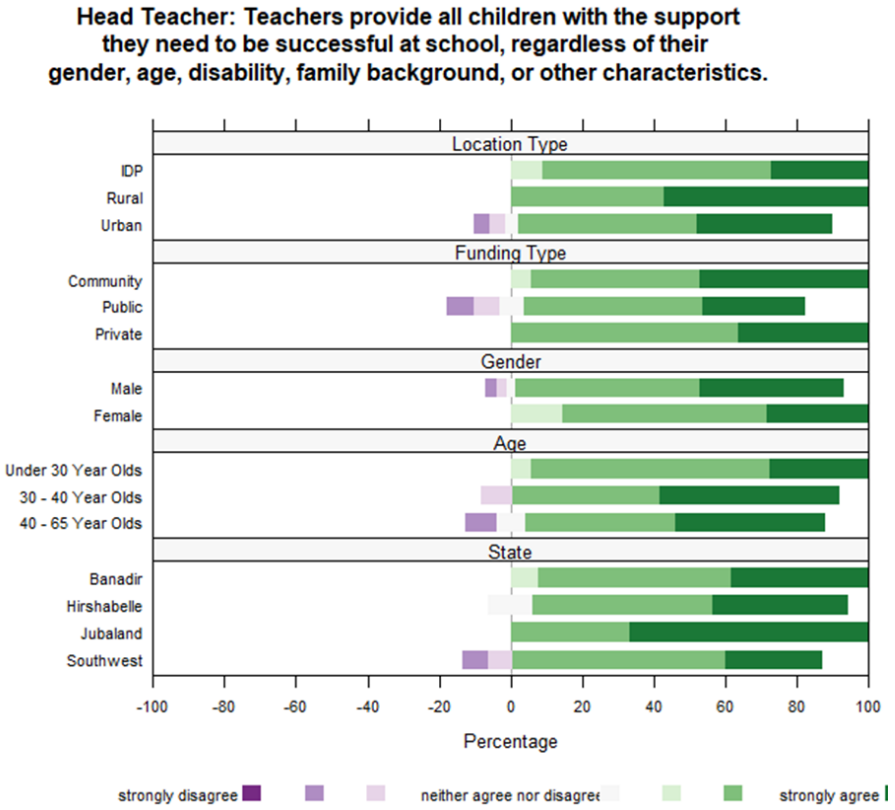
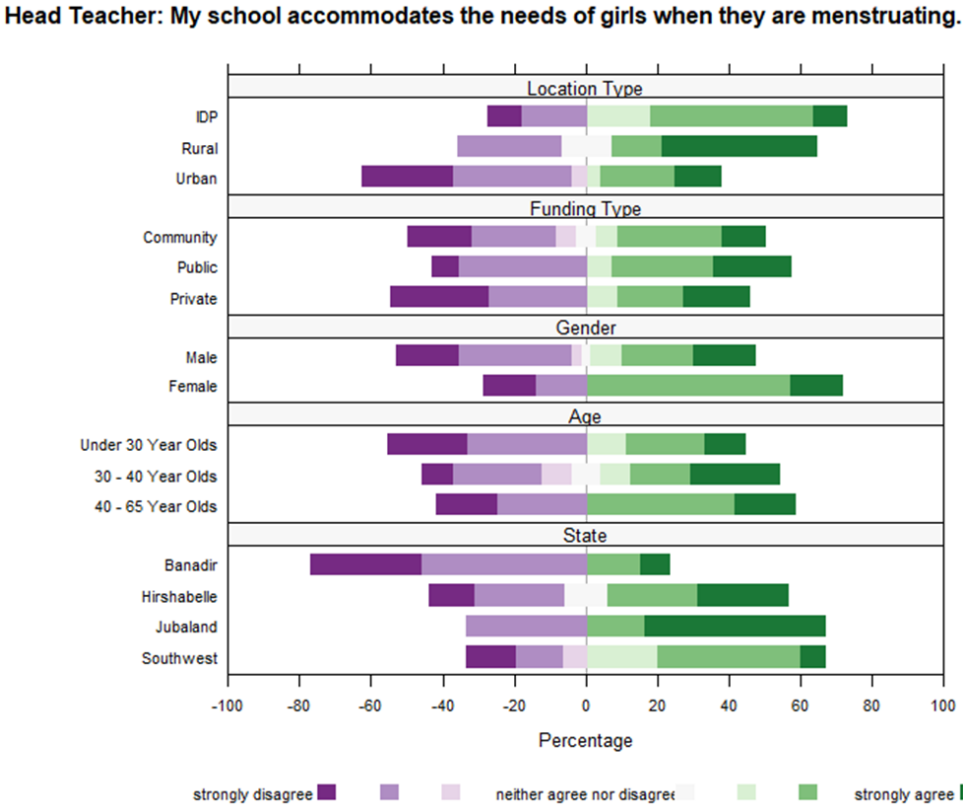


Figure: 50: Head Teacher Preception of School Accommodations for Mentstrating Girls



6.10 ACCESS TO EDUCATION

The Head Teacher survey asked for responses to a series of prompts regarding barriers to education in their community. For each potential barrier, head teachers were asked to identify the group(s) affected including boys, girls, boys and girls, children with disabilities, children from certain clans, all children, others, or not a barrier in my community. Several barriers were identified by most head teachers as primarily affecting all children, including school fees, frequent absence, family migration, malnutrition, lack of family support, lack of community support, safety concerns, transportation or distance to school, insufficient infrastructure, insufficient materials and supplies, lack of teacher support, and poor performance. Barriers identified as primarily affecting girls include culture/tradition, marriage, family chores or work, and abuse by classmates. Barriers identified as disproportionately affecting children with disabilities included culture/tradition, school fees, transportation or distance to school, and abuse by classmates. Finally, barriers identified as particularly relevant to children from certain clans included culture and tradition,

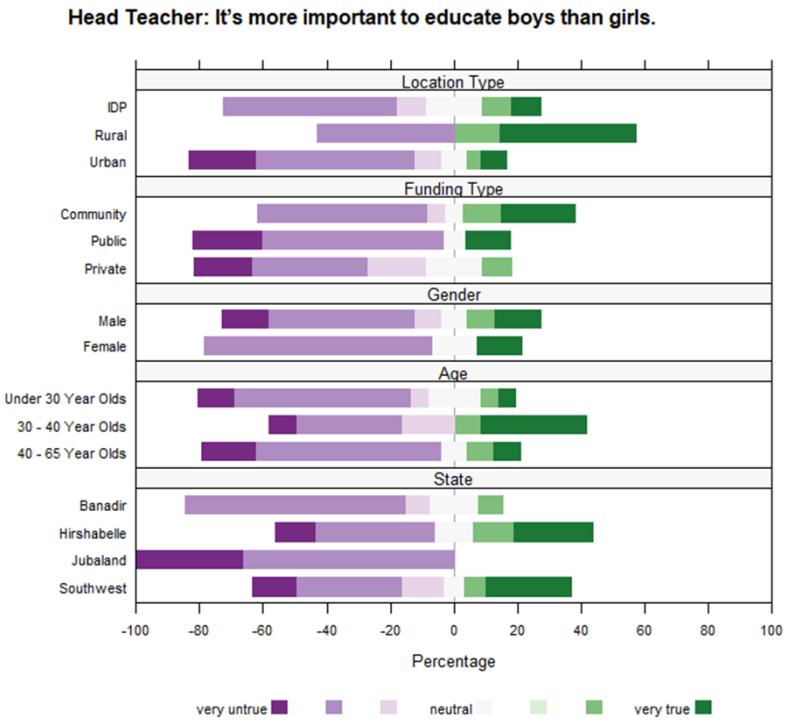
school fees, and abuse by classmates. Graphs of head teacher responses to common barriers for different groups are found in Section 6.7 of the Data Annex.

6.11 HEAD TEACHER MINDSETS AND PRECEPTION OF EQUITY ATTITUDES AND BELIEFS

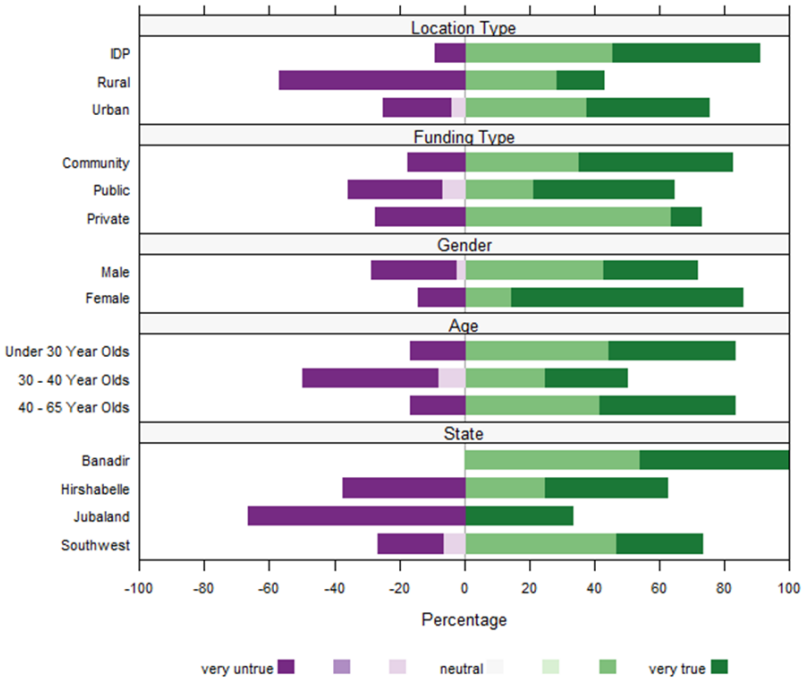
Head teachers were asked several questions that assess their attitudes towards equity and mindset relative to learning in general and for specific groups. Individuals with a static mindset believe that a person's intelligence, talent, and other qualities are innate and cannot be changed. These individuals believe that if you are not good at something, you will never be good at it. In contrast, people with a growth mindset believe that talent and intelligence can be developed with practice and effort.

Head teacher attitudes towards equity and mindsets varied considerably. Most head teachers did not agree that "boys are naturally better at school than girls" (Figure 51a) and did agree that "educating girls is important for society's development" (Figure 51b) and completing primary education is equally important for all children, regardless of gender, disability, or family characteristics" (Figure 51c). Taken together, answers to these three questions suggest commitment to equitable teaching of all learners. It is notable, however, that head teacher beliefs around equity vary by location and by state.

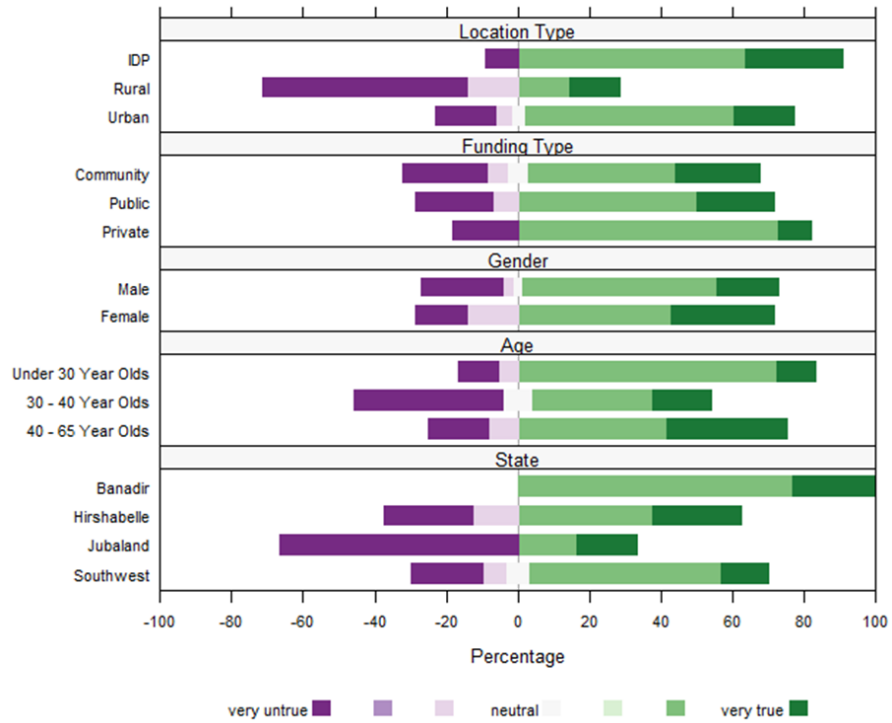
Figure 51: Head Teacher Attitudes Towards Equitable Teaching



Head Teacher: Educating girls is important for society's development.



Head Teacher: Completing primary education is equally important for all children, regardless of gender, disability, or family characteristics.



Several questions focused on head teacher's mindset. Responses to the statement, "I can predict with accuracy the ability of learners in my school to solve problems if I know their gender, family background, and disability status," varied from very untrue to very true (Figure 52). For this question, responses that disagree could be indicative of more growth mindsets, while answers affirming this statement indicate a more fixed or static mindset towards learning potential. On the other hand, responses might simply reflect a pragmatic view of the impact of resource limitation on learning. Responses were less variable for the statement, "Learners have a certain amount of intelligence and teachers can't really do much to change it," which most head teachers felt was false (Figure 53). Most head teachers agreed with a final statement, "All learners have the capacity to learn," (Figure 54). Midline and endline evaluations will explore these themes in more detail and examine links between head teacher mindsets, teacher attitudes and beliefs, and learner outcomes. Additional head teacher data is included in the Data Annex (Section 6).

Figure 52: Head Teacher Attitudes towards Student Ability

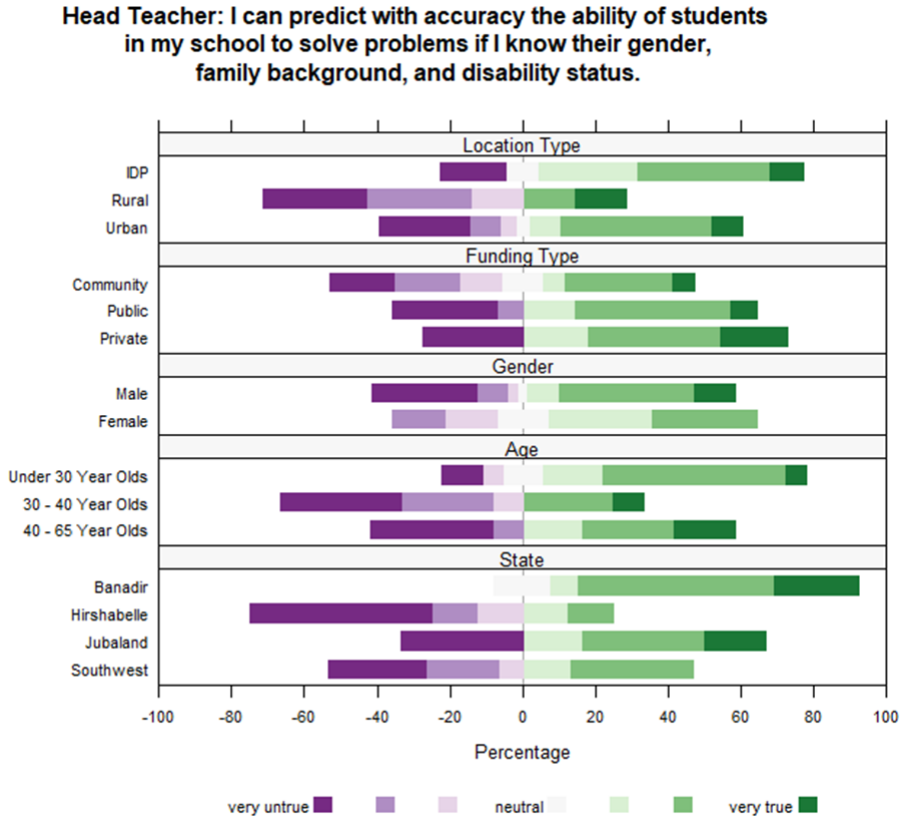


Figure 53: Head Teacher Attitudes toward Student Intelligence

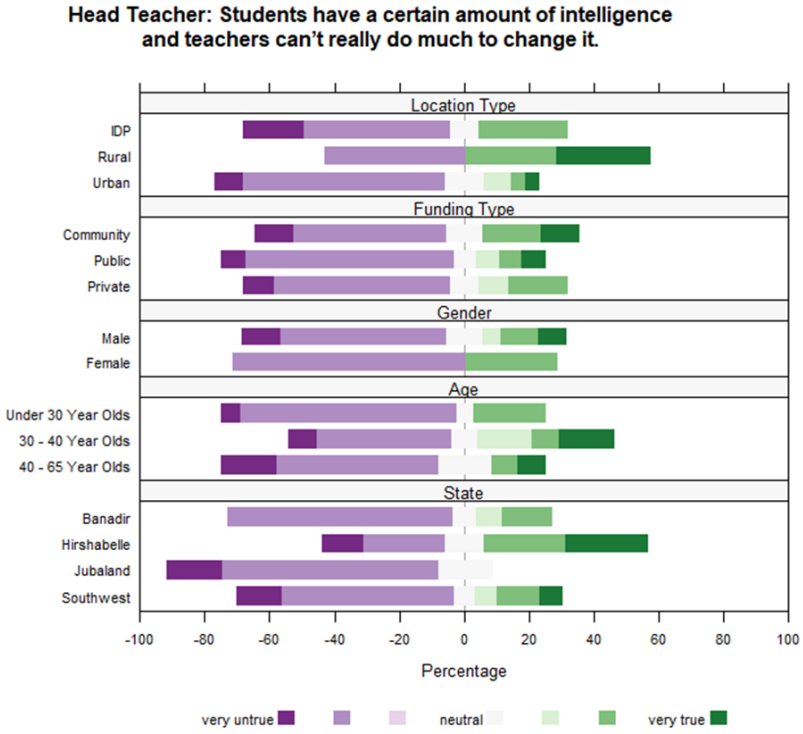
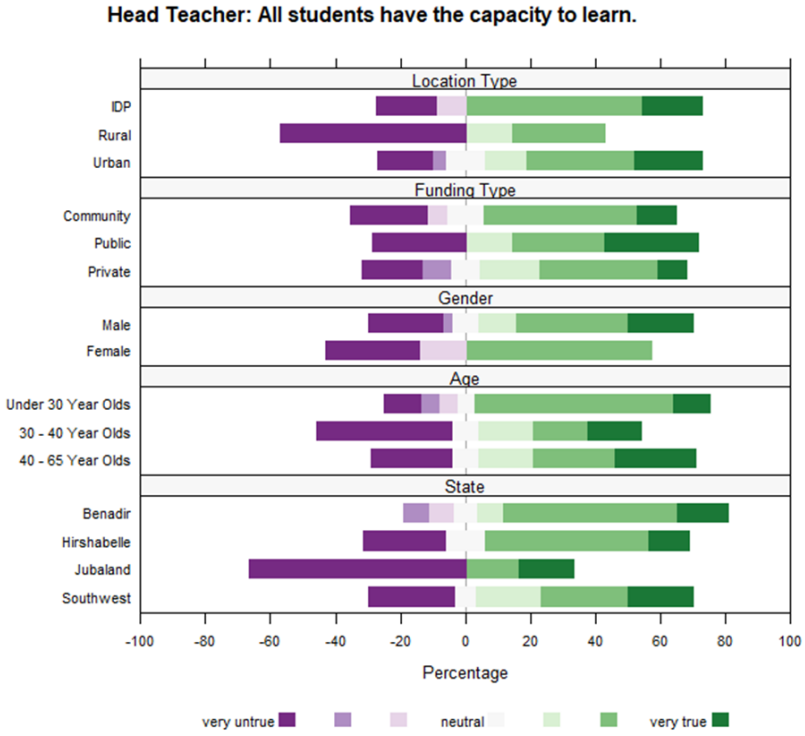


Figure 54: Head Teacher towards Student Capacity to Learn



7 IMPACT OF SAMPLE SELECTION METHODOLOGY (CROSS SECTIONAL AND LONGITUDINAL SAMPLES)

As previously described, the external evaluation longitudinal sample and BAB's cross-sectional sample both employed a random sampling approach to cohort selection. However, two key differences in sampling approach should be noted: 1) the evaluation purposefully oversampled rural and IDP schools while BAB drew sample classrooms randomly proportional to size, and 2) the longitudinal sample included all children in selected classrooms, while BAB randomly selected 10-12 learners in each of the randomly selected classrooms. The differences in sample selection methodologies reflect the different purposes for the data. Table 33 summarizes differences in sampling approaches and units for the two cohorts.

Table 33: Longitudinal and Cross-Sectional Cohort Sampling Approaches and Rationales

	Longitudinal Cohort		**Cross-Sectional Cohort**	
	Approach	**Rationale**	**Approach**	**Rationale**
Sampling Approach	Cluster, Weighted	Over-sampling rural and IDP schools ensures adequate representation of under-served areas and accounts for higher expected attrition rates.	Stratified Cluster, Proportional	Sample reflects BAB population distribution.
Sampling Unit	Classroom – all learners in class included in sample	Captures heterogeneity within classroom and minimizes sampling bias risk.	Student – 10-12 learners/class randomly selected	Ensures representation across a larger number of schools and communities.

The following tables compare longitudinal and cross-sectional cohorts by state (Table 34), district (Table 35) and location type (Table 36). Analysis shows that the two sampling techniques resulted in quite different samples. In Table 37, the p values from Pearson's chi-square tests showed the longitudinal sample is statistically significantly different from the cross-sectional sample in every demographic aspect except gender. Most notably, the longitudinal sample has higher components of lower age learners, rural learners, and IDP learners. The cross-sectional sample has 73.6% urban learners, 16.6% IDP learners, 9.8% rural learners, while longitudinal sample has 53.3% Urban, 27.4% IDP and 19.3% Rural, as expected.

Table 34: Longitudinal and Cross-Sectional Sample Composition by State

State	Longitudinal		Cross-sectional	
	# of learners	# of sites	# of learners	# of sites
Benadir	405 (24%)	10 (25%)	289 (24%)	21 (23%)
Hirshabelle	334 (20%)	8 (20%)	310 (26%)	19 (20.5%)
Jubaland	316 (18%)	7 (17.5%)	180 (15%)	16 (6.5%)
Southwest	659 (38%)	15 (37.5%)	429 (35%)	36 (39%)
Total	1714 (100%)	40 (100%)	1208 (100%)	92 (100%)

Table 35: Longitudinal and Cross-Sectional Sample Composition by District

District	Longitudinal		Cross-sectional	
	# of learners	# of sites	# of learners	# of sites
Baidoa	379 (22.1%)	9 (22.5%)	179 (14.8%)	15 (16.3%)
Balcad	155 (9.0%)	4 (10.0%)	133 (11.0%)	7 (7.6%)
Barawe	88 (5.1%)	2 (5.0%)	83 (6.9%)	7 (7.6%)
Deynile	177 (10.3%)	4 (10.0%)	129 (10.7%)	9 (9.8%)
Diinsor	40 (2.3%)	1 (2.5%)	60 (5.0%)	5 (5.4%)
Hamarwayne	45 (2.6%)	1 (2.5%)	24 (2.0%)	1 (1.1%)
Jowhar	179 (10.4%)	4 (10.0%)	177 (14.7%)	12 (13.0%)
Kahada	149 (8.7%)	4 (10.0%)	92 (7.6%)	8 (8.7%)
Kismayo	316 (18.4%)	7 (17.5%)	180 (14.9%)	16 (17.4%)
Shibis	34 (2.0%)	1 (2.5%)	44 (3.6%)	3 (3.3%)
Walanweyn	152 (8.9%)	3 (7.5%)	107 (8.9%)	9 (9.8%)
Total	1714 (100.0%)	40 (100.0%)	1208 (100.0%)	92 (100.0%

Table 36: Longitudinal and Cross-Sectional Sample Composition by Location Type

Location	Longitudinal		Cross-sectional	
	# of learners	# of sites	# of learners	# of sites
IDP	470 (27.4%)	11 (27.5%)	201 (16.6%)	17 (18.5%)
Rural	331 (19.3%)	8 (20.0%)	118 (9.8%)	10 (10.9%)
Urban	913 (53.3%)	21 (52.5%)	889 (73.6%)	65 (70.7%)
Total	1714 (100.0%)	40 (100.0%)	1208 (100.0%)	92 (100.0%

Table 37: Sample Comparison of Longitudinal vs. Cross-sectional Cohorts

Descriptions	Longitudinal Sample	Cross Sectional Sample	p value
State			<.001***
Benadir	405 (23.6%)	289 (23.9%)	–
Hirshabelle	334 (19.5%)	310 (25.7%)	–
Jubaland	316 (18.4%)	180 (14.9%)	–
Southwest	659 (38.4%)	429 (35.5%)	–
Location			<.001***
IDP	470 (27.4%)	201 (16.6%)	–
Rural	331 (19.3%)	118 (9.8%)	–
Urban	913 (53.3%)	889 (73.6%)	–
Gender			.18
Female	848 (49.5%)	579 (47.9%)	–
Male	866 (50.5%)	627 (51.1%)	–
Age			<.001***

4 to 11 years old	1000 (58.3%)	503 (41.6%)	–
12 to 20 years old	714 (41.7%)	705 (58.4%)	–

Note: * = significant at p < .05; ** = significant at p < .01; *** = significant at p <.001.

The evaluation compared results from BAB's cross-sectional EGRA and EGMA baseline assessments with results from the longitudinal cohort assessments to examine the effect of sampling on results. The higher percentage of rural and IDP learners in the longitudinal sample also led to differences in average cohort performance on EGRA and EGMA assessments. As illustrated in Figures 55 and 56, the longitudinal sample has many more learners categorized as non-learner or emergent learners on both the EGRA (64%) and EGMA 61%) at baseline than the cross-sectional sample (43% on both).

Additionally, the evaluation team performed item analyses (difficulty and discrimination) on the cohort data and results reveal significant differences between the longitudinal data and cross-sectional data. Item difficulty indices on EGRA ranged from 0.07 to 0.99, indicating a wide range of difficulty levels; from very difficult to very easy. Item discrimination indices were mostly satisfactory. However, nine (9) items out of two hundred and ninety-five (295) have discrimination indices below the acceptable threshold of 0.3 or greater. Results from the item analysis on EGMA reveal a range of difficulty indices from 0.02 - 0.9, also indicating a wide range of difficulty similar to EGRA. Of the one hundred and seven (107) items in this assessment, twelve (12) have discrimination indices below the acceptable threshold, out of which six (6) were problematic and pose a threat to validity of the assessment. Others were satisfactory. Details of the item analysis results from the cross-sectional cohort data are presented in Table A3-9 and Table A3-10 in Appendix 3.

Furthermore, the evaluation estimated floor and ceiling effects on the EGRA and EGMA data from the cross-sectional cohort and found no significant floor or ceiling effects present. On the EGRA, approximately 2.2% of learners scored 10% or less and no one scored a zero (0). Meanwhile, approximately 5.4% of learners scored 90% or greater, while only 0.08% of the learners scored 100%. On the EGMA, approximately 8.4% scored 10% or less, while 1.7% scored a zero (0). No learners scored 90% or greater. See details in Table A3-11 in Appendix 3.

Overall, the items performed well in both the longitudinal and cross-sectional cohorts, however, items with discrimination indices highlighted in red require review to understand the reason(s) they performed poorly and to determine the need for deletion or modification for future data collection. We recommend excluding problematic items while making benchmarking decisions due to validity concerns.

Figure 55: EGRA Baseline Scores by Cohort Type

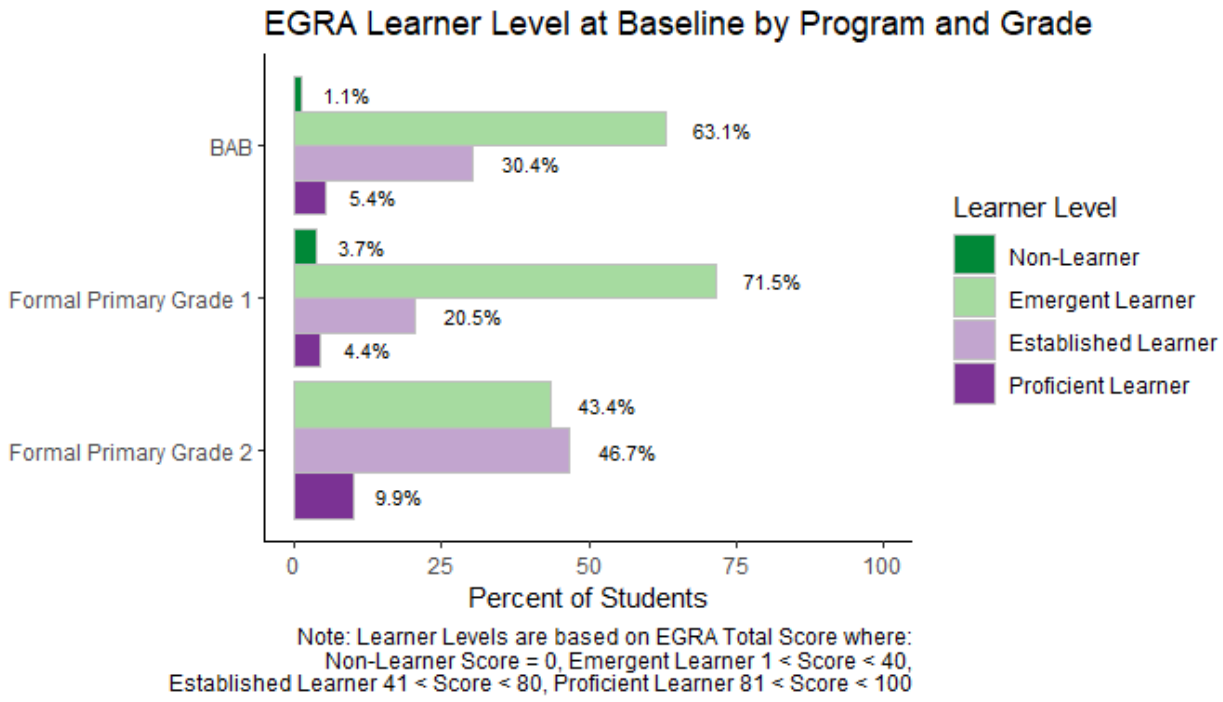
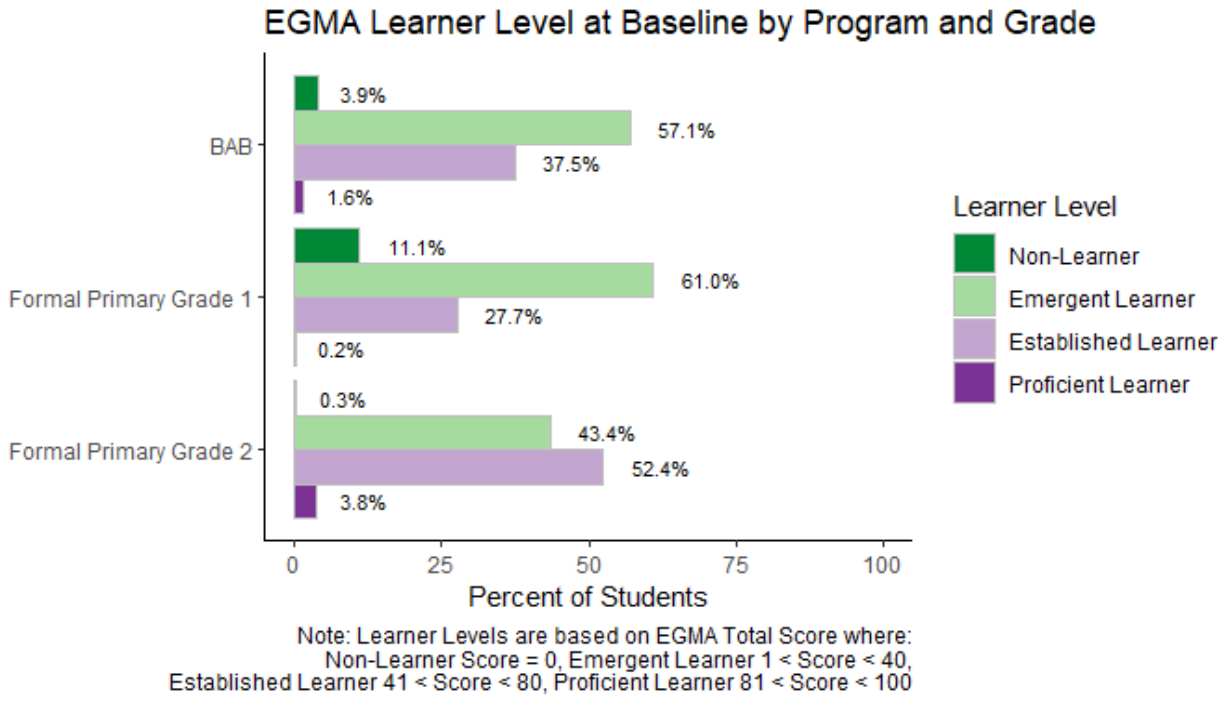


Figure 56: EGMA Baseline Scores by Cohort Type

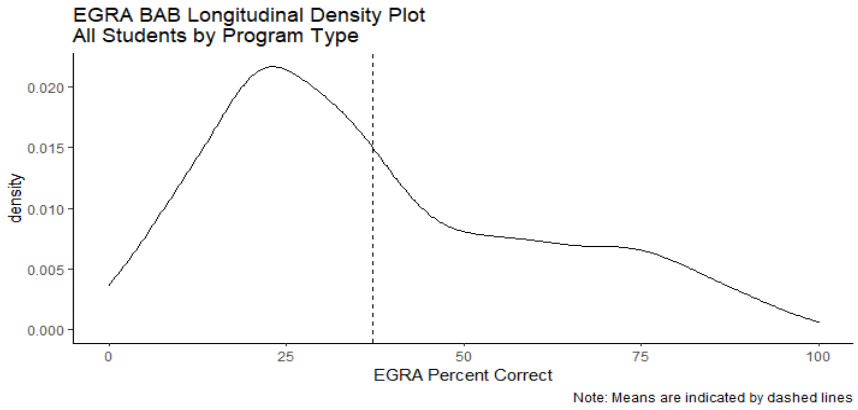


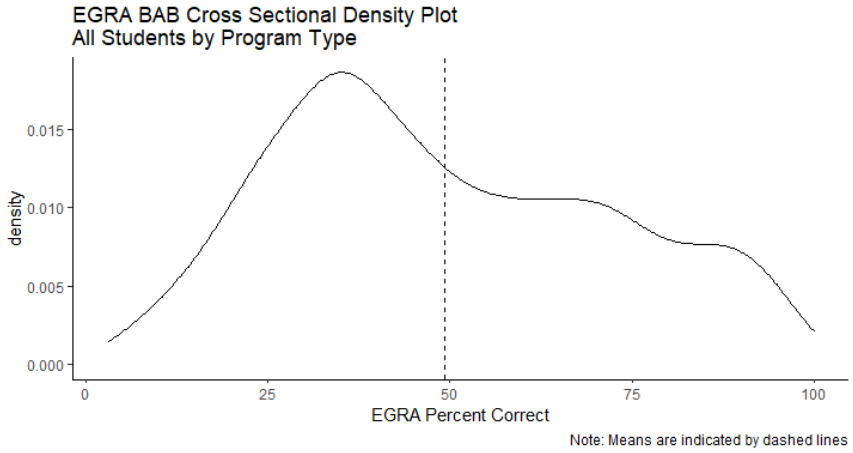
Density plots (Figure 57) show the differences in total EGRA and EGMA scores for each ABE cohort type as well as for Formal Primary first and second grade samples. The mean baseline EGRA and EGMA total scores for the cross-sectional sample are the same as the mean baseline EGRA and EGMA scores for the Formal Primary grade 2 sample.

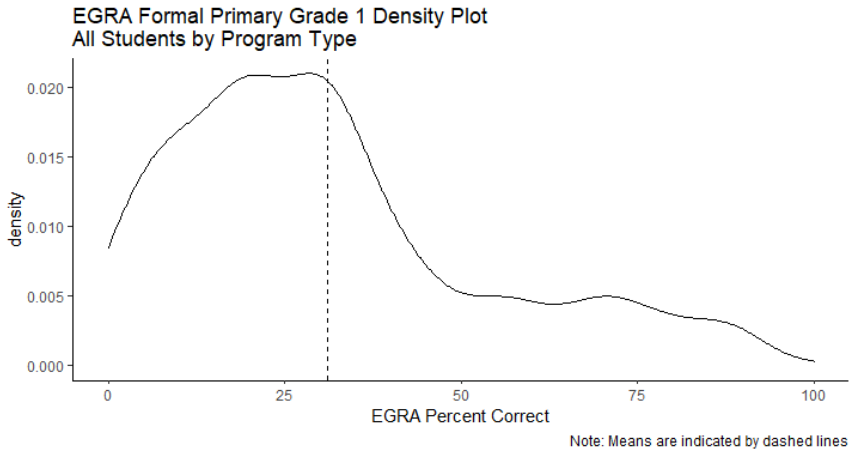
The series of oral reading fluency vs comprehension box and whisker plots in Figure 58 illustrate the impact sampling can have on criteria selection setting literacy standards and benchmarking, as the different samples provide a range of oral fluency scores at 80% comprehension.

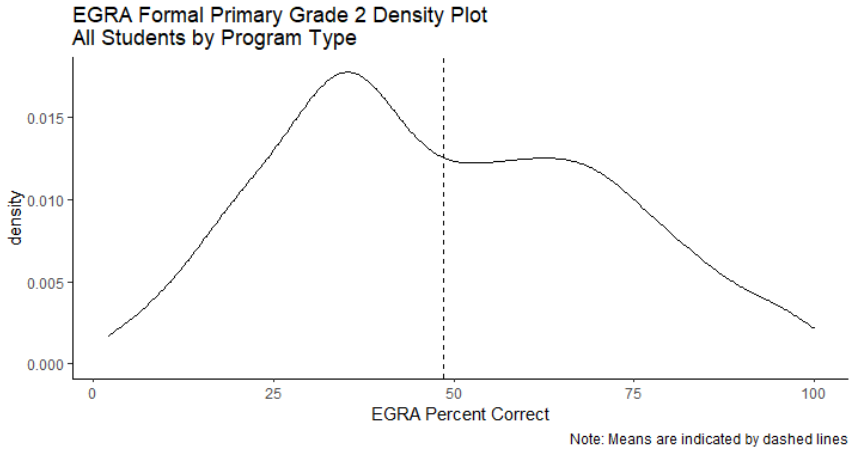
Figure 57: EGRA and EGMA Density Plots for Longitudinal, Cross-Sectional, and Formal Primary Grade 1 and 2 Cohorts

Baseline EGRA Overall Density Plot Results Longitudinal and Cross-Sectional Learner Data

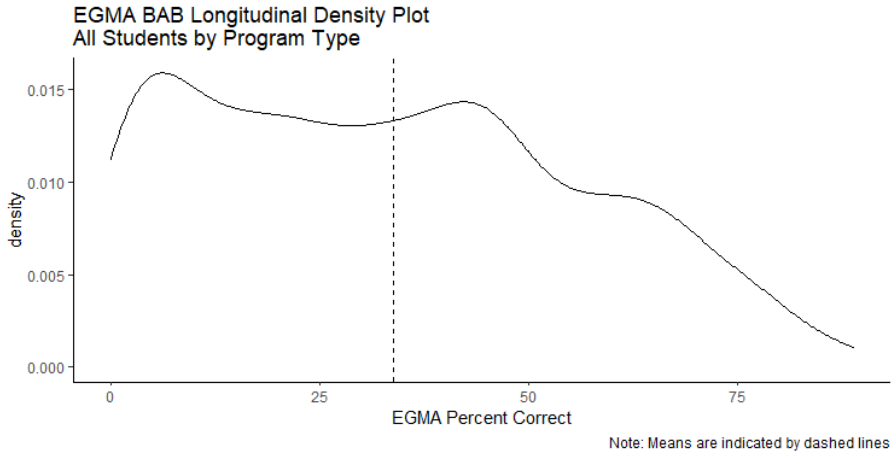


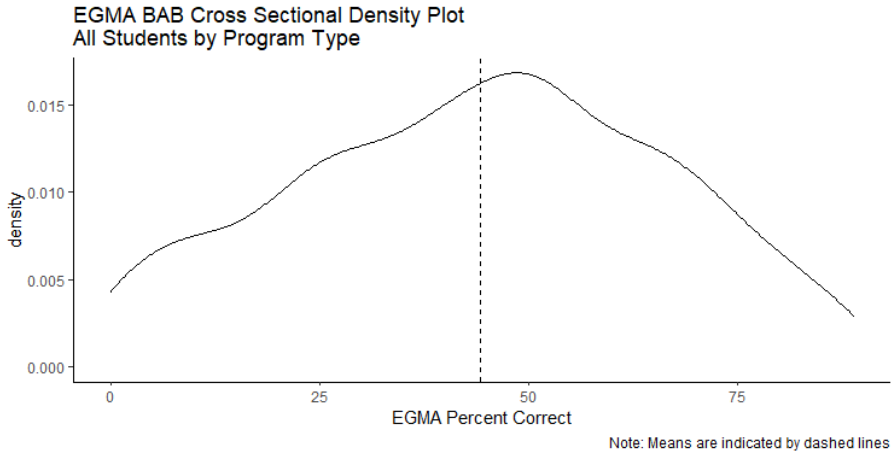


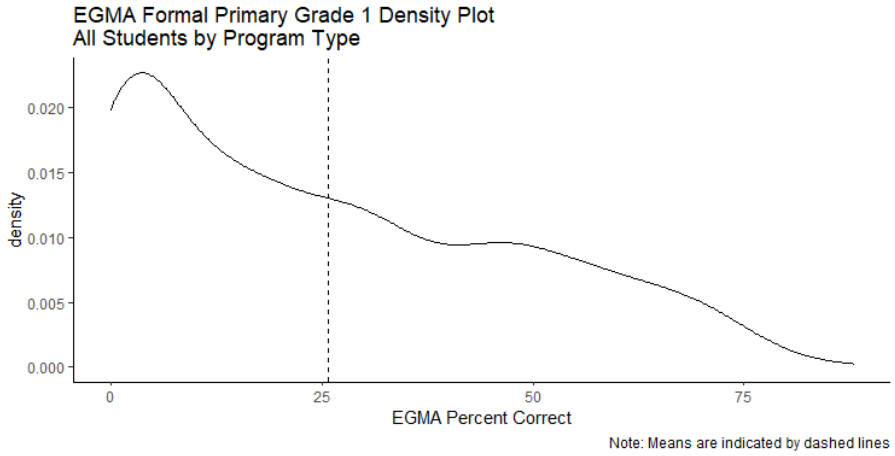




Baseline EGRA Overall Density Plot Results Longitudinal and Cross-Sectional Learner Data




EGMA BAB Cross Sectional Density Plot
All Students by Program Type
density
0.015
0.010
0.005
0.000
0
25
50
75
EGMA Percent Correct
Note: Means are indicated by dashed lines


EGMA Formal Primary Grade 1 Density Plot
All Students by Program Type
density
0.020
0.015
0.010
0.005
0.000
0
25
50
75
EGMA Percent Correct
Note: Means are indicated by dashed lines

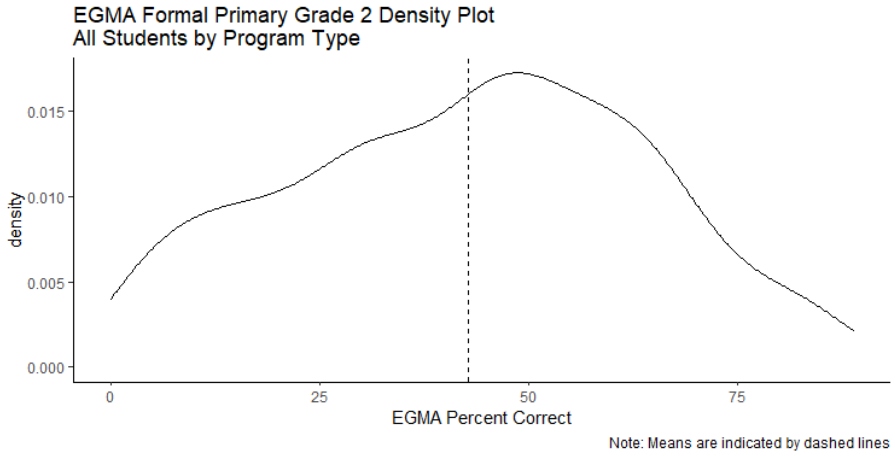
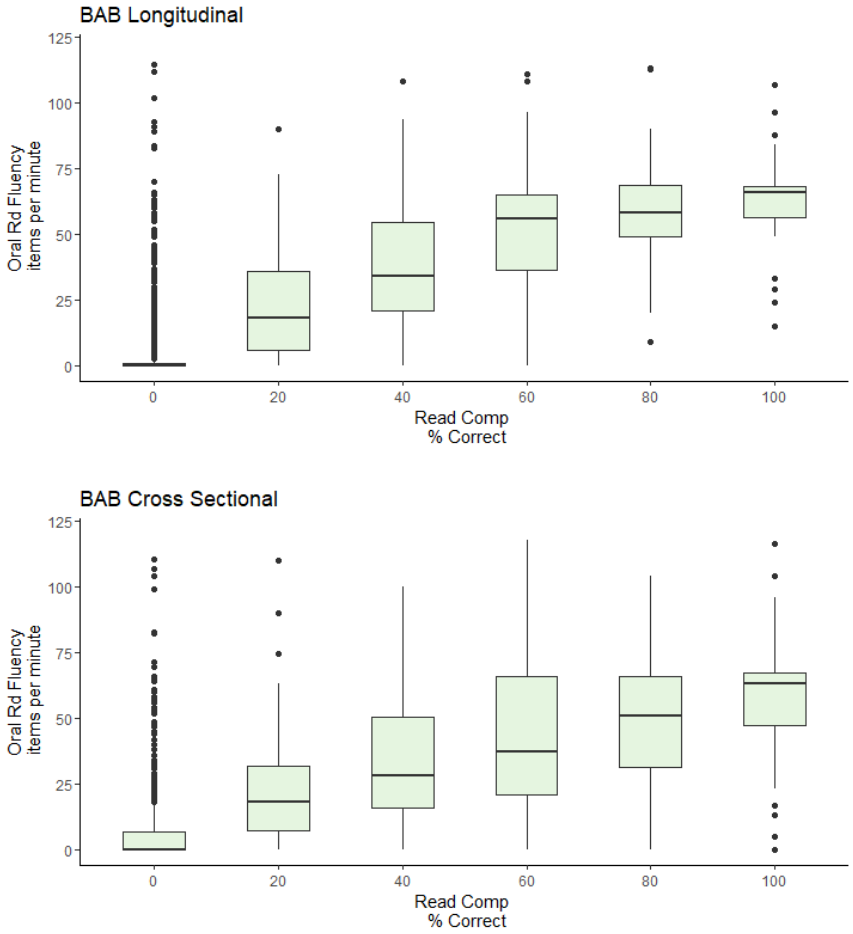
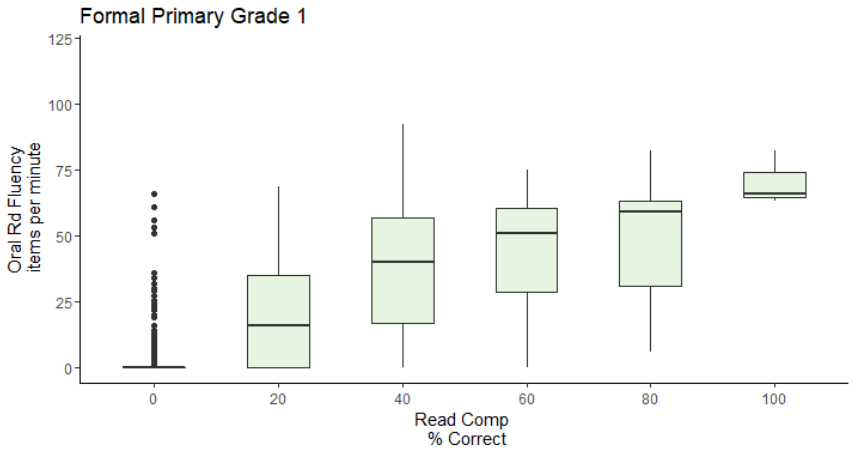
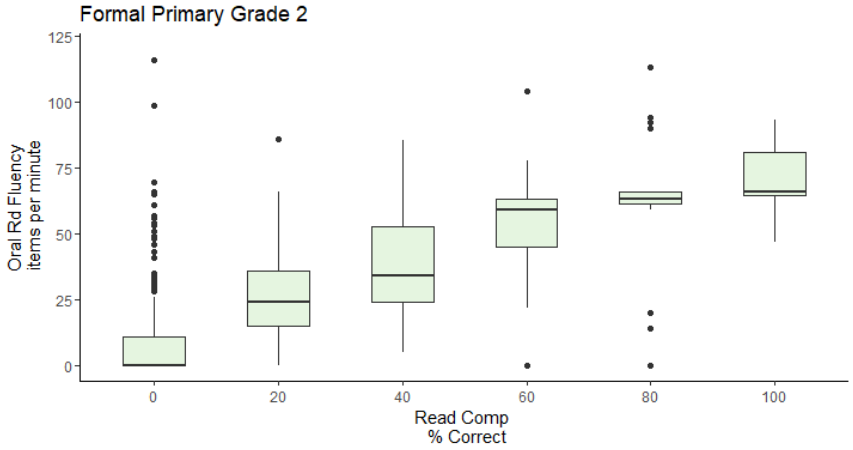

EGMA Formal Primary Grade 2 Density Plot
All Students by Program Type
density
0.015
0.010
0.005
0.000
0
25
50
75
EGMA Percent Correct
Note: Means are indicated by dashed lines

Figure 58: Effect of Sampling Cohort on Literacy Proficiency Scores

Baseline Longitudinal and Cross-Sectional Oral Reading Fluency vs. Reading Comprehension on EGRA







One of the biggest differences between the longitudinal and cross-sectional samples is learner age, with the longitudinal sample including a larger number of younger learners (Figure 59). This difference is impactful, as age is the variable most strongly correlated with academic achievement in our analysis. Figures 60 and 61 show EGRA and EGMA scores by learner age at baseline for both cohorts (both including age 7-17 learners only according to the cross-sectional data preference).

While age has the strongest correlation with learner achievement, learner SES, maternal literacy, and quality of life indicators are also significantly correlated in our analysis. As the longitudinal cohort over-represents rural learners, who score lower on these constructs in our analysis, it is not surprising that longitudinal baseline scores at all age levels are lower than the cross-sectional scores at the same age. These relationships are shown in the lollipop graphs in Figure 62 and 63.

Figure 59: Student Age and Frequency for Longitudinal vs Cross-section Cohorts

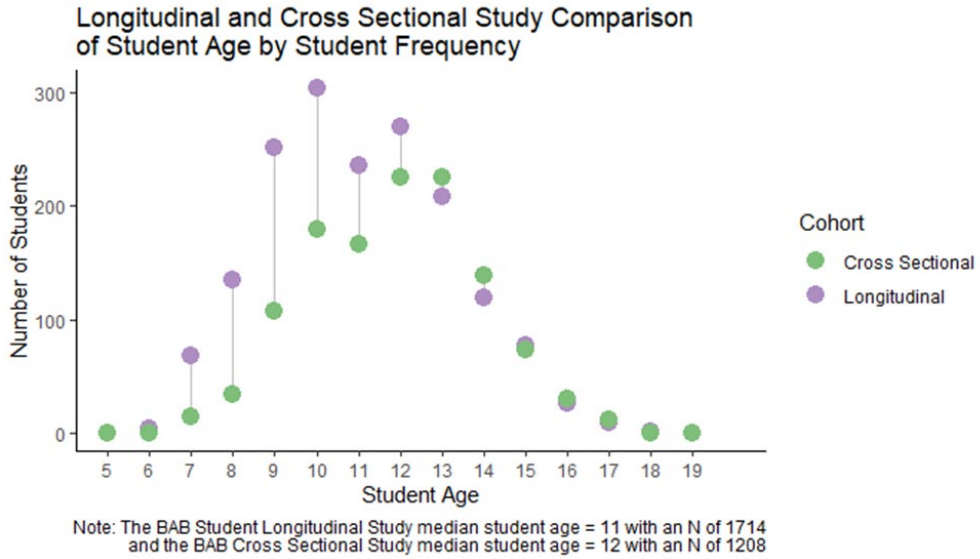


Figure 60: Longitudinal Baseline EGRA and EGMA Scores by Age

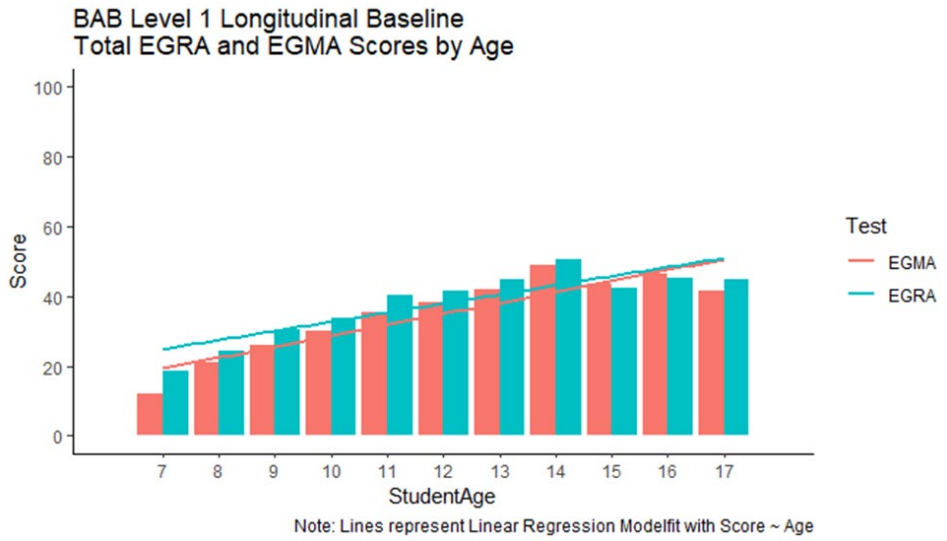


Figure 61: Cross-sectional Baseline EGRA and EGMA Scores by Age

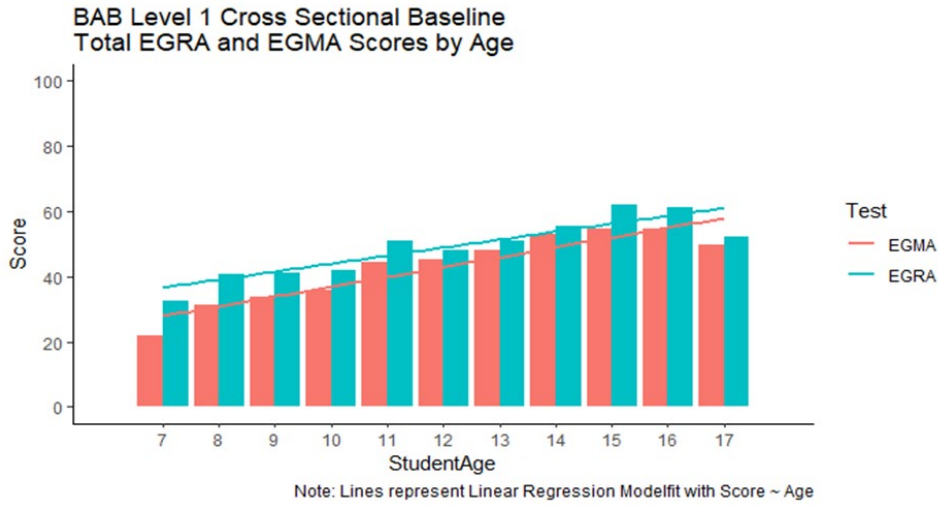


Figure 62: Longitudinal and Cross Sectional EGRA Score Comparison by Age

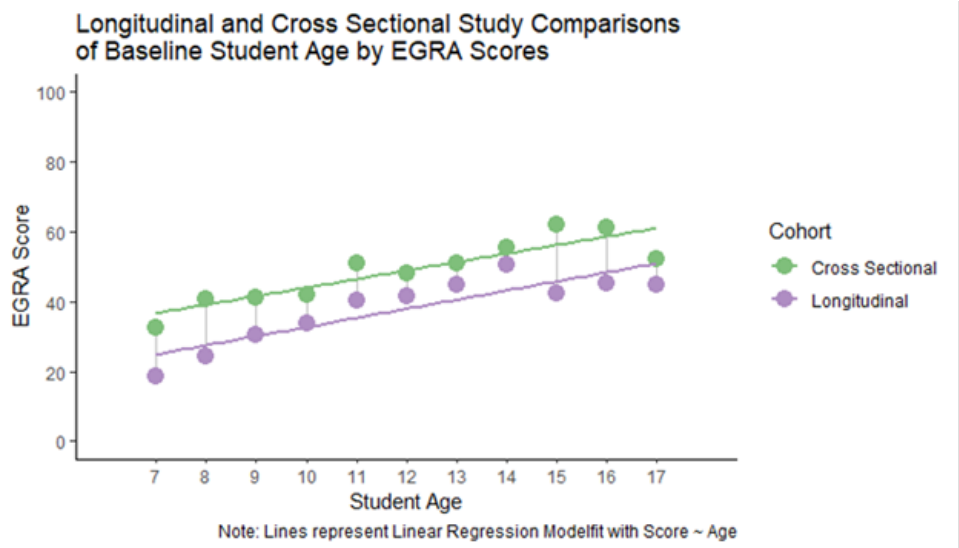
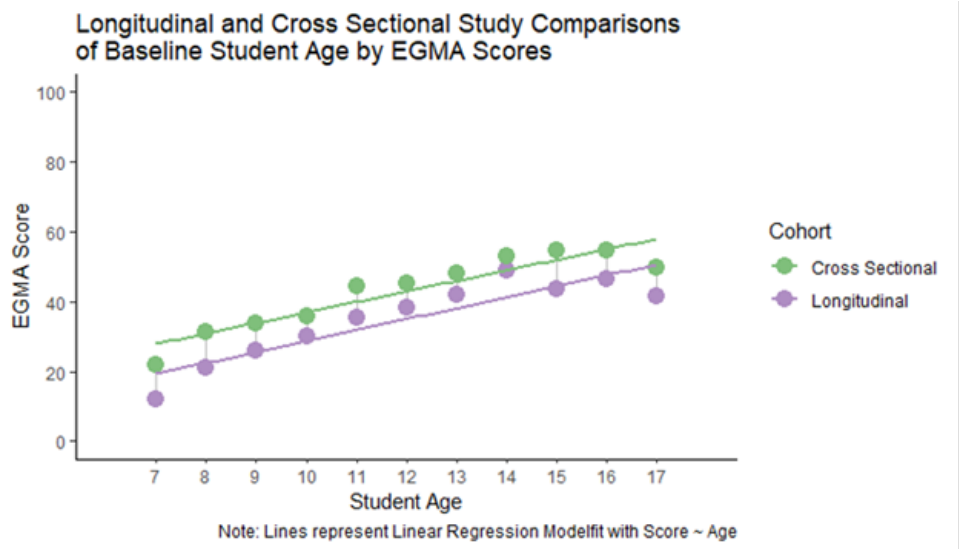


Figure 63: Longitudinal and Cross-Sectional EGMA Score Comparison by Age



8 CONCLUSIONS AND RECOMMENDATIONS

This external baseline evaluation focused on: 1) describing learner, teacher, and head teacher characteristics for both BAB and Formal Primary components of a longitudinal cohort – we will follow this cohort for 2 years; 2) testing the quality and performance of data collection tools; and 3) examining expected correlational associations between variables of interest to test the validity of the measurement model.

8.1 POPULATIONS SERVED BY BAB AND FORMAL PRIMARY SCHOOLS

The evaluation noted little variation in characteristics between BAB and Formal Primary learners at baseline -- including age distribution, gender distribution, and prior school attendance. Both the BAB learners and learners attending non-accelerated schools varied in age from below 5 to above 19 years of age with median ages of 10-11 for all groups. Gender appeared relatively balanced for both the BAB and Formal Primary cohorts overall, but differences were noted by school funding type. Cohort learners from all areas enjoyed high levels of prior educational experience, with Qur'anic school being most common. Examining the baseline data for differences across school type (community, public, private, and BAB) revealed distinct patterns suggesting that different populations of Somalia children and youth are served by the various school types. SES indicator scores were lower for the BAB cohort than for the combined Formal Primary cohort, suggesting that BAB is serving financially marginalized students. Although the BAB project aspires to serve OOSCY ages 9-16, their actual learner population spans a much larger age range. As age is strongly correlated with baseline skills and competencies, younger learners will be disadvantaged and, given the compressed nature of the

accelerated curriculum, may not be well served by this learning environment. **Future cohort recruitment should prioritize target age ranges.**

8.2 Student Perceptions of Equity, Safety, and Psychosocial Indicators

Longitudinal cohort students, regardless of location, school type, or demographic characteristics expressed moderately positive perceptions of safety, engagement, and quality of life. However, variations were noted by location, with rural students scoring lower on most measures than students in IDP or urban settings. Student perceptions also varied based on school type. Students attending community schools had consistently lower scores than private school students with public and BAB students intermediate. **These findings point to a need for school policies and procedures, including teacher preparation and curricula that consider the specific needs of their learners and adjust to target areas of greatest need for growth.**

8.3 Geographic Location

SES, psychosocial, and learning outcomes all varied by state. Interestingly, although students in Hirshabelle scored significantly higher on SES indicators than students living in Benadir, Jubaland, or Southwest, they had consistently lower literacy and numeracy scores and lower scores on measures of equity, safety, and psychosocial indicators at baseline. Environmental factors, including flooding and instability, during data collection may have impacted student scores. Data collection and analysis at midline should try to capture the role of external factors on student outcomes. **Teacher and head teacher training should include information, recommendations, and approaches for supporting students during times of uncertainty, stress, or trauma.**

8.4 Baseline Academic Measures

Learning outcomes varied by cohort group, with BAB learners scoring between grade 1 and grade 2 learners on all measures. Differences were also noted in student baseline skills and competencies based on location, gender, and school type. Correlation and multiple regression analysis confirmed positive correlations between student demographics (SES, maternal literacy, and age), psychosocial measures (engagement and quality of life) and baseline EGRA and EGMA scores. **The correlation between psychosocial indicators and academic achievement corroborates the need for intentional efforts to provide training, curricula, and supports that promote positive student feelings of engagement, self-esteem, and other psychosocial measures, with particular emphasis on girls, students with disabilities, and other marginalized populations**

Floor and ceiling effects on the EGRA and EGMA for the longitudinal sample at baseline were minimal. To assess and improve the reliability of all surveys, the evaluation conducted item analyses at various levels; factor analysis, reliability analysis, item difficulty and discrimination analysis (for EGRA and EGMA). **The assessments performed well overall, but some questions on the EGMA had negative discrimination indices that pose a threat to instrument validity. These items should be modified or replaced for future administrations to ensure data quality.**

8.5 Quality of Instruction

Teacher baseline surveys revealed a high-quality teacher workforce dominated by men. Cohort teachers were generally young, educated, and experienced. Male teachers scored high to moderately high on indicators associated with teacher effectiveness, including perceptions of safety, self-efficacy, and knowledge, preparation, and skills. Female teachers and teachers that only teach BAB classes typically scored lower on these measures. Rural teachers expressed lower perceptions of resource availability than urban or IDP colleagues. **Teacher recruitment should continue to prioritize identifying, developing, and supporting female teachers. Teacher training and mentoring plans should consider the specific needs of teachers in lower scoring groups and develop and implement proper supports.**

Head teacher survey responses suggest commitment to equitable teaching of all learners. Further head teachers reported high levels of community engagement, as evidenced by the presence of an active community education committee.

Overall, the baseline evaluation revealed learner, teacher, and community assets that are foundational to educational success.

8.6 Sampling Effects

This evaluation examined the impact of two different sampling methodologies – the evaluation longitudinal and the BAB cross-sectional approach on cohort characteristics. Although both methodologies used a random sampling approach, they differed based on the purposes of the sample. The resulting cohort samples were statistically different in every demographic aspect except gender. Most notably, the longitudinal sample had higher components of lower age learners, rural learners, and IDP learners. The differences in demographics between the two samples is reflected in EGRA and EGMA baseline assessments. **These comparisons highlight the importance of considering sample composition when developing educational standards or benchmarks to ensure equitable representation of target groups.**

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APPENDIX 1: EVALUATION QUESTIONS, INDICATORS, AND DATA COLLECTION AND ANALYSIS TOOLS AND METHODS

ABBREVIATIONS:

ABE	Accelerated Basic Education
AEP	Accelerated Education Programs
BAB	Bar ama Baro - "Teach or Learn"
CA	Community Assessment
CEC	Community Education Committee
CMA	Center Management Assessment
CPE	Community and Parent Engagement
EGMA	Early Grades Math Assessment
EGRA	Early Grades Reading Assessment
ISELA	International Social and Emotional Learning Assessment
LFI	Learning Facilitator Interviews
LFS	Learning Facilitator Survey
LKFAP	Learning Facilitator Knowledge-Attitudes and Practices
LP	Learning Profiles and Reading, Math, and SEL Assessments
LS	Learning Survey
OOSCY	Out of School Children and Youth
PGCI	Parent/Caregiver Interviews
PGCS	Parent/Caregiver Survey
RLA	Rapid Learning Assessments
SLEC	Learner Learning in Emergency Checklist

Question	Indicator	Quantitative Measures	Qualitative Measures	Analysis
Evaluation Question 1: To what extent is BAB effective in improving access to quality education for Somali out-of-school children and youth ages 9-16?				

1.1 Increased Enrollment				
Access				
1.1a What are the key barriers to learner access? Do barriers differ based on learner and/or community characteristics?	AE Center locations, programs (flexibility), and practices meet learner and community needs	LP LFS LS PCGS	PCGI CA, LFI Case Studies	Content, Descriptive, Factor, Regression, Mixed-effects models Subgroup, Thematic analysis
1.1b To what extent did BAB succeed in reducing barriers for all learners and for vulnerable* learners, in particular? (where vulnerable includes socially marginalized such as Digil-Mirifle clan-family and Somali Bantu, etc.)	BAB enrolls a pool of learners that reflect community (AMEP Indicator 1)	LP LFS LS PCGS	PCGI CA LFI Case Studies	Content, Descriptive, Thematic analysis
Retention				
1.1c To what extent was BAB effective in retaining targeted learners during a school year and promoting learners between educational levels? Retaining and promoting the most vulnerable learners, particularly girls? Did retention/dropout vary based on implementation context and/or learner characteristics?	Learners are retained for at least one Academic Year (AY) Learners are promoted from L1 to L2 Learners complete 2 years of instruction	Project Metrics, LP LFS CMA (attendance)	LFI CA	Content, Descriptive, Time-series, Survival, Trend, Subgroup Note: Time-series, survival, trend, and subgroup analysis require detailed attendance records.
1.1d How did family and community engagement, attitudes and beliefs, and other factors influence learner retention/dropout?	Parent/CG support and prioritize attendance of all learners; CECs are actively engaged in ABE site	LP LS PCGS CPE	PCGI CA LFI Case Studies	Content, Descriptive, Thematic analysis Factor Correlations, Regression, Mixed-Effects models

1.2 Increased Safety				
1.2a To what extent did BAB facilities and practices meet physical and emotional needs of all learners? Were some learners better served than others?	Learners perceive ABE site and program as safe	LP LS LFS CPE	PCGI LFI CA Case Studies	Content, Descriptive, Factor, Regression, Subgroup Thematic analysis
1.2b To what extent did parents/caregivers perceive their child's participation in BAB as safe and secure? Did perceptions vary based on learner characteristics (e.g., girls vs boys)?	Parent/Caregivers perceive the BAB site and program as safe for their children	CPE	PCGI Case studies	Content, Descriptive, Subgroup, Thematic analysis
1.2c To what extent is the community engaged in enhancing safety and security?	CECs (Community Education Committee) active in developing risk mitigation plans	CPE	CA	Content, Descriptive
1.2d Learning Facilitators/head teachers perceive BAB site as safe and secure	Learning Facilitators and Head Teachers feel supported and perceive ABE site as safe and secure for themselves and the learners	LFS	LFI	Content, Descriptive
1.3 Increase Learning Outcomes				
High Quality Instruction				
1.3a To what extent was BAB effective in recruiting and retaining teachers from implementation areas? What challenges/barriers did BAB encounter?	Quality Learning Facilitators identified, recruited	Program Records, LFS	BAB program staff interviews	Content, Descriptive, Subgroup
1.3b To what extent was BAB effective in training and supervising LFs (Learning Facilitators)?	LFs have appropriate knowledge of content and effective and inclusive instructional practices, are confident in their ability to teach effectively, and feel supported. Center Head Facilitators create a positive environment and support effective teaching practices.	LFS LFKAP CMA	LFI	Content, Descriptive, Factor, T-tests, Regression Mixed-effects models

Access to appropriate Curriculum, and needed materials, supplies				
1.3c To what extent is BAB curriculum able to meet the needs of all learners?	Curriculum is sensitive to the needs of learners across the full array of age, gender, context, and other demographic variables. LFs and learners have access to support, materials, and supplies needed for effective teaching and learning	LS LFS CMA CPE	LFI PCGI Case studies	Content, Descriptive, Thematic analysis
Learning				
1.3d What impact did BAB have on learning outcomes (math, reading, socio-emotional learning) for participating out of school children and youth (OOSCY)?	Learners demonstrate increased proficiencies in reading, math, and SEL assessments	LS LP RLA EGRA, EGMA, ISELA, SLEC End of Year exams	LFI	Content, Descriptive, Regression, Mixed-effects models Meta-analysis
1.3e Are there subgroups of learners that benefited to a lesser extent from the intervention? If so, who are they and why did they benefit less?	Learning outcomes differ based on learner or community characteristics	LP LFS LS CPE	LFI Case studies	Content, Descriptive, Regression, Mixed-effects models Subgroup, Meta-analysis, Thematic analysis
1.3f How successful was BAB in creating a safe, secure, and inclusive learning environment?	All learners feel safe, secure, and a sense of belonging	LS LP LFS CPE	LFI Case Studies	Content, Descriptive, Thematic analysis
Evaluation Question 2: How do learning outcomes of diverse learners differ across formal (public, community, and private), and non-formal education options and interventions in the CDCS focal zones? What is the impact of contextual and demographic indicators on learning outcomes?				

2.1 Enrollment				
Access				
2.1a To what extent do all learners have access to non-formal and formal schools (community, public, and private) in target communities	Demographics of learners enrolled in formal (community, private, and public) and non-formal schools (e.g., gender, age, disability, minority) reflect community demographics.	school enrollment records demographic questions on standard assessments (EGRA/EGMA/ISELA) Community Surveys		Descriptive, Factor, Regression, Subgroup
Retention				
2.1b To what extent are non-formal and formal school learners retained and promoted between education levels? How do educational options, learner characteristics, and context (e.g., urban, rural, or IDP) impact retention and dropout rates?	Learners are retained for at least one AY. Learners are promoted from one grade to the next.	Attendance records and other school records. Participation in pre and post test		Descriptive Time-series, Survival, Trend, Subgroup Note: Time-series, survival, trend, and subgroup analysis require detailed attendance records.
2.2 Safety				
2.2a To what extent do formal and non-formal schools meet the physical and emotional needs of all learners? Were some learners better served than others?	Learners perceive school sites and programs as safe	ISELA LS		Descriptive, Factor, Regression, Mixed-effects models Subgroup
2.2b Teachers perceive school as safe and secure.	Teachers feel the school is safe and secure for themselves and the learners	LFS		Descriptive
2.3 Learning Outcomes				
Learning				
2.3a What impact did instruction have on learning outcomes (math, reading, socio-	Learners demonstrate increased proficiencies in	EGRA, EGMA, ISELA		Descriptive,

emotional learning) for participating learners?	reading, math, and SEL assessments			Regression, Mixed-effects models Meta-analysis
2.3b Are there subgroups of learners that benefited to a lesser extent from the instruction? If so, who are they and why did they benefit less?	Learning outcomes differ based on learner or community characteristics	LP LFS LS CPE		Descriptive, Regression, Mixed-effects models Subgroup, Meta-analysis
Evaluation Question 3: What can we learn from the BAB implementation to inform decision-making for scale-up and sustainability?				
Program Costs				
3.1a What is the cost per learner of increasing one proficiency level in reading and math skills (e.g.: non-learners, basic learners, emergent learners, etc.)? The proficiency levels will be defined using existing benchmarks from BAB and ES1-48 (2020 Compendium of Standard PIRS (Performance Indicator Reference Sheets) for Education Programming).	Cost per participant	BAB cost and program data		Cost analysis
3.1b.1 What is the cost per learner of expanding the BAB reading, math, and SEL intervention package in intervention areas? This will be estimated from USAID and the Government of Somalia's perspective. 3.1b.2 What is the cost per learner of replicating the BAB reading, math, and SEL intervention package in new areas? This will be estimated from USAID and the Government of Somalia's perspective.	Cost per learner	BAB cost and program data		Cost analysis
3.1. c What is the total cost per learner of ABE instruction,				

disaggregated by levels (L0,L1,L1-L2)?				
Benefits by Participant Group/Context				
3.2 What types of learners/and communities would be best served by scaling the BAB ABE model? What types of learners/community would be left out when scaling the BAB ABE model?	What groups/subgroups of participants benefited the most/least from the intervention? What characteristics of learners and their communities affected learner outcomes?	LP RLA LS LFS	CA LFI Case studies	Content, Descriptive, Regression, Mixed-effects models Meta-analysis Subgroup Gap Trend Thematic analysis
Impacts of Program Elements on learners				
3.3a What teacher, teacher training, and teacher support characteristics drive positive changes in access, retention, and learning outcomes? Does this vary by learner demographic and/or implementation context?	Correlations between teacher background, preparation, training and support and learner outcomes. Variations in observed outcomes by learner characteristics and context.	LP LFS LFKAP CMA	LFI Case studies	Content, Descriptive, Correlation, Regression, Mixed-effects models Meta-analysis Subgroup Mixed-effects Models Thematic analysis
3.3b What elements of the BAB implementation (e.g. curriculum and instruction; infrastructure; materials and supplies; safety and security; etc.) appeared to drive positive changes in learner feelings of safety and well-being? Does this vary by demographic and/or implementation context?	Correlations between program elements and learner feelings of safety and well-being. Variations in observed outcomes by learner characteristics and context.	LP LS C	LFI Case studies	Content, Descriptive, Correlation, Regression, Mixed-effects models Meta-analysis Thematic analysis
3.3c What is the relationship between learner feelings of	Correlations between indicators of well-being and	LP	Case studies	Descriptive,

safety and well-being and learning outcomes?	learning outcomes. Variations in observed outcomes by learner characteristics and context.	LS EGRA, EGMA, ISELA, SLEC RLA End of year exams		Correlation, Regression, Mixed-effects models Thematic analysis
Impact of Family and Community Factors on Outcomes				
3.4 What community or family level factors drive positive changes in access, retention, and learning outcomes? Does this vary by demographic and/or implementation context?	How do parent and community attitudes and beliefs, support, and engagement affect learner outcomes?	PCGS LP LS RLA LFS	PCGI CA LFI Case studies	Content, Descriptive, Factor Correlation, Regression, Mixed-effects models Meta-analysis, Thematic analysis
Civic Engagement				
3.5 To what extent does youth civic engagement contribute to increased access, retention, and learning outcomes? Does this vary by demographic and/or implementation context?	Correlations between measures of youth engagement and learning outcomes, including SEL and measures of well-being and self-efficacy. How do findings vary based on learner demographics and community context?	Program records LP LS	CA PCGI LFI	Content, Descriptive, Correlation, Regression, Mixed-effects models Meta-analysis
Unintended Consequences				
3.6 Is there evidence that the BAB implementation model caused harm or has the potential to worsen inequality of conflict if implemented at scale?	Consider the possibility that socially marginalized groups, such as the Digil-Mirifle clan-family, Somali Bantu, or other socially marginalized, have been excluded.		CA LFI PCGI Case studies	Content, Thematic analysis

APPENDIX 2: LONGITUDINAL COHORT SAMPLING SCHEME

BAB LONGITUDINAL COHORT

The evaluation's selection protocol for identifying a random sample of BAB learners included a two-stage sampling approach since learners were nested within BAB sites. Thus, the evaluation first drew the sites to be sampled; we then randomly chose a class within each selected site. Specifics of the sample selection process are described below.

BAB enrollment data for the academic year starting August 2021 reported a total of 29,901 level 1 learners in 598 classes at 197 school sites distributed across 11 districts, 5 regions, and 4 states. School sites were distributed across location types, as follows: 41 IDP sites (4,849 learners), 29 rural sites (4,101 learners), and 127 urban sites (20,951 learners). The number of learners per classroom ranged from a minimum of 23 to a maximum of 100 BAB learners, with an average of 50 learners across all sites. Sites in the three contexts (urban, rural, and IDP) were selected independently of each other.

The evaluation used stratified sampling to conduct accurate sampling along with a proper representation across the population. We first selected sites based on the site-based sampling scheme with the number of sample classrooms selected for each context IDP/rural/urban based on the number of sites in each category. The evaluation power calculations call for a BAB sample size of approximately 2,000 learners. We selected learners in a classroom, as opposed to an individual basis, to simplify data collection logistics and to decrease potential sampling bias. With an average of 50 learners per classroom, the evaluation targeted 40 classrooms for the BAB longitudinal cohort sample (one classroom per site). Distributing the 40 sites following the ratio IDP: Rural: Urban as 41:29:127, results in a sample including 8 IDP, 6 rural and 26 urban sites. The evaluation changed this sample scheme, as our SORDI partners advise that data collection in rural and IDP sites might offer more challenge due to population mobility, access issues, and other considerations, making it desirable to oversample IDP and rural areas, while slightly under-sampling urban sites. We used the following approach to determine a suitable number of sample sites per category with these challenges in mind.

We calculated a representative sample of the 20,951 learners from urban sites, considering 3%-5% margin of error for most education projects, as approximately 1,000 urban learners. With an average of 50 learners in a classroom, the random sample will include 20 urban classrooms This sample size was estimated based on the formula below; where N is the number of learners in the study population, p is estimated variance in the population; e is the precision desired (3%-5% for most education projects); and z is based on confidence level (1.96 for 95% confidence).

$$\text{Sample size} = \frac{\frac{z^2 \times p\,(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p\,(1-p)}{e^2 N}\right)}$$

To maximize the geographic reach of the data collection, the evaluation planned to select a level one classroom within each selected site. Thus, the evaluation's urban sample calls for 20 classrooms – one each from 20 different sites. To determine the number of IDP and rural classes in the sample, we distributed the remaining 20 classrooms using the proportion of IDP to rural sites (41: 29) -- resulting in 11 IDP sites and 9 rural sites. Thus, the evaluation's sampling target at the site (classroom) level is 11:9:20 (IDP:Rural:Urban).

Next, the evaluation drew sites proportional to the number of BAB site numbers in the respective districts according to the table below. Considering the evaluation will randomly select a first-grade classroom from each Formal Primary school co-located with the selected BAB sites to form the Formal Primary cohort, we also tried to maximize the variety of school types selected in each district. For example, there is only one private school among the Baidoa IDP sites. Thus, we selected this school first, then randomly selected the other 6 sites from Baidoa based on the ratio of community schools vs. public schools. Because some sites, particularly in IDP and rural areas, may become inaccessible to enumerators due to a host of factors, 3 backup sites were selected for each context. These backup sites will be used to replace original sites, should they become inaccessible.

Higher levels of safety concerns were reported in Balcad and Jowhar district, resulting in a request from SORDI for additional backup sites in these areas. Additional backup sites (2 for each context) in each district were randomly selected by Purdue researchers right before data collection activities began on 10//10/2021. They are noted in the site selection spreadsheet.

Context	District	# Selected	# Backups	# Additional Backups
IDP	Baidoa	7		
	Deynile	3	1	
	Kahada	1	2	
Rural	Balcad	3		2
	Barawe	1		
	Jowhar	2	1	2
	Kismayo	2	1	
	Walanweyn	1	1	
Urban	Baidoa	2		
	Balcad	1		2
	Barawe	1		
	Deynile	1		

	Diinsor	1	1	
	Hamarwayne	1		
	Jowhar	2		2
	Kahada	3		
	Kismayo	5		
	Shibis	1	2	
	Walanweyn	2		

Finally, the evaluation randomly selected a level one classroom within each selected site (for a total of at least 40 classrooms). The procedure for selecting the class was random sampling. Most BAB classes are afternoon classes (13:30-17:20). We have paid attention to including enough morning classes (08:00-12:30). The randomly selected classes turned out to have a balance of morning classes and afternoon classes according to the original proportion.

FORMAL PRIMARY LONGITUDINAL COHORT

The evaluation's selection of the Formal Primary longitudinal cohort sought to include Formal Primary classes that were co-located in or near a BAB cohort classroom. Because the BAB level 1 longitudinal cohort will cover grades 1 and 2 in a single year, we included both first and second grade classrooms in the Formal Primary longitudinal cohort sample. Using this expanded strategy allows for 26 Formal Primary classes co-located with BAB cohort classes (13 1st grade and 13 2nd grade). The following table shows the co-located sites, # of available 1st and 2nd grade classes, and sampling scheme for the co-located sites. We supplemented these sites by recruiting another 5 classes from IDP and 5 classes from rural areas to round out our sample. Because BAB is not sampling any Formal Primary classes, we could randomly select co-located classrooms without concern about double sampling. We sought USAID's input regarding selection approaches that minimize impacts on data collection timelines and budget, while minimizing sampling bias.

Sampling scheme for Formal Primary classes co-located with BAB Longitudinal Cohort Classes

School Type	State	Region	District	School	Formal Primary	# Classes Available		Class Selected	
						Grade 1	Grade 2	Grade 1	Grade 2
IDP/public	South West State	Bay	Baidoa	Mustaqbal	Yes	4	3	3	2

Rural/ Public	Hirshabelle State	Middle Shabelle	Balcad	Arofag School	Yes	1	1	1	1
Urban/ Private	Hirshabelle State	Middle Shabelle	Balcad	Ifiye School	Yes	1	2	1	1
Urban/ Private	South West State	Lower Shabelle	Barawe	Zeynul Abidiin	Yes	2	1	2	1
Urban/ Public	Benadir	Benadir	Hamarwayne	Moalim Jama	Yes		2		1
Urban/ Public	Hirshabelle State	Middle Shabelle	Jowhar	Horseed Jowhar	Yes	1	1	1	1
Urban/ Community	Hirshabelle State	Middle Shabelle	Jowhar	Jaahweyn two Primary	Yes	2	0	2	
Urban/ Private	Hirshabelle State	Middle Shabelle	Jowhar	Jahweyn 1 primary	Yes	1	0	1	
Urban/ Private	Benadir	Benadir	Kahada	Osama Bin Zaid3	Yes	1	1	1	1
Urban/ Public	Jubaland	Lower Juba	Kismayo	Ahmed Gurey	Yes	1	1	1	1
Urban/ Private	Jubaland	Lower Juba	Kismayo	Kismayo Pri&Sec School	Yes	0	1		1
Urban/ Private	Jubaland	Lower Juba	Kismayo	Nasiib Bundo Pri School	Yes	2	2	2	1
Urban/ Public	Jubaland	Lower Juba	Kismayo	Wadajir Pri School	Yes	2	1	1	1
Rural/ Public	Jubaland	Lower Juba	Kismayo	Yontoy Pri School	Yes	1	2	1	2
Urban/ Private	Benadir	Benadir	Shibis	Dar Altarabiya	Yes	0	2		1

Rural/ Community	South West State	Lower Shabelle	Walanweyn	Danwadag	Yes	1	0	1	

SORDI's senior researchers conducted a survey for existing Formal Primary co-located classes; in schools with multiple grades one and two, the team chose classes randomly. For instance, school X could have 2 classes for grade one and 3 classes for grade two of Formal Primary co-located classes; the teams randomized the classes and recruited the randomly selected classes.

In Baidoa, Sheikh Ashiro has Formal Primary classes, and SORDI randomly chose available classes for grade 1&2. Also, Diinsoor has two schools with BAB and Formal Primary classes (Waberi and Hawlwadag), SORDI randomly selected the Waberi School in Dinsoor for collecting Formal Primary data in place of the sole selected BAB school, Yaqshid, which does not have Formal Primary classes.

For areas where SORDI researchers were unable to identify Formal Primary classes, SORDI field coordinators and supervisors reached out to district education officers (DEOs) and the state/region level education authority to provide a list of schools with similar socio-economic characteristics with both BAB and Formal Primary classes. SORDI randomly selected Formal Primary schools and classes from the list of schools and contact information provided.

APPENDIX 3: ITEM ANALYSIS, SURVEY RELIABILITY AND VALIDITY

INSTRUMENT VALIDITY AND RELIABILITY

The evaluation's Longitudinal Learner, Teacher, and Head Teacher surveys were developed and tested to ensure effective construction and adequate psychometric quality using a process (depicted in Figure A3-1) that is based on the core principles and best practices of the scale construction process outlined by Furr. Inner ovals in the model diagram depict the primary tasks of scale development and testing, while rectangles describe the evaluation's approach to each task. The process began with a desk review to understand the status of primary grade education in Somalia and a literature review to explore educational theory and current research linking key constructs identified in the project's theory of change to learning outcomes. Next, we scanned the literature for scales measuring these constructs that have been validated in Somalia (ideally), East Africa, or other places. When no previously validated scale was found, we selected individual items or groups of items from existing instruments (e.g., BAB Learner Survey) or created original items. Learner scales and items were tested for face validity with a small group of target-age children and with colleagues in Somalia. All surveys, including Learner, Teacher and Head Teacher surveys were reviewed by SORDI colleagues for contextual appropriateness. Based on the feedback from the mini pilot (the process through which we assessed face validity), some items on the surveys were revised; items that were originally presented in statement format were converted to question format, since the participants had trouble responding to statement formats. All instruments were then translated into the official Somali language by SORDI colleagues and further piloted and modified during enumerator training. After data collection was completed, SORDI researchers translated any free-response items back to English for analysis.

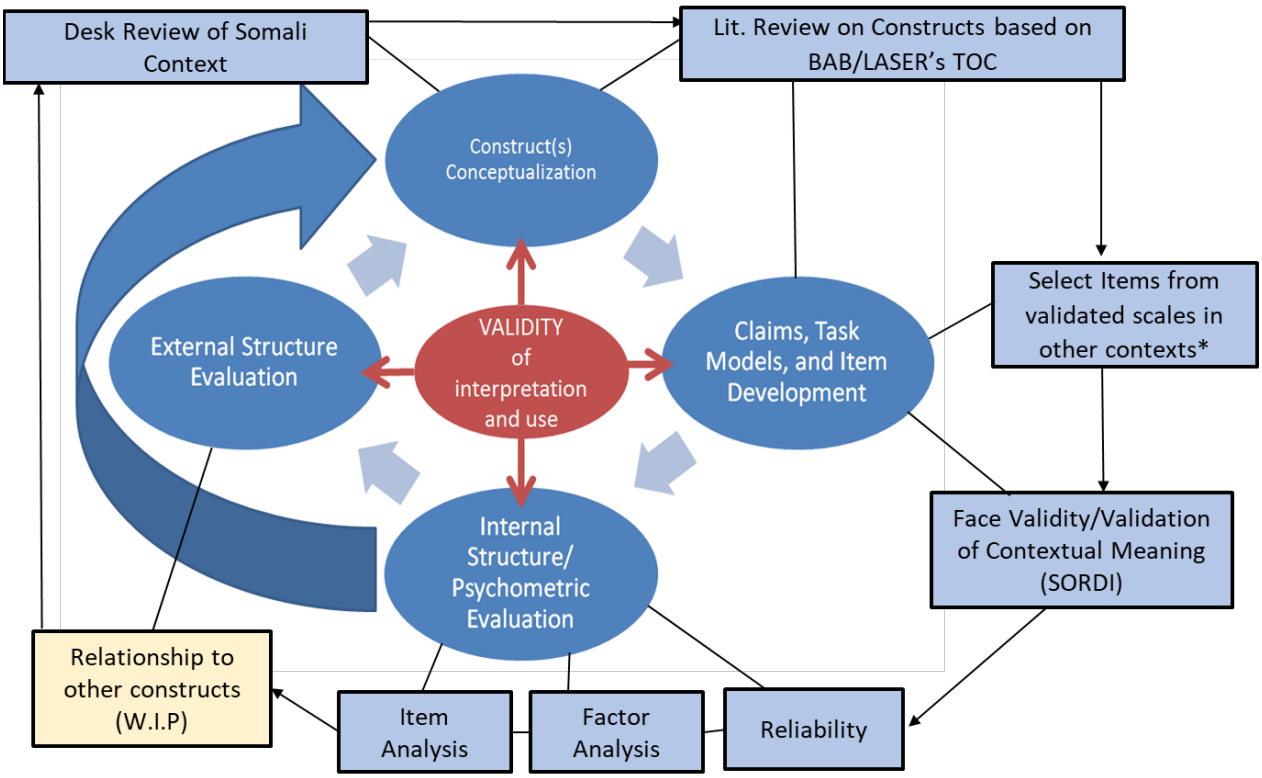
To assess and improve the reliability of all surveys, the evaluation conducted item analyses at various levels; factor analysis, reliability analysis, item difficulty and discrimination analysis (for EGRA and EGMA)

Factor Analysis

We conducted factor analysis to measure the internal consistency and dimensionality of various constructs in our surveys (Furr 2011). For items extracted from previously validated scales, we conducted Confirmatory Factor Analysis (CFA) to confirm that hypothesized relationships among those items hold true for our data (see Figure A5-2 for CFA process). For those items that had not been previously validated, we first conducted Exploratory Factor Analysis (EFA) to explore the relationships among those items and form hypotheses that were later confirmed with a CFA. For example, out of seven (7) items we extracted from the BAB Learner Survey that were intended to measure socio-economic status (SES), only four (4) of those items hung together in the EFA. Therefore, only those items were used in the final CFA model as SES indicators. Results from our final CFA model indicate that the hypothesized relationships among the items that have been previously validated and the new ones developed based on our EFA results hold true for our data

(CFI = 0.972, TLI = 0.966, RMSEA = 0.065, SRMR = 0.071). This satisfies the cut off for good model fit prescribed by (Hu & Bentler, 1999).

Figure A3-1: External Evaluation Tool Development and Validation Process[5]



For the Teacher's Survey, we ran a separate CFA model for each of the constructs of interest because of sample size limitations (n = 54). Factor analysis typically requires a large sample size for stable results. Just like the learner survey, some items from the Teacher's Survey did not favor the hypothesized model in our sample and were therefore excluded from the CFA model. Notwithstanding, each CFA model for the teacher data met the satisfactory model fit criteria.

Reliability

In addition to factor analysis, we estimated Alpha reliability for each of the scales/subscales measuring our constructs of interest. This process is critical, as it allows us to examine the level of correlation among the items that are expected to measure the same thing. Higher correlations result

[5] TOC = Theory of Change, W.I.P = work in progress, * = Some items/subscales have not been previously validated in other contexts.

in a higher reliability coefficient and vice versa, and this is referred to as a measure of internal consistency. Two items that showed poor correlation with other items on their respective scales were kept, since they did not significantly affect the CFA model fit to our data. These items are the third item on the safety scale and the fourth item on the friendship subscale. Apart from the scale and subscale mentioned, all other scales/subscales maintained acceptable Alpha coefficient greater than 0.7, indicating evidence of internal consistency.

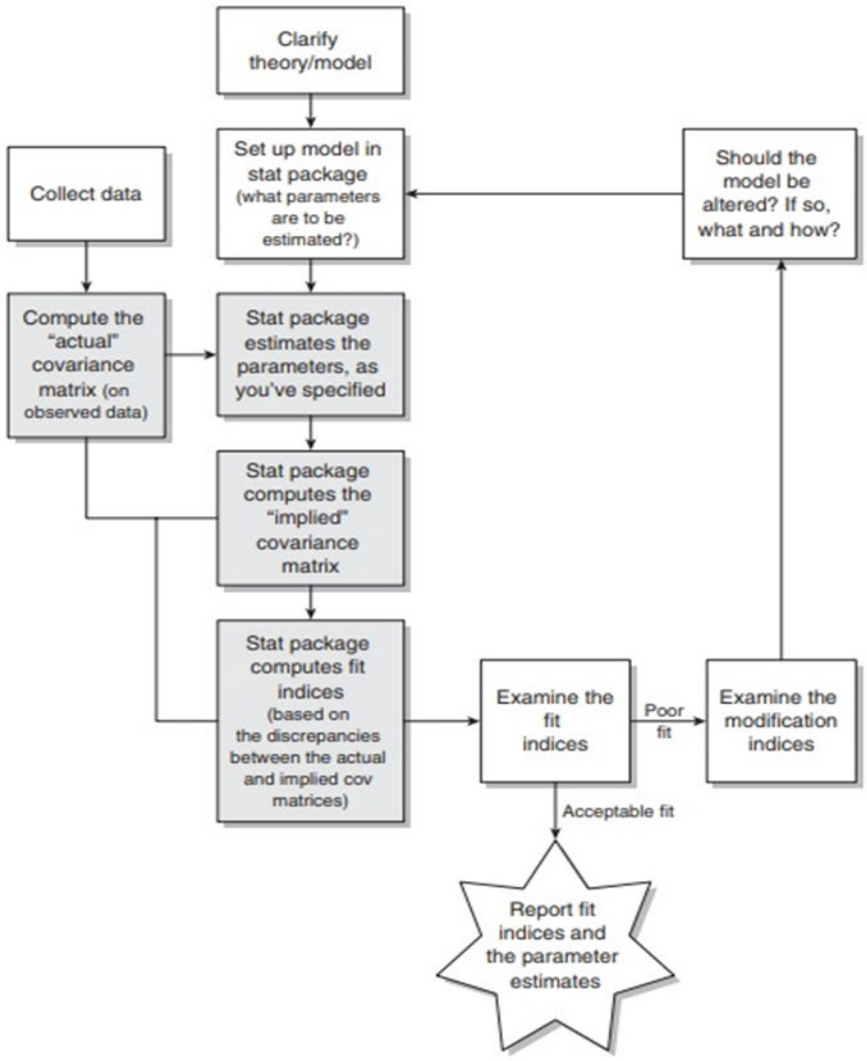
Item Analysis (Difficulty and Discrimination)

Assessments like EGRA and EGMA are designed to measure learners' ability to perform certain predefined tasks. A good assessment should be able to place learners in a continuum that provides information about what each learner can and cannot do. Therefore, it should contain items with a range of difficulty (e.g., very easy, easy, moderately difficult, and very difficult, as the case may be). That way, learners are expected to perform well on the tasks that they have mastered and poorly on tasks they have not mastered. Additionally, students who score higher on the overall assessment are expected to have a higher probability of getting each item correct. However, this is not always the case with some items. Therefore, it is important to conduct item difficulty and discrimination analysis to ascertain the quality of the assessment.

We conducted item difficulty and item discrimination analysis to ascertain the level of difficulty and discrimination of the items on the EGRA and EGMA assessments. This was done using the Classical Test Theory (CTT) framework. This framework was chosen because it has been widely used in similar studies and is easy to understand. Here, the item difficulty index is defined as the proportion of learners who answered an item correctly. It is counterintuitive in nature, in that an item with a higher difficulty index (with values ranging from 0 to 1) implies an easier item and vice versa. The item discrimination index on the other hand is a measure of how well an item can distinguish between learners who have mastered a given task or the material they are being assessed on and those who have not. It is the correlation between responses to a particular item and the overall score on the assessment. Item discrimination is typically affected by two factors: item difficulty and guessing. Items that are either too difficult -- such that only a few learners can provide the correct response -- or too easy -- such that most of the learners can provide a correct response -- usually have low discrimination indices. Additionally, items in which most of the learners who supplied the correct response guess the answer would also have poor discrimination. Complete item analysis results are included below.

The results from the item difficulty and discrimination analyses help us determine if we need to add some easier items or more difficult items in later rounds of assessment to combat any ceiling and/or floor effects; and if we need to modify or remove poor items in terms of discrimination. It is important to note that items with a negative discrimination index pose a great threat to the construct validity of a test/assessment. This is because it implies that learners who performed poorly on the overall assessment are more likely to supply a correct response to such items, which is a sign of construct-irrelevant variance. That is, it is something other than being knowledgeable or mastering the assigned tasks that contributes to a correct response, e.g., guess work. Therefore, such items would either need to be modified or completely removed from future administration(s) of the assessment.

Figure A3-2: Confirmatory Factor Analysis (CFA) Process (Extracted from Furr, 2011)



Overall, items on the EGRA and EGMA were of high quality; the item difficulty index for the EGRA ranged from 0.05 to 0.83, indicating a range of exceedingly difficult items to moderately easy/difficult items. Similarly, the EGMA had difficulty indices ranging from 0.05 to 0.84, showing a similar difficulty range. Item discrimination on the EGRA was very satisfactory, only three (3) out of two hundred and ninety-four (294) items had discrimination indices less than the acceptable threshold of 0.3 (item 5 on the reading comprehension subtask, items 47 and 49 on the invent word subtask, with discrimination indices 0.24, 0.20, and 0.25, respectively. This is not concerning since they were exceedingly difficult items. Meanwhile, the EGMA assessment, which has one hundred and eight (108) items, has twelve (12) items performing below the acceptable threshold of 0.3 or greater. Of these 12 items, only three (3) are considered problematic, since they have negative discrimination indices (items 1 and 8 on the number identification subtask, and the

first strategy item on the word problems subtask with discrimination indices of –0.38, -0.02, and –0.06, respectively. This is concerning because the results show that learners who performed poorly on the overall assessment were more likely to answer these questions correctly. Therefore, it poses a threat to validity. Although the items are included in the results at baseline, they should not be included when it is time to make decisions about promotion and graduation from the BAB program. We will also investigate why these items performed this way prior to collecting midline data to figure out if they should be included in that round of data collection or if there are modifications to be made.

Table A3-1: CFA Results for Learner Survey: Parameter Estimates & Fit Indices

	SES	Safety	Engagement	Wellbeing	Self-Esteem	Friendship	Cronbach's Alpha
SES_04	0.732						0.565
SES_05	0.584						
SES_06	0.798						
SES_07	0.584						
Safety_01		0.753					0.449
Safety_02		0.855					
Safety_03 Rcd		0.241					
Engagement_01			0.788				0.783
Engagement_02			0.776				
Engagement_03			0.761				
Wellbeing_02Rcd				0.648			0.705
Wellbeing_03Rcd				0.772			
Wellbeing_04Rcd				0.800			
Self-Esteem_01					0.727		0.729
Self-Esteem_02					0.698		
Self-Esteem_03					0.805		
Self-Esteem_04					0.568		
Frienship_01						0.745	0.386
Frienship_02						0.712	
Frienship_03						0.769	
Frienship_04						0.183	

Note: CFI = 0.972, RMSEA = 0.065, SRMR = 0.071

Table A3-2: CFA Results for Teachers' Self Efficacy Scale

Item	Instructional Self Efficacy	Disciplinary Self Efficacy	Cronbach's Alpha

TInstrSE_02	0.427		0.756
TInstrSE_03	0.528		
TInstrSE_05	0.427		
TInstrSE_06	0.544		
TInstrSE_07	0.691		
TInstrSE_09	0.557		
TInstrSE_10	0.667		
TDiscSE_01		0.753	0.538
TDiscSE_02		0.457	
TDiscSE_03		0.379	

Note: CFI = 0.960, RMSEA = 0.048, SRMR = 0.079, Overall scale Alpha = 0.805

Table A3-3: CFA Results for the Engaged Teachers' Scale

Item	Emotional Engagement	Social Engagement with Learner	Cognitive Engagement	Cronbach's Alpha
TEmtnlEngm_01	0.604			0.622
TEmtnlEngm_02	0.539			
TEmtnlEngm_03	0.710			
TSclEngmnt_01		0.572		0.692
TSclEngmnt_02		0.846		
TSclEngmnt_04		0.578		
TCgntvEnggm_01			0.511	0.730
TCgntvEnggm_02			0.702	
TCgntvEnggm_03			0.722	
TCgntvEnggm_04			0.620	

Note: CFI = 0.931, RMSEA = 0.079, SRMR = 0.075, Overall scale Alpha = 0.847

Table A3-4: CFA Results for Teachers' Perceptions of Support Scale

Item	Internal	External	Cronbach's Alpha
TSupport_03	0.571		0.567
TSupport_04	0.509		
TSupport_06	0.567		
TSupport_01		0.831	0.833
TSupport_02		0.780	
TSupport_05		0.721	

TSupport_07	0.656

Note: CFI = 0.997, RMSEA = 0.023, SRMR = 0.062, Overall scale Alpha = 0.821

Table A3-5: CFA Results for the Teachers' Perceptions of Safety Scale

Item	Safety	Cronbach's Alpha
TSafety_01	0.861	0.795
TSafety_02	0.727	
TSafety_04	0.658	
TSafety_06	0.590	

Note: CFI = 0.989, RMSEA = 0.083, SRMR = 0.035

Table A3-6: Item Analysis Results for EGRA (Longitudinal Cohort)

Item	Mean (Difficulty Index)	Variance	Discrimination Index
InventWord_48	0.05	0.05	0.31
ReadComp_05	0.05	0.05	0.24
InventWord_47	0.06	0.06	0.2
InventWord_49	0.06	0.06	0.25
InventWord_50	0.06	0.05	0.32
LetSound_100	0.07	0.07	0.5
InventWord_46	0.07	0.06	0.42
ReadComp_04	0.07	0.06	0.41
LetSound_91	0.08	0.08	0.46
LetSound_92	0.08	0.08	0.52
LetSound_93	0.08	0.08	0.48
LetSound_94	0.08	0.07	0.46
LetSound_95	0.08	0.07	0.46

LetSound_96	0.08	0.07	0.47
LetSound_97	0.08	0.07	0.5
LetSound_98	0.08	0.07	0.57
LetSound_99	0.08	0.07	0.63
InventWord_43	0.08	0.08	0.69
InventWord_44	0.08	0.07	0.67
InventWord_45	0.08	0.07	0.68
RealWords_47	0.08	0.08	0.7
RealWords_48	0.08	0.07	0.67
RealWords_49	0.08	0.08	0.66
RealWords_50	0.08	0.07	0.68
LetSound_87	0.09	0.08	0.7
LetSound_88	0.09	0.08	0.68
LetSound_89	0.09	0.08	0.72
LetSound_90	0.09	0.08	0.72
InventWord_41	0.09	0.08	0.69
InventWord_42	0.09	0.08	0.73
RealWords_45	0.09	0.09	0.72
RealWords_46	0.09	0.08	0.73
LetSound_84	0.1	0.09	0.72
LetSound_85	0.1	0.09	0.72
LetSound_86	0.1	0.09	0.74
InventWord_40	0.1	0.09	0.75
RealWords_42	0.1	0.09	0.75
RealWords_43	0.1	0.09	0.76
RealWords_44	0.1	0.09	0.77

ReadComp_03	0.1	0.09	0.75
LetSound_81	0.11	0.1	0.77
LetSound_82	0.11	0.1	0.69
LetSound_83	0.11	0.09	0.77
InventWord_38	0.11	0.1	0.78
InventWord_39	0.11	0.1	0.78
RealWords_40	0.11	0.1	0.78
RealWords_41	0.11	0.1	0.78
LetSound_78	0.12	0.11	0.78
LetSound_79	0.12	0.11	0.78
LetSound_80	0.12	0.1	0.77
InventWord_35	0.12	0.11	0.77
InventWord_36	0.12	0.1	0.77
InventWord_37	0.12	0.1	0.77
RealWords_38	0.12	0.11	0.77
RealWords_39	0.12	0.1	0.77
OralRdFlncy_57	0.12	0.11	0.77
OralRdFlncy_59	0.12	0.11	0.77
OralRdFlncy_60	0.12	0.11	0.77
OralRdFlncy_61	0.12	0.1	0.77
OralRdFlncy_62	0.12	0.1	0.77
OralRdFlncy_63	0.12	0.1	0.77
OralRdFlncy_64	0.12	0.1	0.76
OralRdFlncy_65	0.12	0.1	0.77
RealWords_36	0.13	0.12	0.75
RealWords_37	0.13	0.11	0.75

OralRdFlncy_54	0.13	0.12	0.74
OralRdFlncy_55	0.13	0.11	0.74
OralRdFlncy_56	0.13	0.11	0.67
OralRdFlncy_58	0.13	0.11	0.66
OralRdFlncy_66	0.13	0.11	0.72
ReadComp_02	0.13	0.11	0.68
LetSound_73	0.14	0.12	0.7
LetSound_75	0.14	0.12	0.7
LetSound_76	0.14	0.12	0.66
LetSound_77	0.14	0.12	0.67
InventWord_31	0.14	0.12	0.66
InventWord_33	0.14	0.12	0.65
InventWord_34	0.14	0.12	0.64
RealWords_33	0.14	0.12	0.63
RealWords_34	0.14	0.12	0.63
RealWords_35	0.14	0.12	0.62
OralRdFlncy_51	0.14	0.12	0.61
OralRdFlncy_52	0.14	0.12	0.58
OralRdFlncy_53	0.14	0.12	0.58
LetSound_74	0.15	0.12	0.58
InventWord_32	0.15	0.13	0.58
RealWords_32	0.15	0.13	0.57
OralRdFlncy_42	0.15	0.12	0.54
OralRdFlncy_43	0.15	0.13	0.55
OralRdFlncy_44	0.15	0.13	0.53
OralRdFlncy_45	0.15	0.13	0.53

OralRdFlncy_46	0.15	0.12	0.53
OralRdFlncy_47	0.15	0.13	0.5
OralRdFlncy_48	0.15	0.13	0.5
OralRdFlncy_49	0.15	0.13	0.5
OralRdFlncy_50	0.15	0.12	0.49
ReadComp_01	0.15	0.13	0.48
LetSound_72	0.16	0.13	0.48
InventWord_30	0.16	0.14	0.47
RealWords_31	0.16	0.13	0.46
OralRdFlncy_37	0.16	0.14	0.46
OralRdFlncy_40	0.16	0.13	0.43
OralRdFlncy_41	0.16	0.13	0.45
LetSound_68	0.17	0.14	0.44
LetSound_69	0.17	0.14	0.44
LetSound_70	0.17	0.14	0.42
LetSound_71	0.17	0.14	0.43
RealWords_27	0.17	0.14	0.43
RealWords_29	0.17	0.14	0.42
RealWords_30	0.17	0.14	0.42
OralRdFlncy_38	0.17	0.14	0.41
OralRdFlncy_39	0.17	0.14	0.41
InventWord_28	0.18	0.15	0.41
InventWord_29	0.18	0.14	0.4
RealWords_28	0.18	0.15	0.4
OralRdFlncy_34	0.18	0.15	0.64
OralRdFlncy_35	0.18	0.15	0.72

OralRdFlncy_36	0.18	0.15	0.72
InventWord_25	0.19	0.16	0.7
InventWord_26	0.19	0.16	0.73
InventWord_27	0.19	0.15	0.68
RealWords_26	0.19	0.15	0.7
OralRdFlncy_31	0.19	0.16	0.72
OralRdFlncy_32	0.19	0.16	0.74
OralRdFlncy_33	0.19	0.15	0.71
LetSound_66	0.2	0.16	0.68
LetSound_67	0.2	0.16	0.71
InventWord_23	0.2	0.16	0.71
RealWords_25	0.2	0.16	0.73
OralRdFlncy_28	0.2	0.16	0.7
OralRdFlncy_30	0.2	0.16	0.7
LetSound_64	0.21	0.17	0.71
LetSound_65	0.21	0.16	0.71
InventWord_22	0.21	0.17	0.71
InventWord_24	0.21	0.17	0.71
RealWords_24	0.21	0.17	0.69
OralRdFlncy_25	0.21	0.17	0.66
OralRdFlncy_26	0.21	0.16	0.65
OralRdFlncy_27	0.21	0.17	0.67
OralRdFlncy_29	0.21	0.16	0.64
LetSound_62	0.22	0.17	0.65
LetSound_63	0.22	0.17	0.65
RealWords_20	0.22	0.17	0.62

RealWords_22	0.22	0.17	0.63
RealWords_23	0.22	0.17	0.61
OralRdFlncy_23	0.22	0.17	0.57
LetSound_61	0.23	0.18	0.59
InventWord_21	0.23	0.18	0.57
RealWords_13	0.23	0.18	0.56
RealWords_21	0.23	0.18	0.53
OralRdFlncy_24	0.23	0.17	0.52
LetSound_59	0.24	0.18	0.53
OralRdFlncy_21	0.24	0.18	0.5
OralRdFlncy_22	0.24	0.18	0.51
LetSound_60	0.25	0.19	0.49
InventWord_16	0.25	0.19	0.47
InventWord_17	0.25	0.19	0.46
InventWord_18	0.25	0.19	0.44
InventWord_19	0.25	0.19	0.44
InventWord_20	0.25	0.19	0.43
RealWords_17	0.25	0.19	0.39
RealWords_18	0.25	0.19	0.37
RealWords_19	0.25	0.19	0.35
OralRdFlncy_08	0.25	0.19	0.37
OralRdFlncy_15	0.25	0.19	0.36
OralRdFlncy_16	0.25	0.19	0.69
LetSound_54	0.26	0.19	0.74
LetSound_56	0.26	0.19	0.72
InventWord_11	0.26	0.19	0.74

InventWord_15	0.26	0.19	0.71
RealWords_15	0.26	0.19	0.68
RealWords_16	0.26	0.19	0.73
OralRdFlncy_07	0.26	0.19	0.75
OralRdFlncy_17	0.26	0.19	0.76
OralRdFlncy_18	0.26	0.19	0.74
OralRdFlncy_19	0.26	0.19	0.75
LetSound_53	0.27	0.2	0.74
LetSound_58	0.27	0.2	0.66
InventWord_12	0.27	0.2	0.73
OralRdFlncy_14	0.27	0.2	0.71
OralRdFlncy_20	0.27	0.19	0.72
Dictation_02_02	0.27	0.2	0.71
LetSound_57	0.28	0.2	0.71
InventWord_06	0.28	0.2	0.71
InventWord_07	0.28	0.2	0.68
InventWord_13	0.28	0.2	0.7
InventWord_14	0.28	0.2	0.68
RealWords_06	0.28	0.2	0.69
RealWords_14	0.28	0.2	0.68
OralRdFlncy_04	0.28	0.2	0.66
InventWord_10	0.29	0.21	0.64
RealWords_05	0.29	0.21	0.61
OralRdFlncy_10	0.29	0.21	0.64
OralRdFlncy_11	0.29	0.2	0.63
OralRdFlncy_12	0.29	0.21	0.62

OralRdFlncy_13	0.29	0.21	0.6
Dictation_02_01	0.29	0.21	0.59
InventWord_04	0.3	0.21	0.58
RealWords_12	0.3	0.21	0.58
OralRdFlncy_09	0.3	0.21	0.57
LetSound_55	0.31	0.21	0.57
InventWord_08	0.31	0.21	0.56
RealWords_10	0.31	0.21	0.55
OralRdFlncy_03	0.31	0.21	0.53
OralRdFlncy_05	0.31	0.21	0.51
OralRdFlncy_06	0.31	0.21	0.53
InventWord_03	0.32	0.22	0.5
InventWord_09	0.32	0.22	0.5
RealWords_07	0.32	0.22	0.5
RealWords_11	0.32	0.22	0.48
Dictation_02_03	0.32	0.22	0.47
LetSound_52	0.33	0.22	0.45
InventWord_05	0.33	0.22	0.43
RealWords_08	0.33	0.22	0.45
OralRdFlncy_02	0.33	0.22	0.44
LetSound_51	0.34	0.22	0.58
InventWord_02	0.34	0.22	0.72
LetSound_49	0.35	0.23	0.73
LetSound_50	0.35	0.23	0.71
RealWords_03	0.35	0.23	0.72
RealWords_09	0.35	0.23	0.72

RealWords_02	0.36	0.23	0.68
RealWords_04	0.36	0.23	0.68
LetSound_47	0.37	0.23	0.74
LetSound_48	0.37	0.23	0.73
InventWord_01	0.37	0.23	0.71
LetSound_44	0.38	0.24	0.73
LetSound_46	0.38	0.24	0.74
LetSound_43	0.39	0.24	0.72
LetSound_45	0.39	0.24	0.69
LetSound_40	0.4	0.24	0.66
LetSound_41	0.4	0.24	0.68
LetSound_37	0.41	0.24	0.7
LetSound_39	0.41	0.24	0.7
LetSound_42	0.41	0.24	0.7
OralRdFlncy_01	0.42	0.24	0.63
LetSound_34	0.43	0.25	0.66
LetSound_35	0.43	0.25	0.64
LetSound_38	0.43	0.25	0.65
LetSound_27	0.44	0.25	0.62
RealWords_01	0.44	0.25	0.62
LetSound_36	0.45	0.25	0.62
LetSound_03	0.47	0.25	0.61
LetSound_33	0.47	0.25	0.62
LetSound_25	0.48	0.25	0.6
LetSound_32	0.48	0.25	0.59
PhonAware_07	0.49	0.25	0.59

LetSound_23	0.49	0.25	0.58
LetSound_29	0.49	0.25	0.58
LetSound_31	0.49	0.25	0.58
LetSound_30	0.5	0.25	0.57
LetSound_18	0.51	0.25	0.54
LetSound_20	0.51	0.25	0.55
LetSound_12	0.52	0.25	0.55
LetSound_28	0.52	0.25	0.53
LetSound_13	0.53	0.25	0.53
LetSound_14	0.53	0.25	0.5
Dictation_01_02	0.53	0.25	0.52
LetSound_10	0.54	0.25	0.52
LetSound_26	0.54	0.25	0.52
LetSound_05	0.55	0.25	0.5
LetSound_16	0.55	0.25	0.51
LetSound_24	0.55	0.25	0.51
LetSound_22	0.57	0.25	0.51
LetSound_21	0.58	0.24	0.5
ListeningComp_05	0.59	0.24	0.49
LetSound_04	0.59	0.24	0.48
LetSound_06	0.59	0.24	0.49
LetSound_15	0.59	0.24	0.47
LetSound_19	0.59	0.24	0.45
LetSound_17	0.61	0.24	0.45
PhonAware_05	0.63	0.23	0.43
LetSound_09	0.63	0.23	0.45

Dictation_01_04	0.65	0.23	0.44
PhonAware_04	0.66	0.23	0.44
LetSound_08	0.68	0.22	0.42
LetSound_11	0.68	0.22	0.42
Dictation_01_05	0.68	0.22	0.42
LetSound_07	0.69	0.22	0.42
ListeningComp_04	0.7	0.21	0.42
PhonAware_06	0.7	0.21	0.38
PhonAware_08	0.71	0.21	0.5
PhonAware_10	0.71	0.2	0.46
PhonAware_02	0.72	0.2	0.41
PhonAware_01	0.73	0.2	0.33
LetSound_02	0.73	0.2	0.3
Dictation_01_01	0.75	0.19	0.5
PhonAware_09	0.76	0.18	0.62
PhonAware_03	0.78	0.17	0.42
LetSound_01	0.78	0.17	0.6
ListeningComp_01	0.79	0.17	0.56
ListeningComp_02	0.79	0.17	0.6
ListeningComp_03	0.83	0.14	0.58
Dictation_01_03	0.83	0.14	0.62

Table A3-7: Item Analysis Results for EGMA (Longitudinal Cohort)

Item	Mean (Difficulty Index	Variance	Discrimination Index

AddLvl2Strat4	0.05	0.05	0.53
SubLvl2Strat3	0.05	0.05	0.57
SubLvl2Strat4	0.05	0.04	0.6
AddLvl2Strat3	0.06	0.05	0.68
SubLvl1_20	0.06	0.06	0.68
SubLvl1_19	0.07	0.07	0.7
SubLvl1_18	0.08	0.07	0.7
AddLvl1_20	0.09	0.08	0.7
SubLvl1_17	0.09	0.08	0.7
AddLvl1_19	0.1	0.09	0.72
SubLvl1_16	0.1	0.09	0.7
SubLvl2_04	0.1	0.09	0.71
SubLvl2_05	0.1	0.09	0.7
WordProbStrat3	0.1	0.09	0.71
AddLvl1_18	0.11	0.1	0.72
MissNum_08	0.12	0.1	0.69
MissNum_10	0.13	0.11	0.67
AddLvl2_04	0.13	0.12	0.69
SubLvl1_15	0.13	0.11	0.71
SubLvl2_03	0.13	0.11	0.68
MissNum_05	0.14	0.12	0.65
MissNum_07	0.14	0.12	0.67
MissNum_09	0.14	0.12	0.69
AddLvl1_17	0.14	0.12	0.69
AddLvl2_05	0.14	0.12	0.67
WordProbStrat4	0.14	0.12	0.67

SubLvl1_14	0.15	0.13	0.62
MissNum_03	0.16	0.13	0.53
AddLvl2_03	0.17	0.14	0.59
AddLvl1_16	0.18	0.14	0.58
SubLvl1_13	0.19	0.16	0.58
MissNum_04	0.22	0.17	0.64
AddLvl1_15	0.22	0.17	0.37
SubLvl1_11	0.22	0.17	0.45
SubLvl1_12	0.22	0.17	0.33
SubLvl2Strat1	0.24	0.18	0.58
AddLvl1_14	0.25	0.19	0.26
SubLvl1_10	0.25	0.19	0.21
SubLvl1_09	0.26	0.19	0.26
SubLvl2Strat2	0.28	0.2	0.2
SubLvl2_02	0.3	0.21	0.67
AddLvl2Strat1	0.31	0.22	0.73
SubLvl1_05	0.31	0.21	0.75
AddLvl1_13	0.32	0.22	0.77
SubLvl1_08	0.33	0.22	0.77
SubLvl2_01	0.33	0.22	0.78
SubLvl1_04	0.34	0.22	0.78
SubLvl1_06	0.34	0.23	0.78
AddLvl1_11	0.35	0.23	0.75
AddLvl1_12	0.35	0.23	0.74
SubLvl1_07	0.35	0.23	0.72
AddLvl2Strat2	0.37	0.23	0.72

WordProb_05	0.37	0.23	0.7
AddLvl1_10	0.38	0.24	0.65
SubLvl1_01	0.38	0.24	0.63
MissNum_06	0.39	0.24	0.57
SubLvl1_03	0.39	0.24	0.52
NumIdentify_20	0.4	0.24	0.47
AddLvl2_02	0.4	0.24	0.45
SubLvl1_02	0.4	0.24	0.42
NumIdentify_17	0.41	0.24	0.71
NumIdentify_18	0.41	0.24	0.69
NumDisc_08	0.41	0.24	0.49
WordProb_06	0.41	0.24	0.46
WordProb_03	0.42	0.24	0.4
NumIdentify_19	0.43	0.24	0.5
AddLvl1_09	0.43	0.24	0.53
AddLvl2_01	0.43	0.25	0.22
WordProbStrat1	0.43	0.24	-0.06
NumIdentify_16	0.45	0.25	0.55
AddLvl1_04	0.48	0.25	0.72
AddLvl1_05	0.48	0.25	0.74
AddLvl1_08	0.49	0.25	0.7
WordProb_04	0.49	0.25	0.69
AddLvl1_07	0.5	0.25	0.72
NumDisc_09	0.51	0.25	0.74
AddLvl1_06	0.51	0.25	0.73
AddLvl1_03	0.52	0.25	0.69

NumDisc_07	0.53	0.25	0.67
NumDisc_10	0.54	0.25	0.65
AddLvl1_01	0.54	0.25	0.65
AddLvl1_02	0.55	0.25	0.62
WordProb_02	0.57	0.25	0.55
WordProbStrat2	0.6	0.24	0.52
NumDisc_06	0.61	0.24	0.46
NumIdentify_14	0.64	0.23	0.42
NumDisc_03	0.64	0.23	0.4
NumIdentify_09	0.65	0.23	0.38
NumIdentify_12	0.65	0.23	0.35
NumIdentify_13	0.65	0.23	0.69
NumDisc_05	0.65	0.23	0.66
NumIdentify_11	0.66	0.23	0.46
NumIdentify_15	0.66	0.22	0.38
MissNum_02	0.66	0.22	0.37
NumIdentify_10	0.67	0.22	0.51
NumDisc_04	0.68	0.22	0.55
NumIdentify_07	0.69	0.21	0.23
NumIdentify_08	0.69	0.21	-0.02
NumIdentify_06	0.71	0.21	0.4
NumIdentify_04	0.72	0.2	0.6
NumIdentify_05	0.72	0.2	0.55
NumDisc_02	0.73	0.2	0.58
MissNum_01	0.76	0.18	0.47
NumDisc_01	0.77	0.18	0.56

WordProb_01	0.77	0.18	0.17
NumIdentify_03	0.8	0.16	0.22
NumIdentify_02	0.83	0.14	0.13
NumIdentify_01	0.84	0.13	-0.38

Table A3-8: Floor & Ceiling Effects (Longitudinal Cohort)

Assessment	Learner Scores (%)	Flooring	Ceiling
EGRA	0	42 (1.4%)	
	0-10	276 (9.5%)	
	90-100		65 (2.2%)
	100		4 (0.1%)
EGMA	0	137 (4.7%)	
	0-10	**604 (20.7%) ***	
	90-100		0 (0%)
	100		0 (0%)

Notes: *Ceiling/flooring effects greater than 15% are considered significant (Terwee et. al., 2007). However, we are not concerned about this flooring effect, since less than 5% of our sample scored a zero (0) and the assessment couldn't have been easier. So, there is room for growth.

Table A3-9: Item Analysis Results for EGRA (Cross-Sectional Cohort)

Item	Mean (Difficulty Index)	Variance	Discrimination Index
InventWord_49	0.07	0.07	0.2
InventWord_48	0.08	0.08	0.17
InventWord_50	0.08	0.07	0.11
InventWord_47	0.09	0.08	0.14
InventWord_46	0.1	0.09	0.18
RealWords_48	0.11	0.1	0.37

RealWords_49	0.11	0.1	0.3
RealWords_50	0.11	0.1	0.29
LetSound_94	0.12	0.11	0.35
LetSound_95	0.12	0.11	0.42
LetSound_96	0.12	0.1	0.33
LetSound_97	0.12	0.1	0.4
LetSound_98	0.12	0.1	0.37
LetSound_99	0.12	0.1	0.29
LetSound_100	0.12	0.1	0.33
InventWord_45	0.12	0.11	0.51
RealWords_46	0.12	0.1	0.54
RealWords_47	0.12	0.1	0.65
LetSound_92	0.13	0.12	0.64
LetSound_93	0.13	0.11	0.69
InventWord_44	0.13	0.11	0.64
RealWords_44	0.13	0.12	0.57
RealWords_45	0.13	0.11	0.57
LetSound_91	0.14	0.12	0.63
InventWord_40	0.14	0.12	0.67
InventWord_41	0.14	0.12	0.55
InventWord_42	0.14	0.12	0.69
InventWord_43	0.14	0.12	0.68
RealWords_42	0.14	0.12	0.63
RealWords_43	0.14	0.12	0.65
LetSound_89	0.15	0.13	0.64
LetSound_90	0.15	0.13	0.6

RealWords_40	0.16	0.13	0.72
LetSound_86	0.17	0.14	0.65
LetSound_87	0.17	0.14	0.72
LetSound_88	0.17	0.14	0.66
InventWord_35	0.17	0.14	0.65
InventWord_36	0.17	0.14	0.72
InventWord_38	0.17	0.14	0.65
InventWord_39	0.17	0.14	0.7
RealWords_39	0.17	0.14	0.69
RealWords_41	0.17	0.14	0.64
OralRdFlncy_57	0.17	0.14	0.69
OralRdFlncy_61	0.17	0.14	0.69
OralRdFlncy_62	0.17	0.14	0.7
OralRdFlncy_64	0.17	0.14	0.71
LetSound_85	0.18	0.15	0.71
RealWords_38	0.18	0.15	0.71
OralRdFlncy_58	0.18	0.15	0.72
OralRdFlncy_59	0.18	0.15	0.69
OralRdFlncy_63	0.18	0.15	0.72
ReadComp_04	0.18	0.15	0.72
ReadComp_05	0.18	0.15	0.71
LetSound_83	0.19	0.15	0.74
LetSound_84	0.19	0.15	0.75
InventWord_37	0.19	0.15	0.74
OralRdFlncy_56	0.19	0.15	0.73
OralRdFlncy_65	0.19	0.15	0.75

RealWords_34	0.2	0.16	0.74
RealWords_36	0.2	0.16	0.74
RealWords_37	0.2	0.16	0.75
OralRdFlncy_52	0.2	0.16	0.76
OralRdFlncy_53	0.2	0.16	0.74
OralRdFlncy_54	0.2	0.16	0.76
OralRdFlncy_60	0.2	0.16	0.76
LetSound_81	0.21	0.16	0.74
LetSound_82	0.21	0.16	0.76
InventWord_31	0.21	0.17	0.7
InventWord_34	0.21	0.16	0.7
RealWords_33	0.21	0.17	0.75
RealWords_35	0.21	0.17	0.71
OralRdFlncy_42	0.21	0.17	0.75
OralRdFlncy_51	0.21	0.17	0.74
OralRdFlncy_55	0.21	0.16	0.7
LetSound_78	0.22	0.17	0.73
LetSound_80	0.22	0.17	0.72
InventWord_33	0.22	0.17	0.72
RealWords_32	0.22	0.17	0.72
OralRdFlncy_46	0.22	0.17	0.72
LetSound_79	0.23	0.18	0.72
OralRdFlncy_44	0.23	0.18	0.71
OralRdFlncy_47	0.23	0.18	0.7
OralRdFlncy_48	0.23	0.18	0.65
OralRdFlncy_49	0.23	0.17	0.65

ReadComp_03	0.23	0.18	0.66
OralRdFlncy_43	0.24	0.18	0.65
OralRdFlncy_50	0.24	0.18	0.65
LetSound_77	0.25	0.19	0.61
InventWord_30	0.25	0.19	0.63
RealWords_27	0.25	0.19	0.61
RealWords_29	0.25	0.19	0.61
RealWords_30	0.25	0.19	0.6
RealWords_31	0.25	0.19	0.56
OralRdFlncy_34	0.25	0.19	0.58
OralRdFlncy_37	0.25	0.19	0.57
LetSound_73	0.26	0.19	0.55
LetSound_75	0.26	0.19	0.55
LetSound_76	0.26	0.19	0.54
InventWord_32	0.26	0.19	0.52
OralRdFlncy_33	0.26	0.19	0.5
OralRdFlncy_38	0.26	0.19	0.5
OralRdFlncy_39	0.26	0.19	0.49
OralRdFlncy_41	0.26	0.19	0.48
OralRdFlncy_45	0.26	0.19	0.45
OralRdFlncy_66	0.26	0.19	0.45
LetSound_74	0.27	0.2	0.43
RealWords_25	0.27	0.2	0.42
RealWords_26	0.27	0.2	0.42
RealWords_28	0.28	0.2	0.42
OralRdFlncy_36	0.28	0.2	0.4

OralRdFlncy_40	0.28	0.2	0.4
ReadComp_02	0.28	0.2	0.39
LetSound_69	0.29	0.21	0.39
LetSound_71	0.29	0.21	0.39
LetSound_72	0.29	0.21	0.38
InventWord_28	0.29	0.21	0.69
RealWords_13	0.29	0.21	0.73
OralRdFlncy_32	0.29	0.21	0.74
LetSound_68	0.3	0.21	0.7
LetSound_70	0.3	0.21	0.74
InventWord_25	0.3	0.21	0.68
InventWord_29	0.3	0.21	0.7
RealWords_20	0.3	0.21	0.71
RealWords_22	0.3	0.21	0.73
RealWords_24	0.3	0.21	0.69
OralRdFlncy_26	0.3	0.21	0.68
OralRdFlncy_31	0.3	0.21	0.7
InventWord_22	0.31	0.21	0.73
InventWord_23	0.31	0.21	0.73
InventWord_26	0.31	0.21	0.75
InventWord_27	0.31	0.21	0.71
RealWords_23	0.31	0.21	0.74
OralRdFlncy_21	0.31	0.21	0.76
OralRdFlncy_23	0.31	0.21	0.73
OralRdFlncy_28	0.31	0.21	0.74
OralRdFlncy_29	0.31	0.21	0.74

OralRdFlncy_35	0.31	0.22	0.7
OralRdFlncy_16	0.32	0.22	0.7
OralRdFlncy_27	0.32	0.22	0.74
OralRdFlncy_30	0.32	0.22	0.72
ReadComp_01	0.32	0.22	0.73
InventWord_11	0.33	0.22	0.73
InventWord_24	0.33	0.22	0.71
RealWords_06	0.33	0.22	0.73
RealWords_15	0.33	0.22	0.67
OralRdFlncy_08	0.33	0.22	0.61
Dictation_02_02	0.33	0.22	0.7
InventWord_10	0.34	0.22	0.62
RealWords_17	0.34	0.22	0.63
RealWords_21	0.34	0.22	0.58
OralRdFlncy_24	0.34	0.23	0.59
OralRdFlncy_25	0.34	0.22	0.62
LetSound_65	0.35	0.23	0.6
LetSound_66	0.35	0.23	0.59
LetSound_67	0.35	0.23	0.55
InventWord_16	0.35	0.23	0.55
InventWord_19	0.35	0.23	0.55
InventWord_20	0.35	0.23	0.54
InventWord_21	0.35	0.23	0.52
RealWords_19	0.35	0.23	0.51
OralRdFlncy_07	0.35	0.23	0.46
OralRdFlncy_22	0.35	0.23	0.42

LetSound_64	0.36	0.23	0.41
InventWord_12	0.36	0.23	0.39
InventWord_15	0.36	0.23	0.41
InventWord_17	0.36	0.23	0.71
RealWords_18	0.36	0.23	0.74
LetSound_59	0.37	0.23	0.72
LetSound_62	0.37	0.23	0.76
LetSound_63	0.37	0.23	0.72
InventWord_04	0.37	0.23	0.67
InventWord_13	0.37	0.23	0.72
RealWords_14	0.37	0.23	0.75
OralRdFlncy_18	0.37	0.23	0.73
Dictation_02_01	0.37	0.23	0.76
LetSound_56	0.38	0.24	0.74
LetSound_61	0.38	0.23	0.76
InventWord_07	0.38	0.23	0.64
InventWord_18	0.38	0.24	0.74
RealWords_05	0.38	0.24	0.7
RealWords_16	0.38	0.24	0.75
OralRdFlncy_14	0.38	0.23	0.73
OralRdFlncy_17	0.38	0.24	0.74
LetSound_54	0.39	0.24	0.75
InventWord_14	0.39	0.24	0.7
OralRdFlncy_04	0.39	0.24	0.76
OralRdFlncy_19	0.39	0.24	0.72
Dictation_02_03	0.39	0.24	0.72

LetSound_53	0.4	0.24	0.73
LetSound_60	0.4	0.24	0.69
InventWord_06	0.4	0.24	0.69
InventWord_08	0.4	0.24	0.67
OralRdFlncy_11	0.4	0.24	0.73
InventWord_05	0.41	0.24	0.69
InventWord_09	0.41	0.24	0.69
RealWords_07	0.41	0.24	0.68
RealWords_10	0.41	0.24	0.67
RealWords_11	0.41	0.24	0.65
RealWords_12	0.41	0.24	0.64
OralRdFlncy_15	0.41	0.24	0.66
LetSound_58	0.42	0.24	0.64
RealWords_08	0.42	0.24	0.63
LetSound_57	0.43	0.25	0.62
OralRdFlncy_13	0.43	0.25	0.61
OralRdFlncy_20	0.43	0.25	0.59
LetSound_55	0.44	0.25	0.6
InventWord_03	0.44	0.25	0.56
OralRdFlncy_03	0.44	0.25	0.57
OralRdFlncy_06	0.44	0.25	0.55
OralRdFlncy_09	0.44	0.25	0.54
InventWord_01	0.45	0.25	0.51
InventWord_02	0.45	0.25	0.51
RealWords_09	0.45	0.25	0.49
OralRdFlncy_12	0.45	0.25	0.49

LetSound_51	0.47	0.25	0.48
LetSound_52	0.47	0.25	0.71
RealWords_04	0.47	0.25	0.72
OralRdFlncy_01	0.47	0.25	0.73
LetSound_49	0.48	0.25	0.72
LetSound_50	0.48	0.25	0.66
RealWords_02	0.48	0.25	0.72
RealWords_03	0.49	0.25	0.68
OralRdFlncy_02	0.49	0.25	0.69
OralRdFlncy_10	0.49	0.25	0.73
LetSound_48	0.5	0.25	0.67
LetSound_44	0.51	0.25	0.7
LetSound_46	0.51	0.25	0.74
LetSound_47	0.51	0.25	0.76
OralRdFlncy_05	0.51	0.25	0.74
LetSound_45	0.52	0.25	0.6
LetSound_40	0.53	0.25	0.66
LetSound_43	0.53	0.25	0.74
LetSound_41	0.54	0.25	0.74
LetSound_42	0.54	0.25	0.74
LetSound_35	0.55	0.25	0.68
LetSound_37	0.55	0.25	0.65
LetSound_39	0.55	0.25	0.71
LetSound_03	0.56	0.25	0.67
LetSound_34	0.56	0.25	0.71
RealWords_01	0.56	0.25	0.58

LetSound_27	0.57	0.25	0.66
LetSound_38	0.57	0.25	0.71
PhonAware_07	0.58	0.24	0.69
LetSound_12	0.59	0.24	0.69
LetSound_36	0.59	0.24	0.6
LetSound_18	0.6	0.24	0.67
LetSound_33	0.6	0.24	0.68
LetSound_23	0.61	0.24	0.64
LetSound_13	0.62	0.24	0.63
LetSound_25	0.62	0.24	0.59
LetSound_29	0.62	0.24	0.65
LetSound_31	0.62	0.23	0.6
LetSound_32	0.62	0.24	0.63
LetSound_05	0.63	0.23	0.63
LetSound_14	0.63	0.23	0.55
LetSound_20	0.63	0.23	0.62
LetSound_30	0.63	0.23	0.56
LetSound_10	0.64	0.23	0.6
LetSound_28	0.64	0.23	0.58
Dictation_01_02	0.65	0.23	0.52
LetSound_04	0.67	0.22	0.56
LetSound_16	0.67	0.22	0.58
LetSound_24	0.67	0.22	0.58
LetSound_26	0.67	0.22	0.57
LetSound_22	0.69	0.22	0.51
LetSound_06	0.7	0.21	0.55

LetSound_21	0.7	0.21	0.53
LetSound_15	0.71	0.21	0.54
LetSound_19	0.71	0.21	0.53
PhonAware_05	0.72	0.2	0.46
LetSound_09	0.72	0.2	0.52
ListeningComp_05	0.73	0.2	0.48
LetSound_17	0.73	0.2	0.5
LetSound_08	0.77	0.18	0.49
LetSound_11	0.77	0.18	0.44
Dictation_01_04	0.77	0.18	0.42
PhonAware_04	0.78	0.17	0.46
LetSound_07	0.79	0.16	0.47
ListeningComp_04	0.8	0.16	0.46
Dictation_01_01	0.8	0.16	0.39
PhonAware_06	0.81	0.15	0.18
PhonAware_08	0.81	0.16	0.63
PhonAware_01	0.82	0.15	0.6
PhonAware_02	0.82	0.15	0.49
PhonAware_10	0.82	0.15	0.47
LetSound_02	0.82	0.15	0.46
Dictation_01_05	0.82	0.15	0.39
PhonAware_09	0.83	0.14	0.46
LetSound_01	0.84	0.13	0.26
ListeningComp_02	0.86	0.12	0.45
PhonAware_03	0.86	0.12	0.46
Dictation_01_03	0.87	0.11	0.6

ListeningComp_01	0.88	0.11	0.59
ListeningComp_03	0.9	0.09	0.63
Dictation_02_04	0.99	0.01	0.07

Table A3-10: Item Analysis Results for EGRA (Cross-Sectinal Cohort)

Item	Mean (Difficulty Index)	Variance	Discrimination Index
SubLvl2Strat4	0.02	0.02	0.41
AddLvl2Strat4	0.03	0.03	0.42
AddLvl2Strat3	0.04	0.04	0.48
SubLvl2Strat3	0.04	0.04	0.56
WordProbStrat4	0.04	0.04	0.55
WordProbStrat3	0.08	0.08	0.55
SubLvl2_04	0.14	0.12	0.55
SubLvl2_05	0.15	0.13	0.57
MissNum_08	0.17	0.14	0.57
SubLvl1_20	0.17	0.14	0.6
AddLvl2_05	0.18	0.15	0.58
AddLvl1_20	0.19	0.15	0.58
AddLvl2_04	0.19	0.15	0.6
SubLvl1_18	0.19	0.15	0.61
SubLvl1_19	0.19	0.15	0.59
MissNum_09	0.2	0.16	0.59
SubLvl1_17	0.2	0.16	0.61

MissNum_05	0.21	0.16	0.64
AddLvl2_03	0.21	0.17	0.65
SubLvl2_03	0.21	0.16	0.6
MissNum_03	0.22	0.17	0.35
MissNum_07	0.23	0.18	0.44
AddLvl1_19	0.23	0.18	0.48
AddLvl1_18	0.24	0.18	0.51
SubLvl1_16	0.24	0.18	0.47
MissNum_10	0.25	0.19	0.49
MissNum_04	0.27	0.2	0.52
AddLvl1_17	0.27	0.2	0.5
SubLvl1_15	0.28	0.2	0.48
SubLvl1_14	0.31	0.21	0.5
AddLvl1_16	0.34	0.23	0.29
SubLvl2Strat2	0.34	0.23	0.46
SubLvl1_13	0.35	0.23	0.36
SubLvl2Strat1	0.36	0.23	0.37
AddLvl2Strat2	0.39	0.24	0.34
SubLvl1_12	0.39	0.24	0.42
AddLvl2Strat1	0.4	0.24	0.36
SubLvl1_11	0.4	0.24	0.25
AddLvl1_15	0.41	0.24	0.32
AddLvl1_14	0.42	0.24	0.32
SubLvl1_10	0.42	0.24	0.62
SubLvl1_09	0.43	0.25	0.65
SubLvl2_02	0.43	0.25	0.68

SubLvl2_01	0.45	0.25	0.68
WordProbStrat1	0.45	0.25	0.68
SubLvl1_05	0.48	0.25	0.68
MissNum_06	0.49	0.25	0.69
WordProb_05	0.49	0.25	0.7
AddLvl1_13	0.51	0.25	0.7
AddLvl2_02	0.52	0.25	0.71
SubLvl1_08	0.52	0.25	0.71
SubLvl1_04	0.53	0.25	0.73
AddLvl1_11	0.54	0.25	0.74
SubLvl1_01	0.54	0.25	0.71
SubLvl1_07	0.54	0.25	0.71
NumIdentify_18	0.55	0.25	0.65
NumIdentify_20	0.55	0.25	0.58
NumDisc_08	0.55	0.25	0.59
AddLvl2_01	0.55	0.25	0.56
SubLvl1_06	0.55	0.25	0.49
NumIdentify_17	0.56	0.25	0.6
AddLvl1_12	0.56	0.25	0.63
AddLvl1_10	0.57	0.25	0.49
SubLvl1_03	0.57	0.24	0.46
NumIdentify_16	0.58	0.24	0.44
NumIdentify_19	0.58	0.24	0.36
WordProbStrat2	0.59	0.24	0.19
SubLvl1_02	0.6	0.24	0.06
AddLvl1_09	0.61	0.24	-0.1

WordProb_03	0.61	0.24	0.61
WordProb_06	0.61	0.24	0.69
AddLvl1_05	0.63	0.23	0.72
AddLvl1_01	0.64	0.23	0.7
AddLvl1_04	0.64	0.23	0.69
NumDisc_09	0.65	0.23	0.73
WordProb_04	0.66	0.22	0.73
NumDisc_10	0.67	0.22	0.74
AddLvl1_08	0.67	0.22	0.73
NumDisc_07	0.68	0.22	0.73
AddLvl1_03	0.68	0.22	0.72
AddLvl1_07	0.68	0.22	0.74
AddLvl1_06	0.69	0.21	0.72
AddLvl1_02	0.71	0.21	0.66
WordProb_02	0.72	0.2	0.63
NumDisc_06	0.74	0.19	0.59
NumIdentify_14	0.77	0.18	0.53
NumIdentify_09	0.78	0.17	0.51
NumIdentify_13	0.78	0.17	0.49
MissNum_02	0.78	0.17	0.45
NumIdentify_07	0.79	0.17	0.64
NumIdentify_11	0.79	0.17	0.68
NumIdentify_15	0.79	0.16	0.52
NumDisc_03	0.79	0.17	0.43
NumDisc_04	0.79	0.17	0.43
NumDisc_05	0.79	0.17	0.39

NumIdentify_10	0.8	0.16	0.28
NumIdentify_12	0.8	0.16	0.11
NumIdentify_06	0.82	0.15	-0.1
NumIdentify_08	0.82	0.15	0.52
NumIdentify_05	0.83	0.14	0.52
NumIdentify_04	0.84	0.14	0.48
NumDisc_02	0.87	0.11	0.46
NumIdentify_03	0.88	0.11	0.5
MissNum_01	0.88	0.1	0.15
NumIdentify_02	0.89	0.1	-0.04
NumIdentify_01	0.9	0.09	0
NumDisc_01	0.9	0.09	-0.21

Table A3-11: Floor & Ceiling Effects (Cross-Sectional Cohort)

Assessment	Learner Scores (%)	Floor	Ceiling
EGRA	0	0 (0%)	
	0-10	26 (2.1%)	
	90-100		65 (5.4%)
	100		1 (0.08%)
EGMA	0	21 (1.7%)	
	0-10	102 (8.4%)	
	90-100		0 (0%)
	100		0 (0%)

APPENDIX 4: ENUMERATOR TRAINING

SORDI researchers employed a combination of tools, methods, and communication styles to conduct an extensive enumerator training, which included a 7-day workshop, followed by one-day pilot, for all teams at the main meeting site in Mogadishu. Team members from Kismayo and Baidoa (Baydhabo) who were unable to travel to Mogadishu took part in the theoretical and presentation parts of the 7-day meeting virtually through Google Meet. In addition, SORDI trainers traveled to Kismayo and Baidoa sites to conduct five consecutive days of practice and piloting the tools and protocols using the Tangerine™ platform with the remote participants. All trainees received the following:

- Overview of each survey instrument and the Tangerine™ platform before beginning the detailed administration of any tool. Facilitators used PowerPoint Slides to present information and shared the slides with the trainees at the end of each training day for study and reflections. The facilitators also used simulation tools to enhance practice and understanding.
- Practice sessions for each instrument allowed trainees to get hands-on experience. Practice sessions included two steps.
    - Step one: Trainees practiced using each tool to gain familiarity with its functionality and components and to raise any areas of concern encountered along the way.
    - Step Two: Randomly paired trainee teams practiced using the tools together from the learner/teacher/ head teacher and assessor's perspective. This supplied additional practice for trainees, while also helping facilitators pinpoint any problem areas shared among most trainees.

Enumerator Training Program – Baidoa

Training Title:	**Evaluation/BAB Enumerators' Training**	
Start: October 06, 2021 (Five days)		End: October 11, 2021
Training Hours:	40 Contact Hours	
Female: 1	Male: 13	**Total: 14**
Location: Haldoor Hotel		
District: Baidoa		State: Southwest Somalia
Objectives:		

1. To introduce and inform the MOECHE officials about the LASER-BAB evaluation purposes, methods, and teams 2. To train the enumerators to accurately and effectively administer EGRA, EGMA, Learner Survey, and other survey questionnaires, in electronic format. 3. To enhance the knowledge of the enumerators on ethical and quality aspects of data collection and ethical issues around children's participation in research activity. 4. To identify skilled assessors to serve as enumerators for the data collection for the baseline evaluation survey. 5. To pilot evaluations tools and platforms and check errors and enumerator consistency before deployment		
Tea & Refreshment:	☐ Working	☒ Non-working/Full break
Meals/Lunch:	☒ Yes	☐ No

Time	Session		Baidoa Site
Day 1 (October 06, 2021)			
08:00 – 08:30 a.m.	Registration		
08:30 – 08:45 a.m.	Participants' Introduction		
08:45 – 09:00 a.m.	Opening Remarks		
	Review of the Agenda and setting ground rules		
09:00 – 09:35 a.m.	Overview of the Evaluation • About LASER • Evaluation Background • Evaluation objectives • Evaluation sites • Methods		

Time	Session		Baidoa Site
09:35 – 09:45 a.m.	Tea Break		
09:45 – 10:15 a.m.	Overview: • Early Grade Reading • Early Grade Mathematics • Learner Survey • Teacher and Head-teacher Survey		
10:15 – 10:35 a.m.	Tea Break		
10:35 – 11:10 a.m.	Overview of Early Grade Reading Assessment (EGRA) (Purpose, Instrument Content, Results use)		
11:10 – 12:30 p.m.	Early Grade Reading Assessment Tasks		
12:30 – 01:30 p.m.	Prayers and Lunch Break		
01:30 – 02:00 p.m.	Using Tablets for EGRA and protocols		
02:00 – 03:00 p.m.	Practice EGRA Tasks: • Listening Comprehension • Letter Sound Identification • Phonemic Awareness		
03:00 – 03:30 p.m.	Reflections EGRA Tasks: • Participants' reflections • Challenges		
03:30 – 04:00 p.m.	Prayers and tea break		
04:00 – 05:00 p.m.	Practice EGRA Tasks:		

Time	Session		Baidoa Site
	• Invented Words (non-words) • Familiar Words		
05:00 – 05:15 p.m.	Reflections EGRA Tasks: • Participants' reflections • Challenges		
05:15 p.m.	**End of Day-1**		
Day 2 (October 07, 2021)			
08:30 – 08:45 a.m.	Day-1 Review		
08:45 – 10:00 a.m.	Practice EGRA Tasks: • Oral Reading Fluency (ORF) • Reading Comprehension • Writing/Dictation		
10:00 – 10:15 a.m.	Reflections EGRA Tasks: • Participants' reflections • Challenges		
10:15 – 10:45 a.m.	Tea Break		
10:45 – 12:15 p.m.	Complete EGRA Practice-1 (All Tasks)		
12:15 – 12:30 p.m.	Reflections EGRA Tasks: • Participants' reflections • Challenges		
12:30 – 01:30 p.m.	Prayers and Lunch Break		
01:30 – 02:30 p.m.	Complete EGRA Practice-2 (All Tasks)		

Time	Session		Baidoa Site
02:30 – 02:45 p.m.	Reflections By Facilitators		
05:15 p.m.	End of Day-2		
Day 3 (October 08, 2021)			
08:30 – 08:45 a.m.	Day-2 Review		
08:45 – 10:00 a.m.	Practice EGMA Tasks: • Missing Numbers • Addition Level-1 • Addition Level-2		
10:00 – 10:15 a.m.	Reflections EGMA Tasks: • Participants' reflections • Challenges		
10:15 – 10:35 a.m.	Tea Break		
10:35 – 12:00 noon	Practice EGMA Tasks: • Subtraction Level 1 • Subtraction Level-2 • Word Problem		
12:00 – 12:15 p.m.	Reflections EGMA Tasks: • Participants' reflections • Challenges		
12:15 – 01:15 p.m.	Prayers and Lunch Break		
01:15 – 02:30 p.m.	Complete EGMA Practice-1 (All Tasks)		

Time	Session		Baidoa Site
02:30 – 02:40 p.m.	Reflections EGMA Tasks: • Participants' reflections • Challenges		
02:40 – 03:30 p.m.	Complete EGMA Practice-2 (All Tasks)		
03:30 – 04:00 p.m.	Prayers and Tea Break		
04:00 – 05:00 p.m.	Practice EGRA & EGMA Combined		
05:00 – 05:15 p.m.	Reflections By Facilitators		
05:15 p.m.	End of Day-3		
Day 4 (October 09, 2021)			
08:30 – 08:45 a.m.	Practice Longitudinal Learner Survey		
08:45 – 09:15 a.m.	Reflections on Longitudinal Learner Survey		
08:45 – 09:15 a.m.	Practice Questionnaires		
09:15 – 10:15 a.m.	Tea Break		
10:15 – 10:35 a.m. 10:35 – 10:50 a.m.	Reflections on Teacher/Head-Teacher Questionnaires		
01:30 – 03:30 p.m.	Full Assessment Practice-1		

Time	Session		Baidoa Site
03:30 – 04:00 p.m.	Prayers and tea break		
04:00 – 05:00 p.m.	Full Assessment Practice-2 (Group Practice)		
05:00 – 05:15 p.m.	Reflections by Facilitators		
05:15 p.m.	End of Day-5		
Day 5 (October 10, 2021)			
08:30 – 08:45 a.m.	Day-4 Review		
08:45 – 10:00 a.m.	Group Practice		
10:00 – 10:15 a.m.	Tea Break		
10:15 – 11:45 a.m.	Interrater Reliability Test-1		
11:45 – 12:15 p.m.	Reflections on Interrater Reliability Test-1		
12:15 – 01:15 p.m.	Prayers and Lunch Break		
01:15 – 02:15 p.m.	Interrater Reliability Test-2		
02:15 – 02:45 pm.	Logistics: • Review of Protocols (repeat) • Roles of team • Using and following up teaming plan • Coordination • Reporting		

Time	Session		Baidoa Site
2:45– 3:00 noon	Logistics Handover: • Stationery • Tablets • Stimuli • Other assessment materials		
3:00 – 3:30 p.m.	Break and Prayers		
03:30 – 04:30 p.m.	Recap Assessment: • Process • Ethical concerns • Data quality		
04:30 – 04:45 p.m.	Closing Remarks		

Additions

- **Covid-19 mitigation measures**
- **Pretest and debrief from Day 8 and 9**

Enumerator Training Program – Kismayo

Training Title:	**Evaluation/BAB Enumerators' Training**	
Start: October 06, 2021 (Five days)		End: October 11, 2021
Training Hours:	40 Contact Hours	
Female: 2	Male: 12	**Total: 14**

Location: Madina Hotel		
District: Kismayo	State: Jubaland	
Objectives: 1. To introduce and inform the MOECHE officials about the LASER-BAB evaluation purposes, methods, and teams 2. To train the enumerators to accurately and effectively administer EGRA, EGMA, Learner Survey, and other survey questionnaires, in electronic format. 3. To enhance the knowledge of the enumerators on ethical and quality aspects of data collection and ethical issues around children's participation in research activity. 4. To identify skilled assessors to serve as enumerators for the data collection for the baseline evaluation survey. 5. To pilot longitudinal evaluation tools and platforms and check errors and enumerator consistency before deployment		
Tea & Refreshment:	☐ Working	☒ Non-working/Full break
Meals/Lunch:	☒ Yes	☐ No

Time	Session		Baidoa Site
Day 1 (October 06, 2021)			
08:00 – 08:30 a.m.	Registration		
08:30 – 08:45 a.m.	Participants' Introduction		
08:45 – 09:00 a.m.	Opening Remarks		
	Review of the Agenda and setting ground rules		
09:00 – 09:35 a.m.	Overview of the Evaluation • About LASER • Evaluation Background • Evaluation objectives		

Time	Session		Baidoa Site
	• Evaluation sites • Methods		
09:35 – 09:45 a.m.	Tea Break		
09:45 – 10:15 a.m.	Overview: • Early Grade Reading • Early Grade Mathematics • Learner Survey • Teacher and Head-teacher Survey		
10:15 – 10:35 a.m.	Tea Break		
10:35 – 11:10 a.m.	Overview of Early Grade Reading Assessment (EGRA) (Purpose, Instrument Content, Results use)		
11:10 – 12:30 p.m.	Early Grade Reading Assessment Tasks		
12:30 – 01:30 p.m.	Prayers and Lunch Break		
01:30 – 02:00 p.m.	Using Tablets for EGRA and protocols		
02:00 – 03:00 p.m.	Practice EGRA Tasks: • Listening Comprehension • Letter Sound Identification • Phonemic Awareness		
03:00 – 03:30 p.m.	Reflections EGRA Tasks: • Participants' reflections • Challenges		

Time	Session		Baidoa Site
03:30 – 04:00 p.m.	Prayers and tea break		
04:00 – 05:00 p.m.	Practice EGRA Tasks: • Invented Words (non-words) • Familiar Words		
05:00 – 05:15 p.m.	Reflections EGRA Tasks: • Participants' reflections • Challenges		
05:15 p.m.	**End of Day-1**		
Day 2 (October 07, 2021)			
08:30 – 08:45 a.m.	Day-1 Review		
08:45 – 10:00 a.m.	Practice EGRA Tasks: • Oral Reading Fluency (ORF) • Reading Comprehension • Writing/Dictation		
10:00 – 10:15 a.m.	Reflections EGRA Tasks: • Participants' reflections • Challenges		
10:15 – 10:45 a.m.	Tea Break		
10:45 – 12:15 p.m.	Complete EGRA Practice-1 (All Tasks)		
12:15 – 12:30 p.m.	Reflections EGRA Tasks: • Participants' reflections • Challenges		

Time	Session		Baidoa Site
12:30 – 01:30 p.m.	Prayers and Lunch Break		
01:30 – 02:30 p.m.	Complete EGRA Practice-2 (All Tasks)		
02:30 – 02:45 p.m.	Reflections By Facilitators		
05:15 p.m.	End of Day-2		
Day 3 (October 08, 2021)			
08:30 – 08:45 a.m.	Day-2 Review		
08:45 – 10:00 a.m.	Practice EGMA Tasks: • Missing Numbers • Addition Level-1 • Addition Level-2		
10:00 – 10:15 a.m.	Reflections EGMA Tasks: • Participants' reflections • Challenges		
10:15 – 10:35 a.m.	Tea Break		
10:35 – 12:00 noon	Practice EGMA Tasks: • Subtraction Level 1 • Subtraction Level-2 • Word Problem		
12:00 – 12:15 p.m.	Reflections EGMA Tasks: • Participants' reflections • Challenges		

Time	Session		Baidoa Site
12:15 – 01:15 p.m.	Prayers and Lunch Break		
01:15 – 02:30 p.m.	Complete EGMA Practice-1 (All Tasks)		
02:30 – 02:40 p.m.	Reflections EGMA Tasks: • Participants' reflections • Challenges		
02:40 – 03:30 p.m.	Complete EGMA Practice-2 (All Tasks)		
03:30 – 04:00 p.m.	Prayers and Tea Break		
04:00 – 05:00 p.m.	Practice EGRA & EGMA Combined		
05:00 – 05:15 p.m.	Reflections By Facilitators		
05:15 p.m.	End of Day-3		
Day 4 (October 09, 2021)			
08:30 – 08:45 a.m.	Practice Longitudinal Learner Survey		
08:45 – 09:15 a.m.	Reflections on Longitudinal Learner Survey		
08:45 – 09:15 a.m.	Practice Questionnaires		
09:15 – 10:15 a.m.	Tea Break		
10:15 – 10:35 a.m.	Reflections on Teacher/Head-Teacher Questionnaires		

Time	Session		Baidoa Site
10:35 – 10:50 a.m.			
01:30 – 03:30 p.m.	Full Assessment Practice-1		
03:30 – 04:00 p.m.	Prayers and tea break		
04:00 – 05:00 p.m.	Full Assessment Practice-2 (Group Practice)		
05:00 – 05:15 p.m.	Reflections by Facilitators		
05:15 p.m.	End of Day-5		
Day 5 (October 10, 2021)			
08:30 – 08:45 a.m.	Day-4 Review		
08:45 – 10:00 a.m.	Group Practice		
10:00 – 10:15 a.m.	Tea Break		
10:15 – 11:45 a.m.	Interrater Reliability Test-1		
11:45 – 12:15 p.m.	Reflections on Interrater Reliability Test-1		
12:15 – 01:15 p.m.	Prayers and Lunch Break		
01:15 – 02:15 p.m.	Interrater Reliability Test-2		
02:15 – 02:45 pm.	Logistics: • Review of Protocols (repeat)		

Time	Session		Baidoa Site
	• Roles of team • Using and following up teaming plan • Coordination • Reporting		
2:45– 3:00 noon	Logistics Handover: • Stationery • Tablets • Stimuli • Other assessment materials		
3:00 – 3:30 p.m.	Break and Prayers		
03:30 – 04:30 p.m.	Recap Assessment: • Process • Ethical concerns • Data quality		
04:30 – 04:45 p.m.	Closing Remarks		

Additions

- **Covid-19 mitigation measures**
- **Pretest and debrief from Day 8 and 9**

APPENDIX 5: COST ANALYSIS

This section provides a preliminary analysis of the cost data provided by Creative Associates and outlines the cost analysis plan for the project. All the calculations are based on the expenditure data provided by Creative Associates from April 2020 to September 2021.

COST ANALYSIS QUESTIONS

To answer the cost analysis questions the evaluation team needs expenditure data, cost of activity components, contributions, beneficiary opportunity cost, and intervention details (duration of teacher training, geographic coverage of intervention, dosage, etc.). Table A5-1 displays the cost analysis questions and the associated cost analysis methods, and data requirements. The cost analysis questions were collaboratively developed by USAID, and the evaluation and implementation (Creative) teams.

Table A5-1: Cost Analysis Questions

No.	Question	Method	Data requirement
1.	What is the cost per learner of increasing one proficiency level in reading and math skills (e.g.: non-learners, basic learners, emergent learners, etc.)?	Cost Effectiveness	1) Estimates of the impact of SEL intervention on reading and math skills
2	A. What is the cost per learner of expanding the BAB reading, math, and SEL intervention package in intervention areas? This will be estimated from USAID and the Government of Somalia's perspective. B. What is the cost per learner of replicating the BAB reading, math, and SEL intervention package in new areas? This will be estimated from USAID and the Government of Somalia's perspective.	Cost Efficiency Prospective Analysis	1) Information on output. 2) Information and data about the new areas where the intervention is to be implemented. 3) Information from USAID and Government of Somalia's perspective
3	What is the total cost per learner of SEL instruction, disaggregated by levels (L0, L1, L1-L2)?	Cost Efficiency	1) Information on output. 2) Information and data required for stakeholder analysis (Government, USAID, Private/non-profit organizations)

4	What are the start-up costs for the BAB program?	Cost Economy	1) Cost categories and activities are related to the start-up cost? 2) Start and end dates for these activities 3) Local price database 4) Output data
5	What is the development cost per learner of teaching and learning material?	Cost Economy	1) Cost categories, contributions, activities are related to the development cost of TLM 2) Start and end dates for these activities 3) Local price database 4) Output data
6	What is the procurement cost per learner of teaching and learning material?	Cost Economy	1) Local price database 2) Output data
7	What is the implementation (production and distribution) cost for teacher training, per teacher?	Cost Efficiency	1) Information on output
8	A. What is the estimated unit cost of teacher training when scaled up in intervention areas? B. What is the estimated unit cost of teacher training when replicated in new areas?	Cost Efficiency Prospective Analysis	1) Information on output. 2) Information and data about the new areas where the intervention is to be implemented. 3) Information from USAID and Government of Somalia's perspective
9	What is the cost of classroom/teaching infrastructure, per learner?	Cost Economy	1) Local price database 2) Output data
10	What is the cost of community engagement, per learner?	Cost Economy	1) Local price database 2) Output data 2) Information and data required for stakeholder

			analysis (Government, USAID, Private/non-profit organizations)

Note: All the questions require the expenditure and contributions reports disaggregated by start-up cost categories and ingredients. Column 3 notes the additional information required for answering the questions.

COST EXPENDITURES

Table A5-2 shows the expenditure data using cost categories for the intervention. The expenditure data was provided from April 2020 to September 2021. The highest expenditure was in the general management and operations category (36%) followed by the non-ingredient data and fixed fee (complementary activities; 35%). Block grants accounted for 11% of the expenditure and development and implementation of teaching and learning material accounted for 6.5% of the total expenditure. Safe school and infrastructure (0.3%) and community engagement (0.6%) categories amounted for the lowest expenditure (see Figure A5-1).

Table A5-2: BAB expenditure data using cost categories reported from April 2020 to September 2021

Summary Expenditure Data	**Amount (USD)**	**Percent**
Cost Category 1: General Management and Operations	3,167,375	35.96
Cost Category 2: M&E and Reporting	424,735	4.82
Cost Category 4: Teacher Training	161,291	1.83
Subcategory 4: Development	27,205	0.30
Subcategory 4: Implementation	134,086	1.52
Cost Category 5: Teaching and Learning Materials	576,384	6.54
Subcategory 5: TLM Development	386,3.8	4.38
Subcategory 5: Production and Distribution	190,076	2.15
Cost Category 6: System Strengthening	332,386	3.77
Cost Category 8: Parents/Community Engagement	81,663	0.92
Subcategory 8: Intervention Development	53,255	0.60

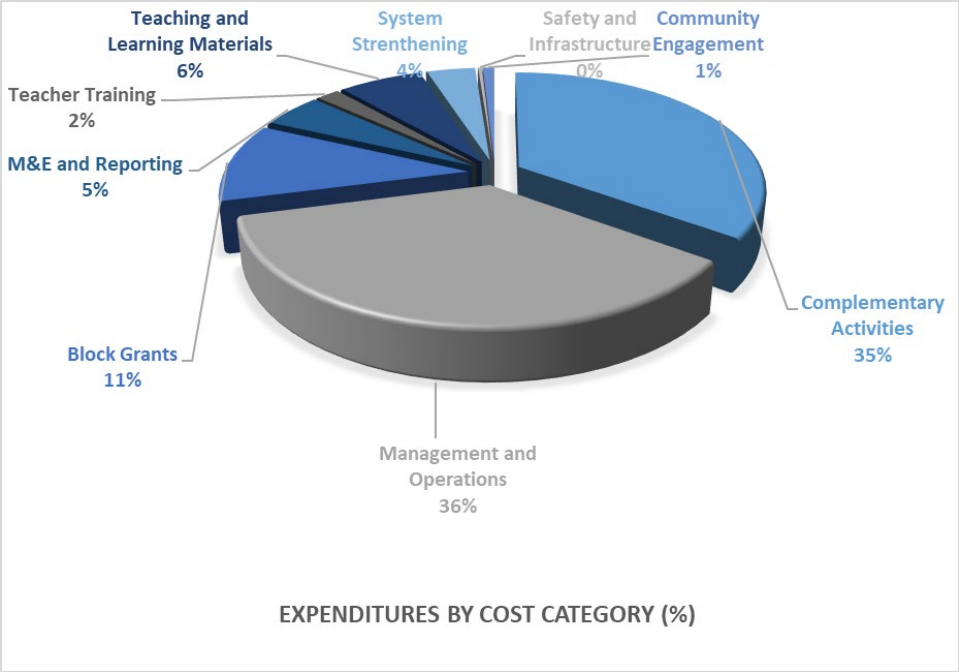
Subcategory 8: Intervention Implementation	28,408	0.32
Cost Category 9: Safe Schools and Infrastructure	31,519	0.3
Cost Category 11: Block Grants	967,922	10.99
Cost Category II: Complementary Activities	3,063,332	34.76
Total	8,806,606	100

Note: The calculations for the categories include expenditure data from April 2020 to September 2021, except for the complementary activities category. The complementary activities cost category is the sum of non-ingredient data and fixed fee and includes expenditure pre-April 2020.

COST DRIVERS

To better understand the main cost drivers for the expenditure, Table 39 shows the top ten cost drivers. Non-ingredient data is the largest cost driver accounting for 30% of the expenditure. Contract grants to governmental organizations are the second highest cost driver (8%). The labor cost for General Operations (6%) and General Management (3.7%) cost categories are also the top cost drivers. Same is the case for the indirect cost for the General Operations (6.6%) and General Management (3.5%) cost categories.

Figure A5-1: Expenditures by Category



Implementation cost per teacher of teacher training

We conducted a preliminary cost-efficiency analysis to calculate the per teacher implementation cost for teacher training. The expenditure for teacher training is noted in Q3 and Q4 of year 2021. In total 127 teachers were trained in year 2021 (Reference: Contributions Dosage Report Q1Y3). To calculate the implementation cost, we also considered the management and logistic costs for the entire duration available.

Our current preliminary estimate of implementation cost per teacher of teacher training is $1,436.

Assumptions and required information:

1) We assumed that the management and logistic cost for all the five quarters is applicable for the teacher training. The cost would differ if the management and logistic cost were considered only for the duration of teacher training. However, a calendar of activities related to teacher training is required to precisely estimate this cost.

2) Similarly, information about teacher training per-diems and any other related expenses (such as food, donations) will lead to a more accurate estimate.

Table A5-3: Top Ten Cost Drivers

No.	Cost Driver	Amount (USD)	Percent
1	Non-ingredient Data	2,602,158	29.5%
2	Grants Under Contract (Block Grants to Governmental Organizations)	697,082	7.91%
3	Indirect Cost (General Operations)	588,652	6.68%
4	Labor (General Operations)	529,290	6.01%
5	Other Direct Costs (General Operations)	483,587	5.49%
6	Fixed Fee	461,174	5.23%
7	Grants Under Contract (Block Grants to Non-governmental Organizations)	413,062	4.69%
8	Labor (General Management)	329,577	3.74%
9	Indirect Cost (General Management)	308,800	3.50%
10	Other Direct Costs (Learning Assessment and Evaluation)	222,725	2.52%

Note: The calculations are based on the expenditure data reported from April 2020 to September 2021. Non-ingredient data and Fixed Fee categories belong to the Complementary Activities cost category in Table A5-3.

PRELIMINARY COST ANALYSIS

Start-up cost for BAB program

We conducted a preliminary cost-economy analysis to calculate the start-up cost for BAB program. The expenditure in all five quarters was used in calculating this cost.

The current preliminary estimate for start-up costs is $4,018,232.

Assumptions and required information:

1) We are using all implementation and development data from all the quarters available.

2) To estimate the start-up cost we need a calendar of activities related to set-up and implementation for the BAB program

3) Similarly, local price database, contributions from teacher training etc. will help in obtaining accurate estimates.

Cost per learner of increasing one proficiency level in reading and math skills

We will conduct a cost-effectiveness analysis to answer this question. We will use all implementation and development data from all the quarters available. Monetized contributions will also be included in the calculations. The estimates of the impact of ABE intervention on reading and math skills will be used in the analysis. The proficiency levels for the learners will be defined using existing benchmarks from BAB and ES1-48 (2020 Compendium of Standard PIRS for Education Programming) and Somali national benchmarks as they become available.

Assumptions and required information:

1) Contributions for the intervention and the associated cost for estimating monetized contributions.

2) Estimates of the impact of ABE intervention on reading and math skills from the impact evaluation calculations.

From the current available data, the total expenditure on increasing proficiency for all the learners is $384,088 (implementation cost). The cost, including management and logistic costs, is $440,750.

Development cost of teaching and learning material

We will conduct a cost economy analysis to answer this question. The preliminary estimate of total development cost for the teaching and learning material is $525,248.

To calculate the development cost per learner for teaching and learning material, a total number of learners affected by the teaching and learning material is required. To calculate the development cost of teaching and learning material by level, we will need the development cost disaggregated by material dedicated for each level and the number of learners at each level benefiting from the material.

If it is not possible to provide expenditure data by levels, this information might be obtained from other sources available to Creative Associates.

Procurement cost of teaching and learning material

The expenditure related to the procurement cost of teaching and learning is not captured in the quarterly expenditure reports. This procurement cost for the teaching and learning material will have to be accounted for answering this question.

Total cost of classroom/teaching infrastructure

The preliminary total cost of classroom infrastructure (Safe schools and Infrastructure) is $31,529.

To calculate the classroom infrastructure cost per learner, the total number of learners affected by the Safe Schools and Infrastructure expense is required.

Cost per learner of ABE instruction per learner

We will conduct a cost economy analysis that will also include a stakeholder analysis. Detailed information about stakeholder contributions and costs associated with those contributions will be required to obtain an accurate estimate.

To calculate this cost per learner, the total number of learners benefiting from this instruction is required.

Cost of community engagement per learner

We will conduct a cost economy analysis that will also include a stakeholder analysis. Detailed information about stakeholder contributions and costs associated with those contributions will be required to obtain an accurate estimate.

The preliminary total cost of community engagement (implementation and development) is $81,663.

To calculate the community engagement cost per learner, a total number of learners affected by community engagement expense is required.

Cost of expanding and replicating the BAB program and cost of scaling and replicating teacher training in new areas (Prospective Analysis)

We will conduct a cost efficiency prospective analysis to answer questions related to expanding the BAB program in the intervention areas and replicating the program in new areas and scaling and replicating teacher training in new areas.

To conduct prospective analysis, we will need the following detailed information:

- Perspective (e.g.: USAID, Government of Somalia) from which the scaling, expansion, or replication of the program will be conducted.
- Geographical location and characteristics of the expansion areas
- Characteristics of the target beneficiaries from the program
- Number of teachers to be trained
- Number of learners to be trained at each level
- Who will be conducting the expansion, scaling, or replication

CHALLENGES AND LIMITATIONS

The goal is to ensure that the cost analysis questions are answered as best as we can, given the available data and information. However, there can be certain challenges and limitations. The prospective cost efficiency analysis will depend on several factors that are not included in the expenditure data. Information from stakeholders about the replications and scaling up of the ABE, such as changes when scaling up, population characteristics where replicating, etc., is important for the successful estimation of these costs. Stakeholders can decide on how precise the estimates for the prospective analysis are required. Similarly, provision and accuracy of the information that is not available through the expenditure data will be crucial in the precise cost estimation. This information includes cost-share contributions, local price database, intervention details, volunteer contributions, beneficiary, and volunteer opportunity cost, etc.

APPENDIX 6: SURVEY INSTRUMENTS

Bar Ama Baro
External Evaluation

LASER Learner Survey (LLS)

2021
Somalia

Section 1: General Information -- Enumerator completes this section

1	Date	
2	Time	Start time: End time:
3	Enumerator's Name	
4	Enumerator's ID	
5	State	
6	Region	
7	District	
8	Village	
9	Is this a BAB class?	No = 0, Yes = 1
10	If not a BAB class, is the school private, community, or government?	Private = 0, Community = 1, Government = 2
11	School/BAB Center Name	
12	School/BAB Center ID	
13	BAB Level-1 Class ID or School grade 1 ID	
14	Teacher Name	
15	Child/Learner Name	
16	Child/Learner's Mother or Guardian's Name	
17	Child/Learner's Mother or Guardian's Cell Phone #	
18	Child/Learner sex	
19	Is the child from an IDP family?	No = 0, Yes = 1
20	Child's age	Years:

(Note for the enumerator:

1. *Please fill in fields 1-20 using school records/rosters.*
2. *Please make sure that the assent from the learner is obtained before starting asking any questions. Check student responses (and spelling) of items 15-20 with class roster.*

Section 2: Questionnaire

First, I want to learn a little bit about you.

1. Who do you live with? (Record all student mentions) (ISELA)
   - Mother 1
   - Father 2
   - Sister 3
   - Brother 4
   - Aunt 5
   - Uncle 6
   - Cousin 7
   - Grandmother 8
   - Grandfather 9
   - Friend 7
   - Other 8

2. If other, please describe:

3. If student mentioned the following, ask how many live in the house with them.
   Number of
   - Sisters _____
   - Brothers _____
   - Aunts _____
   - Uncles _____
   - Cousins _____
   - Grandmothers _____
   - Grandfathers _____
   - Friends _____
   - Others _____

4. Which languages/dialects do you speak at home? (only two options to be allowed for response) (ISELA)
   - Maay 1
   - Maxaatiri 2
   - Dabarre 3
   - Garre 4
   - Barwaani 5
   - Jiida 6
   - Tunni 7
   - Baajuun 8
   - Other 9

5. Enter here if student speaks in a language other than listed in the previous question. (ask if response to Q5 is 9, otherwise skip)

6. Did you attend Qur'anic school before you were admitted to this school? (LS)
   - No 0
   - Yes 1
   - I do not know 99
   - Did not answer 888

7. Do you still attend Qur'anic school? (LS)
   - No 0
   - Yes 1
   - I do not know 99
   - Did not answer 888

8. Did you attend any other school prior to being admitted to this school?
   - No 0
   - Yes 1
   - I do not know 99
   - Did not answer 888

9. Were you absent at all last week? If the answer is yes, why were you absent? (multiple answers allowed) (LS)
   - No, I wasn't absent 0
   - Yes! Because I was ill 1
   - Yes! Because I had work to do at home 2
   - Yes! Because I had work to do outside home 3
   - Yes! Because there was no car to bring me to school 4
   - Yes! Because the weather was bad 5
   - Yes! Because going to school was dangerous 6
   - Yes, because being at school was risky 7
   - Yes! Because I had woken up late 8
   - Yes! Because I was looking after the family children 9
   - Yes! Because I could not find the school dress 10
   - Yes! Because the teacher and the students do not treat me well 11
   - Yes! Because I had been to a wedding 12
   - Yes! Because Somebody was ill at home 13
   - Yes! Because of funeral 14
   - Yes! Because of war, security 15
   - Yes, for other reason 16
   - I do not know 99
   - Did not answer 888

10. If the reason was something other than the previous list, enter it here.

11. Can your mother read and write? (LS)
    - No 0
    - Yes 1
    - I have no mother 2
    - I do not know 99
    - Did not answer 888

12. Can your father read and write? (LS)
    - No 0
    - Yes 1
    - I have no father 2
    - I do not know 99
    - Did not answer 888

13. Besides the schoolbooks, do you have other books (story books, magazine, newspaper, etc.) at home for reading? (LS)
    - No. 0
    - Yes. 1
    - I do not know 99
    - Did not answer 888

14. Did you eat something before coming to school today? (LS)
    - No 0
    - Yes 1
    - I do not know 99
    - Did not answer 888

15. Besides school, do you also do something else to help your family? (LS)
    - No 0
    - Yes. I wash cars. 1
    - Yes, burn mustard plants [for evil eye] 2
    - Yes, I graze animals 3
    - Yes, I work with my father on the land 4
    - Yes, I collect wood plants 5
    - Yes. I work on the roadside. 6
    - Yes, housework and activities 7
    - Yes, I care for my younger sister and brother 8
    - Yes, work in the field. 9
    - Yes, work in the shop. 10
    - Yes, Tailoring. 11
    - Yes, weaving, embroidery. 12
    - Yes, carpentry 13
    - Yes, blacksmith/plumber. 14

Yes, construction laborer _____15
Yes, something else_____16
Did not answer _____888

16. Enter it here if you do any work other than listed in the previous list. (ask if response to Q15 is 16, otherwise skip)

17. Do you have electricity at home? (LS/ISELA)
    No. _____0
    Yes. _____1
    I do not know _____99
    Did not answer _____888

18. Do you have a radio at home? (LS)
    No. _____0
    Yes. _____1
    I do not know _____99
    Did not answer _____888

19. Does your house have an indoor bathroom/toilet? (ISELA)
    No. _____0
    Yes. _____1
    I do not know _____99
    Did not answer _____888

20. Does your house have a telephone/mobile phone? (ISELA)
    No. _____0
    Yes. _____1
    I do not know _____99
    Did not answer _____888

Now, I will ask some questions about how you feel about your classroom and school. I will read a series of statements to you. Please tell me if the statement is true for you: none of the time, a little of the time, some of the time, a lot of the time, most of the time, or all of the time.

21. How often do you feel safe at school? (NPC)
    None of the Time_____0
    A little of the time_____1
    Some of the time_____2
    A lot of the time _____3
    Most of the time_____4
    All of the time_____5

22. If student answered 0-2 for question 21, ask what makes you feel unsafe or afraid at school? (LS)
    - The teacher 0
    - The Head teacher 1
    - My classmates 2
    - Students of other classes. 3
    - Insects 4
    - Servant 5
    - Fighting 6
    - Bombs/gunfire 7
    - Thieves, dacoits 8
    - Earthquake 9
    - Animals 10
    - Something else 11
    - Did not answer 888

23. Enter it here if s/he is afraid of anything other than listed in the previous list. (ask if response to Q22 is 11, otherwise skip)

24. How often do you feel safe on your way to school? (new)
    - None of the Time 0
    - A little of the time 1
    - Some of the time 2
    - A lot of the time 3
    - Most of the time 4
    - All of the time 5

25. If student answered 0-2 for question 24, ask, what makes you feel unsafe or afraid on your way to school? (LS)
    - Animals 0
    - Passing the bridge 1
    - Armed people. 2
    - Other children. 3
    - War 4
    - Suicide attacker 5
    - Cars 6
    - Kidnapping. 7
    - Thieves/dacoits 8
    - Soldiers 9
    - Men 10
    - Women 11
    - Boys. 12
    - Something else 13
    - Did not answer. 888

26. Enter it here if student is afraid of anything other than listed in the previous list. (ask if response to Q25 is 13, otherwise skip)

27. How often are you picked on or bullied at school? (SC Denmark)
    - None of the Time 0
    - A little of the time 1
    - Some of the time 2
    - A lot of the time 3
    - Most of the time 4
    - All of the time 5

28. How often do you like being at school? (School Engagement Scale)
    - None of the Time 0
    - A little of the time 1
    - Some of the time 2
    - A lot of the time 3
    - Most of the time 4
    - All of the time 5

29. How often do you feel happy at school? (School Engagement Scale)
    - None of the Time 0
    - A little of the time 1
    - Some of the time 2
    - A lot of the time 3
    - Most of the time 4
    - All of the time 5

30. How often are you interested in the work at school? (School Engagement Scale)
    - None of the Time 0
    - A little of the time 1
    - Some of the time 2
    - A lot of the time 3
    - Most of the time 4
    - All of the time 5

31. How often does your teacher treat you fairly at school?
    - None of the Time 0
    - A little of the time 1
    - Some of the time 2
    - A lot of the time 3
    - Most of the time 4
    - All of the time 5

32. In your classroom, how often are some children treated better than others?
    - None of the time 0

A little of the time 1
Some of the time 2
A lot of the time 3
Most of the time 4
All of the time 5

33. If student answers 3,4, or 5 for question 32, ask who is treated better in their classrooms?
    Boys are treated better 0
    Girls are treated better 1
    Children from certain families/groups are treated better 2
    Children without disabilities are treated better 3
    Other 4

34. If student answered 4 (other) for question 33, write their response here. _____

Now I want to ask you some questions about how you've been feeling during this past week. Listen carefully to each statement and think about how things have been for you over the past week. Then, tell me if you think this statement was true for you none of the time, a little of the time, some of the time, a lot of the time, or all the time. (KINDL)

35. During the past week how often did you have fun and laugh a lot?

    None of the Time 0
    A little of the time 1
    Some of the time 2
    A lot of the time 3
    Most of the time 4
    All of the time 5

36. During the past week how often were you bored?

    None of the Time 0
    A little of the time 1
    Some of the time 2
    A lot of the time 3
    Most of the time 4
    All of the time 5

37. During the past week how often did you feel alone?

    None of the Time 0
    A little of the time 1
    Some of the time 2
    A lot of the time 3
    Most of the time 4

All of the time 5

38. During the past week how often were you scared/ how often were you scared or unsure of yourself?

None of the Time 0
A little of the time 1
Some of the time 2
A lot of the time 3
Most of the time 4
All of the time 5

39. During the past week, how often were you proud of yourself?

None of the Time 0
A little of the time 1
Some of the time 2
A lot of the time 3
Most of the time 4
All of the time 5

40. During the past week, how often did you feel very happy?

None of the Time 0
A little of the time 1
Some of the time 2
A lot of the time 3
Most of the time 4
All of the time 5

41. During the past week, how often did you feel pleased with yourself?

None of the Time 0
A little of the time 1
Some of the time 2
A lot of the time 3
Most of the time 4
All of the time 5

42. During the past week, how often did you have lots of good ideas?

None of the Time 0
A little of the time 1
Some of the time 2
A lot of the time 3

Most of the time 4
All of the time 5

43. During the past week, how often did you play with friends. how often did you play or do things together with your friends?

None of the Time 0
A little of the time 1
Some of the time 2
A lot of the time 3
Most of the time 4
All of the time 5

44. During the past week, how often did you feel that other kids liked you?

None of the Time 0
A little of the time 1
Some of the time 2
A lot of the time 3
Most of the time 4
All of the time 5

45. During the past week, how often did you get along with your friends?

None of the Time 0
A little of the time 1
Some of the time 2
A lot of the time 3
Most of the time 4
All of the time 5

46. During the past week, how often did you feel different from other children/youth?

None of the Time 0
A little of the time 1
Some of the time 2
A lot of the time 3
Most of the time 4
All of the time 5

47. During the past week, how often did you find doing your schoolwork was easy?

None of the Time 0
A little of the time 1

Some of the time 2
A lot of the time 3
Most of the time 4
All of the time 5

48. During the past week, how often did you enjoy your lessons/ How often did you find school interesting?

None of the Time 0
A little of the time 1
Some of the time 2
A lot of the time 3
Most of the time 4
All of the time 5

49. During the past week, how often did you worry about your future?

None of the Time 0
A little of the time 1
Some of the time 2
A lot of the time 3
Most of the time 4
All of the time 5

50. During the past week, how often did you worry about bad marks or grades?/How often did you worry about getting bad marks or grades?

None of the Time 0
A little of the time 1
Some of the time 2
A lot of the time 3
Most of the time 4
All of the time 5

---------- *End of Questionnaire* ----------

Thank you very much for your time and responding to the question. Your support is highly appreciated.

Bar Ama Baro
External Evaluation

LASER Teacher Survey (LTS)

2021
Somalia

Section 1: General Information

1	Date	
2	Time	Start time: End time:
3	Enumerator's Name	
4	Enumerator's ID	
5	State	
6	Region	
7	District	
8	Village	
9	Does this teacher teach LASER longitudinal cohort classes in both BAB and nonBAB schools?	No = 0, Yes = 1
12	School/BAB Center Name (if teacher teaches both BAB and nonBAB cohort classes, list information for both)	
13	School/BAB Center ID	
15	Teacher Name	
16	BAB School Shift	Morning = 1, Afternoon = 2, Noon=3 Other = 4
17	Non-BAB School Shift	Morning = 1, Afternoon = 2, Noon=3 Other = 4

Section 2: Questionnaire

The first set of questions help us understand your background and experience in teaching.

1. Sex (BAB – TS)
   Male 1
   Female 2

2. What is your age? (**BAB – TS)**
   In years _____
   I don't know 99
   Didn't answer 888

3. What is your highest completed grade/level of education? (**BAB – TS)**
   I have not finished grade 12 0
   Grade 12 graduate 1
   Grade 14 graduate 2
   Master [degree] 3
   Doctorate [degree) 4
   Other, please specify 5 _____

4. How long have you been working as a teacher? (**BAB – TS)**
   Less than one year 1
   One year 2
   Two years 3
   Three years 4
   Four years 5
   Five years 6
   More than 5 years 7

5. Why did you choose to work as a teacher? (Multiple choice) **BAB - TS**
   Because no other work was available 1
   Because I like it 2
   To serve the people 3
   Other reason 4
   Do not know 99
   Did not answer 888

6. If other reason, please write it here. _____

7. Do you have an occupation other than teaching? (**BAB – TS)**
   No 0, if no, skip to question 10
   Yes 1

8. What other job do you do besides teaching? (**BAB – TS)**
   Farming 1
   Running a store 2

Driving	3
Teaching at private schools and courses	4
Being an imam	5
Raising Animals	6
Any other job	7
Did not answer	888

9. If teacher's job is other than in the previous list, enter it here. (**BAB – TS)**

10. Which non-BAB grade do you teach?

I do not teach any non-BAB classes.	0	If 0, skip to question 13
Early Childhood Education	1	
1st grade	2	
2nd grade	3	
3rd grade	4	
4th grade	5	
5th grade	6	
Above grade 5	7	

11. How many students are there in your non-BAB class?
    Number _____

12. Are you a permanent teacher for this non-BAB class at this school? (BAB - TS)

No, the school's administration sent me to this class today	0
Yes, I am the permanent teacher for this class	1

13. Which BAB level do you teach?

I do not teach any BAB classes	0	If 0, skip to question 16
I teach BAB Level 1	1	
I teach BAB Level 2	2	
I teach both BAB levels	3	

14. How many students are there in your BAB level-1 class? (BAB – TS)
    Number _____

15. Are you a permanent teacher for this BAB class at this school? (BAB - TS)

No, the school's administration sent me to this class today	0
Yes, I am the permanent teacher for this class	1

16. What is your mother tongue? **(BAB – TS)**
    - Maay 1
    - Maxaatiri 2
    - Dabarre 3
    - Garre 4
    - Barwaani 5
    - Jiida 6

- Tunni 7
- Baajuun 8
- Another language 9

17. If the language is other than listed above enter it here. _____ **(BAB – TS)**

18. In what language do you teach?
    - Maay 1
    - Maxaatiri 2
    - In both languages 3
    - Other language 4

19. If answer to number 18 is other (4), please specify _____

Now I want to ask you some questions about the role that you play in your school. On a scale of 1-9, please indicate how much you feel you can do relative to each of the statements where 1 = you can do nothing and 9 = you can do a great deal. (1: Nothing, 3: Very Little, 5: Some Influence, 7: Quite A Bit, 9: A Great Deal) – **Bandura's Teacher Self-Efficacy Scale**

20. How much can you do to influence the class sizes in your school?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence
    6
    7 Quite a bit
    8
    9 A great deal
21. How much can you do to get through to the most difficult students?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence
    6
    7 Quite a bit
    8
    9 A great deal

22. How much can you do to promote learning when there is lack of support from the home?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence
    6

7 Quite a bit
8
9 A great deal

23. How much can you do to keep students on task on difficult assignments?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence
    6
    7 Quite a bit
    8
    9 A great deal

24. How much can you do to increase students' memory of what they have been taught in previous lessons?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence
    6
    7 Quite a bit
    8
    9 A great deal

25. How much can you do to motivate students who show low interest in schoolwork?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence
    6
    7 Quite a bit
    8
    9 A great deal

26. How much can you do to get students to work together?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence
    6
    7 Quite a bit
    8
    9 A great deal

27. How much can you do to get students from different backgrounds to work together?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence
    6
    7 Quite a bit
    8
    9 A great deal

28. How much can you do to overcome the influence of adverse community conditions on students' learning?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence
    6
    7 Quite a bit
    8
    9 A great deal

29. How much can you do to get children to do their homework?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence
    6
    7 Quite a bit
    8
    9 A great deal

30. How much can you do to get children to follow classroom rules?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence
    6
    7 Quite a bit
    8
    9 A great deal

31. How much can you do to control disruptive behavior in the classroom?
    1 Nothing

2
3 Very little
4
5 Some influence
6
7 Quite a bit
8
9 A great deal

32. How much can you do to prevent problem behavior on the school grounds?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence
    6
    7 Quite a bit
    8
    9 A great deal

33. How much can you do to get parents to become involved in school activities?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence
    6
    7 Quite a bit
    8
    9 A great deal

34. How much can you assist parents in helping their children do well in school?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence
    6
    7 Quite a bit
    8
    9 A great deal

35. How much can you do to make parents feel comfortable coming to school?
    1 Nothing
    2
    3 Very little
    4
    5 Some influence

6
7 Quite a bit
8
9 A great deal

People differ in their approach and attitudes towards teaching. We want to understand how you feel about teaching. For the next set of statements, please think about your attitudes and beliefs about teaching. Remember, there are no right or wrong answers. Please indicate how often each statement is true for you by selecting the appropriate number on a scale of 0-6 (0: Never, 1: Rarely, 2: On occasion, 3: Sometimes, 4: Often, 5: Frequently, 6: Always)- **Engaged Teacher Scale**

36. I am excited about teaching.
    0 Never
    1 Rarely
    2 On occasion
    3 Sometimes
    4 Often
    5 Frequently
    6 Always
37. In class, I show warmth to my students.
    0 Never
    1 Rarely
    2 On occasion
    3 Sometimes
    4 Often
    5 Frequently
    6 Always

38. I try my hardest to perform well while teaching.
    0 Never
    1 Rarely
    2 On occasion
    3 Sometimes
    4 Often
    5 Frequently
    6 Always

39. I feel happy while teaching.
    0 Never
    1 Rarely
    2 On occasion
    3 Sometimes
    4 Often
    5 Frequently
    6 Always

40. In class, I am aware of my students' feelings.

0 Never
1 Rarely
2 On occasion
3 Sometimes
4 Often
5 Frequently
6 Always

41. While teaching, I really –"throw" myself into my work.
    0 Never
    1 Rarely
    2 On occasion
    3 Sometimes
    4 Often
    5 Frequently
    6 Always

42. I love teaching.
    0 Never
    1 Rarely
    2 On occasion
    3 Sometimes
    4 Often
    5 Frequently
    6 Always

43. While teaching I pay a lot of attention to my work.
    0 Never
    1 Rarely
    2 On occasion
    3 Sometimes
    4 Often
    5 Frequently
    6 Always

44. I find teaching fun.
    0 Never
    1 Rarely
    2 On occasion
    3 Sometimes
    4 Often
    5 Frequently
    6 Always

45. In class, I care about the problems of my students.
    0 Never
    1 Rarely
    2 On occasion

3 Sometimes
4 Often
5 Frequently
6 Always

46. While teaching, I work with intensity.
    0 Never
    1 Rarely
    2 On occasion
    3 Sometimes
    4 Often
    5 Frequently
    6 Always

47. In class, I am empathetic towards my students.
    0 Never
    1 Rarely
    2 On occasion
    3 Sometimes
    4 Often
    5 Frequently
    6 Always

The next set of questions asks you to reflect on your beliefs about education and your feelings of knowledge and support. Please indicate how true you find each of the following statements on a scale from 1-7 where 1 is untrue and 7 is very true. (1: Very untrue, 2: Untrue, 3: Somewhat untrue, 4: Neutral, 5: Somewhat true, 6: True, 7: Very true)

48. I think educating girls is important for our society's development.
    1 very untrue
    2 untrue
    3 somewhat untrue
    4 neutral
    5 somewhat true
    6 true
    7 very true
49. I have the content knowledge I need to effectively teach my class.
    1 very untrue
    2 untrue
    3 somewhat untrue
    4 neutral
    5 somewhat true
    6 true
    7 very true

50. I have a range of techniques to effectively teach all students in my class.

1 very untrue
2 untrue
3 somewhat untrue
4 neutral
5 somewhat true
6 true
7 very true

51. I have the support I need to effectively teach my class.
    1 very untrue
    2 untrue
    3 somewhat untrue
    4 neutral
    5 somewhat true
    6 true
    7 very true

52. I have the materials I need to effectively teach my class.
    1 very untrue
    2 untrue
    3 somewhat untrue
    4 neutral
    5 somewhat true
    6 true
    7 very true

53. I have the knowledge and skills I need to effectively teach all children in my class, regardless of their gender, age, or family background, disability, or other characteristics.
    1 very untrue
    2 untrue
    3 somewhat untrue
    4 neutral
    5 somewhat true
    6 true
    7 very true

54. I believe it's more important to educate boys than girls.
    1 very untrue
    2 untrue
    3 somewhat untrue
    4 neutral
    5 somewhat true
    6 true
    7 very true

55. I have people and resources I can draw on when I have challenges in my classroom.
    1 very untrue
    2 untrue

3 somewhat untrue
4 neutral
5 somewhat true
6 true
7 very true

56. I have various strategies to effectively manage my classroom.
    1 very untrue
    2 untrue
    3 somewhat untrue
    4 neutral
    5 somewhat true
    6 true
    7 very true

57. I believe all students have the capacity to learn.
    1 very untrue
    2 untrue
    3 somewhat untrue
    4 neutral
    5 somewhat true
    6 true
    7 very true

Finally, schools vary in the level of physical and emotional safety they provide for students and teachers. Kindly indicate your level of agreement to the following statements with respect to your feelings of safety on a scale of 1-7 (1: Strongly disagree, 2: Disagree, 3: Somewhat disagree, 4: Neither agree nor disagree, 5: Somewhat agree, 6: Agree, 7: Strongly agree) – (**Modified from BAB – TS)**

58. I feel physically safe at school.
    1 strongly disagree
    2 disagree
    3 somewhat disagree
    4 neither agree nor disagree
    5 somewhat agree
    6 agree
    7 strongly agree

59. All my students are physically safe at school, regardless of their gender, age, family background, disability, or other characteristics.
    1 strongly disagree
    2 disagree
    3 somewhat disagree
    4 neither agree nor disagree
    5 somewhat agree
    6 agree

7 strongly agree

60. If response to question 59 is 1-4, please indicate which students are **not** physically safe at your school
    1 boys
    2 girls
    3 younger children
    4 older children
    5 children with disabilities
    6 children from certain clans or families
    7 no children are safe
    8 other, please specify _____

61. All my students, regardless of gender, age, disability, family background, or other characteristics are safe on their way to school.
    1 strongly disagree
    2 disagree
    3 somewhat disagree
    4 neither agree nor disagree
    5 somewhat agree
    6 agree
    7 strongly agree

62. If response to question 61 is 1-4, please indicate which students are **not** safe on their way to school.
    1 boys
    2 girls
    3 younger children
    4 older children
    5 children with disabilities
    6 children from certain clans or families
    7 no children are safe
    8 other, please specify _____

63. All my students, regardless of gender, age, disability, family background, or other characteristics are accepted and emotionally supported in my school.
    1 strongly disagree
    2 disagree
    3 somewhat disagree
    4 neither agree nor disagree
    5 somewhat agree
    6 agree
    7 strongly agree

64. If response to question 63 is 1-4, please indicate which students are **not** accepted and emotionally supported at your school.
    1 boys
    2 girls
    3 younger children
    4 older children
    5 children with disabilities
    6 children from certain clans or families
    7 no children are accepted and supported
    8 other, please specify _____

---------- *End of Questionnaire* ----------

Thank you very much for your time and responding to the question. Your support is highly appreciated.

LASER BAB

Head Teacher Questionnaire

2021
Somalia

Section 1: General Information

1	Date		
2	Start Time		End Time
3	Enumerator's Name		
4	Enumerator's ID		
5	State		
6	Region		
7	District		
8	Village		
9	School/BAB Center Name		
10	School/BAB Center ID		
11	BAB School shift	Morning = 1, Afternoon = 2, Noon = 3, Other =4	
12	Non-BAB School shift	Morning - 1, Afternoon - 2, Noon=3, Other = 4	

Section 2: Questionnaire

Our first questions will help us learn something about your school and the background, training, and experience you bring to your role as head teacher.

1. Head Teacher Sex
   1 Male
   2 Female

2. What is your age?
   Number _____
   99 I don't know
   888 Didn't answer

3. What is your highest completed grade/level of education?
   0 I have not finished grade twelve
   1 Grade 12th graduate
   2 Grade 14th graduate (Bachelor's degree)
   3 Master[degree]
   4 Doctorate [degree]-Ph.D.
   5 Other-Special studies, please specify:_____

4. How long have you been working at this school as a head teacher?
   1 Less than a year
   2 One year
   3 Two years
   4 Three years
   5 Four years
   6 Five years
   7 More than five years

5. Have you ever taught in the classroom?
   0 No (if no, skip to Q7)
   1 Yes

6. What grades have you taught?
   1 Qur'anic school
   2 Grade 1
   3 Grade 2
   4 Grade 3
   5 Grade 4

6 Grade 5
7 Above Grade 5
8 Other _____

7. Have you ever received training on leadership and management?
   0 No (if no, skip to Q9)
   1 Yes

8. How many trainings have you received on leadership and management?
   1 One training
   2 Two trainings
   3 More than two

9. Have you ever received training on child rights?
   0 No (if no, skip to Q11)
   1 Yes

10. How many trainings have you received on child rights?
   1 One training
   2 Two trainings
   3 More than two

11. How would you describe the school/BAB Center where you are head teacher (Select all that apply).
   1 Government School
   2 Private School
   3 Community School
   4 BAB ABE Center

12. On or around what date did your classes start this year?
   BAB Date: DD/MM/YY_____
   Non-BAB Date: DD/MM/YY_____

13. Since starting classes, have your non-BAB classes ever been closed on any working days, for any reason, other than holiday?
   0 No
   1 Yes, for one day
   2 Yes, for 2-5 days
   3 Yes, for one to two weeks
   4 Yes, for two to four weeks
   5 Yes, for more than a month
   99 I don't know

14. Since starting classes, have your BAB classes ever been closed on any working days, for any reason, other than holiday?
    0 No
    1 Yes, for one day
    2 Yes, for 2-5 days
    3 Yes, for one to two weeks
    4 Yes, for two to four weeks
    5 Yes, for more than a month
    6 There are no BAB classes at my school
    99 I don't know

15. What grades or BAB levels do you have in your school/BAB center from the grades mentioned below? (Select all that apply)
    1 BAB Level 1
    2 BAB Level 2
    3 Grade one
    4 Grade two
    5 Grade three
    6 Grade four
    7 Grade five

16. How many hours a day do BAB level-1 students study at school/center?
    1 One hour
    2 Two hours
    3 Three hours
    4 Four hours
    5 Five hours
    6 More than 5 hours
    99 I don't know
    888 did not answer

17. How many hours a day do BAB level-2 students study at school/center?
    1 One hour
    2 Two hours
    3 Three hours
    4 Four hours
    5 Five hours
    6 More than 5 hours
    99 I don't know
    888 did not answer

18. How many hours a day do non-BAB grade-1 students study at school/center?
    1 One hour
    2 Two hours
    3 Three hours
    4 Four hours
    5 Five hours
    6 More than 5 hours
    99 I don't know
    888 did not answer

19. How many hours a day do non-BAB grade-2 students study at school/center?
    1 One hour
    2 Two hours
    3 Three hours
    4 Four hours
    5 Five hours
    6 More than 5 hours
    99 I don't know
    888 did not answer

20. Do you have disabled students in BAB classes in the school? (Blind, deaf, and students with mental and physical disability)
    0 no
    1 yes
    99 I don't know
    888 did not answer

21. Do you have disabled students in the non-BAB classes in the school? (Blind, deaf, and students with mental and physical disability)
    0 no
    1 yes
    99 I don't know
    888 did not answer

22. What is the representation of male and female teachers in your school for BAB levels 1 and 2?
    0 No male teachers for BAB level 1 and level 2
    1 About the same number of male and female teachers
    2 Mostly male teachers

3 Mostly female teachers
4 No female teachers for BAB level 1 and level 2
99 Don't know
888 Did not answer

23. What is the representation of male and female teachers in your school for non-BAB grades 1-5?
0 No male teachers for grades 1-5
1 About the same number of male and female teachers
2 Mostly male teachers
3 Mostly female teachers
4 No female teachers for grades 1-5
99 Don't know
888 Did not answer

24. How many total non-BAB students in grades 1-5 do you have in the school/center?
____ Grade 1
____ Grade 2
____ Grade 3
____ Grade 4
____ Grade 5
99 Don't know
888 Did not answer

25. How many classes of non-BAB grades do you have in your school?
____ Grade 1
____ Grade 2
____ Grade 3
____ Grade 4
____ Grade 5
99 Don't know
888 Did not answer

26. What do you do if a BAB teacher is absent?
(Enumerator note: Do not read the answers listed to the head teacher. Circle the listed answers that best match the head teacher's response. More than one answer can be selected.)
1 I let my students go ahead by themselves without a teacher
2 I send another teacher to the class
3 I take the students to other classes
4 I bring them a backup teacher

5 I give the students a leave
6 I send the students to the playground
7 I distribute the students among other classes
8 Other solution
99 I don't know
888 did not answer

27. If answer for #26 is other solution, please specify here:

_____

28. Do you use the same solution(s) if a non-BAB teacher is absent?
1 Yes, I use the same solution(s).
2 No, I use a different solution
99 I don't know
888 did not answer

29. If you use a different solution, what is it?

_____

Now we want to ask you some questions to help us better understand the students and teachers in your school. For each of the following statements, think about all the students and teachers in your school. Please indicate your level of agreement with each statement from 1- very untrue, to 7 - very true.

30. I can predict with accuracy the ability of students in my school to solve problems if I know their gender, family background, and disability status.
1 very untrue
2 untrue
3 somewhat untrue
4 neutral
5 somewhat true
6 true
7 very true

31. Boys are just naturally better at school than girls.
1 very untrue
2 untrue
3 somewhat untrue

4 neutral
5 somewhat true
6 true
7 very true

32. Students have a certain amount of intelligence and teachers can't really do much to change it.
1 very untrue
2 untrue
3 somewhat untrue
4 neutral
5 somewhat true
6 true
7 very true

33. Educating girls is important for society's development.
1 very untrue
2 untrue
3 somewhat untrue
4 neutral
5 somewhat true
6 true
7 very true

34. It's more important to educate boys than girls.
1 very untrue
2 untrue
3 somewhat untrue
4 neutral
5 somewhat true
6 true
7 very true

35. Girls and children from minoritized populations are less likely to ask the teacher for help

1 very untrue
2 untrue
3 somewhat untrue
4 neutral
5 somewhat true
6 true
7 very true.

36. Teachers in my school assign classroom chores to all students equally.
1 very untrue
2 untrue
3 somewhat untrue
4 neutral
5 somewhat true
6 true
7 very true

37. Teachers in my school use different forms of discipline based on the student's gender, family background, or other characteristics.
1 very untrue
2 untrue
3 somewhat untrue
4 neutral
5 somewhat true
6 true
7 very true

38. Teachers in my school reward all children the same way for good work.
1 very untrue
2 untrue
3 somewhat untrue
4 neutral
5 somewhat true
6 true
7 very true

39. Completing primary education is equally important for all children, regardless of gender, disability, or family characteristics.
    1 very untrue
    2 untrue
    3 somewhat untrue
    4 neutral
    5 somewhat true
    6 true
    7 very true

40. Completing secondary education is equally important for all children, regardless of gender, disability, or family characteristics.
    1 very untrue
    2 untrue
    3 somewhat untrue
    4 neutral
    5 somewhat true
    6 true
    7 very true

41. All students have the capacity to learn.
    1 very untrue
    2 untrue
    3 somewhat untrue
    4 neutral
    5 somewhat true
    6 true
    7 very true

42. My community supports the education of all students.
    1 very untrue
    2 untrue
    3 somewhat untrue
    4 neutral

5 somewhat true
6 true
7 very true

43. If the answer to # 42 is 1-4, who is **less** likely to receive community support for education?
1 Boys
2 Girls
3 Younger children
4 Older Children
4 Children with disabilities
5 Children from certain clans or families
6 Other, please specify _____

Schools vary in the level of physical and emotional safety they provide for students and teachers. Kindly indicate your level of agreement to the following statements with respect to your feelings of safety on a scale of 1-7, where 1 = strongly disagree and 7 = strongly agree.

44. I feel physically safe at school.
1 strongly disagree
2 disagree
3 somewhat disagree
4 neither agree nor disagree
5 somewhat agree
6 agree
7 strongly agree

45. All students at my school are physically safe, regardless of their gender, age, family background, disability, or other characteristics.
1 strongly disagree
2 disagree
3 somewhat disagree
4 neither agree nor disagree
5 somewhat agree
6 agree
7 strongly agree

46. If response to question 45 is 1-4, please indicate which students are **not** physically safe at your school.
    1 boys
    2 girls
    3 younger children
    4 older children
    5 children with disabilities
    6 children from certain clans or families
    7 no children are safe
    8 other, please specify _____

47. All my students are safe on their way to school, regardless of gender, age, disability, family background, or other characteristics.
    1 strongly disagree
    2 disagree
    3 somewhat disagree
    4 neither agree nor disagree
    5 somewhat agree
    6 agree
    7 strongly agree

48. If response to question 47 is 1-4, please indicate which students are **not** safe on their way to school (mark all that apply)
    1 boys
    2 girls
    3 younger children
    4 older children
    5 children with disabilities
    6 children from certain clans or families
    7 children that live far away
    7 no children are safe
    8 other, please specify _____

49. Teachers provide all children with the support they need to be successful at school, regardless of their gender, age, disability, family background, or other characteristics.
    1 strongly disagree
    2 disagree
    3 somewhat disagree

4 neither agree nor disagree
5 somewhat agree
6 agree
7 strongly agree

50. If response to question 48 is 1-4, please indicate which students are **not** adequately supported at your school.
1 boys
2 girls
3 younger children
4 older children
5 children with disabilities
6 children from certain clans or families
7 no children are accepted and supported
8 other, please specify _____

51. My school accommodates the needs of girls when they are menstruating.
1 strongly disagree
2 disagree
3 somewhat disagree
4 neither agree nor disagree
5 somewhat agree
6 agree
7 strongly agree

Children face different barriers to education. Thinking about your community, please indicate who in your school is **significantly** affected by the barriers listed.

52. Culture/tradition is a barrier to education for:
1 Boys
2 Girls
3 Both boys and girls
4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

53. Marriage is a barrier to education for:

1 Boys
2 Girls
3 Both boys and girls
4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

54. School fees are a barrier to education for:
1 Boys
2 Girls
3 Both boys and girls
4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

55. Frequent absence is a barrier to education for:
1 Boys
2 Girls
3 Both boys and girls
4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

56. Family migration is a barrier to education for:
1 Boys
2 Girls
3 Both boys and girls
4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

57. Illness or Malnutrition is a barrier to education for:
1 Boys
2 Girls

3 Both boys and girls
4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

58. Chores, work, or need to care for family members are barriers to education for:
1 Boys
2 Girls
3 Both boys and girls
4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

59. Lack of family support is a barrier to education for:
1 Boys
2 Girls
3 Both boys and girls
4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

60. Lack of community support is a barrier to education for:
1 Boys
2 Girls
3 Both boys and girls
4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

61. Safety concerns are a barrier to education for:
1 Boys
2 Girls
3 Both boys and girls

4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

62. Transportation or Distance to school is a barrier to education for:
1 Boys
2 Girls
3 Both boys and girls
4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

63. Insufficient infrastructure is a barrier to education for:
1 Boys
2 Girls
3 Both boys and girls
4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

64. Insufficient access to school materials and supplies is a barrier to education for:
1 Boys
2 Girls
3 Both boys and girls
4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

65. Lack of teacher support is a barrier to education for:
1 Boys
2 Girls
3 Both boys and girls
4 Children with disabilities

5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

66. Abuse by classmates is a barrier to education for:
1 Boys
2 Girls
3 Both boys and girls
4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

67. Poor performance is a barrier to education for:
1 Boys
2 Girls
3 Both boys and girls
4 Children with disabilities
5 Children from certain clans or families
6 All children
7 Not a barrier in my community
8 Other _____

Finally, we want to understand the role of community support in your school.

68. Does your school have a Community Education Committee(CEC)?
0 No, if no, skip 66.
1 Yes
99 I do not know
888 Did not answer

69. Is the Community Education Committee active in your school?(Check all mentioned)
0 No, it has not helped at all.
1 Yes, it helps with school building construction or repair.
2 Yes, it helps keep the school safe.
3 Yes, It helps provide materials and supplies.
4 Yes, it helps provide drinking water.
5 Yes, it helps with preparation of the school's progress plan.
6 Yes, it helps follow up on student absences.

7 Yes, it helps follow up on teacher absences
8 Yes, it provides financial support to the school.
9 Yes, it does other things
99 I don't know
888 Did not answer

70. If your CEC does things not listed above, please describe.
_____

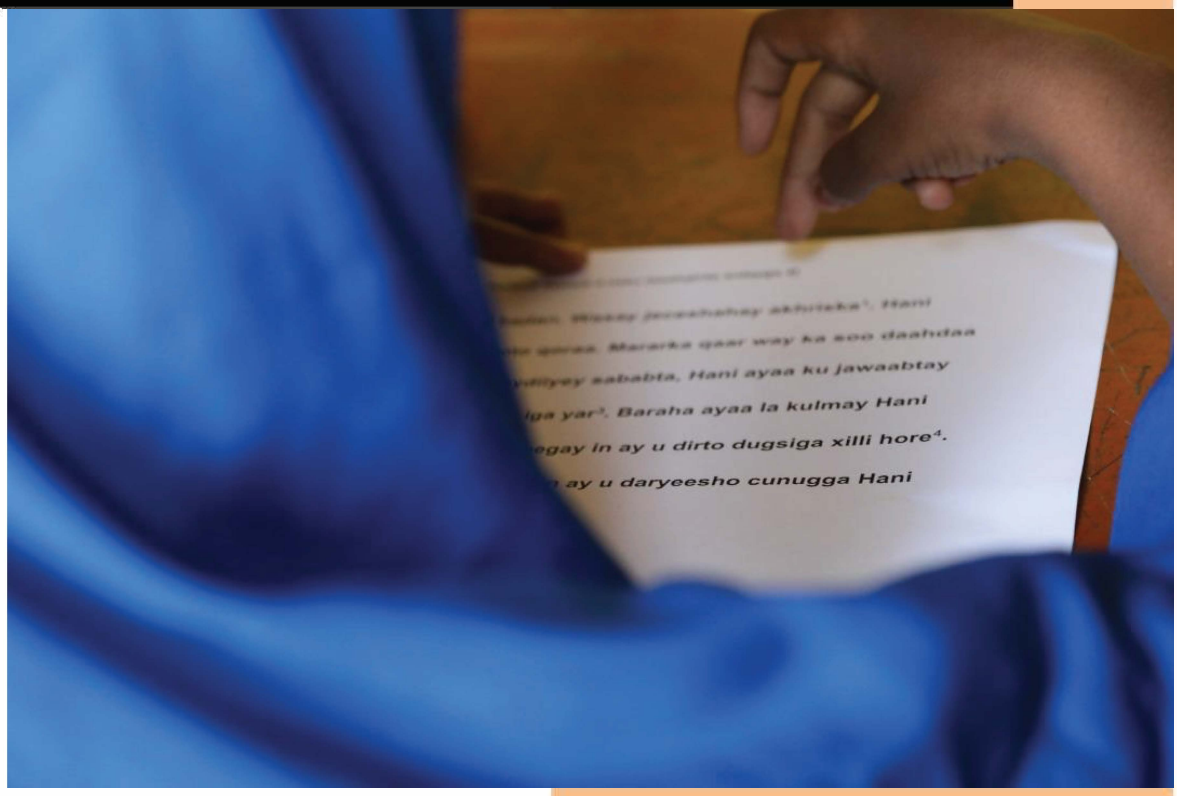
---------- *End of Questionnaire* ----------

Thank you very much for your time and responding to the question. Your contribution to this study is highly appreciated.

APPENDIX 7: FIELD NOTES

2021

SORDI FIELD REPORT



Compiled by Shukri Baffo

Somali Research and Development Institute

10/25/2021

FIELD REPORT

01. Executive summary

This is the field report of all regions actively being surveyed. Four states have been selected to conduct the surveys, namely South West, Benadir, Jubaland, and Hirshabelle. The report documents the surveys on a district level (refer to the table below). The selected 40 sites have BAB and Non-BAB classes. Some sites do not have Non-BAB classes resulting in the selection of new sites. Enumerators on the ground found that some schools cannot facilitate both types of classes which has also been documented**. As of 4th November, the total number of students surveyed is 2912.** Find below overviews of students, teachers and head teachers assessed by the enumerators at each site and the challenges reported by the teams.

02. Sites covered

Disctrics/Schools	Total Learners	BAB	NON-BAB
Baidoa	**610**	**383**	**227**
Aboore	50	50	0
Al Abraar	33	33	0
Hanano Community School	64	0	64
Kormari1	46	46	0
Moqor iyo Maanyo2	37	37	0
Mustaqbal	149	68	81
Qansaxdheere	41	41	0
Robay Gudud	29	29	0
Shabeelow	33	33	0
Shiekh Asharo	128	46	82
Balcad	**262**	**160**	**102**
Arofag School	57	31	26
BACKUP Garasbintow School	50	50	0
BACKUP Sunshine School	83	49	34
Ifiye School	72	30	42
Barawe	**140**	**88**	**52**
Al Aflax	32	32	0
Zeynul Abidiin	108	56	52
Deynile	**299**	**177**	**122**
Aqoonbile School	36	0	36
Garesbaley	37	37	0
Horseed	46	46	0
Horyal	46	46	0
Kulmis School	53	0	53
South Pole School	33	0	33

Weydow	48	48	0
Diinsor	**106**	**40**	**66**
Waberi Primary School	66	0	66
Yaqshiid	40	40	0
Hamarwayne	**77**	**45**	**32**
Moalim Jama	77	45	32
Jowhar	**297**	**178**	**119**
BACKUP Moyko Primary	44	44	0
Horseed Jowhar	100	44	56
Jaahweyn two Prmary	88	48	40
Jahweyn 1 primary	65	42	23
Kahada	**244**	**149**	**95**
Almawahib	37	37	0
Dhameen	105	29	76
Nabadoon	45	45	0
Osama Bin Zaid3	57	38	19
Kismayo	**650**	**316**	**334**
Ahmed Gurey	88	36	52
BACKUP Qaamqaam	106	43	63
Kismayo Pri&Sec School	113	70	43
Mohamed Inji	36	36	0
Nasiib Bundo Pri School	97	42	55
Wadajir Pri School	82	50	32
Yontoy Pri School	128	39	89
Shibis	**51**	**34**	**17**
Dar Altarabiya	51	34	17
Walanweyn	**176**	**152**	**24**
Bakaal	50	50	0
Danwadag	75	51	24
Xudurweyne	51	51	0
Grand Total	**2912**	**1722**	**1190**

03. <u>Field-notes</u>

a. <u>South West State</u>

Baidoa

i. BAB Classes

1. **Kormari 1 One School** (11th October)

Assessment tasks conducted by the Baidoa team were done on two ABE Schools, one of which was Kormaril One School. After obtaining consent, the team was able to assess 45 students out of the 50 expected students belonging to Class A. The missing 5 students were no longer registered students at the school. There

were no dropouts or absentees as of that day. This school has no Non-BAB co-located classes available.

2. **Al-abraar School** (11th October)
   The team was granted permission to go ahead with the data collection.ABE level one A (Class A) in this school consists of 37 students, 34 of them were present while the remaining three were absent (two were reported sick, one was absent for unknown reason), no dropouts were reported. A challenge reported all of the students were assessed except one young girl aged 5 who was not able to utter a word even her name. In addition, this young girl is not eligible for this level as her age is lower than the age range (7-16) required for admission to this level; this exclusion occurred prior to the USAID mission consultation.

3. **Mustaqbal IDP School** (12th October)
   The team assessed 66 learners in Class B. No dropouts and absentees were reported. The school had Non-BAB co-located classes at this school. There is only one BAB class in the morning, the rest are in the afternoon shift. A teacher and the head-teacher were interviewed. The school had limited space to conduct the surveys. The school keeps records of students' parent's phone numbers and an attendance sheet to keep track of students that do not attend regularly and follow up accordingly.

4. **ShieckAsharow Primary and Secondary School** (12th October)
   The assessed learners in Sheikh Asharow were 42 and the total number of students in the record was 47. The remaining students were reported absent without giving a reason. There are Non-BAB classes at this school. The school management thought this assessment was an accountability check so they were reserved.

5. **Qansaxdheere IDP School** (13th October)
   The school manager provided the team with an attendance sheet that contained the number of students attending the chosen class. The school does not have Non-BAB co-located classes available. Class A of Level 1 BAB classes with 60 students was selected. One teacher and the headteacher were interviewed in the morning

shift along with the student. The team successfully surveyed 42 learners.

Observations

The principal informed the team that the total number registered was 60. Four of them were sick and the remaining unassessed students have turned away because of lack of space and chairs. The team reported that the school needs renovation and equipment. It does not look like a suitable place for the students to study. It lacks proper space as well as school materials such as tables, chairs and many others.

6. **MoqoriyoMaanyo 2 IDP School** (16 Ocotber)

   42 students from BAB level 1A students were assessed. There was a book used for registering the students. The roaster provided by SORDI/LASER/BAB contained MoqoriyoMaanyo 1 which is not the one the team assessed. The list that was used to conduct the assessment included MoqoriyoMaanyo 2. One headteacher and teacher were surveyed.

   Observations

   There was a young girl with a special need among the students in the class. Management informed the team of her condition. She could not understand what the enumerator was asking her. Her survey was excluded from the assessment.

7. **Shabelow IDP School** (16th October)

   The school has only one class of BAB Level 1. There is no NON-BAB class at any shift. The team assessed 30 students. No roasters or attendance sheet was provided. The school principal informed the team that they do not have an ID number. The team resorted to using their own ID (999) which is an indication. The team managed to interview one teacher and one head-teacher.

   Observations

   It was observed that this school is on the verge of collapsing. There is a widespread negligence when it comes to school materials. Students do not have enough space, chairs to sit and tables to use for writing. The blackboard appeared unusable. The education

head at the camp complained that the ministry of education did not contact them for training the teachers (TOT) and provisioning of learning materials.

8. **RoobayGaduud School** (17th October)
   Level 1 class A was selected from this school. There was no roaster available. 27 out of 30 were assessed. Three students were absent. They dropped out without providing a reason. Some difficulties were encountered in getting space to conduct the assessment as the school is destroyed and the students studied in three small makeshift tents made of plastic.

   Observation
   This school has been totally destroyed by wind. The head-teacher informed at first, it was destroyed by wind and the materials were stolen. Students need learning materials such as chairs, tables, blackboard, drawing equipment, exercise books and office equipment.

9. **Aboore IDP School** (17th Ocotber)
   Class A of Level 1 was selected to be surveyed. This school has no Non-BAB classes available. From the chosen class, 55 learners were assessed. There were no dropouts or absentees reported. There was a paper used by the school management to register the names of students which helped the assessing team. A teacher and the headteacher were interviewed.

   Observation
   There is a floor-level well with no walls adjacent to the school. It is very dangerous for young learners to study near an unprotected well. The area around the well needs to be properly cordoned off so the students will not fall in.

Non- BAB Classes

1. **Mustaqbal IDP School** (18th and 23rd October)
   The team surveyed this school as the first Non-BAB site. 39 students were surveyed. The school has a well-structured system of attendance taking and registration. Grade 1 C was selected.

Teachers were surveyed on a later date as the team would be returning to conduct Grade 2 B students.

On the second visit, 45 students from Grade 2 were assessed. The head teacher handles both BAB and Non-BAB classes and he had already been interviewed during the prior visit to the site.

2. **SheikhAshrow Primary and Secondary School** (20th October)
   Non-BAB classes at this site are conducted in the morning. The learners assessed from this site were 75 – 35 from Grade 1 and 40 from Grade 2. As this is a previously visited site and teachers handle multiple classes, the teacher and headteacher were both interviewed already. The school campus had no major issues that the team noted.

3. **Hanano Community School** (24th October)
   This is an IDP locality school, we chose it in consultation with the local authorities since most of the IDP sites selected didn't have non-BAB co-located classes. Grade 1 and Grade 2 non-BAB classes covered. 33 students were assessed in grade one and 35 students from grade two were assessed. It was noted by the team that the school does not have a proper records. No challenges were reported from this site.

Diinsoor

ii. BAB Classes

1. **Yaqshid Primary School** (12th- 18th October)
   There were two enumerators at Diinsoor which is a point of note as the progress is slower. The school has only 2 classrooms available. This school has students nearing 150 in number and consists of boys, girls, special needs, IDP residents and residents of the area. Due to the overwhelming number of students, the school management decided to conduct classes under a tree to benefit the students instead of turning them away. The school was established to be a BAB centre so there are no Non-BAB classes. Seven (7) students and the headteacher were interviewed on the first day of visiting the site. On the second day, 8 more students were

interviewed. On day three, 8 more students were surveyed. 18 more students and a teacher were surveyed on days four and five.

Observation

A challenge reported was that due to the lack of proper space for students. The absence of attendance list was another reported challenge.

iii. Non-BAB Class

1. **Waberi Primary School(ADJUSTED NON-BAB CLASSES)** (19th-25th October)

A new school that qualifies as a site of surveying was chosen as a Non-BAB site. The enumerators managed to only survey 2 students on the first day. Grade 1 and 2 were chosen with 46 and 23 students respectively. The enumerators conducted the surveys mixing the two grades. They assessed 8 students on the second day. On the third day, 15 students were assessed. 8 more students we assessed on the following No major challenges were reported aside from the school being a newly selected site and the needing to allocate more time for the headteacher briefing. The school did not provide an attendance list. On weekends, most of the formal schools don't operate.

b. Benadir

Hamarweyne

i. BAB Classes

1. **Mo'alimJama School** (11th and 12th October)

The total number of students assessed from Class J was 45 over two days. The team managed to interview 28 students on the first day. They reported that the students were from a new intake which limited their interaction with the tools. The remaining 17 students were also surveyed with a similar note as the first day along with 1 class teacher and a headteacher. The class was expected to have 50 students in total but 5 students were not accounted for as management informed the team that they had been absent for a long time.

ii. Non-BAB Classes

1. **Mo'alimJama School** (17th October)

The team surveyed 39 Non-BAB students from Grade 2 A. Out of the expected 50 students, 11 were not successfully interviewed due to the lack of attendance sheet record-keeping was harder. An observation made by the team was that students were having a hard time comprehending the questions.

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Kahda

iii. BAB Classes

1. **Dhameen School** (12th October)

   The team interviewed 28 students from Level 1B, teacher and headteacher. Most of the students were from the IDP camp at Kahda. Although the sample was 47 students, the headteacher gave the team the attendance with 35 students and 7 students were missing. The team proceeded to interview 28 students only. Assessors noticed that the students were in different conditions compared to the other schools in Shibis and Hamarweyne. In that, the Dheeman school students had no school uniform, and mostly they did not know the phonemic awareness and reading comprehension sections of the EGRA tool.

2. **Nabadoon School** (13th October)

   The team interviewed 38 out of the 54 BAB students from Class A. A challenge reported was with the given roaster class names and given sample class names were different. The headteacher informed the team that only 2 BAB classes were available (A and B) while the team's chosen class was C resulting in a last-minute change to Class A's random selection.

   The head-teacher and students reported different; the HT claimed that students are Level1 A while the some of the students mentioned to be level 2. The school doesn't have registers and other records; classes don't have order except morning and afternoon.

3. **Almawaahib School** (17th October)

   Class 1 of Level 1 BABA class was selected. 33 out of 36 students were successfully surveyed. The class teacher was interviewed after the students. It was noted that the student's participation was very good interms of comprehension and response.

   <u>Observation</u>

A challenge encountered by the team was the discrepancies between the names on the roaster and the students in the chosen class. Additionally, there were 3 extra students in the class exceeding the number of expected students. We have included the additional students in the survey.

4. **Nabadon School** (19th October)

Level 1 Class A was selected. 28 students were surveyed. The head teacher and class teacher were interviewed. School management did not have an official attendance sheet that they could provide for the team. On the second visit, 20 more students.

Observation

According to the principal, the class assessed was Level 1class A but some students informed the team that they were from Level 2.

Deynile

BAB Classes

a. **Dur Dur** (18th October)

49 students from BAB Level 1 Class E were assessed. The school only has this class available. One teacher and the head =teacher were interviewed.

Observation

The roaster provided by the school provided mismatched information. There were big difference between the roaster names the team was given and the students in the class level1E, only 14% of students in the roster were present in the class. The headteacher informed the team that there is a replacement of the students that did not continue with the class. Additionally, there was 1 missing student from the class, since the the sample was 50.

Environmental issues

The students have no chairs or tables provided for them. They take classes while seated on the floor. Even the headteacher has no office

b. **Horseed School** (19th October)

46 from Level 1class A were assessed. The head teacher and the class teacher were surveyed.

Observation

There was a difference between the roaster provided and the students in the class. The headteacher informed the team that they made their own classes and only 21% of the roaster were in the class. Also, there were 10 extra students in the class. Two were sick so the team interviewed 46 learners only.

c. **Horyaal School** (20th October)

BAB Level1 Class D was selected from this site. 47 learners were surveyed. One teacher was interviewed from this school. Aside from an issue with the attendance sheet, there were no challenges reported by the team. The students on the list did not match the once that came for the survey.

Non-BAB

d. **Dheeman School** (23rd and 24th October)

This is a previously visited site so the teachers and the headteacher were interviewed. 47 students from Grade 1 and Grade 2. On the second visit, the team, 20 students from Garde 2.

Observation

The school is an IDP school and most of the students speak a dialect of the Somali language, Maay, but it did not hinder their comprehension and participation in the assessment.

e. **Kulmis School(adjusted)** (25th October)

The team was provided an attendance sheet to help with students assessed. 55 students were surveyed (30 from Grade 1 and 25 from Grade 2). The head teacher and the class teacher were interviewed. No challenges were reported at this site.

f. **Aqoon Bile School (adjusted)** (25th October)

Both Grade 1 and 2 were surveyed. 16 learners from Grade 1 and 24 learners from Grade 2. One teacher and the head teacher were surveyed.

Observation

It was noted that some of the students interviewed from this school were struggling with the EGMA tool.

g. **Southpole School (adjusted)** (25th October)

35 students were surveyed (15 students from Grade 1 and 20 from Grade 2) one teacher and the head teacher were surveyed. The team reported that these students were high performers. It was also noted that some of the students had deceased fathers. No major challenges were reported at this site.

Shibis

iv. BAB Classes - **Daru-Tarbiya** (12th October)

Assessors visited Class E of Daru-Tarbiyaschool. 34 students were successfully surveyed. One teacher and one headteacher were also surveyed. The team reported that the school was spacious enough to conduct the surveys comfortably and on time. No major challenges were reported aside from one student that was below average in comprehension that required some form of sign language to make sense of the questions.

v. Non-BAB Classes – Daaru-Tarbiya (20th October)

Enumerators visited this site at an earlier date so no teachers or headteachers were interviewed on the visit for the Non-BAB class assessment. 17 learners were surveyed.

Observation

6.3% of the students were on the roaster and the rest were not on the roaster provided. The headteacher informed the team that this is due to the frequency with which the students join and leave the school. It is hard to track the students. No other major challenges were reported.

c. Jubaland

Kismayo

i. BAB Classes

1. **Wadajir Primary school** (11th October)

Wadajir is a community school built by Diaspora, the school was renovated by education cannot wait. It has 5 active classrooms and 4 closed classrooms due to lack of maintenance. The school has five active classrooms and four toilets. The team interviewed 51 students of class B Level 1 BAB students, the principal and the assigned class B teacher. The team observed an admin issue regarding classes not having attendance lists so the headteacher was picking students at random. Due to the distance students have

to reach their homes, they left early.

2. **NasiibBundo Primary School** (12th October)
   The chosen class for the survey was Class A with 51 students. The team managed to survey only 45 students. There were 5 students absent. 1 teacher and 1 headteacher were surveyed. The school has 5 Non-BAB Grades; 2 grade 1 classes and 2 grade 2 classes. The school has only one toilet. The school did not have enough space to use for the student interviews. When the team went to the school, the headteacher informed them they were let go for the day.

3. **Ahmed Gurey Primary School** (13th October)
   Level 1 class A was selected from this school. 38 students were surveyed and the remaining 7 were absent. The assigned teacher for BAB Level 1 class A was interviewed. There was no register for the class. The number of students expected to be in the class was 45.

   Observations
   There were many challenges the team faced. Different levels of BAB classes were in the same class. There were no attendance sheets and admission was open. The school registered 31 students in the 10 days before the assessment.
   Other issues
   One assessor encountered an issue with the application. The assessor interviewed 2 students but could not synchronise the data. This was a technical issues that has been documented for learning purposes.

4. **Mohamed INJ Primary School** (16th and 23rd October)
   Level 1 BAB Class A was selected to be surveyed. The school has 66 students, 45 students come in the afternoon and 16 students come in the morning. As most students left the village, the team interviewed only 24 available students. There were another 31 newly enrolled students. The team had to divide themselves in order to meet the deadline. Group two was sent to this school. Another visit was made to the site and an additional 12 students were surveyed. No new challenges reported by the team.

Observations

Team A went to interview the chosen BAB class in the afternoon shift (1:45 pm-4:00 pm). The team encountered some challenges at the site. Two different levels of BAB classes sat in one class, some students left because their families live in other villages. The school admission was open to registering for more students, more than 30 new students enrolled.

5. **Kismayo Primary and Secondary School** (18th October)
   Level one BAB Class A was covered. 68 out of 75 students were surveyed. The team was informed that 7 students were absent and 2 failed before the commencement of the survey. One teacher and one headteacher also were surveyed. This site has no Non-BAB Grade 2 class. The school has three registered BAB teachers and 150 learners. The school divided the students into classes so the team covered the one with 75 students. There were no notable challenges that the team observed at this location.

6. **Yontoy Primary School** (19th October)
   A total of 40 students were interviewed. They were all from class B of Level1. 7 students were reported to have been absent on that day. One teacher and one headteacher were interviewed. There were no challenges of notable observations made at this site.

7. **Qaamqaam Primary School** (24th October)
   43 learners from Level 1 Class A were surveyed along with the class teacher. The team was at the site from 9 am to 3:30pm. A point of note is that at this school there are other Non-BAB classes and that the team was conducting the surveys with those students, too.

ii. Non-BAB Classes

1. **Wadajir Primary School** (16th October)
   35 students from Non-BAB Classes Grade 1 and 2 were surveyed (21 students from Grade 1 and 13 students from Grade 2). Due to time constrain the team decided to divide into 2 and survey the two sites chosen for the day because of which the number of students surveyed from this site was small for the day. The first team went to Wadajir primary school for the morning shift (08:30 pm-12:00

pm) and the afternoon shift (01:00 pm-02:45 pm) interviewing non-BAB classes Grade 1 and 2.

Observations

Team one faced some challenges in, afternoon Grade 2 non-BAB class, The team waited for the students for a long time until 02:30 to arrive at the school, 7 students were absent, and the headteacher confirmed that.

2. **Ahmed Gurey School** (17th and 23rd October)
   A Grade 1 Non-BAB class was selected. 22 students were assessed with one incomplete survey. The class teacher was surveyed. No challenges or observations were made at this site. On the second visit to the site, 31 learners out of 39 from Grade 2 were assessed.

   Observation

   The team faced some challenges on the second day, afternoon Grade 2 non-BAB class, they went to Ahmed Gurey School and waited for the students for a long time - until 03:30 - to arrive at the school, 7 students were absent, and the head teacher corroborated it.

3. **NasiibBuundo Primary School** (17th October)
   63 students, belonging to Grade 1 and Grade 2, were surveyed. 35 out of 39 were from Grade 1 and 28 were from Grade 2. 1 teacher was chosen to interview.

   Observation

   There was a major challenge reported. AN enumerator, Nasra Ismail, assessed 8 students of Grade 1 and 2 and faced the challenge of logging in the user. She submitted the data but she did not synchronize the data. It is an issue that is still being worked on; this is relevant to system interface and user registration issues; the enumerator couldn't remember the password. This issue was also documented for learning purposes and alerted other teams in other regions.

4. **Yontoy Primary School** (19th October)
   A total of 76 students were assessed from Grade 1 and Grade 2.

One teacher and one headteacher were interviewed. There were no challenges of notable observations made at this site. \

5. **Qaamqaam Primary School** (24th October)
   This school has both BAB and Non-BAB classes. 63 learners from Non-BAB Grade 1 and 2 were surveyed. A teacher was interviewed, too. The headteacher was not present on the day There were no challenges reported by the team at this site.

d. Hirshabelle

Balcad

i. BAB Classes

1. Ifiye School (16th – 20th October)

BAB Level1 Students were surveyed. 27 learners were assessed in total. The headteacher and the class teacher were interviewed. Enumerators also reported that classes were not organized according to the attendance which caused a delay.

Observation

The team reported that during the data collection process, both the assessors and the students felt uncomfortable due to the heat and the small space provided. Only 27 students for BAB level A1 were assessed while the rest did not attend class. When asked, the teacher gave two reason. One is that parents refused to send their children to schools while the other reason was that the parents took their children to the nearest schools where they could find BAB classes.

2. **Sunshine School** (19th, 20th and 31st October)

A total of 50 students were surveyed. One teacher and one head teacher were interviewed.

Observation

The school has limited space which makes it harder for the assessors to find a quite place to hold the interview. There was a lot of noise around the campus.

3. **Garasbintow School** (25th and 26th October)

A total of 50 students, a teacher, and the headteacher were surveyed.

Observation

Classes are not well organized and do not have attendance sheet that reflects class attendance. Due to the noise round the area where the team was conducting surveys, it was disturbing.

Environmental Issues

The ongoing road construction between Bal'ad and Mogadishu has made accessibility difficult. This has been a major challenge for the local community, teachers and students. . No one was allowed to cross the road during work for security reasons, so the team had to go early in the morning to cross the road. And also the Students come to class in the afternoon therefore; the assessors had to wait for the students until 12:30 pm. The team also reported that it was uncomfortably and hot at the site.

4. **Arofag School** (23rd – 25th October)

Enumerators assessed 27 students from both classes. A teacher and the headteacher were interviewed along with the student.

Environmental Issues.

The ongoing road construction between Balad and MGQ has made accessibility difficult. This has been a major challenge for the local community and the teachers. . No one was allowed to cross the road during work for security reasons, so the team had to go early in the morning to cross the road. And also the Students come to class in the afternoon therefore; the assessors had to wait the students until 12 pm. They also reported that classes were not organized according to the attendance sheet.

ii. Non-BAB Class

1. Ifiye School (16th – 20th October)

Grade 1 and 2 students were surveyed. 49 learners were assessed. No teachers were assessed for the Non-BAB Classes because they were interviewed at the earlier visit.

Environmental issues

The school has limited spaces, which makes it harder for the assessors to find a spece to hold the interview. The team also reported that there was too much noise that came from the classrooms.

2. **Sunshine School** (19th, 20th, and 31st October)
Grade 1 and 2 students were assessed. 33 students from both classes were surveyed.

Observation

The team reported that during the data collection process, both the assessors and the students felt uncomfortable due to the heat and the small space provided.

1. **Arofag School** (23rd – 25th October)
Enumerator assessed 30 students from both classes. A teacher and the headteacher were surveyed during a prior visit to the site. The school did not have electricity..

Environmental Issues.

The construction of the road also affected students living on the other side of the road because they were not allowed to cross the road for security purposes, resulting in the absence of significant number of BAB students

Jowhar

ii. BAB Classes

1. **Horseed Primary and Secondary School** (13th-19th October)
Class C of the expected 55 students was chosen in this school to conduct the BAB class surveys. The school has Non-BAB classes, from grade 1-5, afternoon shift. 25 students and a teacher were interviewed on the first day of visiting the site. A challenge encountered by the team was mixed BAB classes (Level 1E and Level 1 B) without class attendance. School management didn't classify BAB classes in alphabetical orders such class A, B, C which made proved to be an issue for the team to identify who was in the right class.

On the second day, 20 students from Level 1B were surveyed along with the class teacher. In total the team interviewed 45 BAB students with the absent 5 students unaccounted for. The team found out on this day that the teachers (Level 1B and Level1E) had switched attendance resulting in the team interviewing Level 1B

instead of students of Level 1E. On the 19th, the team surveyed the Level 1B teacher and the headteacher.

2. **Jahweyn 1 Primary** (18th October)
   The Jowhar team surveyed 45 out of the 53 BAB Level 1B students. The class teacher for Level 1B and the headteacher were interviewed. No challenges or special observations were reported on the first day.

3. **Moyko Primary School** (23rd October)
   44 BAB Level 1 class B students were covered. All BAB classes at this site are in the afternoon. Along with the students, the class teacher and the headteacher were interviewed.

   Observation
   The team also encountered a problem with the attendance sheet provided. In that it was a mixture of 2 classes and the school management did not keep proper per class attendance.

4. **Jahweyn 2 Primary** (24th and 25th October)
   28 students from BAB Level 1 Class D were surveyed. Headteachers and BAB level1D teacher of Jahweyn-two were interviewed. On the second visit to the school 20 students were assessed.

   Observations
   The team encountered some errors while syncing data to the server. The issue continued on the second day with the date recorded being the problem; few records failed to be synchronized. .No site related challenges were reported.

iii. Non-BAB Classes

1. **Horseed Primary and Secondary School** (17th October)
   The supervisor along with 4 enumerators assessed 27 students from Grade 1A on the first day. There were no challenges reported.

2. **Jahweyn 1 Primary** (19th - 20th October)
   The team covered 23 Non-BAB Grade 1 students, from Class. No noteworthy observations were made by the team. Assessments

went according to plan and no extra time was needed to be allocated. On the second day, 33 out of 37 Non-BAB Grade 1 and 33 Non-BAB Grade 2 students were surveyed. No Non-BAB teachers were surveyed.

Environmental Issues

The two rural sites in Jowhar had flood and rainy issues which caused delays in data collection, but the team managed to reach after three days vehicles and short walks to the wet areas.

3. **Jahweyn 2 Primary** (25th and 26th October)

   10 learners from Non-BAB Grade 1 class B were surveyed. As this was previously surveyed site, both the headteacher and a BAB teacher were surveyed. No Non-BAB teachers were interviewed. No challenges were reported by the team. During the second visit to the school, the team completed Non-BAB Grade1B class. 30 learners were surveyed. The team finished the surveys on the site without any challenges.

DATA ANNEX

LASER PULSE Delivering Practical, Research-Driven Solutions to Global Development Challenges

Somalia BAB Baseline Preliminary Report

July 2022

Table of Contents

Longitudinal Study Summary Student Data

Total Schools = 65 Students = 2912
Total BAB Schools = 40 BAB Students = 1714
Total Formal Primary Schools = 25
Formal Primary Grade 1 Students = 620
FormalPrimary Grade 2 Students = 578

All Longitudinal Study Student Counts by School Funding Type

Funding Type	School Total	Student Total
BAB	40	1,714
Community	6	282
Public	10	581
Private	9	335

All Longitudinal Study Student Counts by School Location Type

Location Type	BAB Schools	Formal Primary Schools	Total Schools	BAB Students	Formal Primary Students	Total Students
IDP	11	4	15	470	278	748
Rural	8	5	13	331	226	557
Urban	21	16	37	913	694	1,607

School Counts by State, Location and Program Type

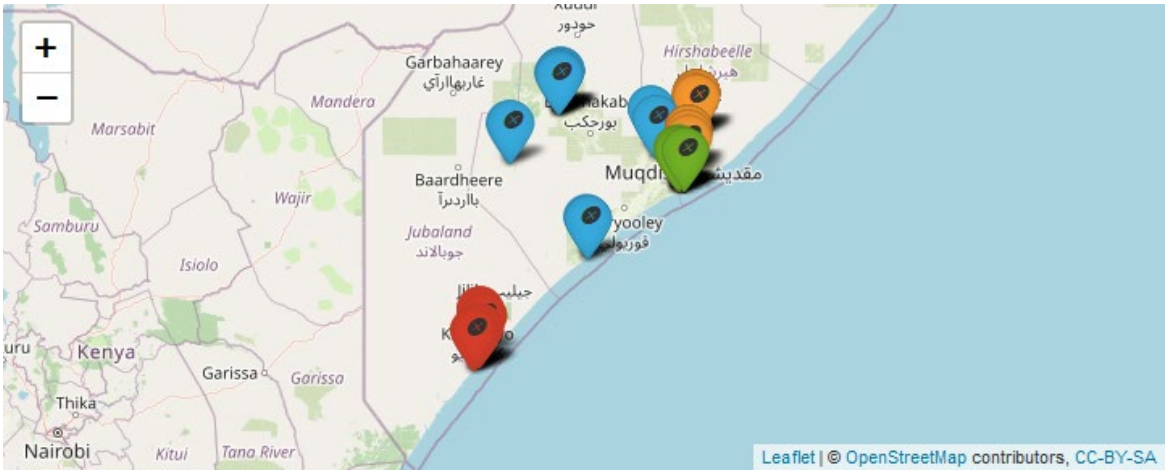
State	Location Type	Program Type	School SubTotal	School Total by Location	School Total by State
Benadir	IDP	BAB	4		
	IDP	Formal Primary	2	6	
	Urban	BAB	6		
	Urban	Formal Primary	5	11	17
Hirshabelle	Rural	BAB	4		
	Rural	Formal Primary	2	6	
	Urban	BAB	4		
	Urban	Formal Primary	4	8	14
Jubaland	Rural	BAB	2		

State	Location Type	Program Type	School SubTotal	School Total by Location	School Total by State
	Rural	Formal Primary	2	4	
	Urban	BAB	5		
	Urban	Formal Primary	4	9	13
Southwest	IDP	BAB	7		
	IDP	Formal Primary	2	9	
	Rural	BAB	2		
	Rural	Formal Primary	1	3	
	Urban	BAB	6		
	Urban	Formal Primary	3	9	21

Student Counts by State, Location and Program Type

State	Location Type	Program Type	Student SubTotal	Student Total by Location	Student Total by State
Benadir	IDP	BAB	169		
	IDP	Formal Primary	129	298	
	Urban	BAB	236		
	Urban	Formal Primary	137	373	671
Hirshabelle	Rural	BAB	166		
	Rural	Formal Primary	50	216	
	Urban	BAB	168		
	Urban	Formal Primary	175	343	559
Jubaland	Rural	BAB	82		
	Rural	Formal Primary	152	234	
	Urban	BAB	234		
	Urban	Formal Primary	182	416	650
Southwest	IDP	BAB	301		
	IDP	Formal Primary	149	450	
	Rural	BAB	83		
	Rural	Formal Primary	24	107	
	Urban	BAB	275		
	Urban	Formal Primary	200	475	1,032

Geographical Representation of School Sites by State



*Green - Benadir, Yellow - Hirshabelle, Red - Jubaland, Blue - Southwest

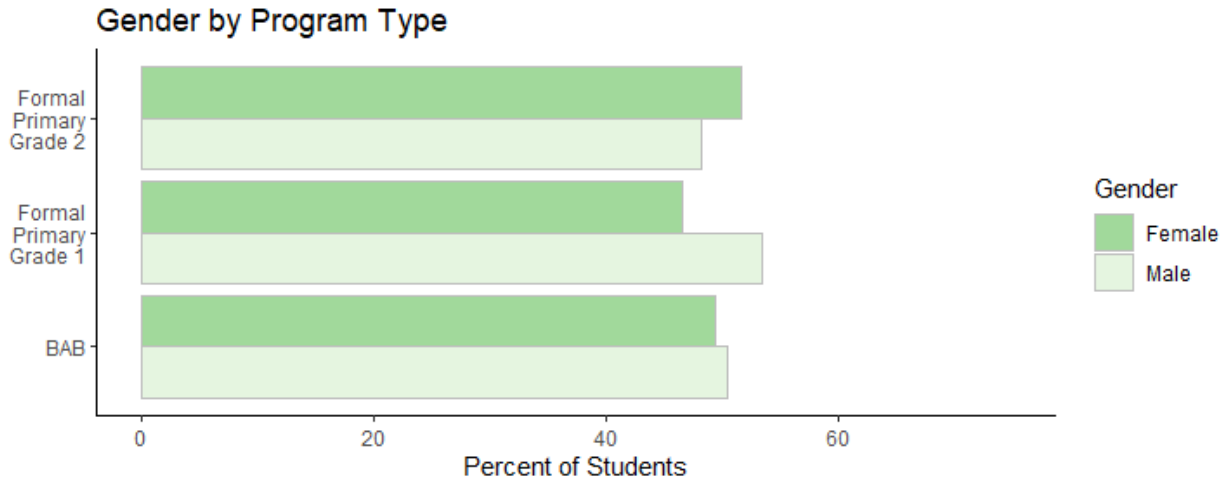
Formal Primary Program Student Counts by Location and School Funding Type

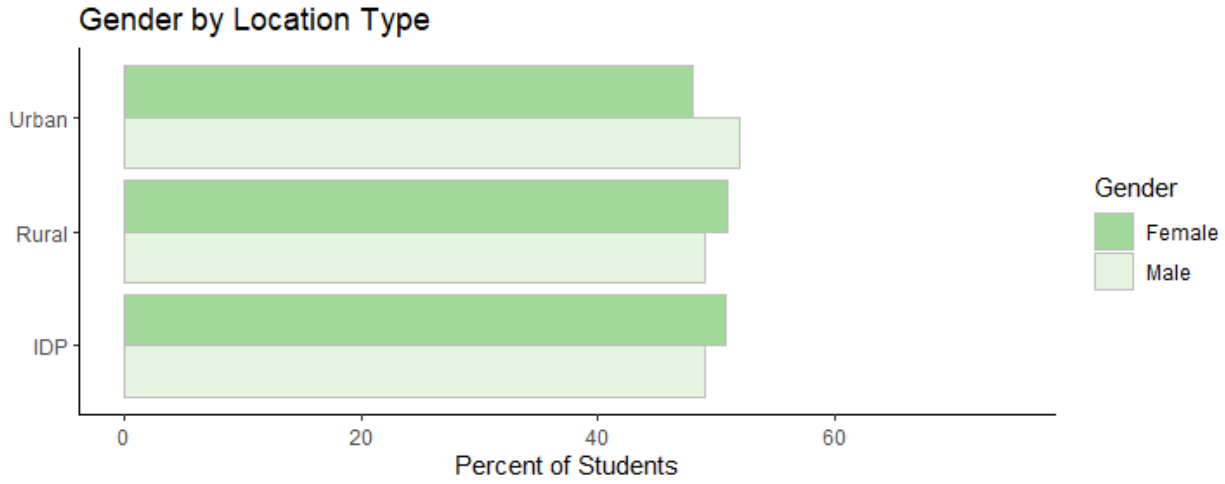
Location Type	Funding Type	School SubTotal	School Total	Student SubTotal	Student Total
IDP	Community	3		195	
	Public	1	4	83	278
Rural	Community	2		47	
	Public	3	5	179	226
Urban	Community	1		40	
	Private	9		335	
	Public	6	16	319	694

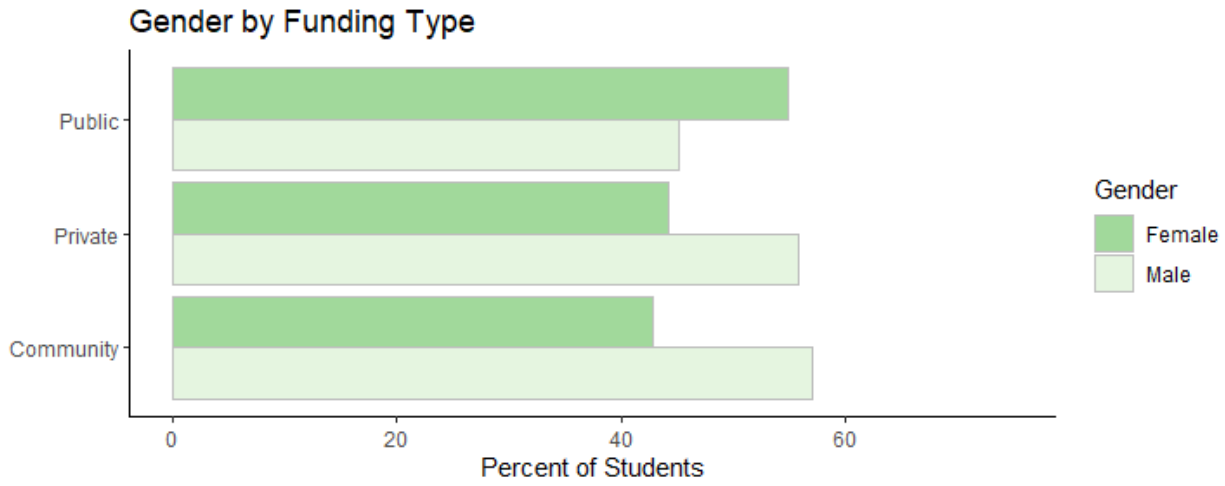
Formal Primary Program Student Counts by Location and Grade Level

Location Type	Grade Level	School SubTotal	Student SubTotal	Student Total
IDP	Grade 1	4	140	
	Grade 2	4	138	278
Rural	Grade 1	5	144	
	Grade 2	3	82	226
Urban	Grade 1	13	336	
	Grade 2	15	358	694

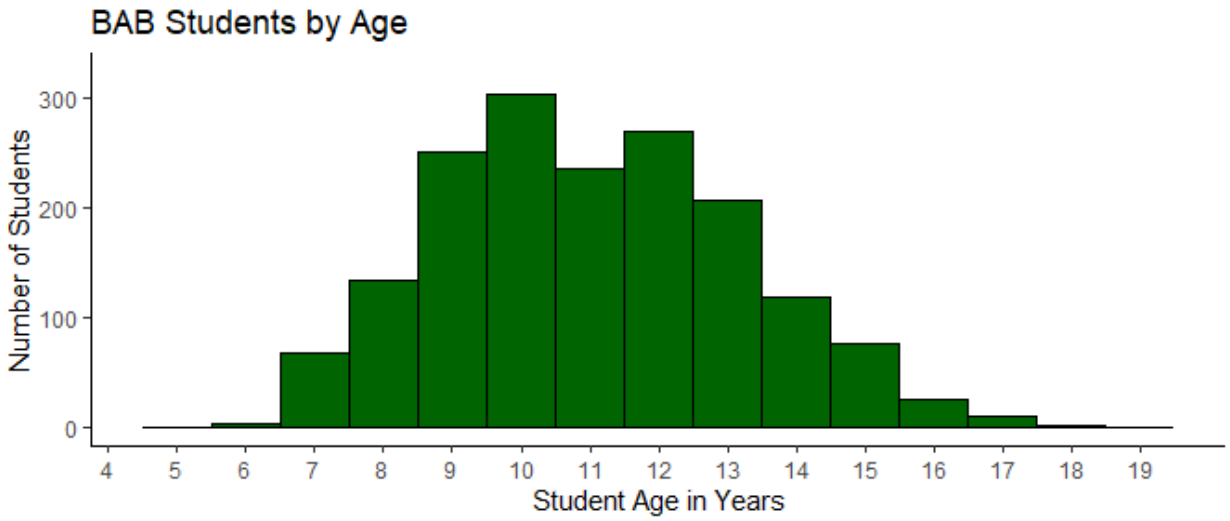
Gender Disaggregation

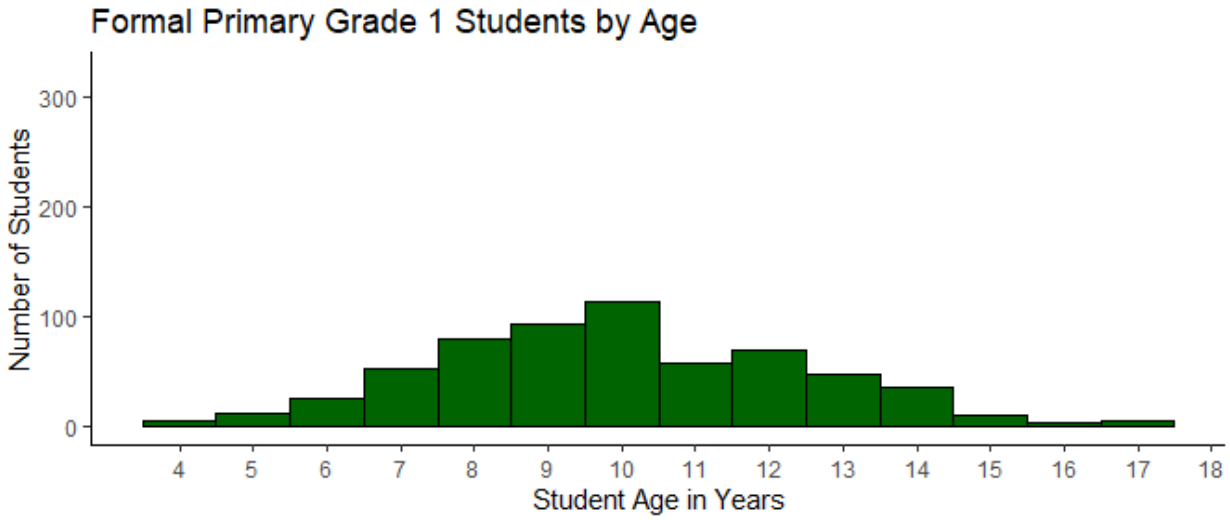


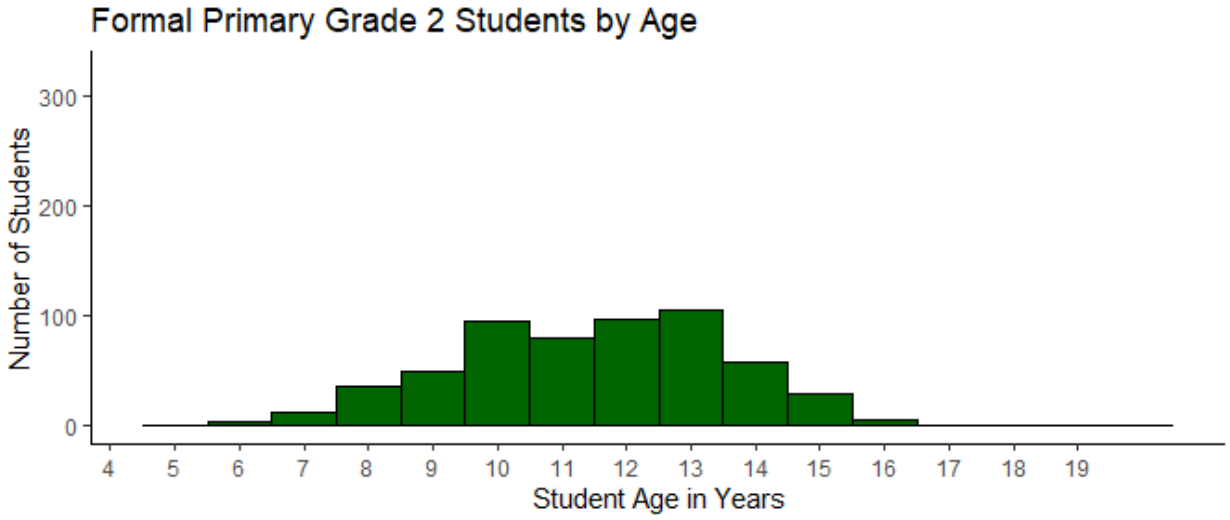


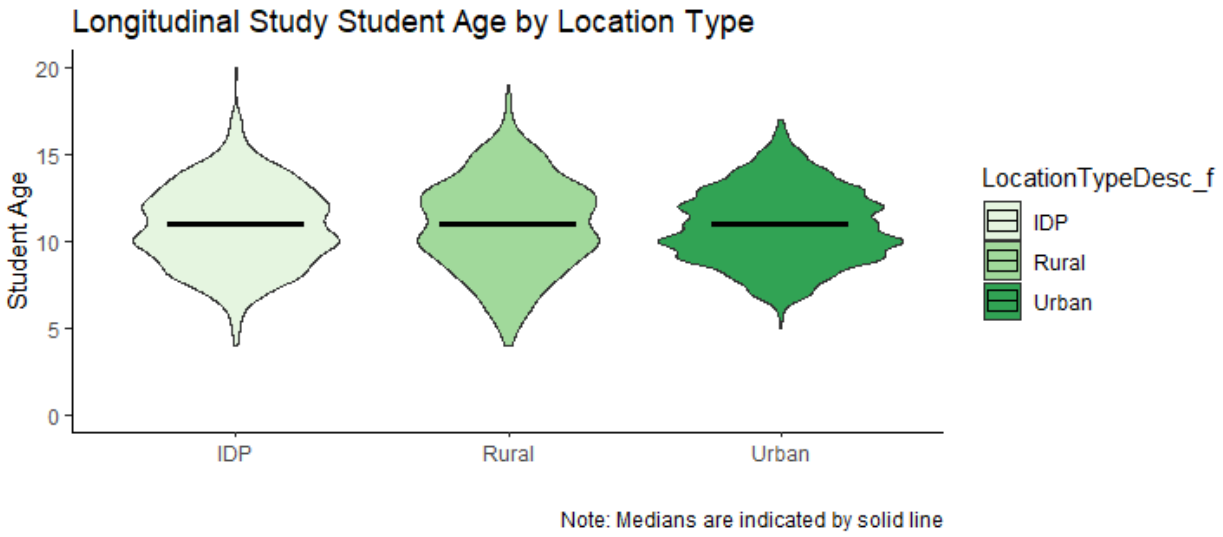


Age Disaggregation

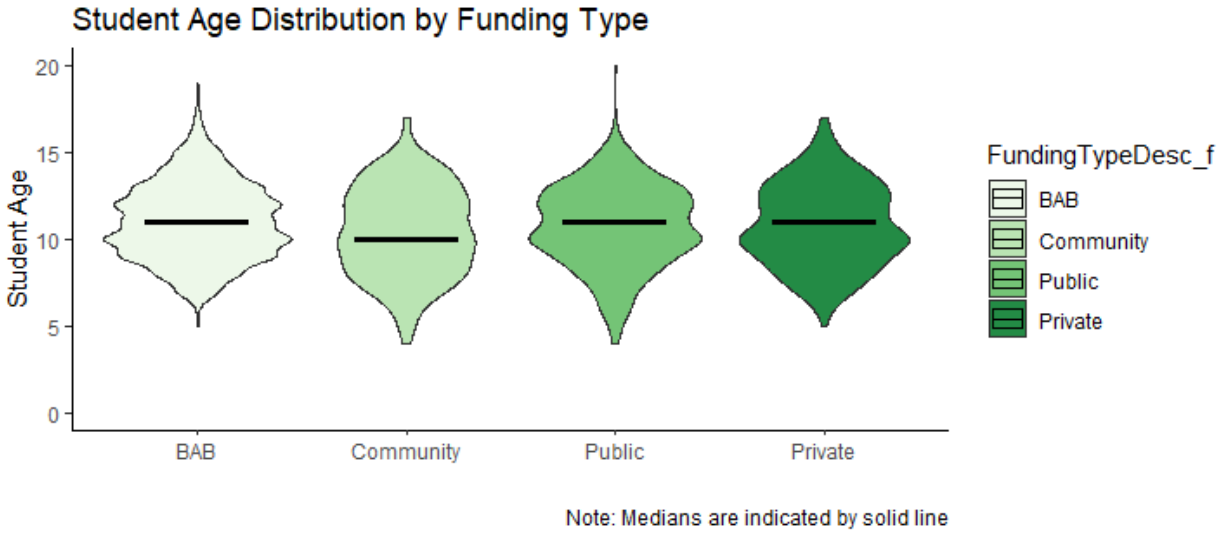




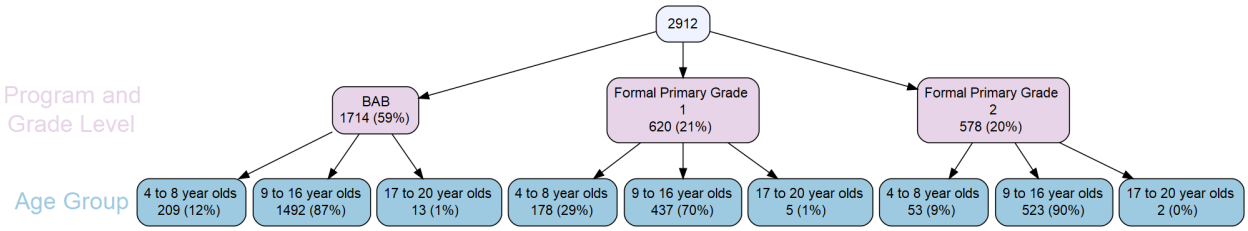




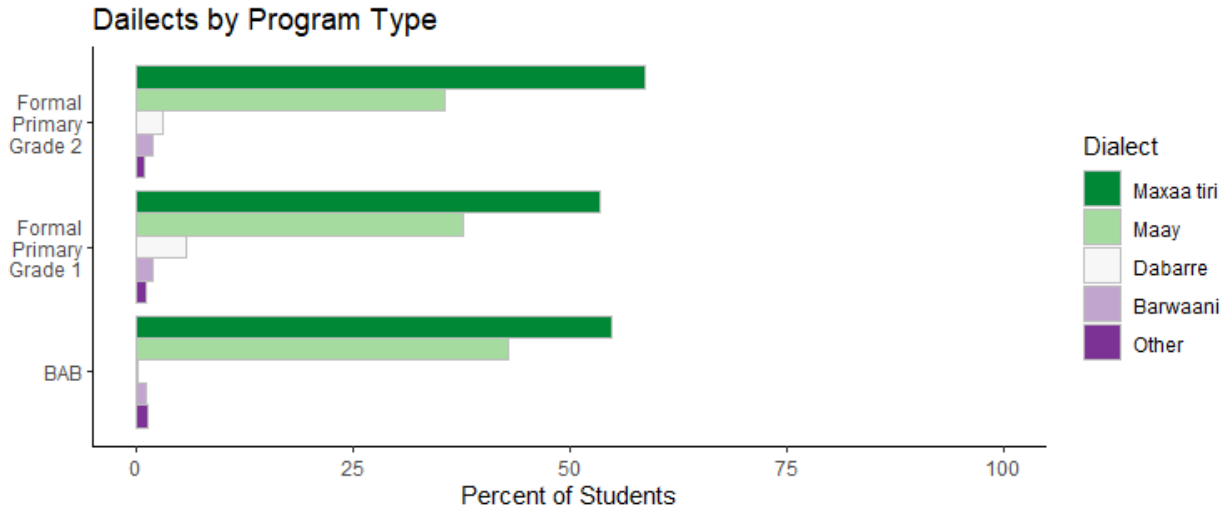
Note: Medians are indicated by solid line

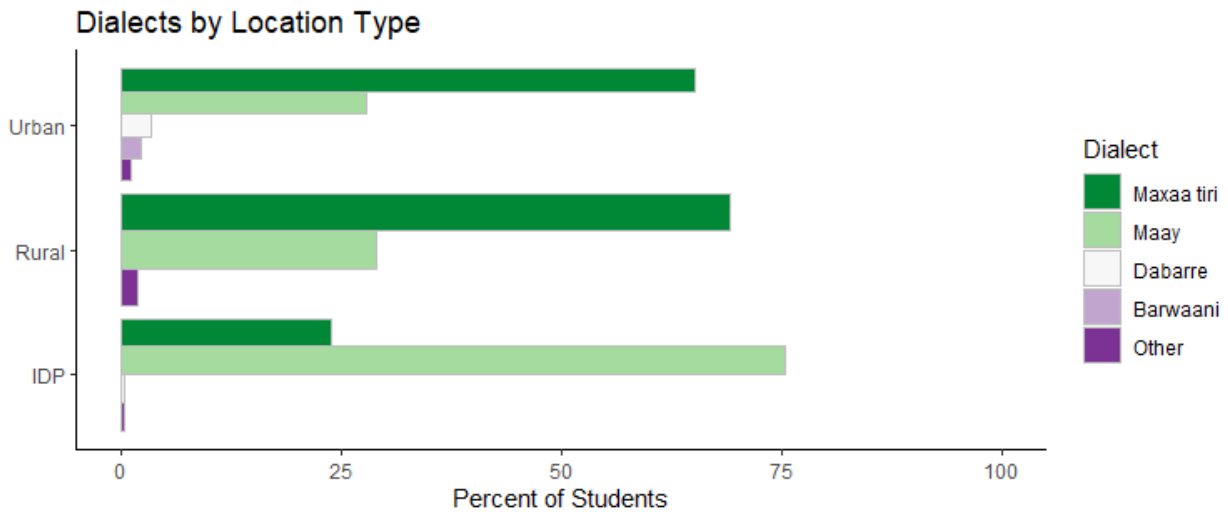


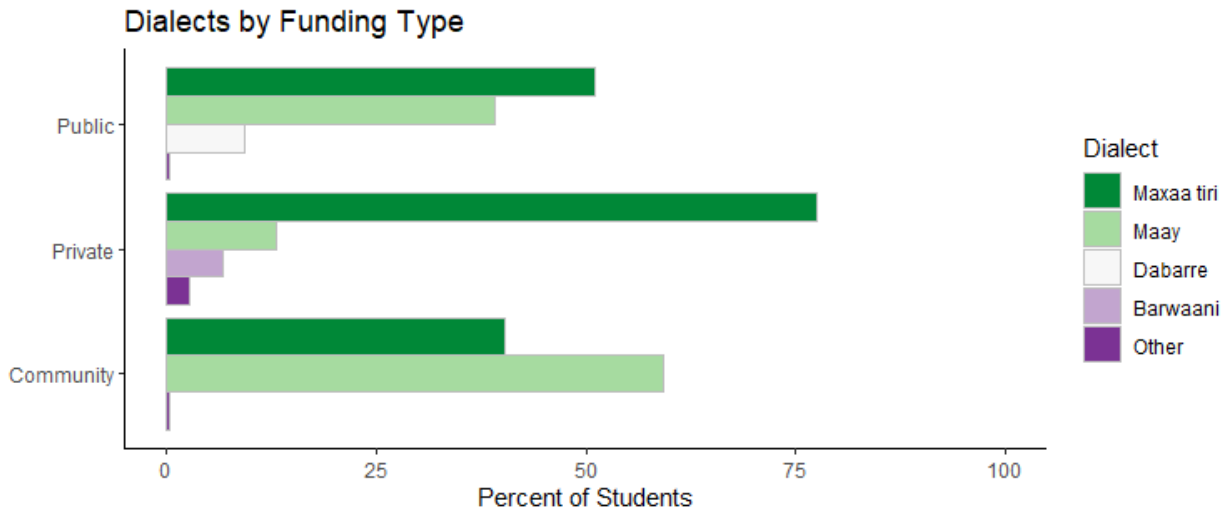
Note: Medians are indicated by solid line



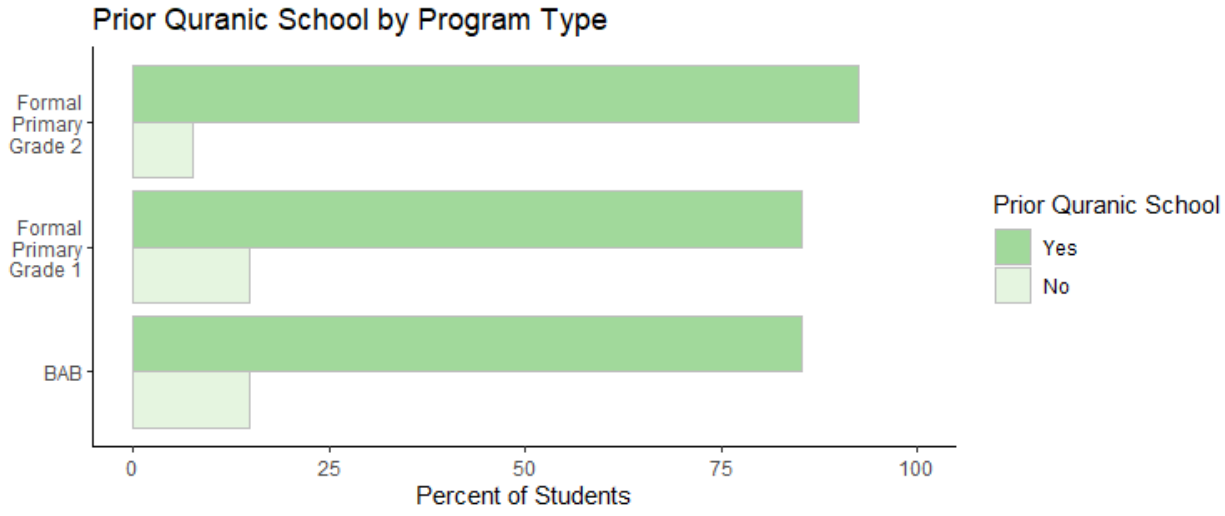
Dialects Spoken Disaggregation

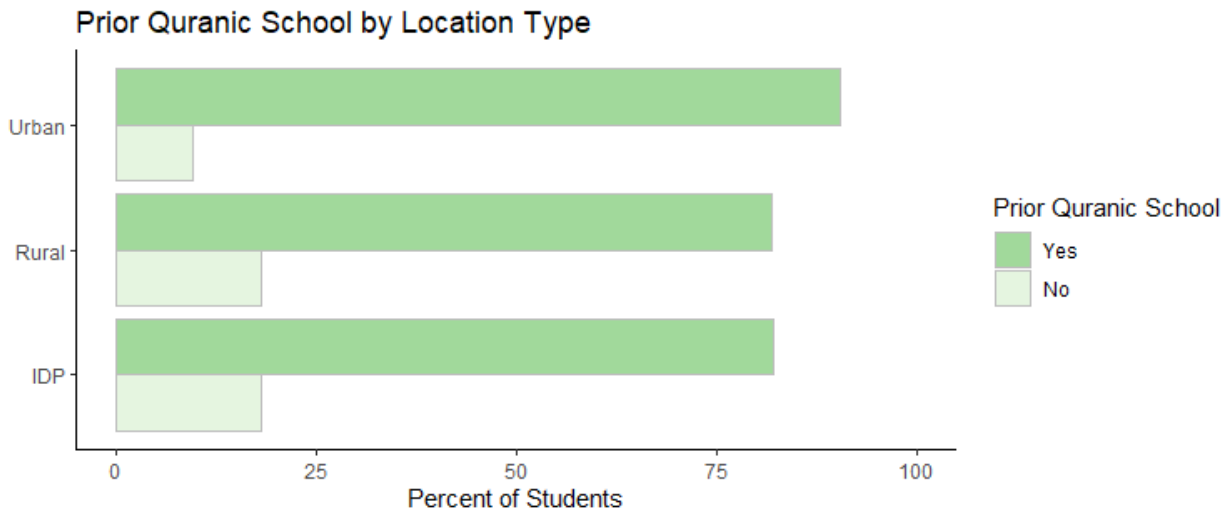


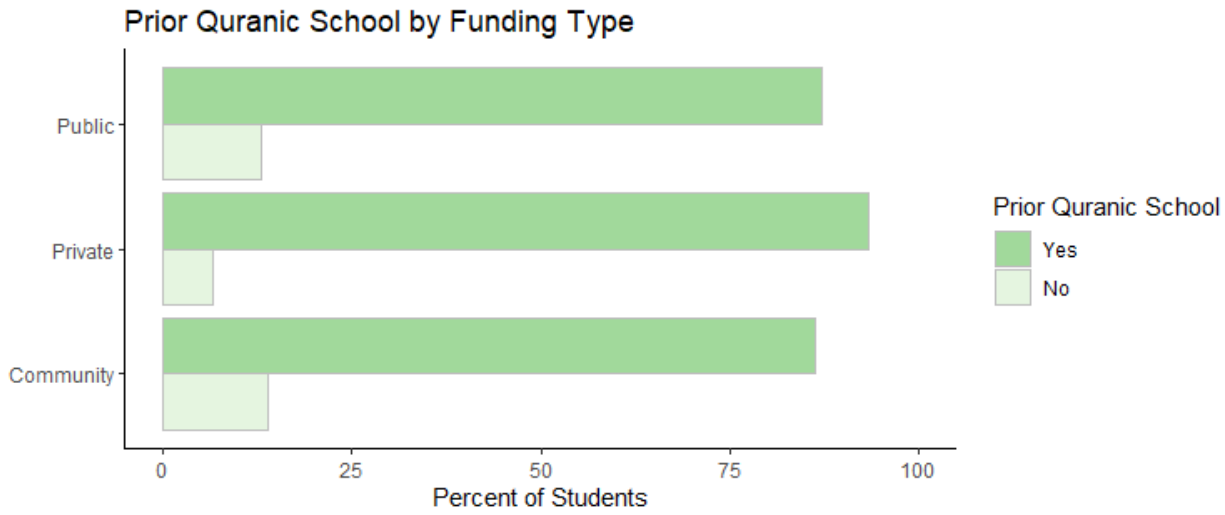




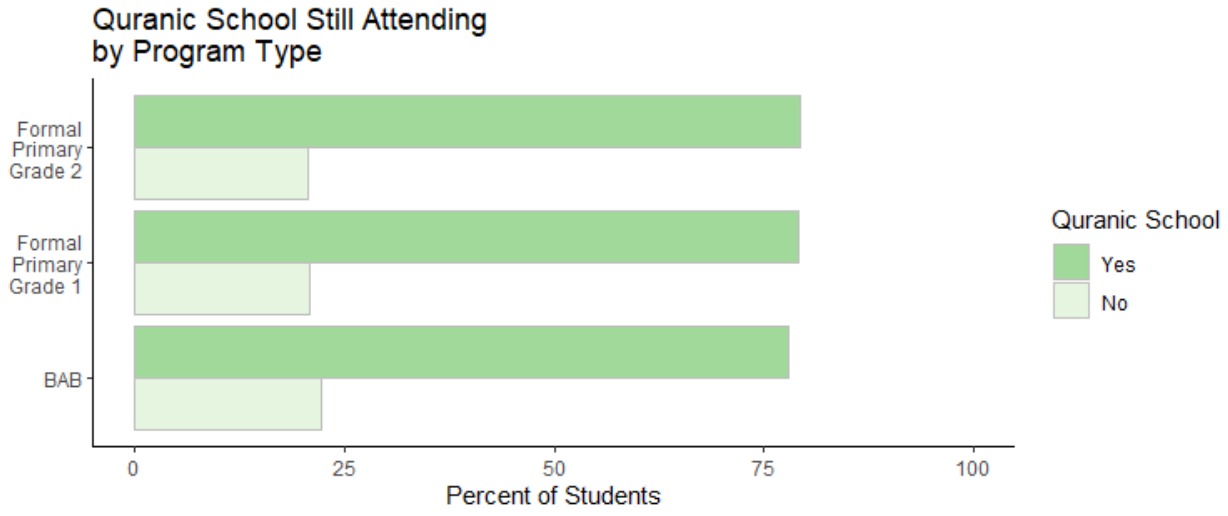
Prior Qu`anic School Disaggregation

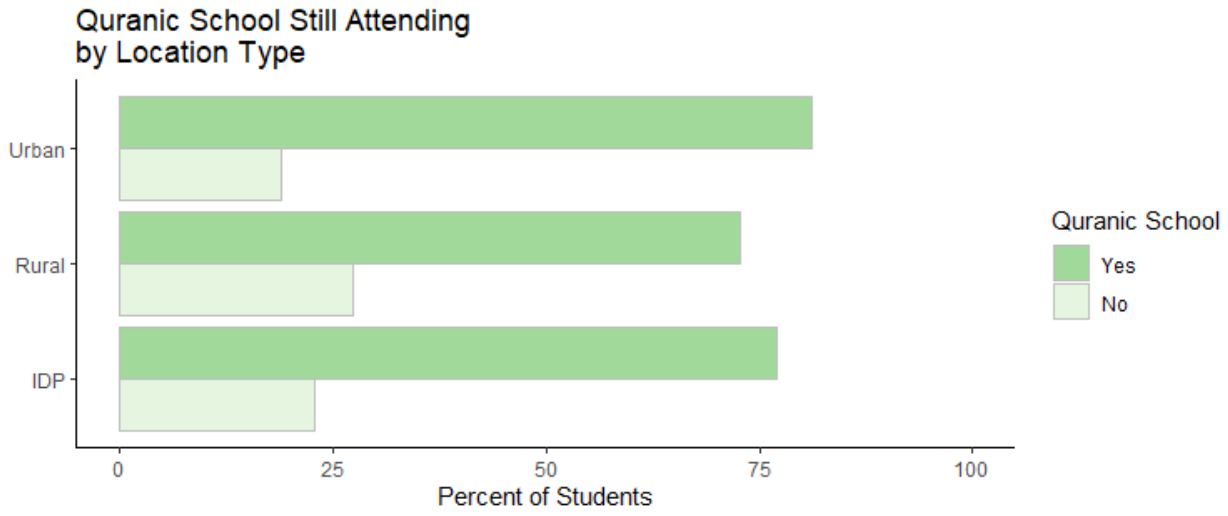


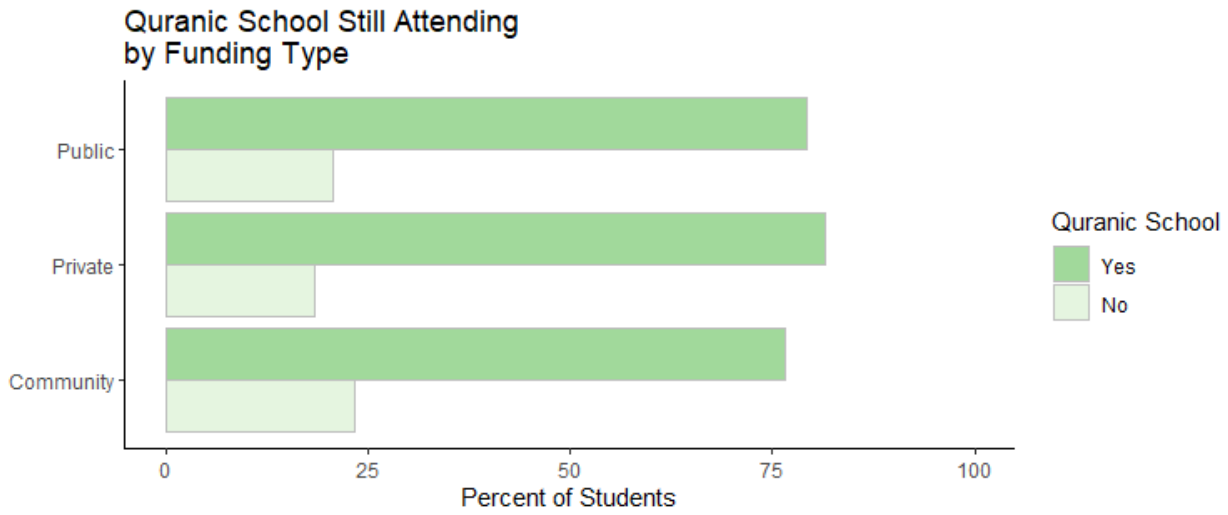




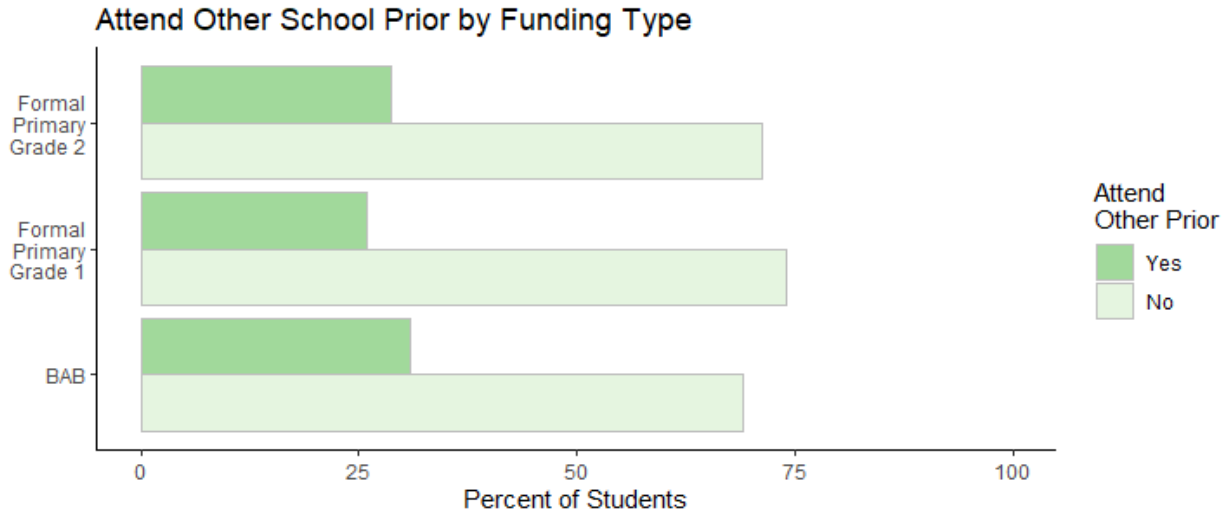
Qu`anic School Still Attending Disaggregation

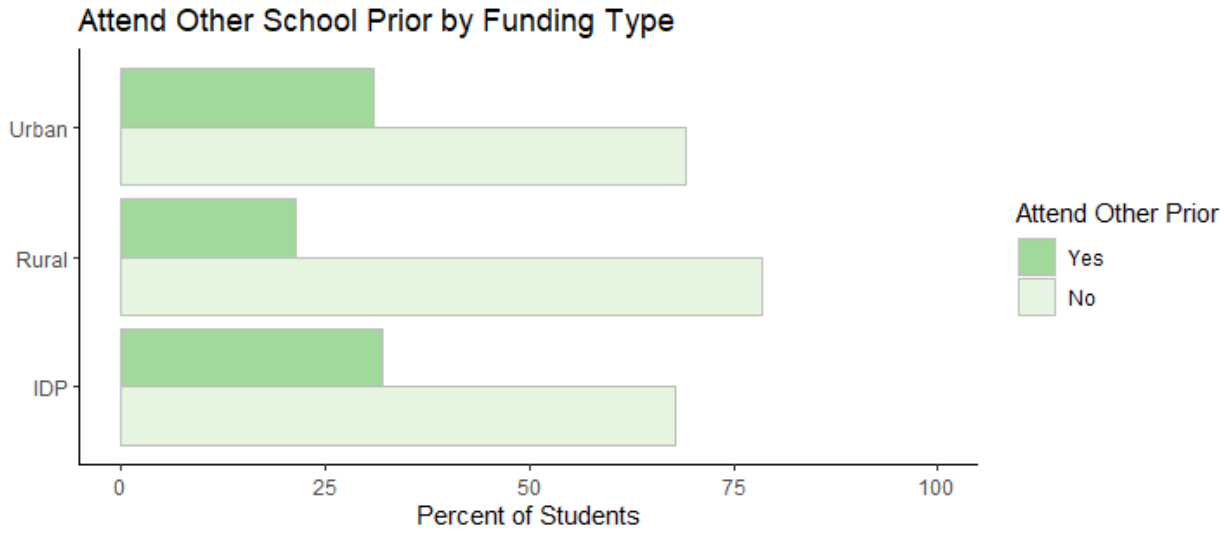


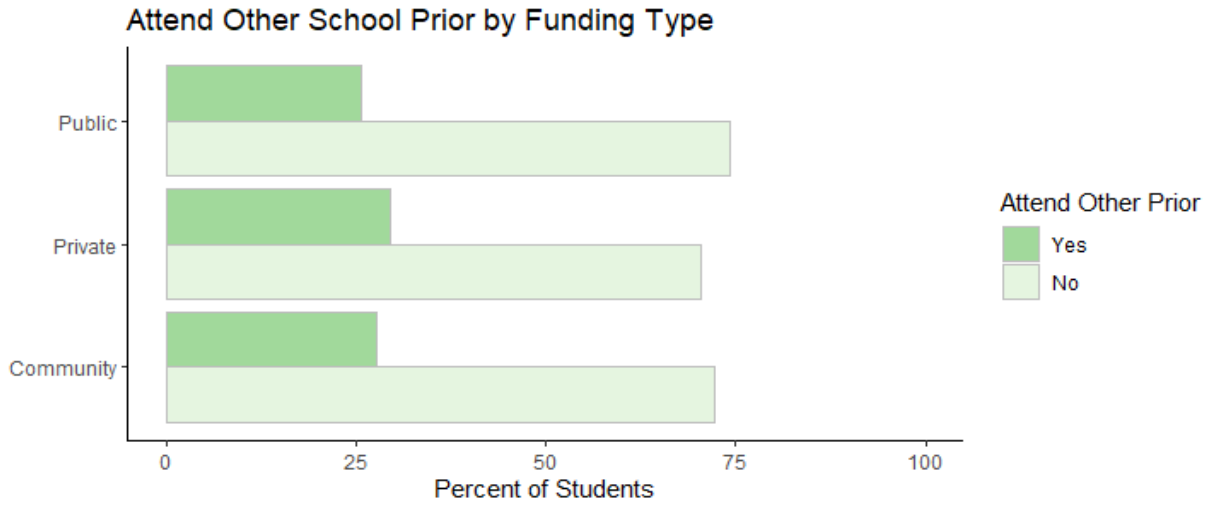




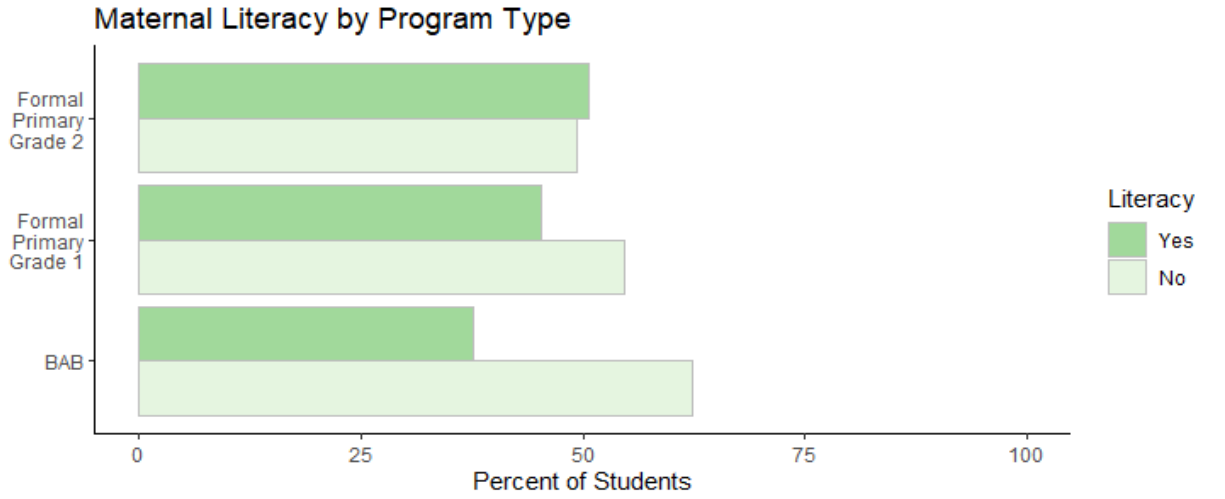
Attend Other School Prior Disaggregation

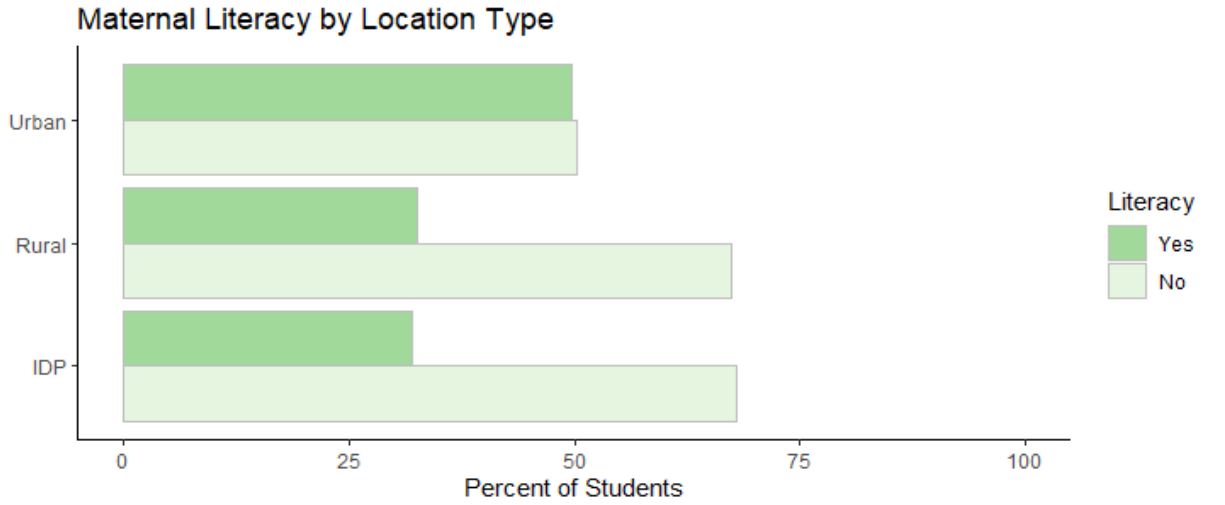


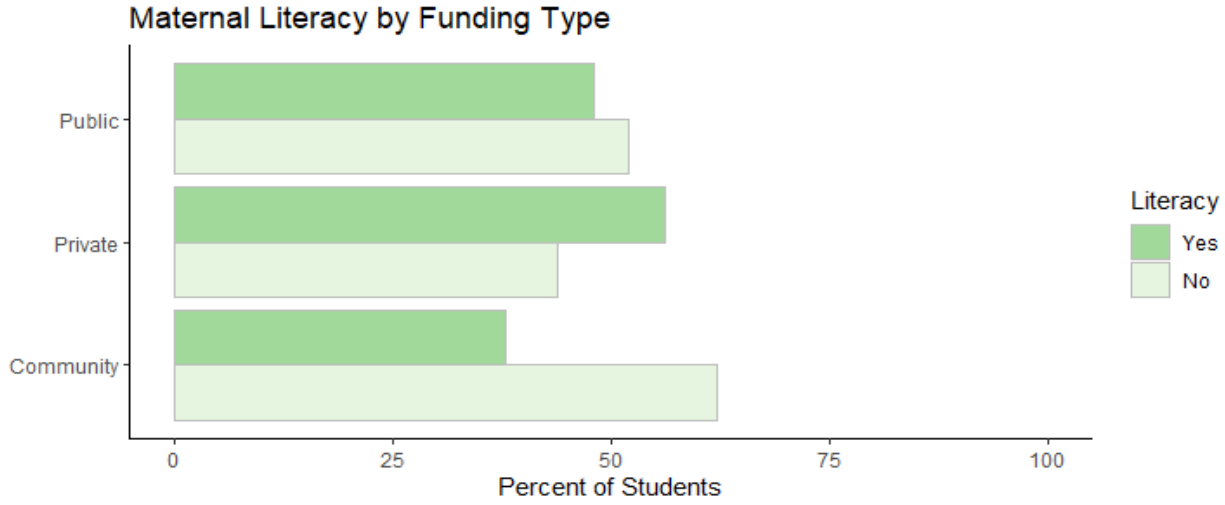




Maternal Literacy Disaggregation







Combined Demographics by School Funding Type

	School Type			
Student Characteristic	**BAB**	**Community**	**Public**	**Private**
Predominant Gender	Male (50.5%)	Male (57.1%)	Female (54.9%)	Male (55.8%)
Median Age	11	10	11	11
Prior Ed	88.7%	89.0%	89.8%	95.2%
Maternal Ed	37.7%	37.9%	48.0%	56.1%
Primary Dialect	Maxaa tiri (54.8%)	Maay (59.2%)	Maxaa tiri (51.1%)	Maxaa tiri (77.6%)

Combined Demographics by School Location Type

	School Type		
Student Characteristic	**IDP**	**Rural**	**Urban**
Predominant Gender	Female (50.9%)	Female (51.0%)	Male (52.0%)
Median Age	11	11	11
Prior Ed	86.4%	86.0%	92.5%
Maternal Ed	32.0%	32.5%	49.8%
Primary Dialect	Maay (75.3%)	Maxaa tiri (69.1%)	Maxaa tiri (65.2%)

Data Table Details

For each scale item below the first base table contains the overall Longitudinal sample data plus the BAB vs. Formal Primary disaggregation. The second table contains the data for the BAB portion of the Longitudinal study sample disaggregated by the demographic subgroups followed by a table withe the Formal Primary portion of the Longitudinal Study Sample disaggregated by the demographic subgroups. Appendix B contains subtables with the BAB and Formal Primary portions of the data disaggregated by location type and district.

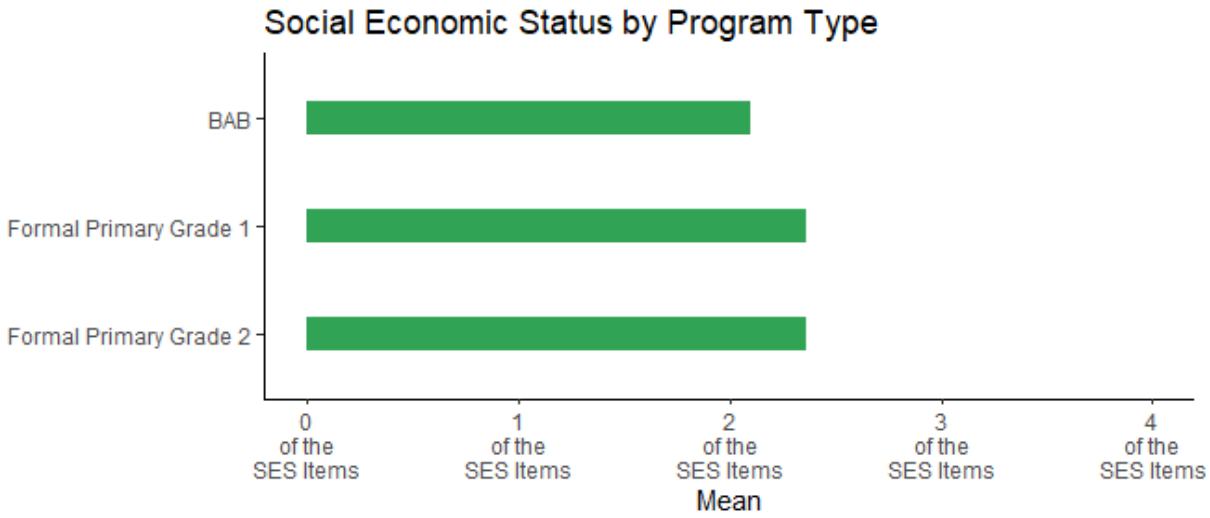
For each of the tables, any subgroup with a mean value more than 0.1 higher than that of the overall student mean for that table is indicated by a green box and any subgroup with a mean value more than 0.1 lower than the overall student mean is indicated by a purple box. The individual items that make up the subscales and also those that did not statistically fit into a subscale can be found in Appendix A displayed in Likert Type Charts disaggregated by BAB vs. Formal Primary and demographic subgroups.

Statistics: For each base table a Shapiro-Wilk normality test was performed on each subgroup to check for normality of the scale item distribution. If the Scale item was found to have a normal distribution across the subgroup a One-way Anova test was then performed on the subgroup to check if there was a significant difference of means between the subgroups. If the distribution was not found to be normal, a Kruskal-Wallis test was performed to check for a significant difference of means between the subgroups. All subgroups where a significant difference was found are marked by a '*' next to the Group Label.

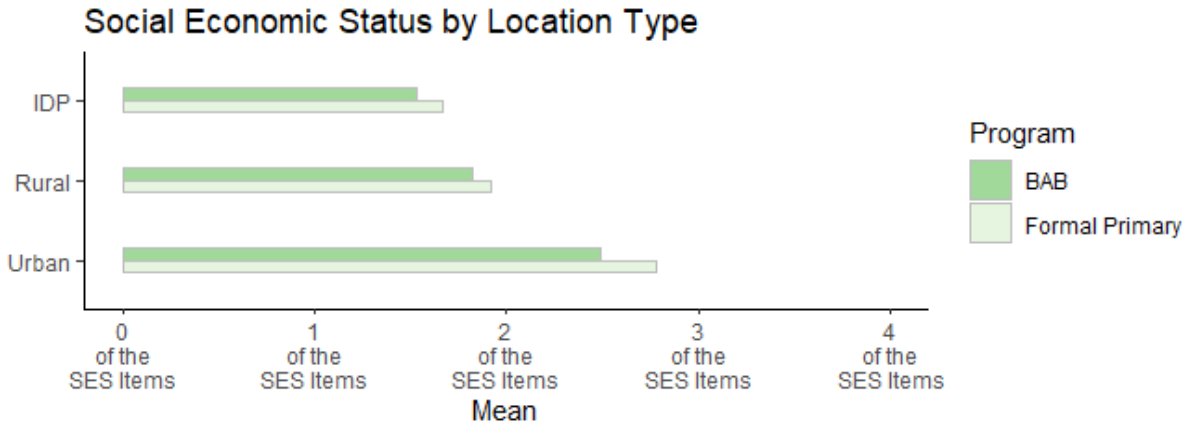
Student Perceptions of Social Economic Status (SES)

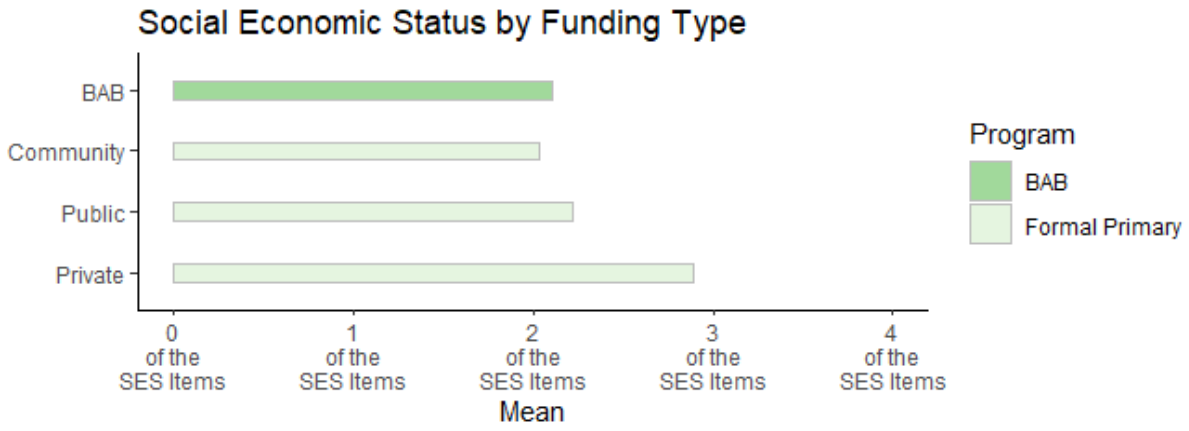
The SES scale items were used to assess student's perception of social economic status. Each item was a no=0 and yes=1 question with a higher value indicating a higher perceived SES level. The scale is composed of the summation of the following 4 items with a range of 0 to 4:

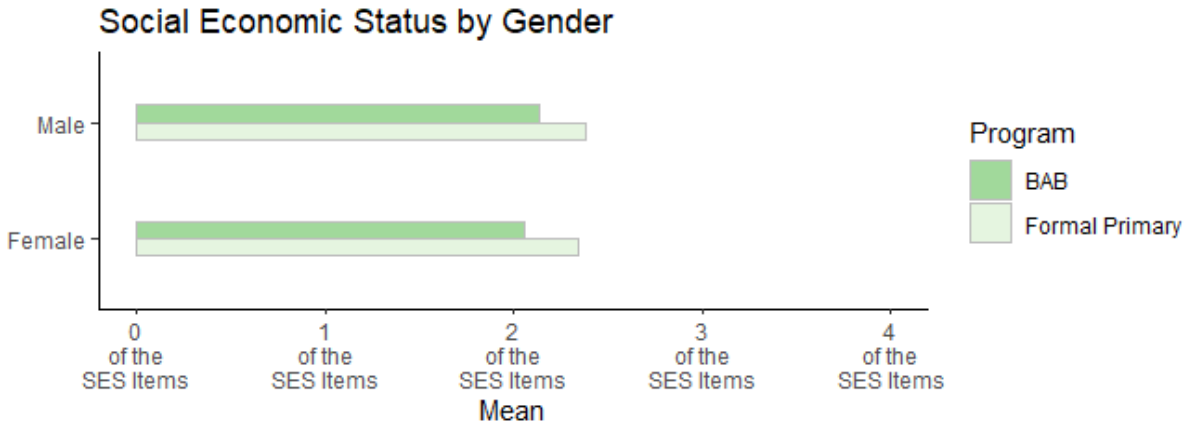
- Do you have electricity at home?
- Do you have a radio at home?
- Does your house have an indoor bathroom/toilet?
- Does your house have a telephone or mobile phone?

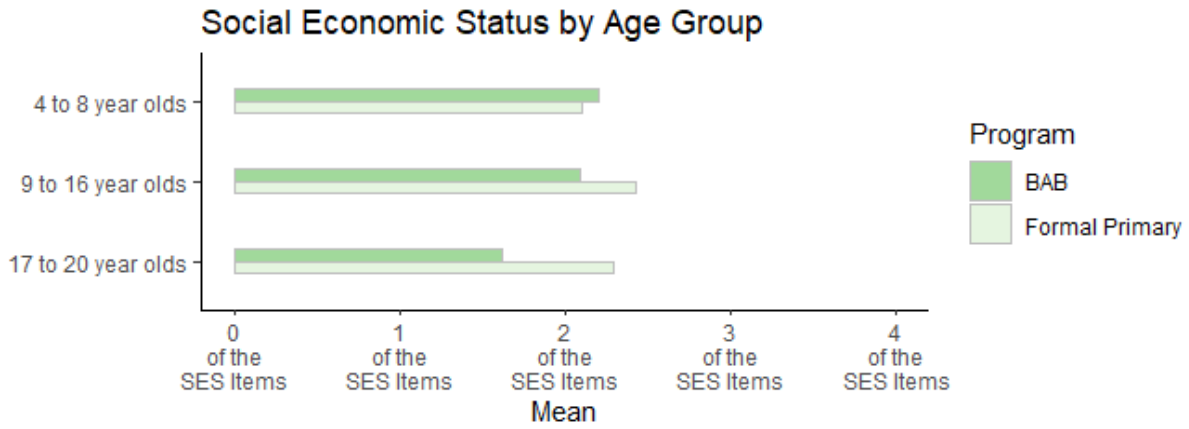


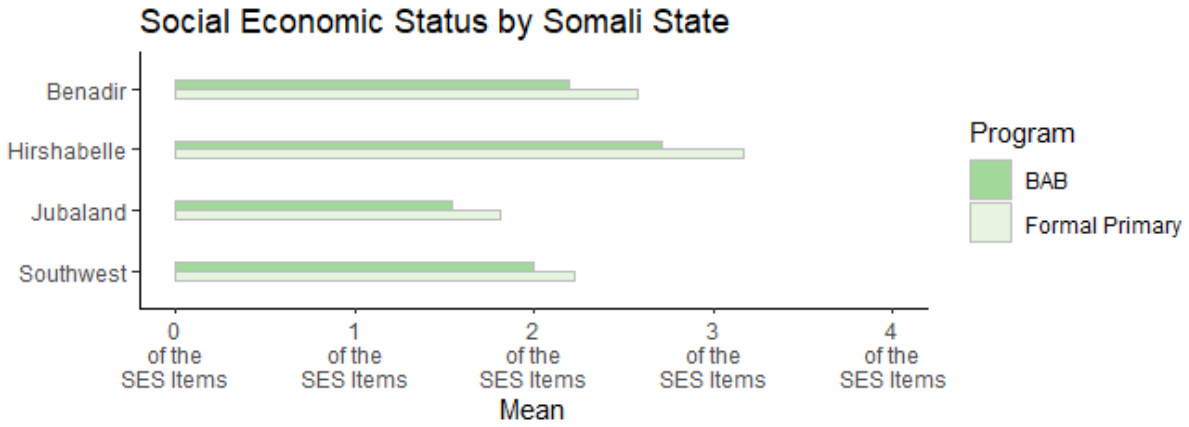
Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Social Economic Status			**2.21**	**1.22**	
Program Inclusion	*	BAB	2.10	1.19	-0.11
		Formal Primary Grade 1	2.36	1.23	0.16
		Formal Primary Grade 2	2.36	1.27	0.16


Social Economic Status by Location Type
IDP
Rural
Urban
0 of the SES Items
1 of the SES Items
2 of the SES Items
3 of the SES Items
4 of the SES Items
Mean
Program
BAB
Formal Primary


Social Economic Status by Funding Type
BAB
Community
Public
Private
0 of the SES Items
1 of the SES Items
2 of the SES Items
3 of the SES Items
4 of the SES Items
Mean
Program
BAB
Formal Primary







Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Social Economic Status			**2.10**	**1.19**	
Location Type	*	IDP	1.53	0.91	-0.57
		Rural	1.82	1.16	-0.28
		Urban	2.49	1.19	0.39

Group		Subgroup	Mean	SD	Diff from Overall Mean
Gender		Male	2.13	1.19	0.03
		Female	2.06	1.19	-0.03
Age		4 to 8 year olds	2.20	1.25	0.11
		9 to 16 year olds	2.09	1.18	-0.01
		17 to 20 year olds	1.62	0.77	-0.48
State	*	Benadir	2.19	1.03	0.09
		Hirshabelle	2.71	1.22	0.61
		Jubaland	1.54	1.24	-0.56
		Southwest	2.00	1.10	-0.09

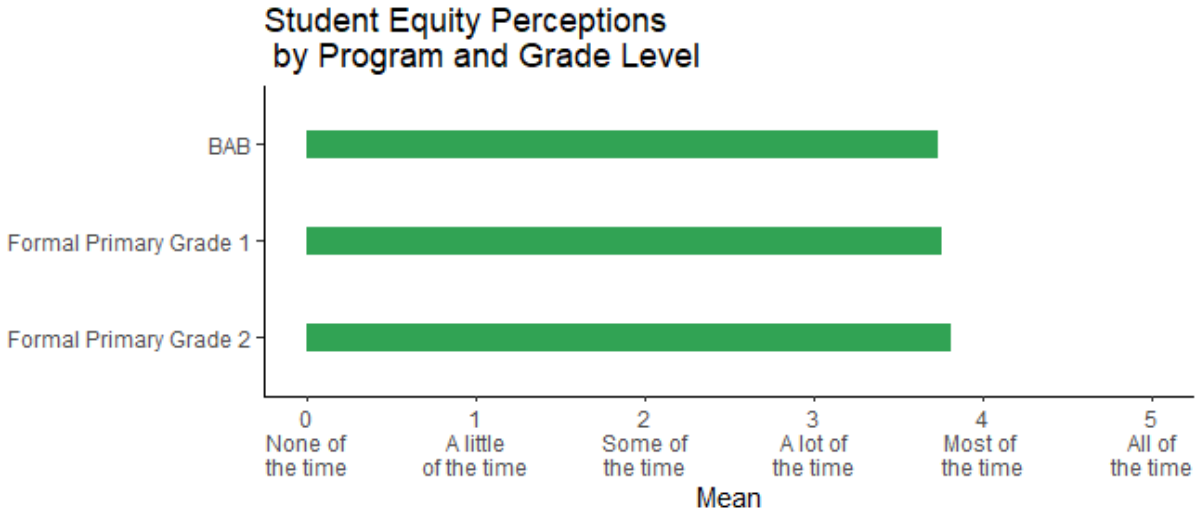
Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Social Economic Status			**2.36**	**1.25**	
Location Type	*	IDP	1.67	1.03	-0.69
		Rural	1.92	1.14	-0.44
		Urban	2.78	1.19	0.42
School Funding Type	*	Community	2.03	1.20	-0.34
		Public	2.22	1.26	-0.14
		Private	2.89	1.08	0.53
Gender		Male	2.38	1.24	0.02
		Female	2.34	1.26	-0.02
Age	*	4 to 8 year olds	2.10	1.23	-0.26
		9 to 16 year olds	2.43	1.24	0.06
		17 to 20 year olds	2.29	1.50	-0.08
State	*	Benadir	2.58	1.14	0.21
		Hirshabelle	3.17	1.02	0.81
		Jubaland	1.81	1.25	-0.55
		Southwest	2.22	1.15	-0.14

Student Equity Perceptions

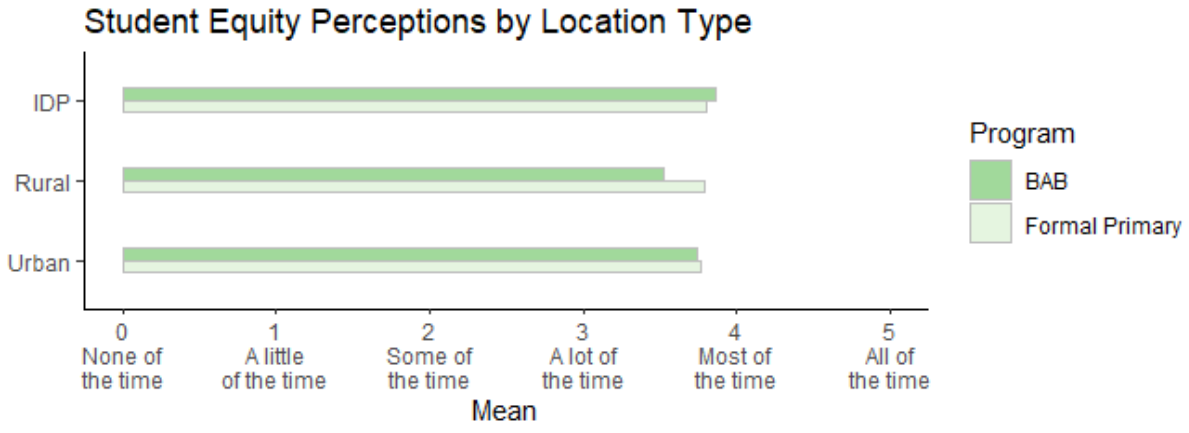
The Equity scale items were used to assess student perception of equity in the classroom. The scale is composed of the average of the following 2 items:

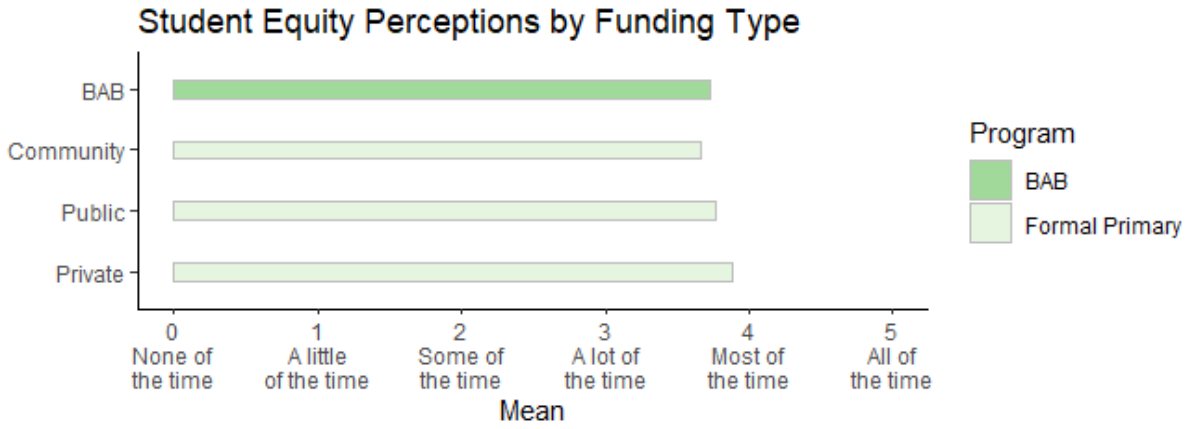
- My teacher treats me fairly at school.
- Reverse of item: In my classroom, some children are treated better than others.

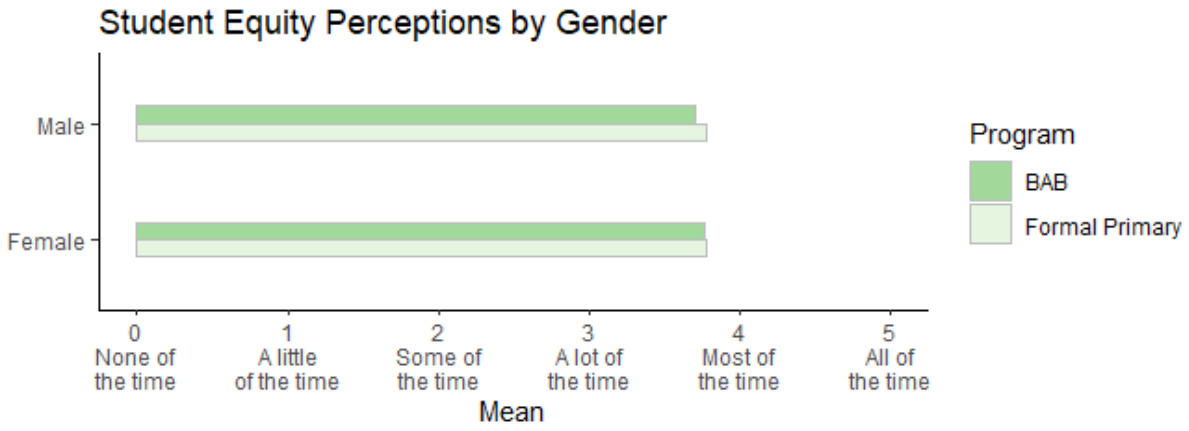
All items were measured on 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated the frequency of perceived equity with each statement.

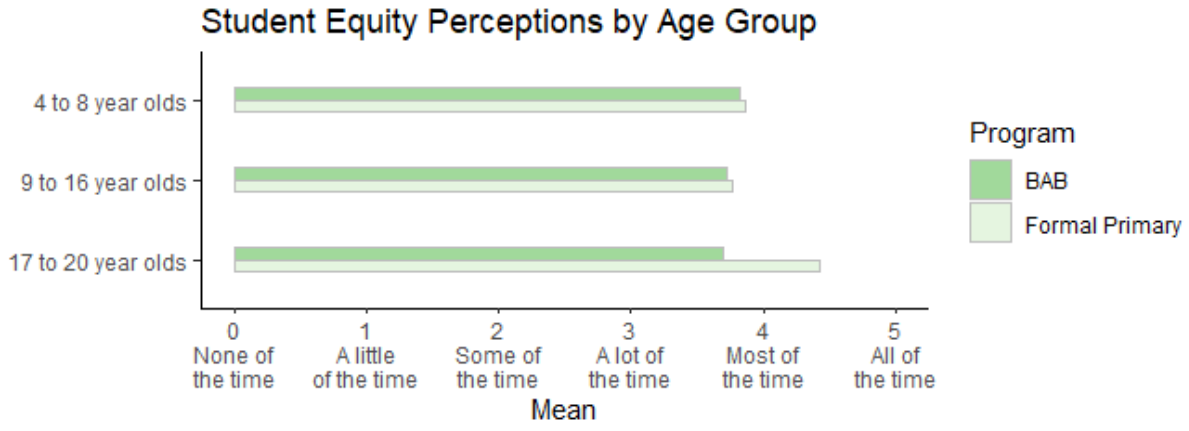


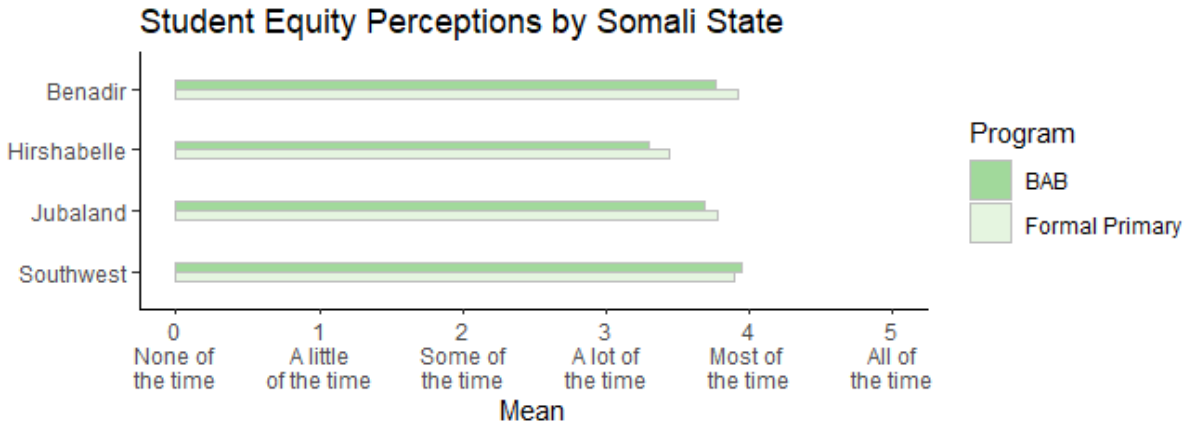
Group	Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Student Equity Perceptions		**3.75**	**1.04**	
Program Inclusion	BAB	3.73	1.06	-0.02
	Formal Primary Grade 1	3.75	0.99	0.00
	Formal Primary Grade 2	3.81	1.00	0.06




Student Equity Perceptions by Funding Type
BAB
Community
Public
Private
0
None of the time
1
A little of the time
2
Some of the time
3
A lot of the time
4
Most of the time
5
All of the time
Mean
Program
BAB
Formal Primary


Student Equity Perceptions by Gender
Male
Female
0
None of the time
1
A little of the time
2
Some of the time
3
A lot of the time
4
Most of the time
5
All of the time
Mean
Program
BAB
Formal Primary


Student Equity Perceptions by Age Group
4 to 8 year olds
9 to 16 year olds
17 to 20 year olds
0
None of the time
1
A little of the time
2
Some of the time
3
A lot of the time
4
Most of the time
5
All of the time
Mean
Program
BAB
Formal Primary



Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Student Equity Perceptions			**3.73**	**1.06**	
Location Type	*	IDP	3.86	1.08	0.12
		Rural	3.53	1.00	-0.20
		Urban	3.74	1.07	0.01
Gender		Male	3.70	1.08	-0.03
		Female	3.76	1.05	0.03
Age		4 to 8 year olds	3.82	1.00	0.09
		9 to 16 year olds	3.72	1.07	-0.01
		17 to 20 year olds	3.69	0.95	-0.04
State	*	Benadir	3.76	1.07	0.02
		Hirshabelle	3.30	0.87	-0.43
		Jubaland	3.69	1.02	-0.04
		Southwest	3.95	1.10	0.22

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student Equity Perceptions			**3.78**	**0.99**	
Location Type		IDP	3.80	1.03	0.02
		Rural	3.79	0.95	0.01
		Urban	3.77	1.00	-0.01
School Funding Type	*	Community	3.66	0.98	-0.12
		Public	3.77	1.00	-0.01
		Private	3.89	1.00	0.11
Gender		Male	3.78	1.01	0.00
		Female	3.78	0.98	0.00
Age		4 to 8 year olds	3.86	0.96	0.08

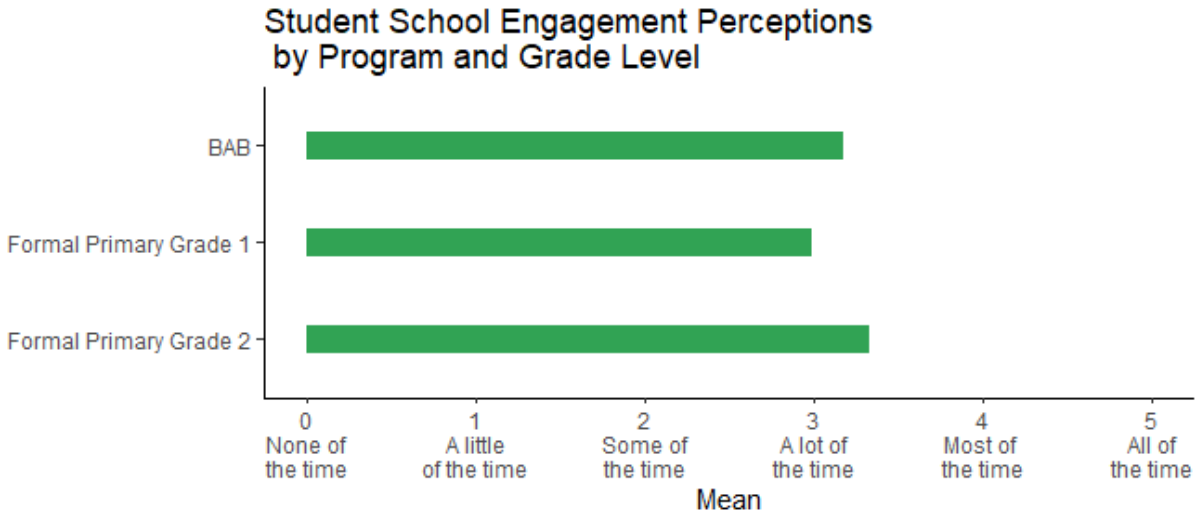
Group		Subgroup	Mean	SD	Diff from Overall Mean
		9 to 16 year olds	3.76	1.00	-0.02
		17 to 20 year olds	4.43	0.67	0.65
State	*	Benadir	3.92	0.88	0.14
		Hirshabelle	3.44	0.85	-0.34
		Jubaland	3.78	1.01	0.00
		Southwest	3.89	1.09	0.11

Student School Engagement Perceptions

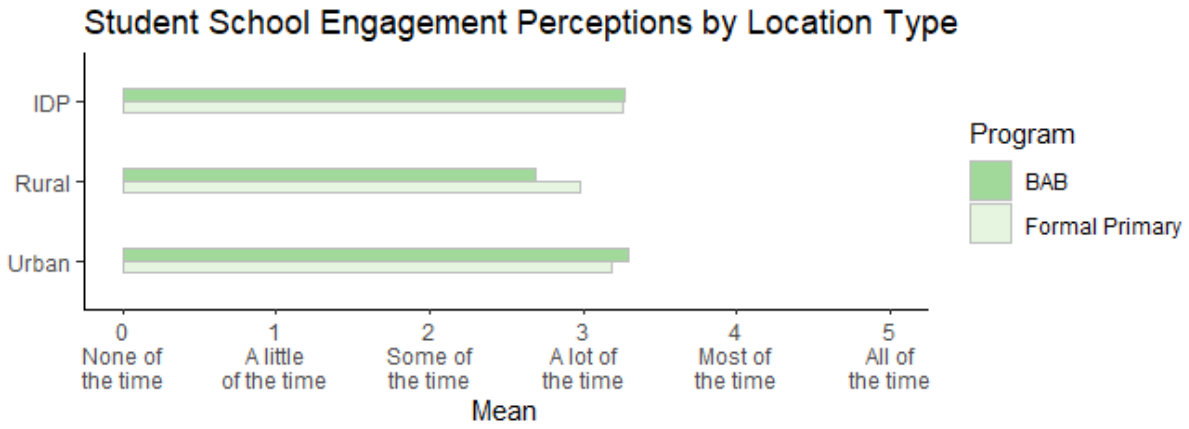
The Engagement scale items were used to assess student emotional engagement while being at school. Scale items derive from the School Engagement Scale (Fredericks, et.al., 2005). Only 3 of the 5 emotional engagement items from the scale were included at baseline, as the other 2 items require knowledge of the classroom that may not be present early in the year. The full scale will be included at midline and endline. The baseline scale is composed of the average of the following 3 items:

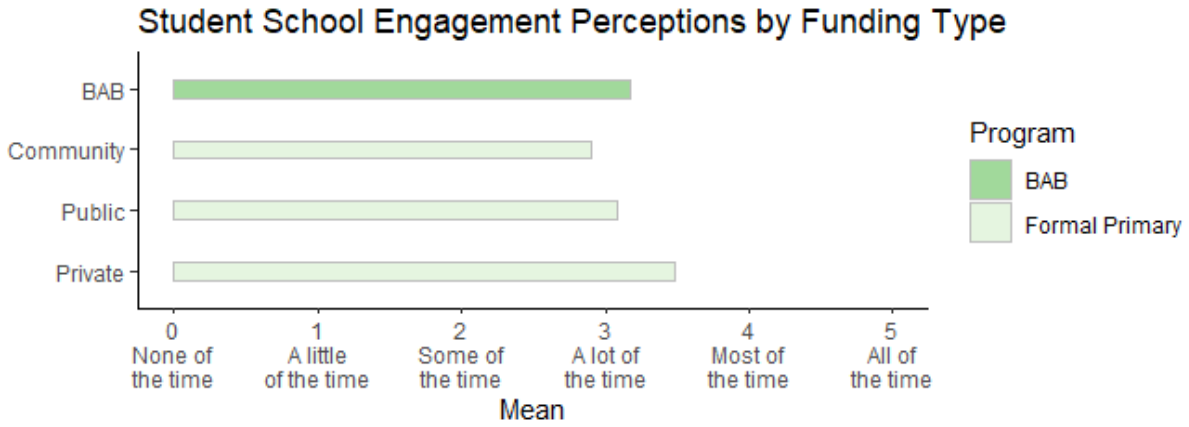
- I like being at school.
- I feel happy at school.
- I am interested in the work at school.

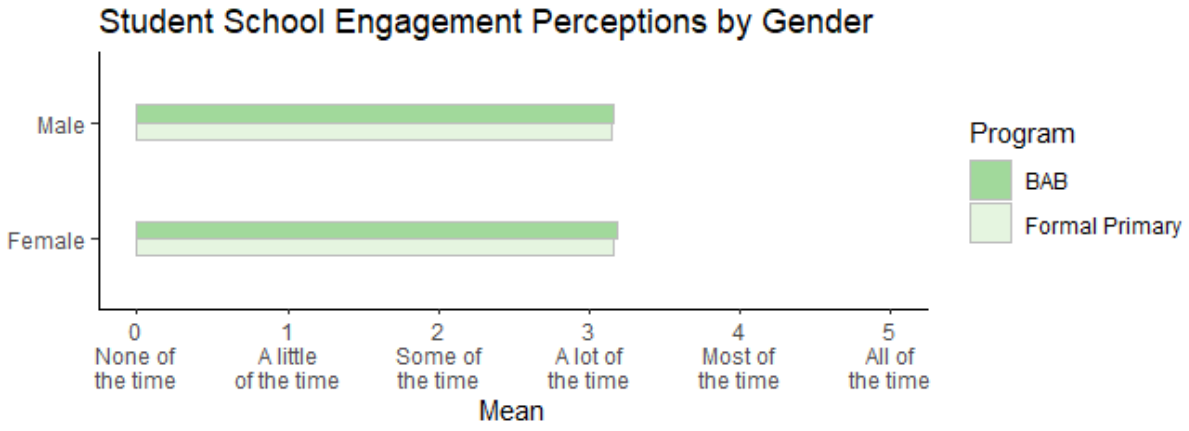
All items were measured on a 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated the frequency of engagement at school with each statement.

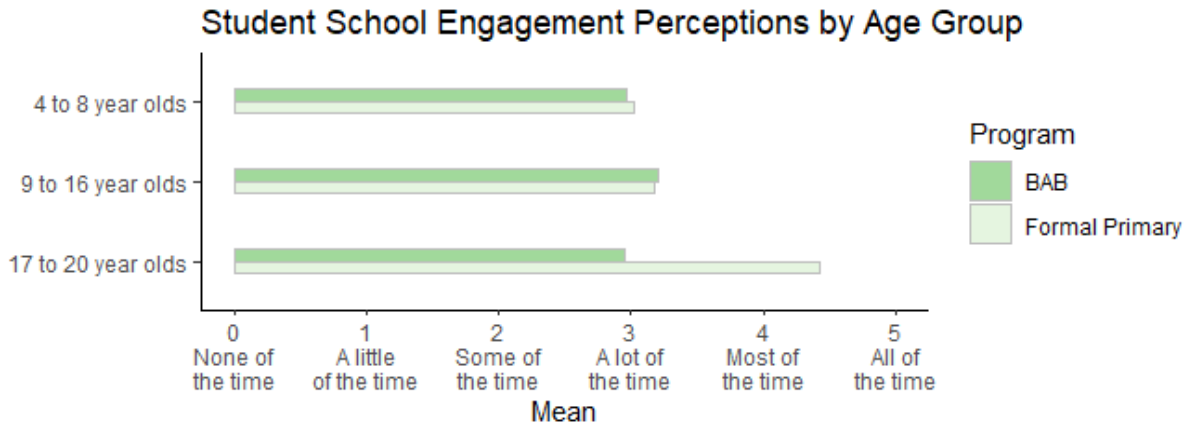


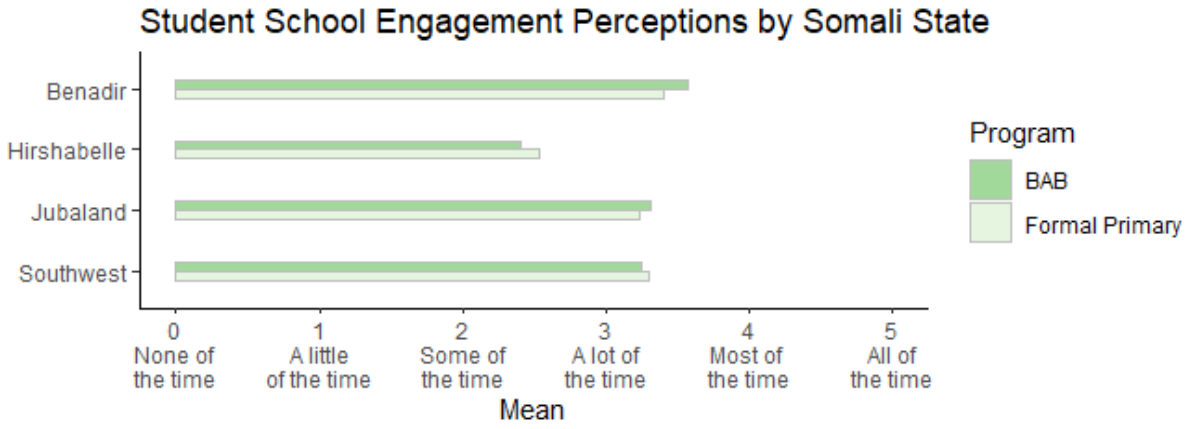
Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Student School Engagement Perceptions			**3.17**	**1.09**	
Program Inclusion	*	BAB	3.17	1.09	0.01
		Formal Primary Grade 1	2.99	1.13	-0.17
		Formal Primary Grade 2	3.33	0.99	0.17











Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Student School Engagement Perceptions			**3.17**	**1.09**	
Location Type	*	IDP	3.27	1.13	0.10
		Rural	2.69	1.10	-0.48
		Urban	3.30	1.03	0.12

Group		Subgroup	Mean	SD	Diff from Overall Mean
Gender		Male	3.16	1.10	-0.02
		Female	3.19	1.09	0.02
Age	*	4 to 8 year olds	2.96	1.08	-0.21
		9 to 16 year olds	3.21	1.09	0.03
		17 to 20 year olds	2.95	1.39	-0.23
State	*	Benadir	3.57	1.01	0.40
		Hirshabelle	2.41	1.02	-0.77
		Jubaland	3.31	0.93	0.13
		Southwest	3.25	1.07	0.08

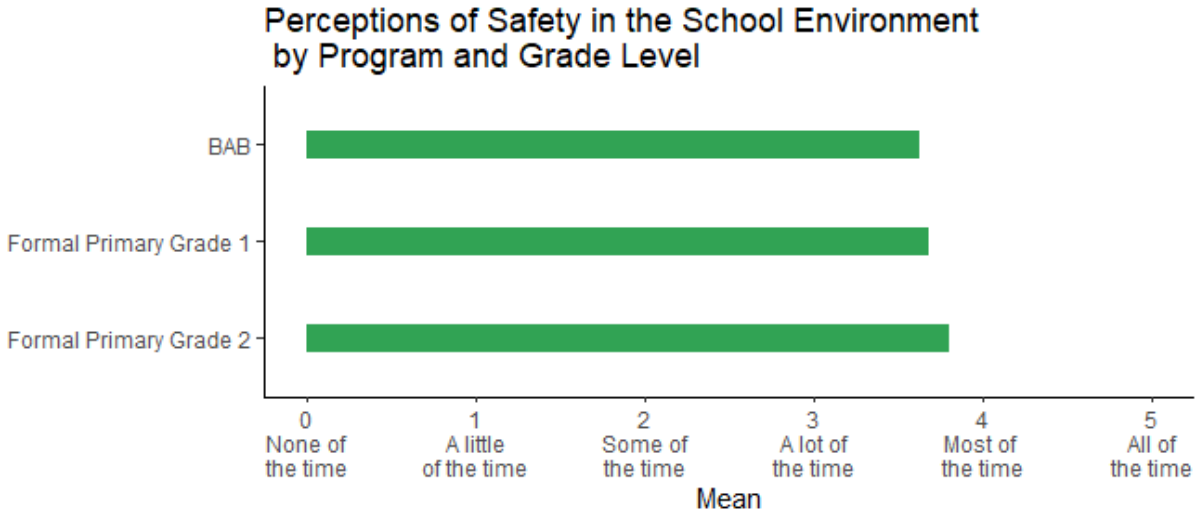
Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student School Engagement Perceptions			**3.16**	**1.08**	
Location Type	*	IDP	3.26	1.04	0.10
		Rural	2.98	1.05	-0.18
		Urban	3.18	1.09	0.02
School Funding Type	*	Community	2.90	1.14	-0.25
		Public	3.09	1.09	-0.07
		Private	3.49	0.91	0.33
Gender		Male	3.15	1.08	0.00
		Female	3.16	1.08	0.01
Age	*	4 to 8 year olds	3.02	1.05	-0.14
		9 to 16 year olds	3.18	1.08	0.02
		17 to 20 year olds	4.43	0.74	1.27
State	*	Benadir	3.40	0.98	0.24
		Hirshabelle	2.53	1.06	-0.63
		Jubaland	3.23	0.99	0.07
		Southwest	3.30	1.09	0.14

Student Perception of Safety in the School Environment

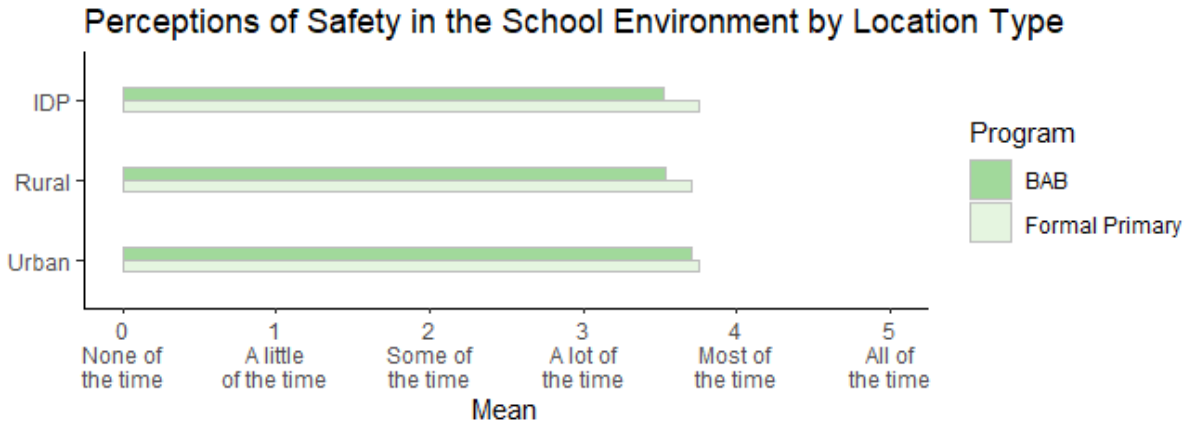
The Safety scale items were used to assess student's perception of safety in the school environment. The scale is composed of the average of the following 3 items:

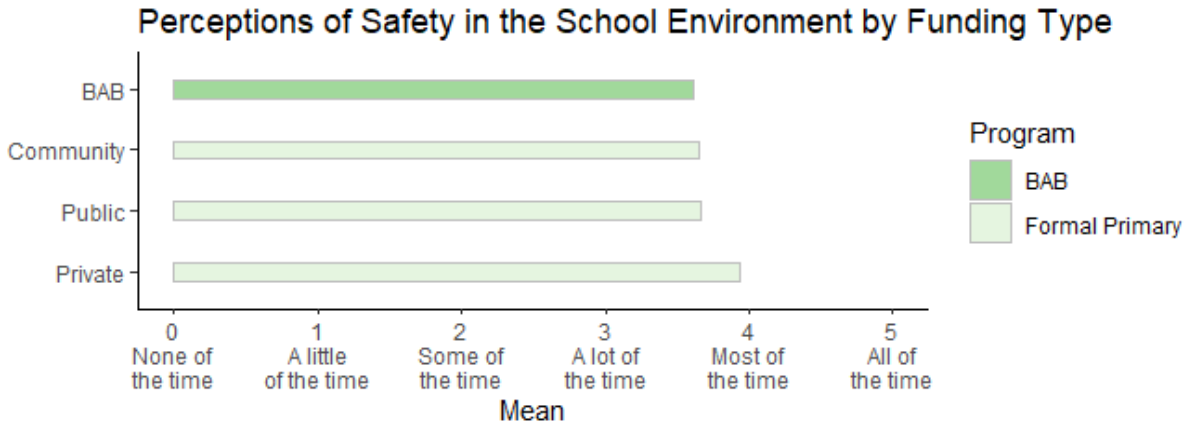
- I feel safe at school.
- I feel safe on my way to school.
- Reverse of item: I am picked on or bullied at school.

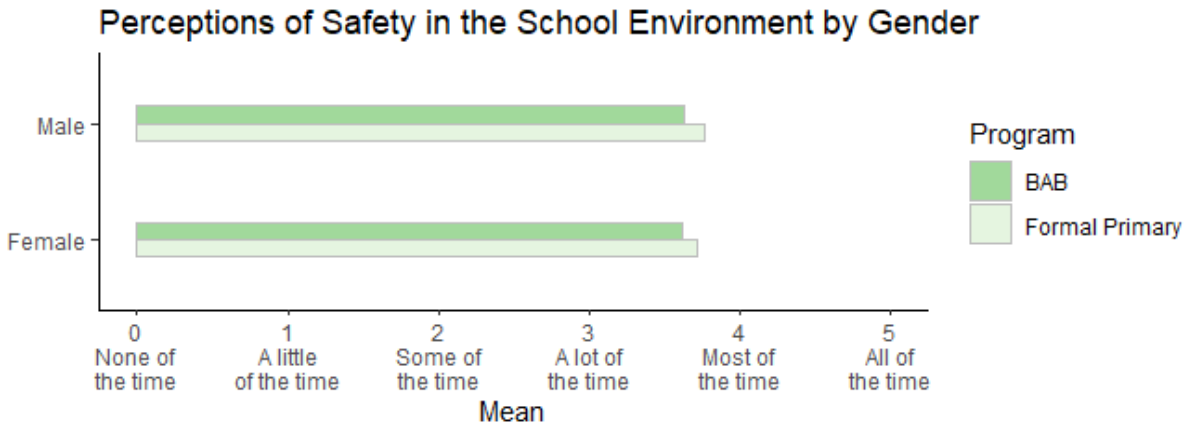
All items were measured on a 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated their perceived safety with each statement.

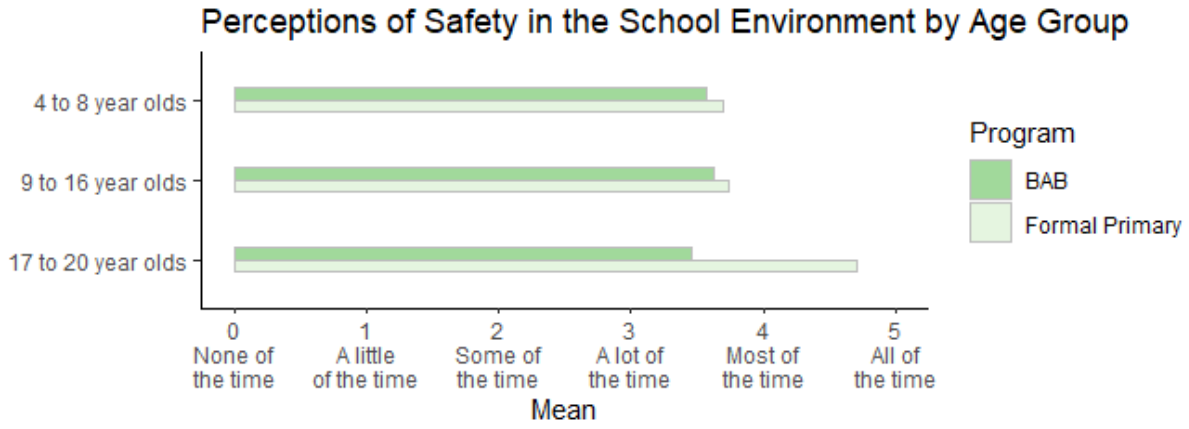


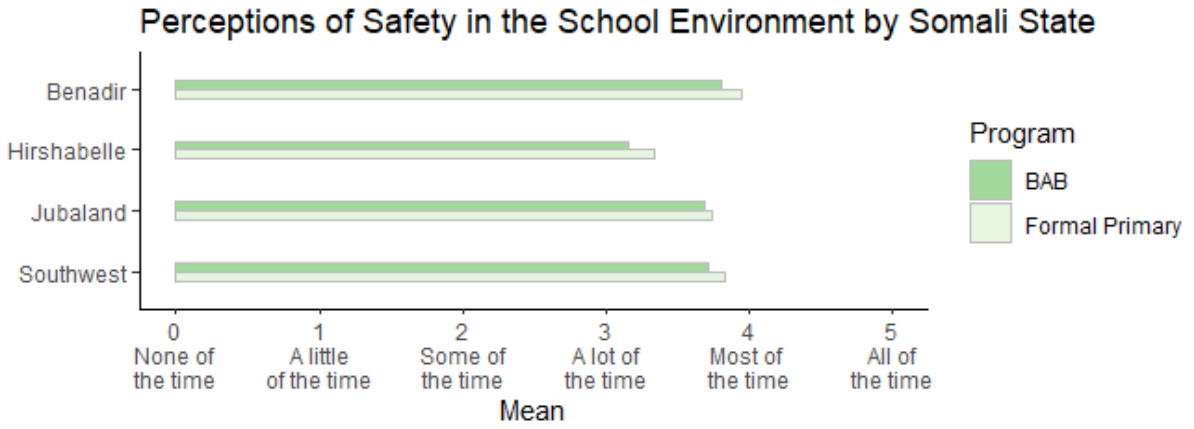
Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Student Perceptions of Safety in the School Environment			**3.67**	**0.99**	
Program Inclusion	*	BAB	3.62	1.02	-0.05
		Formal Primary Grade 1	3.68	0.98	0.01
		Formal Primary Grade 2	3.80	0.88	0.13




Perceptions of Safety in the School Environment by Funding Type
BAB
Community
Public
Private
0
None of the time
1
A little of the time
2
Some of the time
3
A lot of the time
4
Most of the time
5
All of the time
Mean
Program
BAB
Formal Primary


Perceptions of Safety in the School Environment by Gender
Male
Female
0
None of the time
1
A little of the time
2
Some of the time
3
A lot of the time
4
Most of the time
5
All of the time
Mean
Program
BAB
Formal Primary


Perceptions of Safety in the School Environment by Age Group
4 to 8 year olds
9 to 16 year olds
17 to 20 year olds
0
None of the time
1
A little of the time
2
Some of the time
3
A lot of the time
4
Most of the time
5
All of the time
Mean
Program
BAB
Formal Primary



Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Student Perceptions of Safety in the School Environment			**3.62**	**1.02**	
Location Type	*	IDP	3.52	1.11	-0.11
		Rural	3.54	1.00	-0.08
		Urban	3.71	0.97	0.08
Gender		Male	3.63	1.04	0.00
		Female	3.62	1.00	0.00
Age		4 to 8 year olds	3.57	1.02	-0.06
		9 to 16 year olds	3.63	1.02	0.01
		17 to 20 year olds	3.46	1.11	-0.16
State	*	Benadir	3.81	0.88	0.18
		Hirshabelle	3.16	0.94	-0.46
		Jubaland	3.69	0.94	0.07
		Southwest	3.71	1.10	0.09

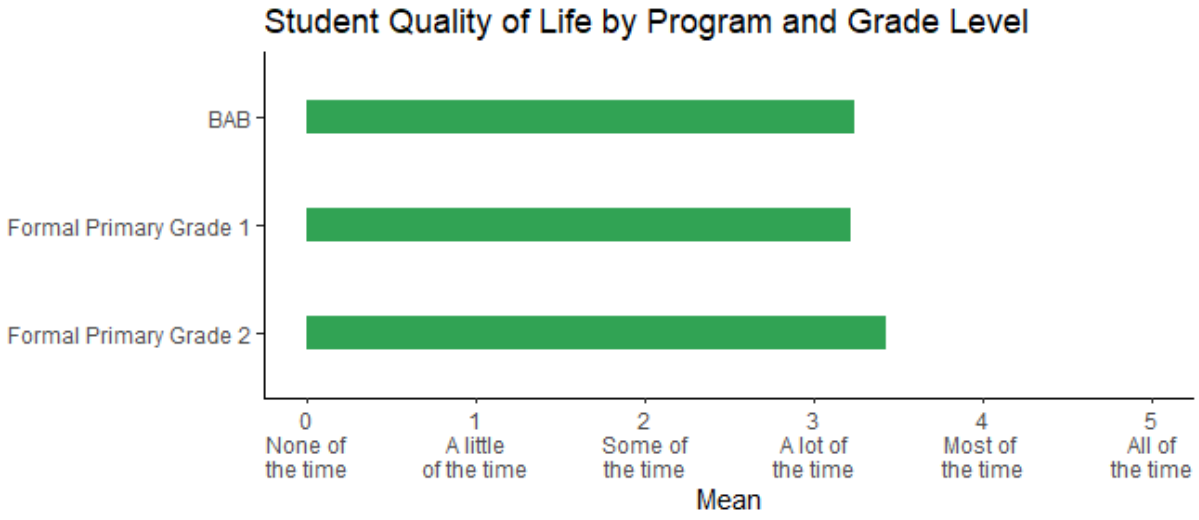
Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student Perceptions of Safety in the School Environment			**3.74**	**0.93**	
Location Type		IDP	3.75	0.96	0.01
		Rural	3.70	0.83	-0.04
		Urban	3.75	0.96	0.01
School Funding Type	*	Community	3.65	0.94	-0.09
		Public	3.67	0.99	-0.08
		Private	3.94	0.78	0.20
Gender		Male	3.76	0.90	0.02
		Female	3.72	0.97	-0.02

Group		Subgroup	Mean	SD	Diff from Overall Mean
Age	*	4 to 8 year olds	3.70	0.84	-0.04
		9 to 16 year olds	3.74	0.95	0.00
		17 to 20 year olds	4.71	0.41	0.97
State	*	Benadir	3.95	0.75	0.21
		Hirshabelle	3.34	0.93	-0.40
		Jubaland	3.74	0.87	0.00
		Southwest	3.83	1.03	0.09

Student Quality of Life

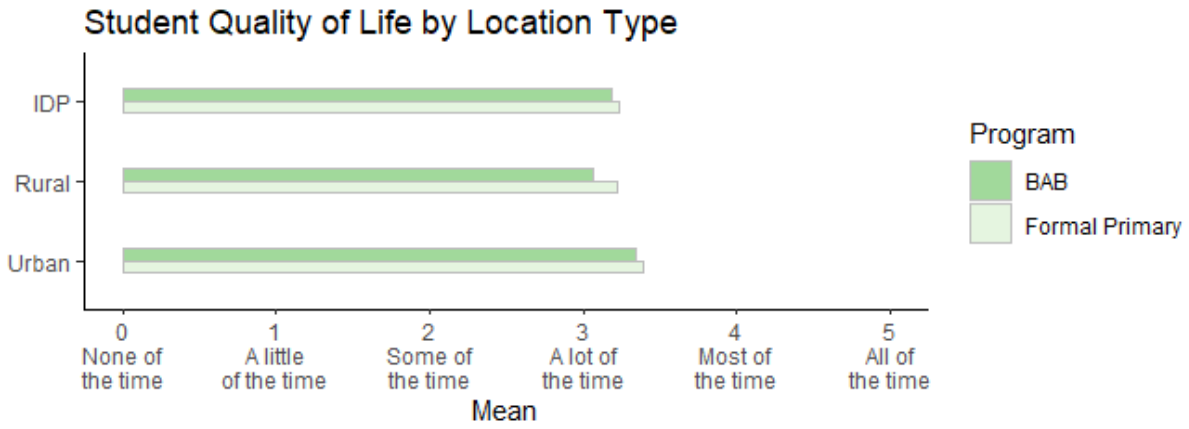
The student Quality of Life Scale items from the KINDL Quality of Life Survey (Ravens-Sieberer, U. & Bullinger, M. (1998b). This scale is a composite of three subscale items: Friendship, Self-Esteem and Well-Being. The separate three subscales are provided below.

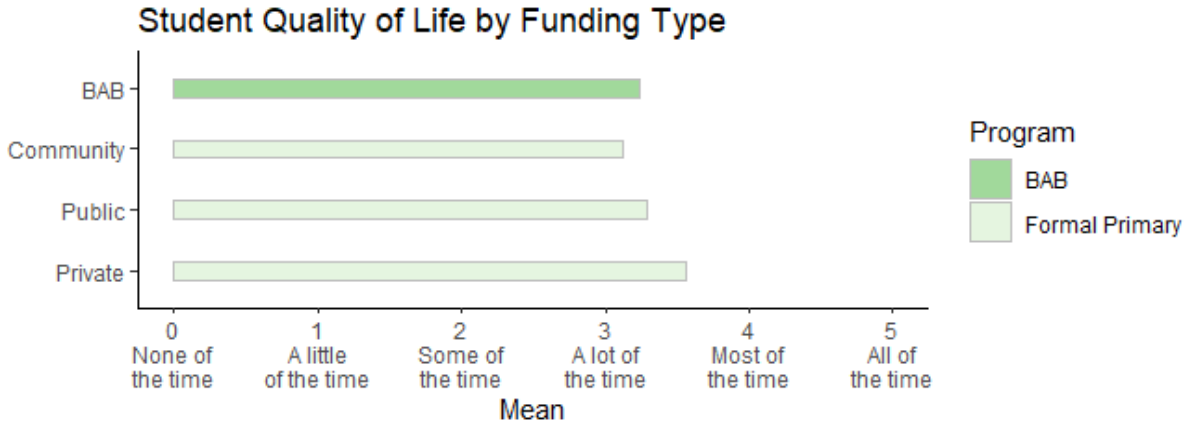
All items were measured on a 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated the status of friendships over the past week with each statement.

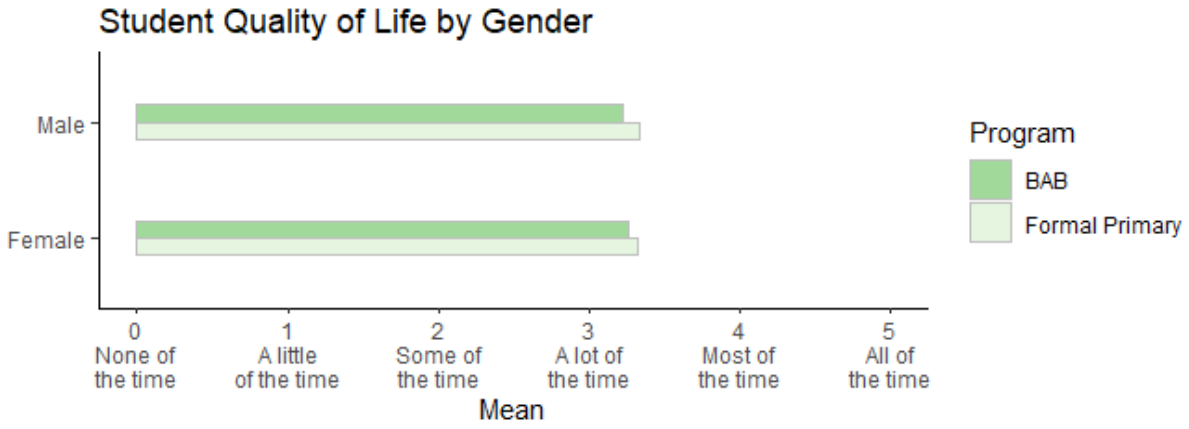


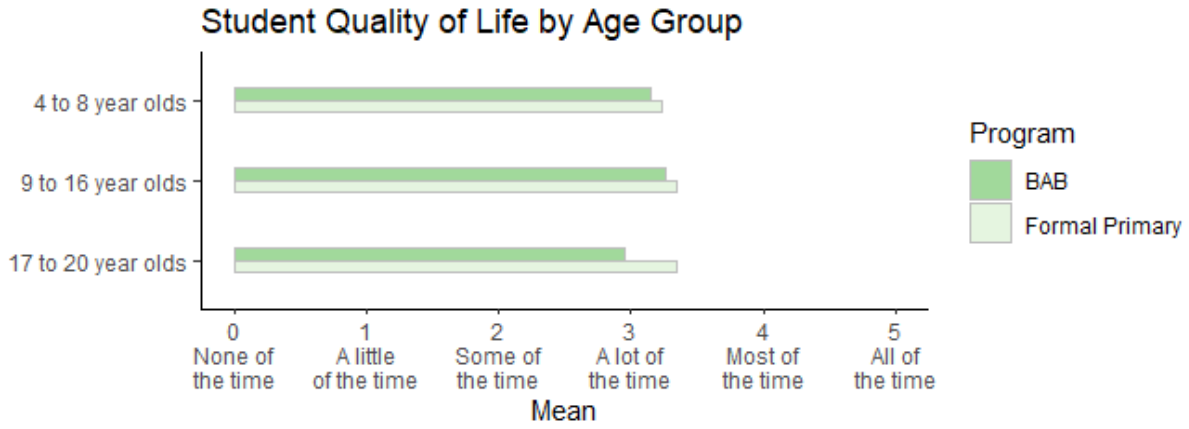
Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Student Quality of Life			**3.28**	**0.64**	
Program Inclusion	*	BAB	3.24	0.64	-0.03
		Formal Primary Grade 1	3.22	0.63	-0.05

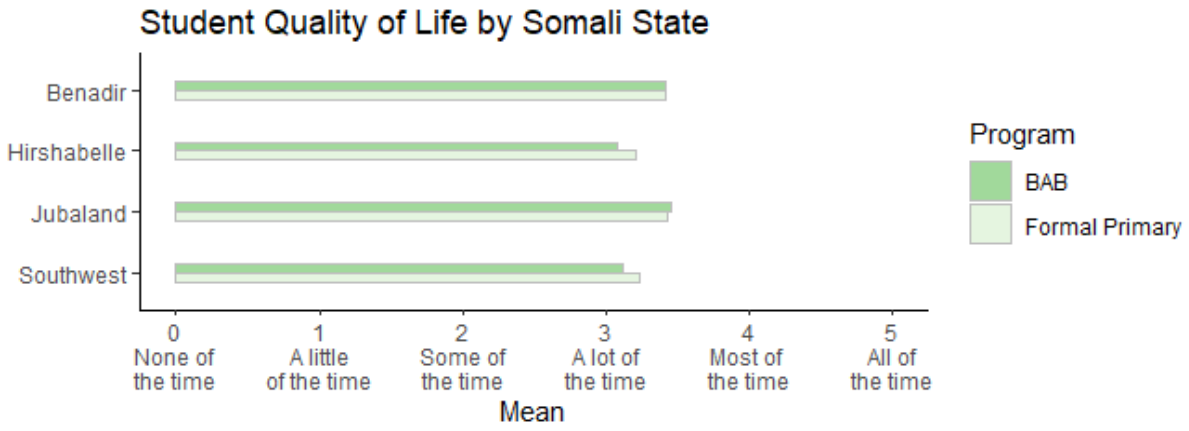
Group	Subgroup	Mean	SD	Diff from Overall Mean
	Formal Primary Grade 2	3.43	0.60	0.15











Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Student Quality of Life			**3.24**	**0.64**	
Location Type	*	IDP	3.19	0.64	-0.06
		Rural	3.07	0.63	-0.17
		Urban	3.34	0.63	0.09
Gender		Male	3.22	0.63	-0.02
		Female	3.26	0.65	0.02
Age	*	4 to 8 year olds	3.15	0.68	-0.09
		9 to 16 year olds	3.26	0.64	0.02
		17 to 20 year olds	2.95	0.71	-0.30
State	*	Benadir	3.42	0.60	0.18
		Hirshabelle	3.08	0.62	-0.16
		Jubaland	3.45	0.64	0.21
		Southwest	3.12	0.63	-0.13

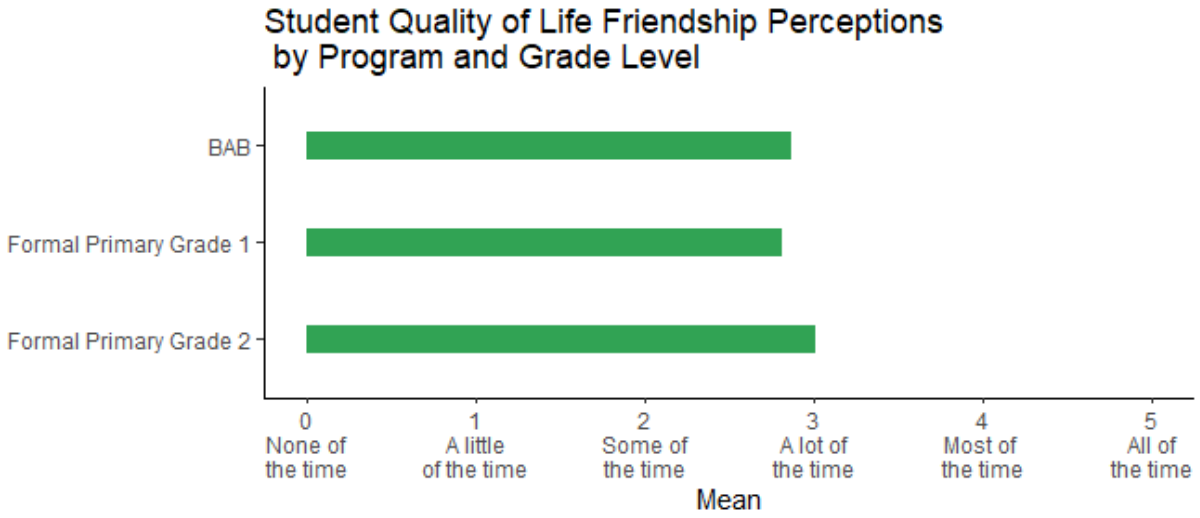
Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students		**Student Quality of Life**	**3.32**	**0.62**	
Location Type	*	IDP	3.24	0.63	-0.08
		Rural	3.22	0.70	-0.11
		Urban	3.39	0.59	0.07
School Funding Type	*	Community	3.12	0.58	-0.21
		Public	3.29	0.65	-0.04
		Private	3.56	0.53	0.24
Gender		Male	3.33	0.61	0.01
		Female	3.32	0.64	-0.01
Age		4 to 8 year olds	3.23	0.64	-0.09
		9 to 16 year olds	3.35	0.62	0.02
		17 to 20 year olds	3.34	0.69	0.02
State	*	Benadir	3.42	0.53	0.10
		Hirshabelle	3.21	0.61	-0.11
		Jubaland	3.43	0.64	0.10
		Southwest	3.23	0.65	-0.10

Student Quality of Life Friendship Perceptions

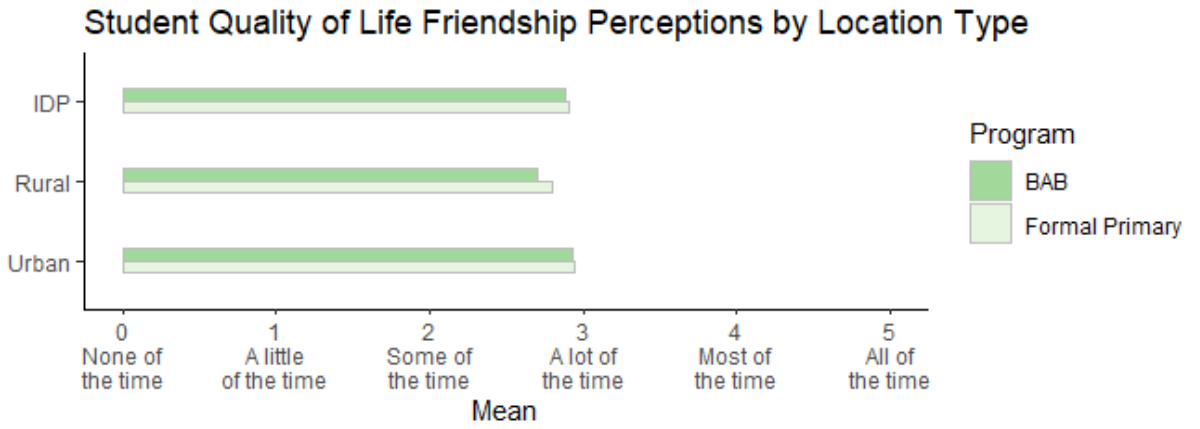
The Friend scale items from the KINDL Quality of Life Survey (Ravens-Sieberer, U. & Bullinger, M. (1998b). were used to assess student's perception of friendship as it contributes to overall perceptions of quality of life. The scale is composed of the average of the following 4 items:

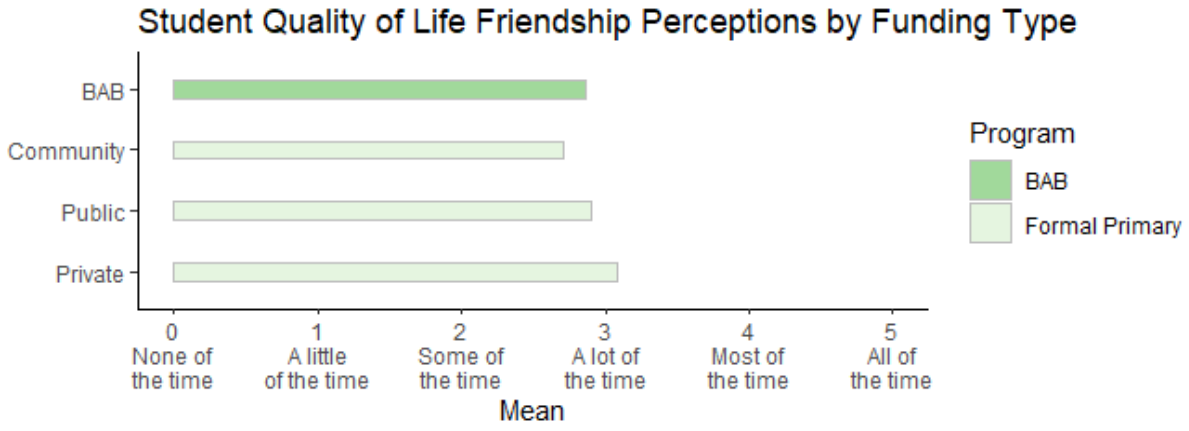
- During the past week, how often did you play or do things together with your friends
- During the past week, how often did you feel that other kids liked you?
- During the past week, how often did you get along with your friends?
- During the past week, how often did you feel different from other children/youth?

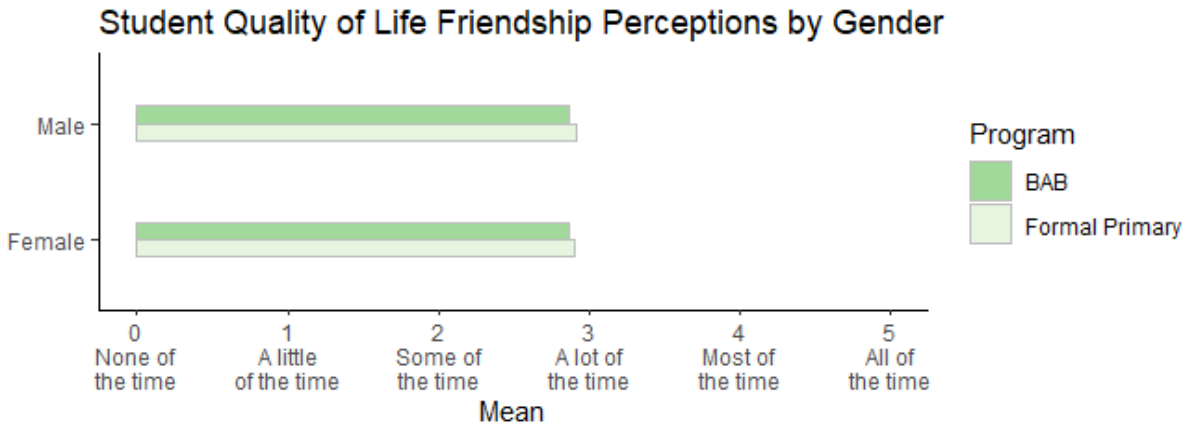
All items were measured on a 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated the status of friendships over the past week with each statement.

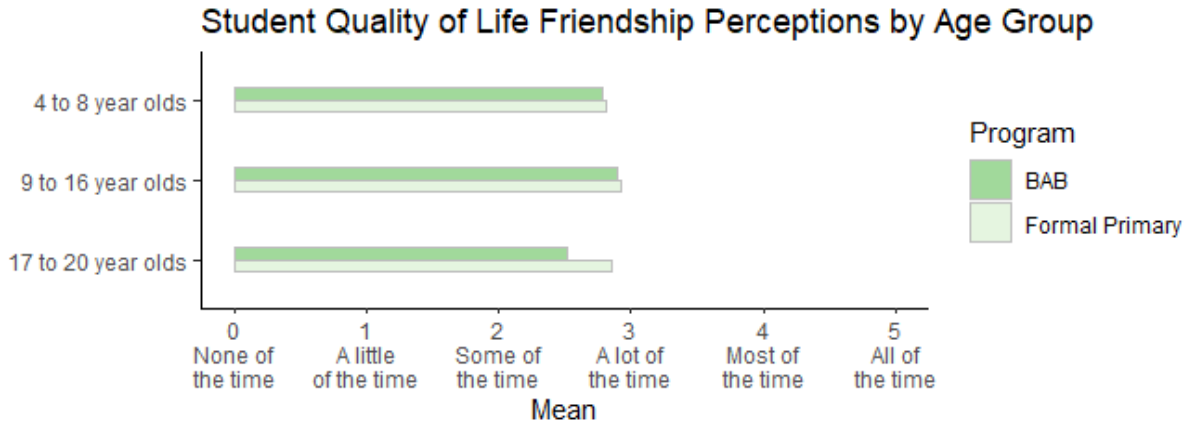


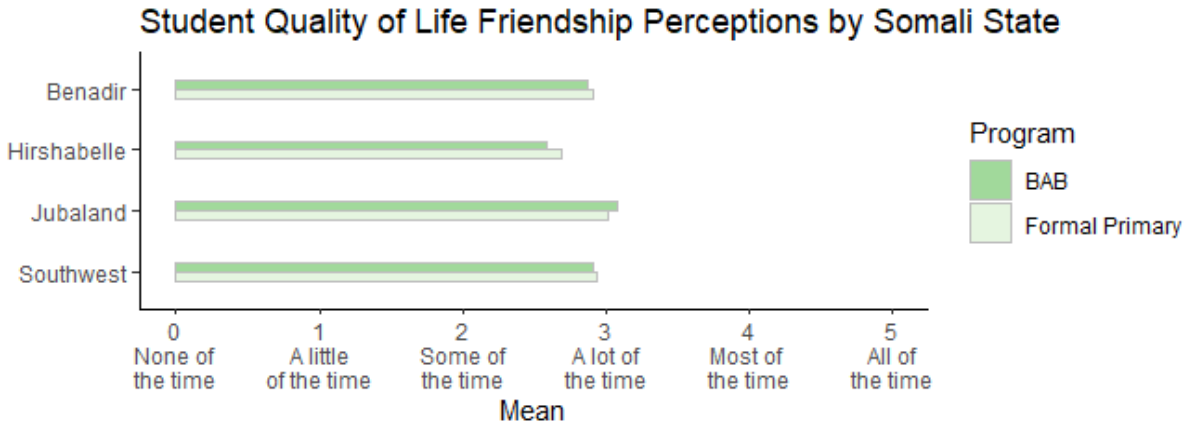
Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Student Quality of Life Friendship Perceptions			**2.89**	**0.83**	
Program Inclusion	*	BAB	2.87	0.86	-0.01
		Formal Primary Grade 1	2.81	0.82	-0.07
		Formal Primary Grade 2	3.01	0.72	0.12




Student Quality of Life Friendship Perceptions by Funding Type
BAB
Community
Public
Private
0
None of the time
1
A little of the time
2
Some of the time
3
A lot of the time
4
Most of the time
5
All of the time
Mean
Program
BAB
Formal Primary


Student Quality of Life Friendship Perceptions by Gender
Male
Female
0
None of the time
1
A little of the time
2
Some of the time
3
A lot of the time
4
Most of the time
5
All of the time
Mean
Program
BAB
Formal Primary


Student Quality of Life Friendship Perceptions by Age Group
4 to 8 year olds
9 to 16 year olds
17 to 20 year olds
0
None of the time
1
A little of the time
2
Some of the time
3
A lot of the time
4
Most of the time
5
All of the time
Mean
Program
BAB
Formal Primary



Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Student Quality of Life Friendship Perceptions			**2.87**	**0.86**	
Location Type	*	IDP	2.88	0.92	0.01
		Rural	2.70	0.76	-0.17
		Urban	2.93	0.86	0.06
Gender		Male	2.87	0.85	0.00
		Female	2.87	0.88	0.00
Age	*	4 to 8 year olds	2.78	0.92	-0.09
		9 to 16 year olds	2.89	0.85	0.02
		17 to 20 year olds	2.52	0.86	-0.35
State	*	Benadir	2.87	0.86	0.00
		Hirshabelle	2.59	0.70	-0.28
		Jubaland	3.08	0.84	0.21
		Southwest	2.91	0.92	0.04

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student Quality of Life Friendship Perceptions			**2.91**	**0.78**	
Location Type		IDP	2.91	0.78	0.00
		Rural	2.80	0.81	-0.10
		Urban	2.94	0.77	0.03
School Funding Type	*	Community	2.71	0.72	-0.19
		Public	2.90	0.78	0.00
		Private	3.08	0.78	0.17
Gender		Male	2.91	0.77	0.00

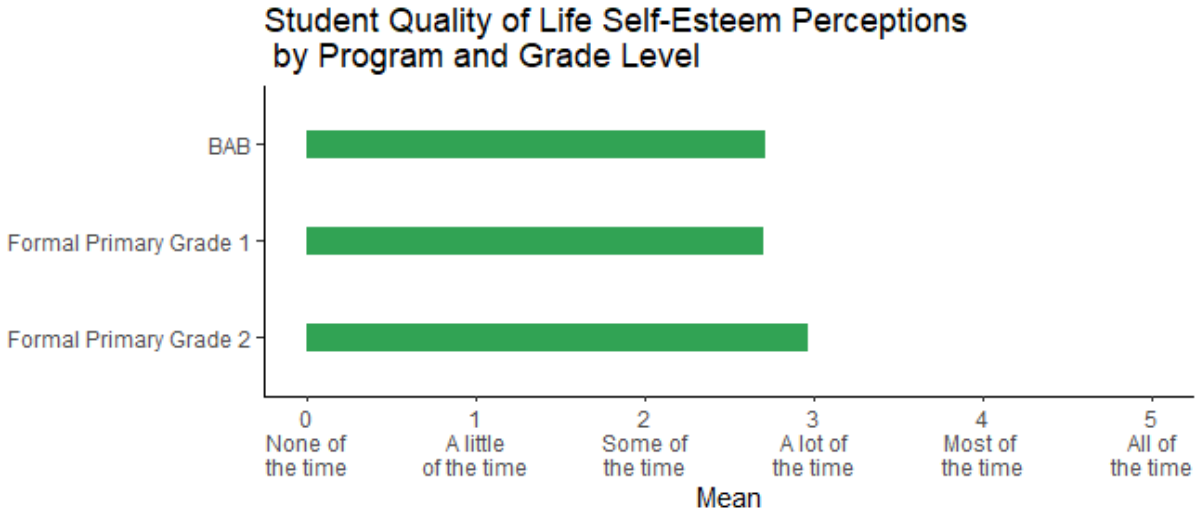
Group		Subgroup	Mean	SD	Diff from Overall Mean
		Female	2.90	0.79	0.00
Age		4 to 8 year olds	2.81	0.78	-0.10
		9 to 16 year olds	2.93	0.78	0.02
		17 to 20 year olds	2.86	0.69	-0.05
State	*	Benadir	2.91	0.76	0.00
		Hirshabelle	2.69	0.71	-0.22
		Jubaland	3.01	0.79	0.10
		Southwest	2.94	0.80	0.04

Student Quality of Life Self-Esteem Perceptions

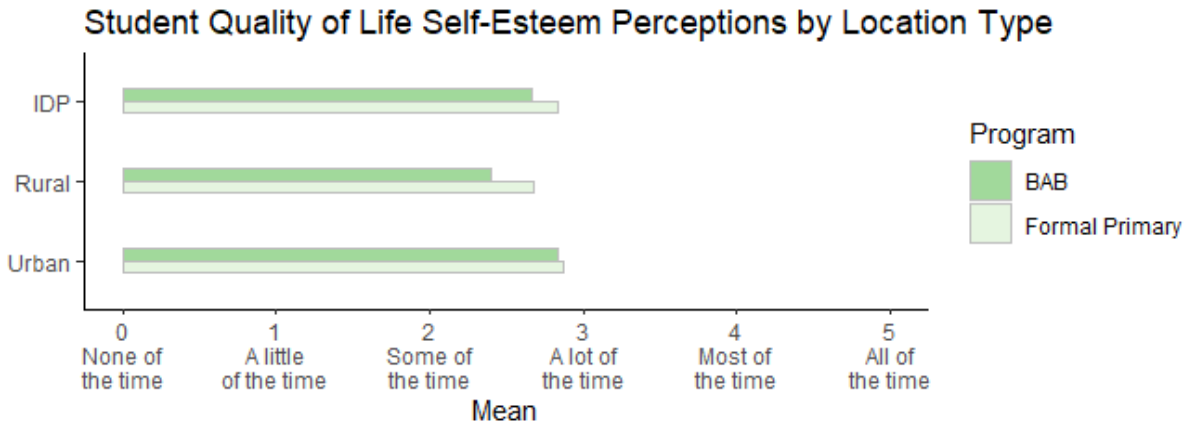
The Self-Esteem scale items from the KINDL Quality of Life Survey (Ravens-Sieberer, U. & Bullinger, M. (1998b) were used to assess student's perception of their self-esteem during the prior week as component of quality of life. The scale is composed of the average of the following 4 items:

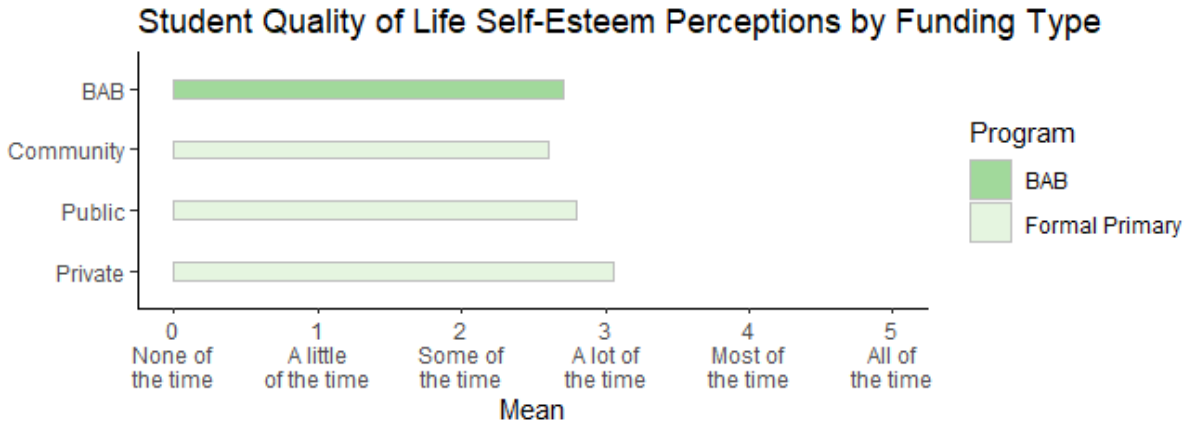
- During the past week, how often were you proud of yourself?
- During the past, how often did you feel happy?
- During the past week, how often did you feel pleased with yourself?
- During the past week, how often did you have lots of good ideas?

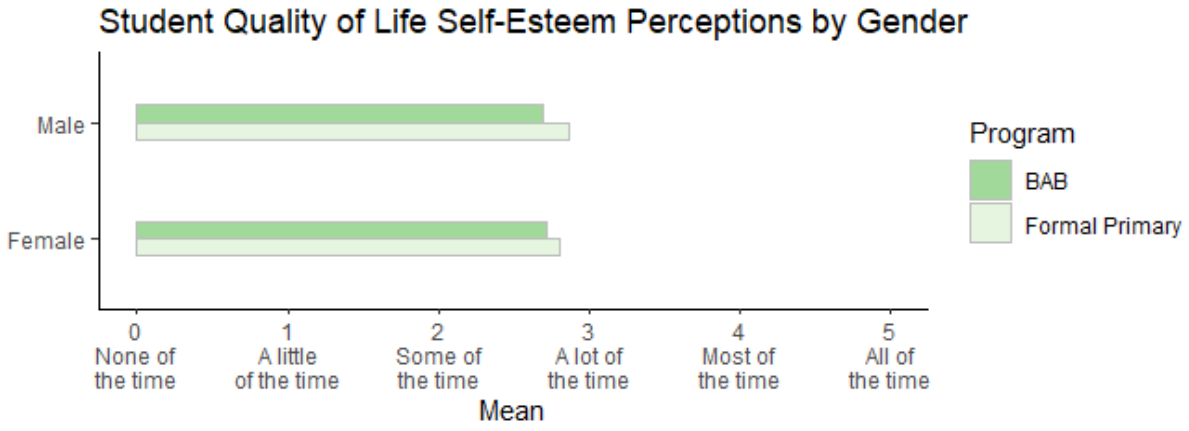
All items were measured on a 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated their self-esteem during the past week with each statement.

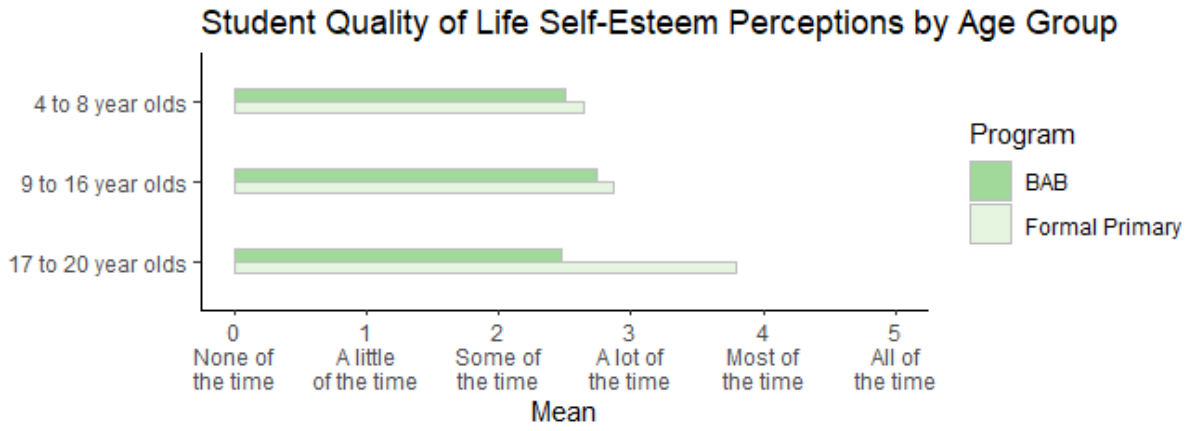


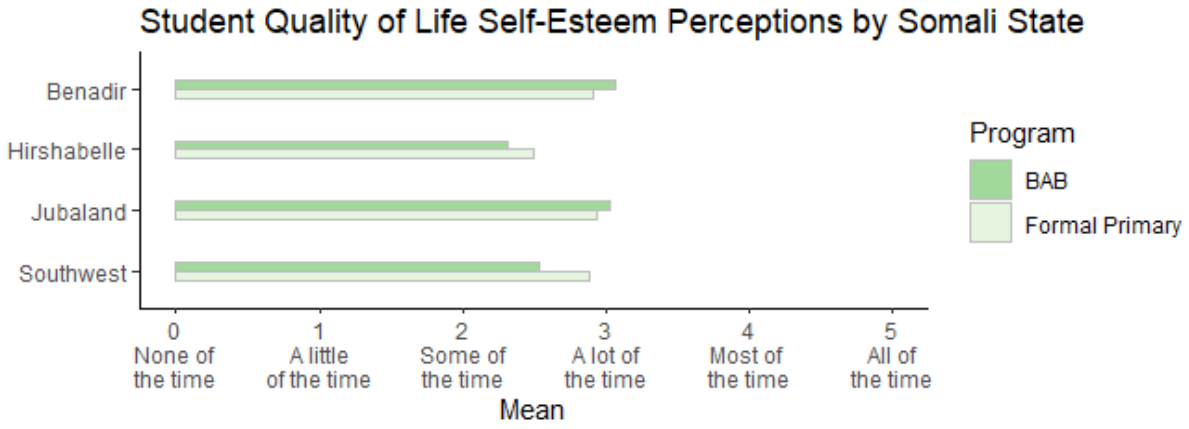
Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Student Quality of Life Self-Esteem Perceptions			**2.76**	**1.02**	
Program Inclusion	*	BAB	2.71	1.06	-0.05
		Formal Primary Grade 1	2.70	1.00	-0.06
		Formal Primary Grade 2	2.97	0.91	0.21











Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Student Quality of Life Self-Esteem Perceptions			**2.71**	**1.06**	
Location Type	*	IDP	2.66	1.11	-0.05
		Rural	2.40	1.01	-0.31

Group		Subgroup	Mean	SD	Diff from Overall Mean
		Urban	2.84	1.02	0.14
Gender		Male	2.69	1.04	-0.01
		Female	2.72	1.08	0.01
Age	*	4 to 8 year olds	2.50	1.07	-0.20
		9 to 16 year olds	2.74	1.05	0.03
		17 to 20 year olds	2.48	1.49	-0.23
State	*	Benadir	3.06	1.08	0.35
		Hirshabelle	2.32	0.99	-0.39
		Jubaland	3.03	0.99	0.32
		Southwest	2.53	0.99	-0.18

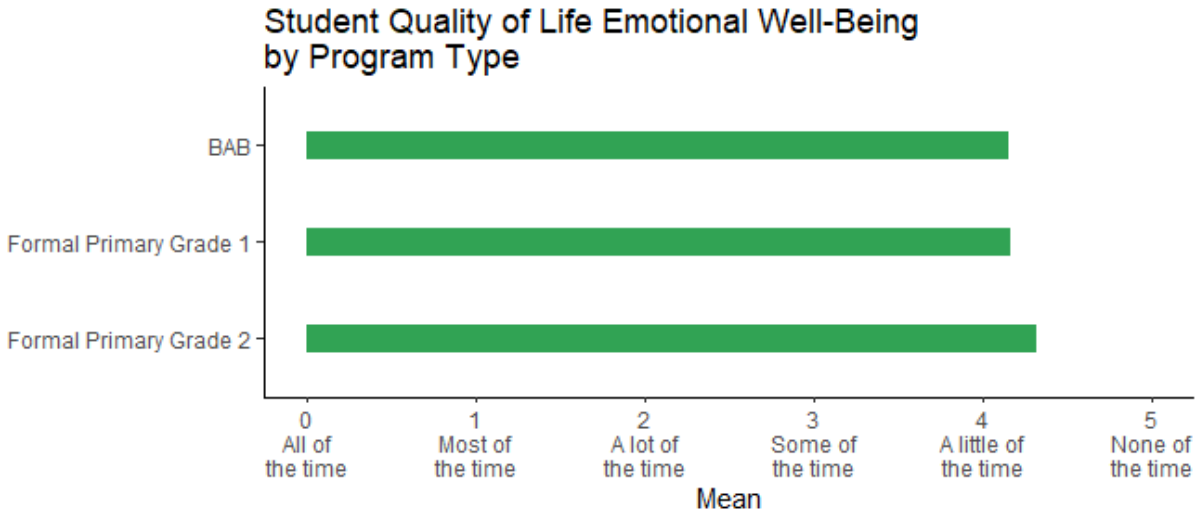
Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student Quality of Life Self-Esteem Perceptions			**2.83**	**0.97**	
Location Type	*	IDP	2.84	0.98	0.02
		Rural	2.68	1.01	-0.15
		Urban	2.87	0.94	0.04
School Funding Type	*	Community	2.61	0.97	-0.22
		Public	2.80	0.99	-0.03
		Private	3.06	0.88	0.23
Gender		Male	2.86	0.96	0.03
		Female	2.80	0.98	-0.03
Age	*	4 to 8 year olds	2.64	1.05	-0.19
		9 to 16 year olds	2.87	0.94	0.04
		17 to 20 year olds	3.79	1.23	0.96
State	*	Benadir	2.91	0.98	0.08
		Hirshabelle	2.49	0.93	-0.34
		Jubaland	2.93	1.01	0.10
		Southwest	2.88	0.90	0.05

Student Quality of Life Emotional Well-Being

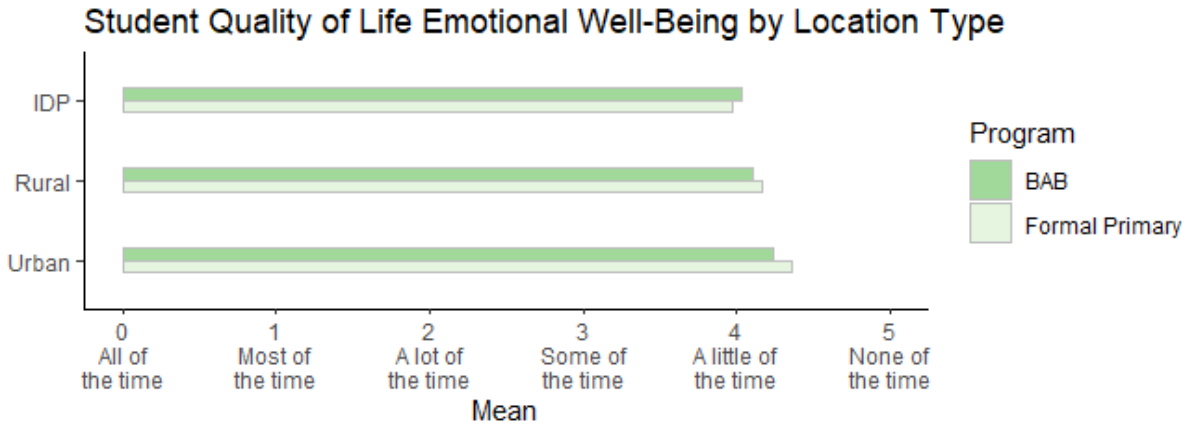
The Emotional Well-Being scale items from the KINDL Quality of Life Survey (Ravens-Sieberer, U. & Bullinger, M. (1998b) were used to assess student's perception of their emotional well-being during the past week as it plays part in their quality of life. We included 3 of the 4 scale items in the analysis, as the 4th item did not perform as expected in the Somali context. The scale is composed of the average of the following 3 items:

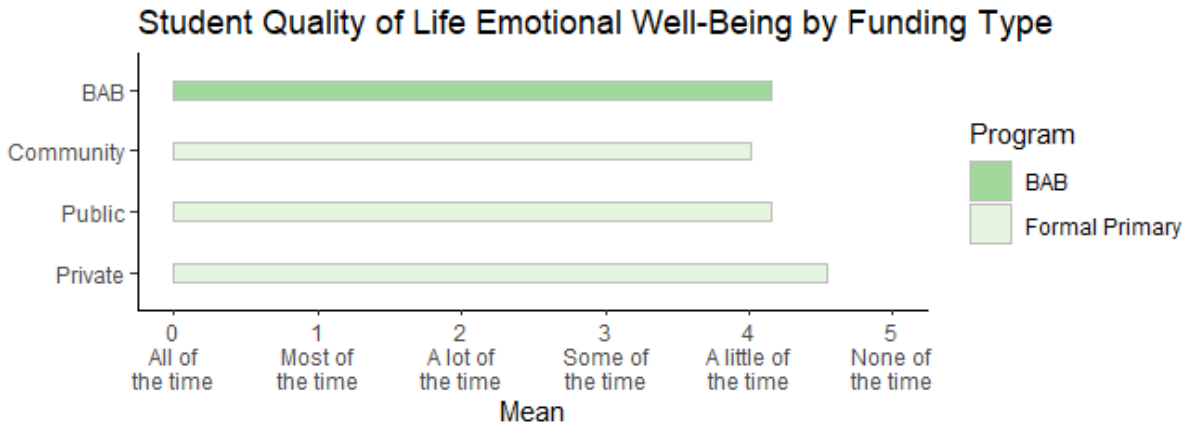
- Reverse of item: During the past week, how often were you bored?
- Reverse of item: During the past week, how often did you feel alone?
- Reverse of item: During the past week, how often were you scared or unsure of yourself?

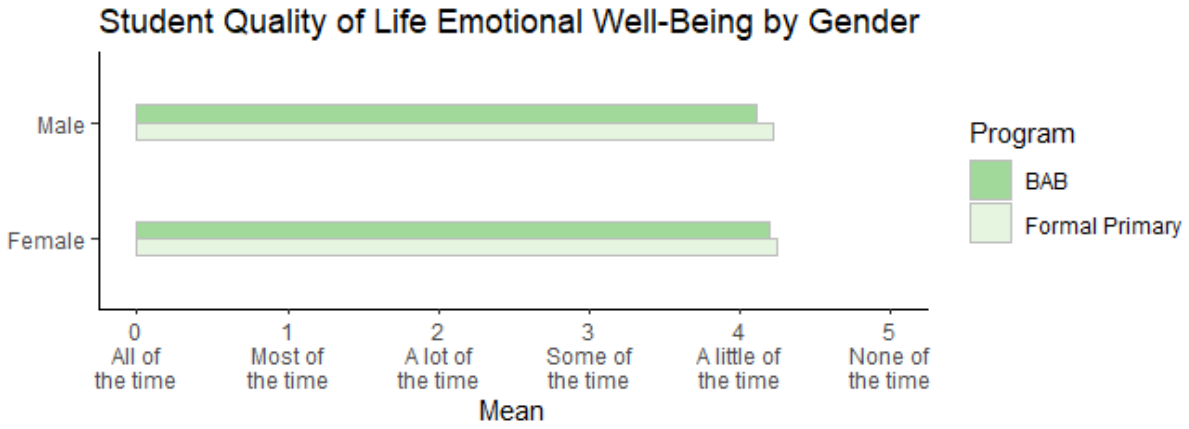
All items were measured on a 6 point Likert scale (0-All the time, 1-Most of the time, 2-A lot of the time, 3-Some of the time, 4-A little of the time, 5-None of the time) where students indicated their emotional well-being during the past week with each statement.

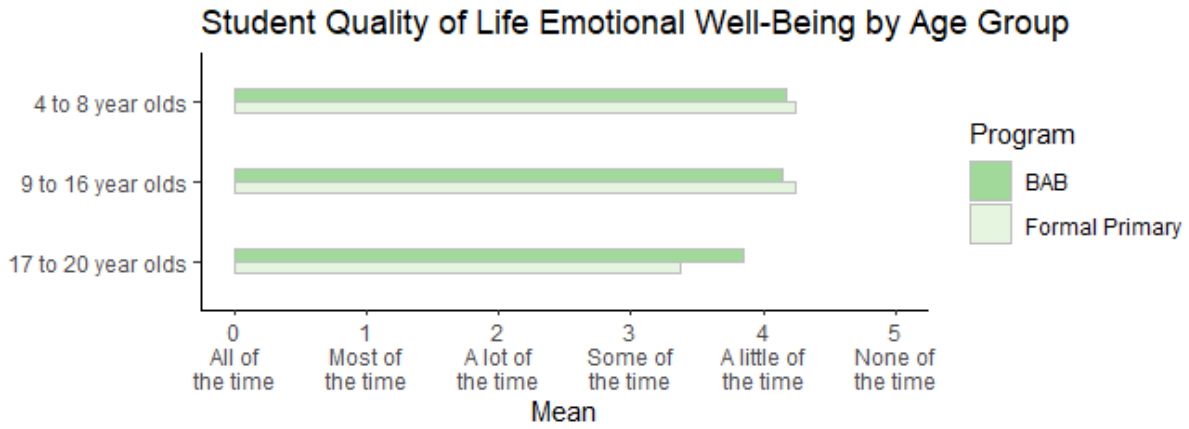


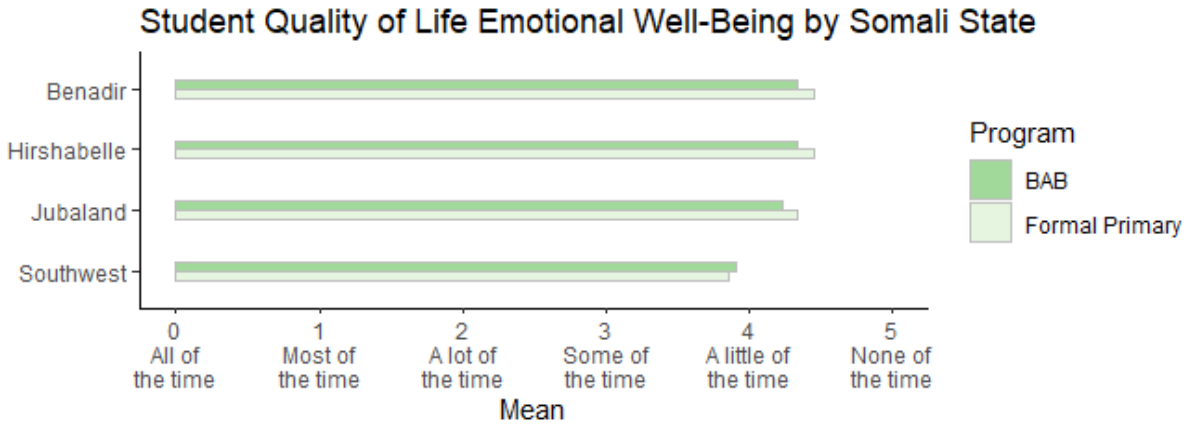
Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Student Quality of Life Emotional Well-Being			**4.19**	**0.99**	
Program Inclusion	*	BAB	4.15	1.00	-0.03
		Formal Primary Grade 1	4.16	1.00	-0.02
		Formal Primary Grade 2	4.31	0.94	0.12


Student Quality of Life Emotional Well-Being by Location Type
IDP
Rural
Urban
0
All of the time
1
Most of the time
2
A lot of the time
3
Some of the time
4
A little of the time
5
None of the time
Mean
Program
BAB
Formal Primary


Student Quality of Life Emotional Well-Being by Funding Type
BAB
Community
Public
Private
0
All of the time
1
Most of the time
2
A lot of the time
3
Some of the time
4
A little of the time
5
None of the time
Mean
Program
BAB
Formal Primary





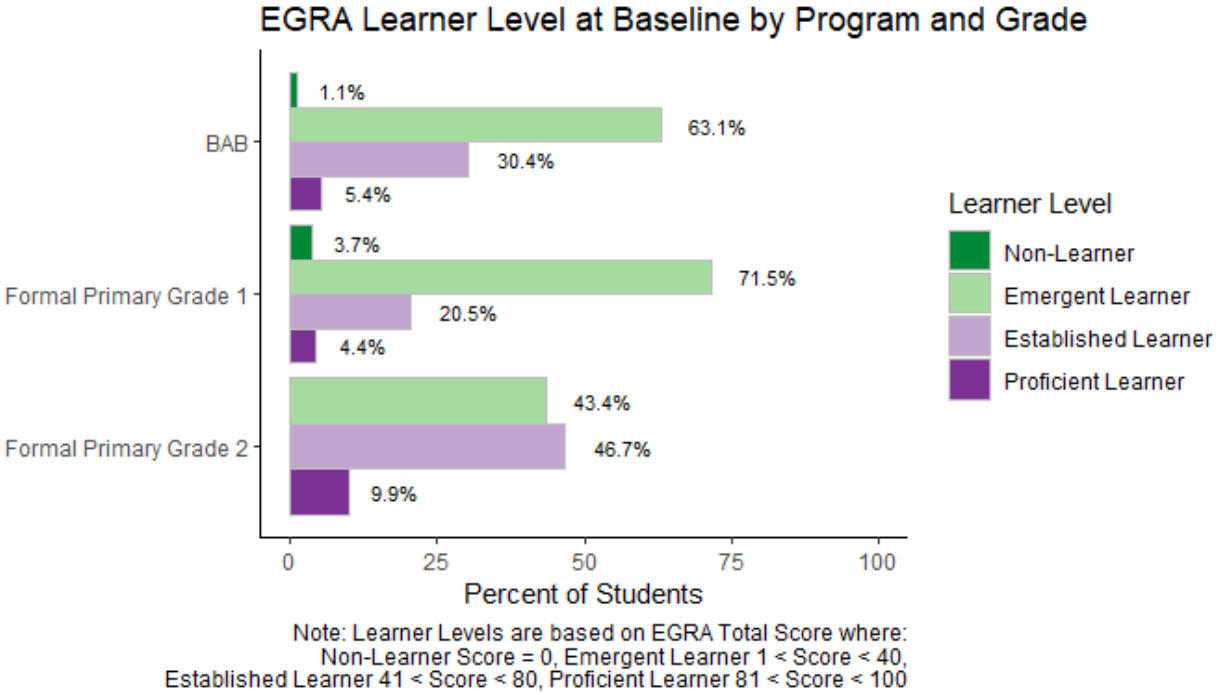


Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Student Quality of Life Emotional Well-Being			**4.15**	**1.00**	
Location Type	*	IDP	4.03	1.07	-0.13
		Rural	4.11	1.04	-0.05
		Urban	4.24	0.93	0.08

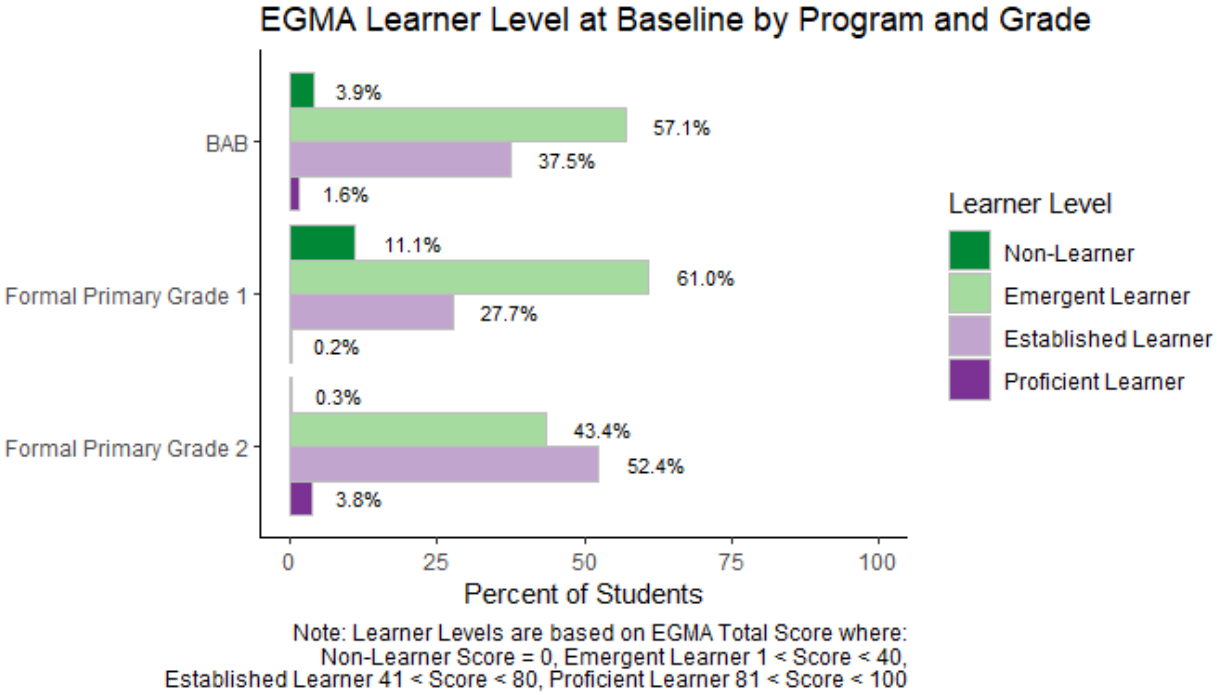
Group		Subgroup	Mean	SD	Diff from Overall Mean
Gender	*	Male	4.11	1.01	-0.05
		Female	4.20	0.98	0.05
Age		4 to 8 year olds	4.17	0.98	0.02
		9 to 16 year olds	4.15	1.00	0.00
		17 to 20 year olds	3.85	1.27	-0.31
State	*	Benadir	4.34	0.81	0.19
		Hirshabelle	4.33	0.83	0.18
		Jubaland	4.23	1.03	0.08
		Southwest	3.91	1.11	-0.24

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student Quality of Life Emotional Well-Being			**4.23**	**0.97**	
Location Type	*	IDP	3.97	1.06	-0.26
		Rural	4.17	1.09	-0.07
		Urban	4.36	0.87	0.13
School Funding Type	*	Community	4.02	0.98	-0.21
		Public	4.15	1.03	-0.08
		Private	4.55	0.76	0.31
Gender		Male	4.22	0.97	-0.01
		Female	4.24	0.98	0.01
Age		4 to 8 year olds	4.24	0.95	0.01
		9 to 16 year olds	4.24	0.97	0.00
		17 to 20 year olds	3.38	1.48	-0.85
State	*	Benadir	4.45	0.78	0.21
		Hirshabelle	4.45	0.76	0.22
		Jubaland	4.33	0.96	0.10
		Southwest	3.85	1.10	-0.38

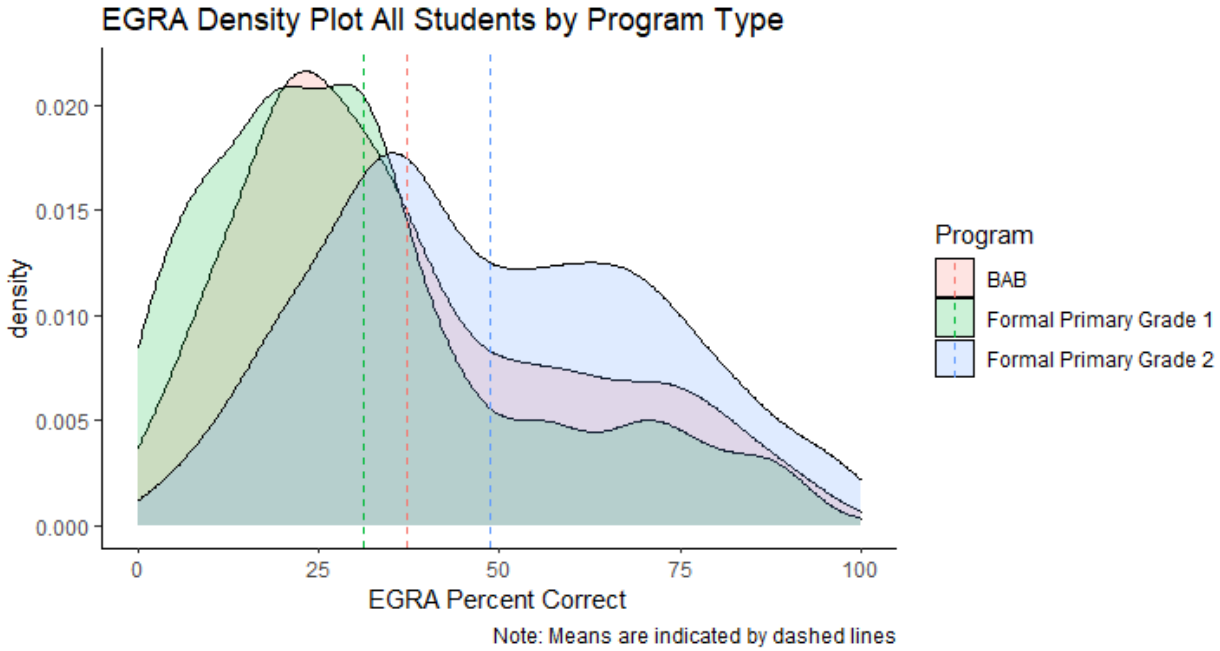
EGRA (Early Grade Reading Assessment) and EGMA (Early Grade Mathematics Assessment) Results



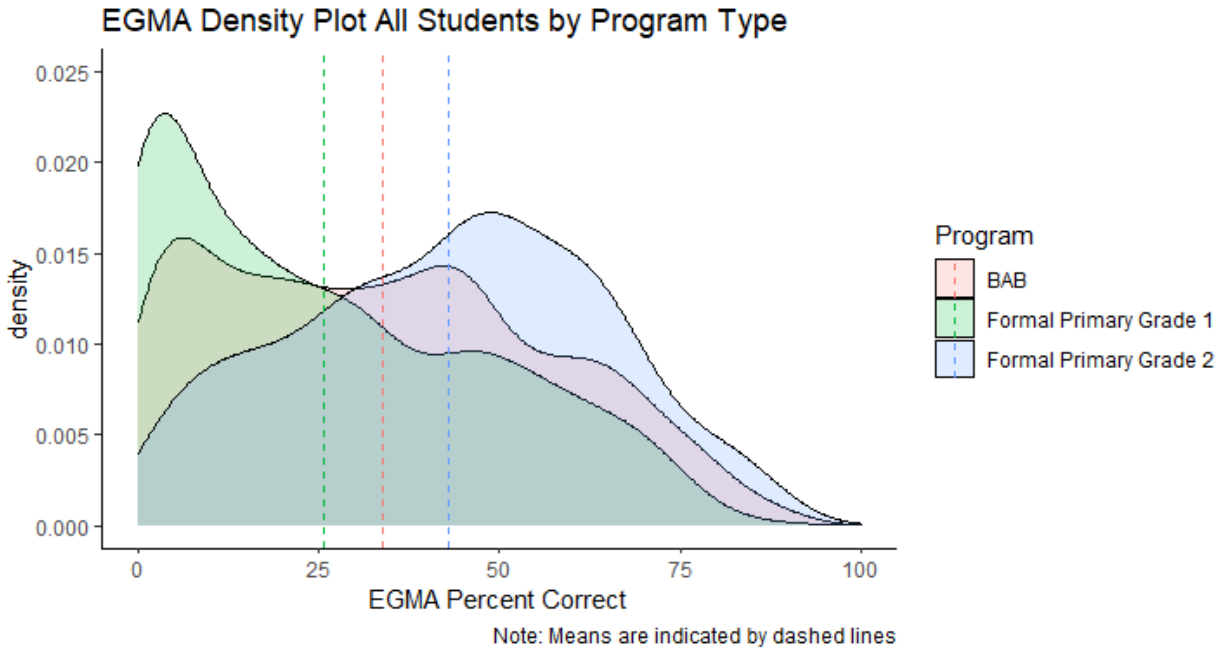
Note: Learner Levels are based on EGRA Total Score where: Non-Learner Score = 0, Emergent Learner 1 < Score < 40, Established Learner 41 < Score < 80, Proficient Learner 81 < Score < 100



Note: Learner Levels are based on EGMA Total Score where: Non-Learner Score = 0, Emergent Learner 1 < Score < 40, Established Learner 41 < Score < 80, Proficient Learner 81 < Score < 100

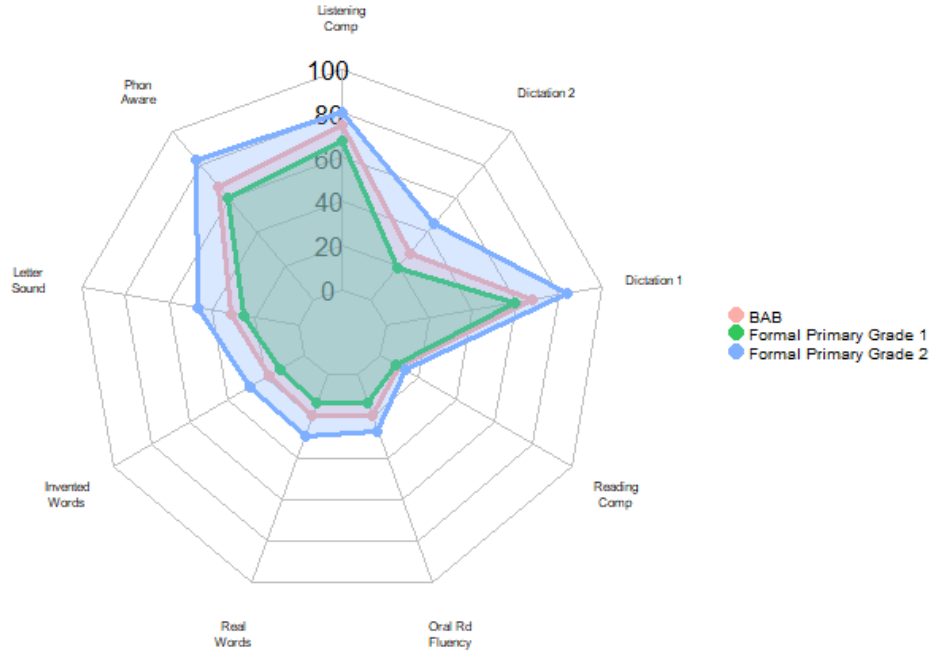


Note: Means are indicated by dashed lines

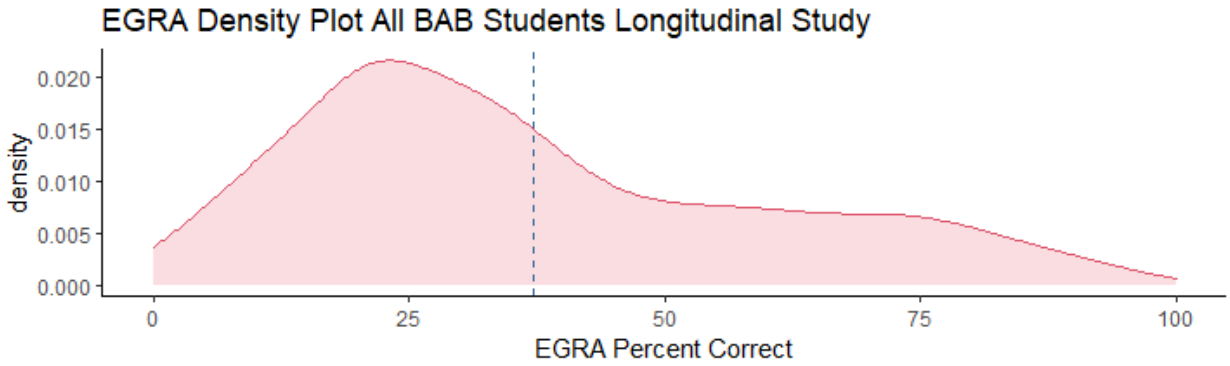


Note: Means are indicated by dashed lines

Means of EGRA Subsection Totals All Students



Means of EGMA Subsection Totals All Students



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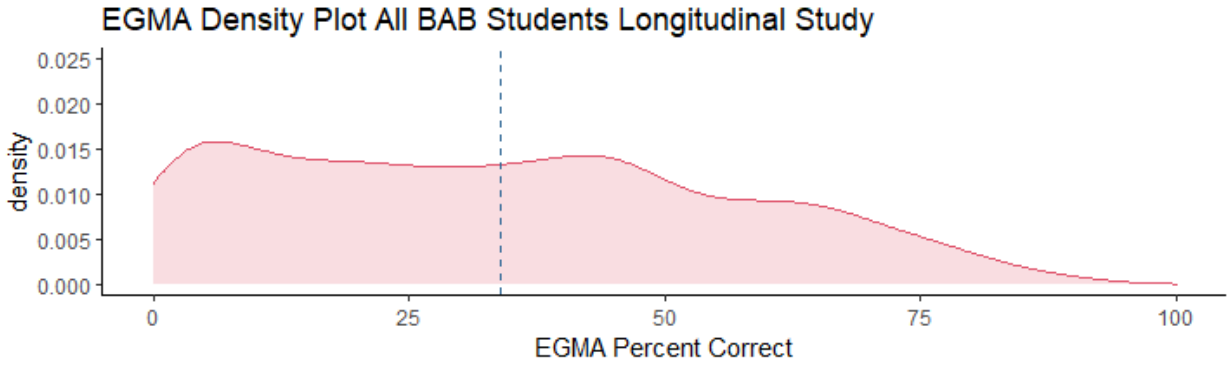

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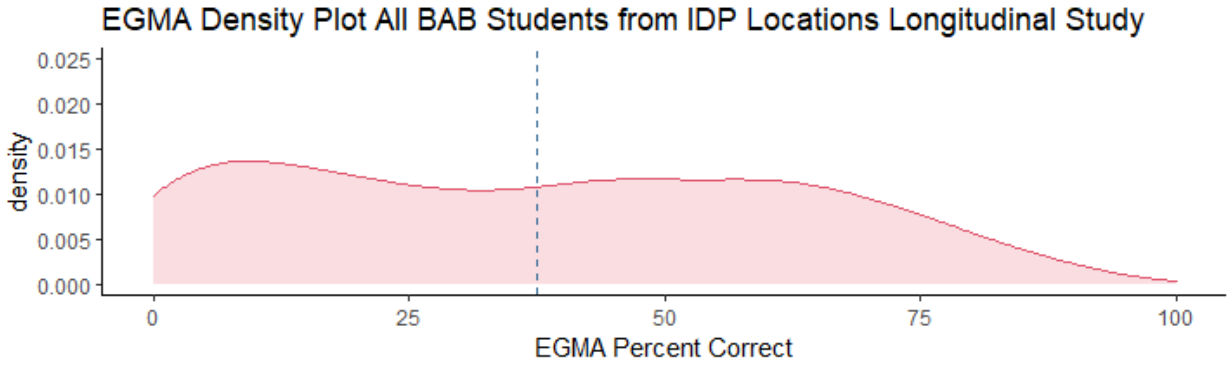

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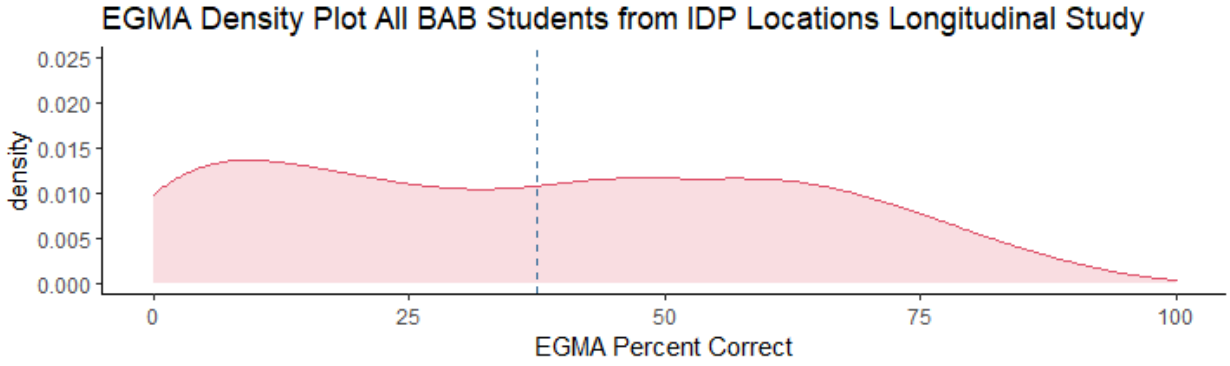

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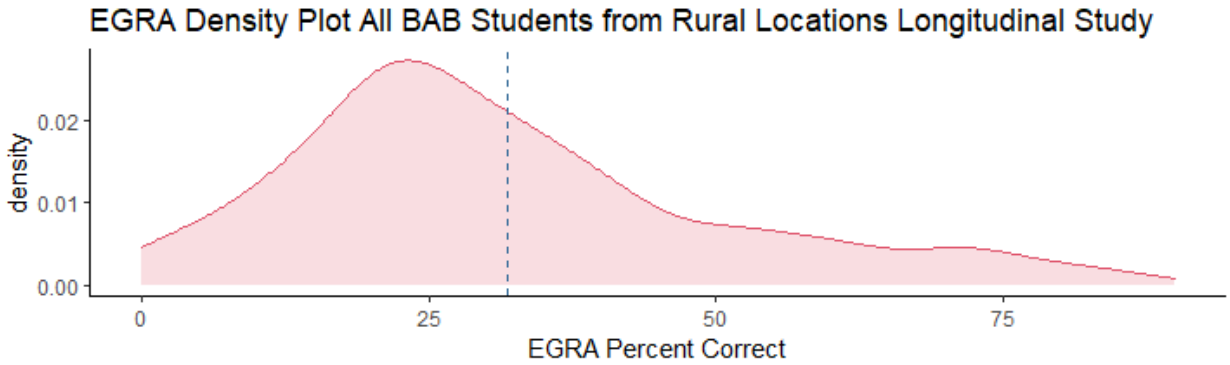

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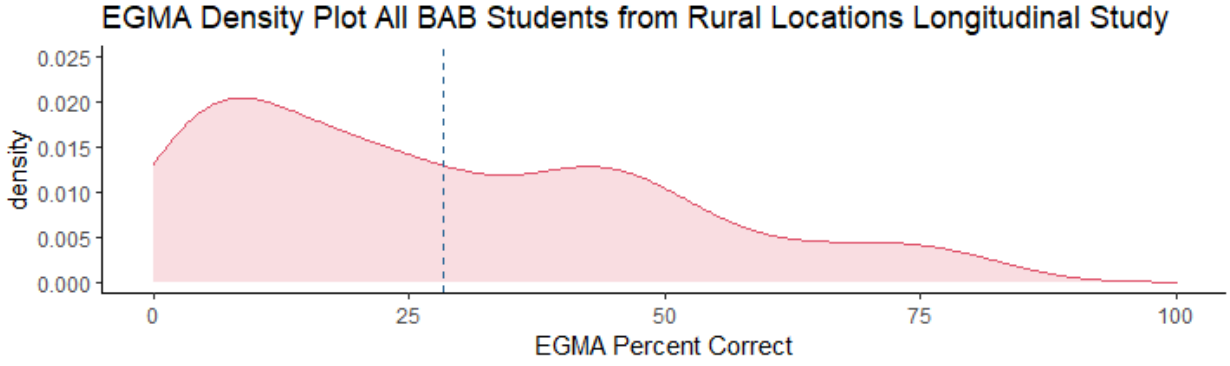

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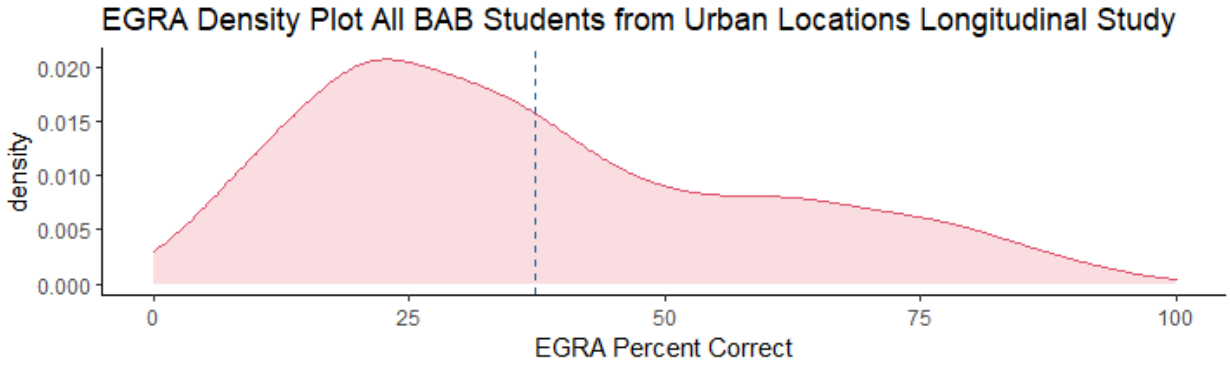

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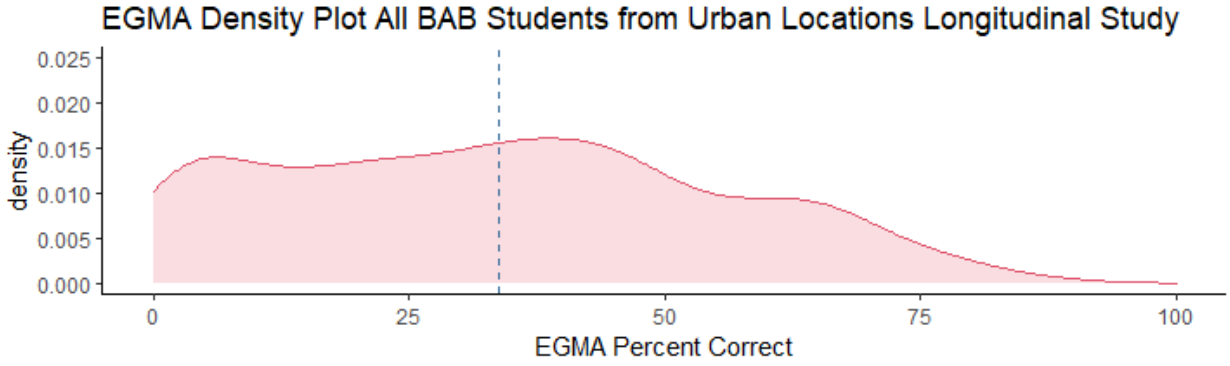

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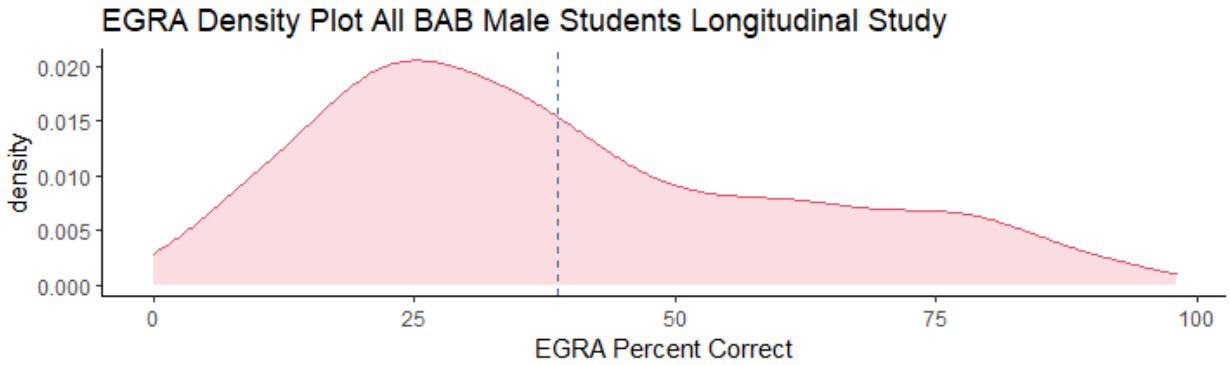

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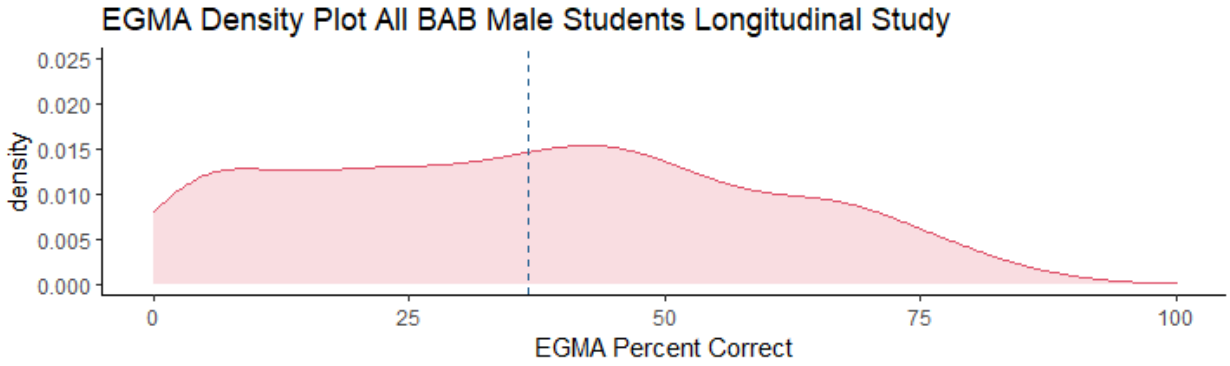

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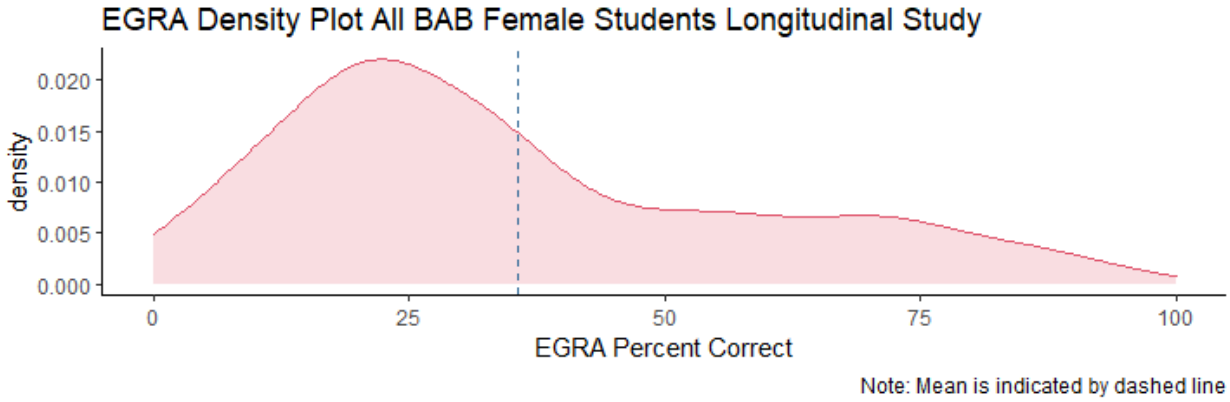

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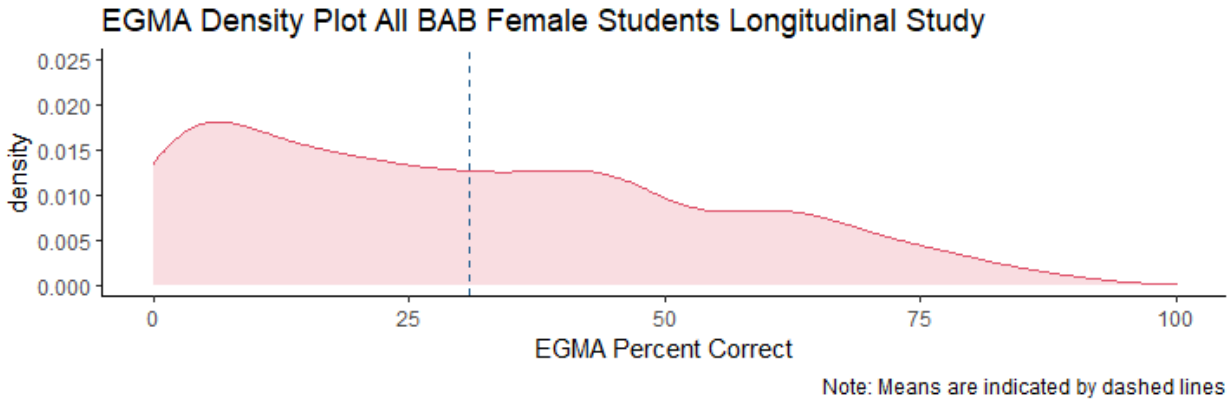

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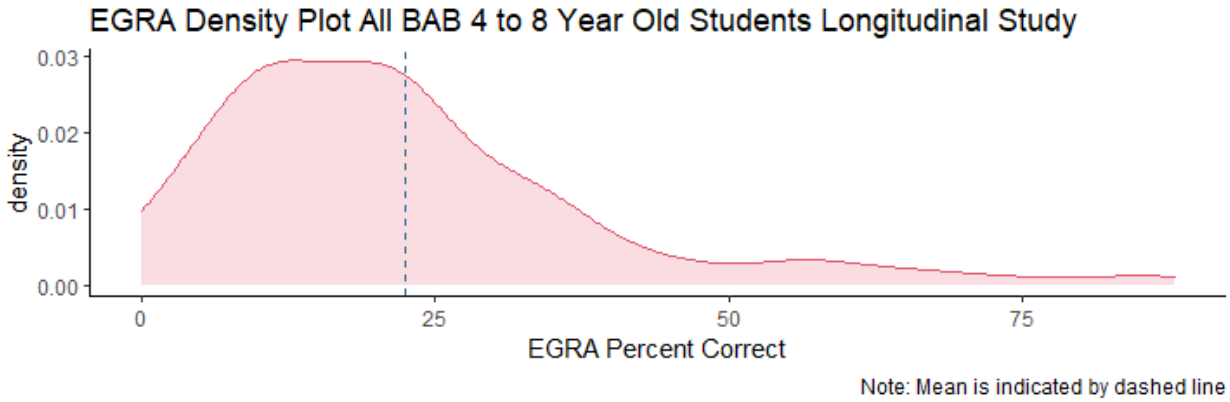

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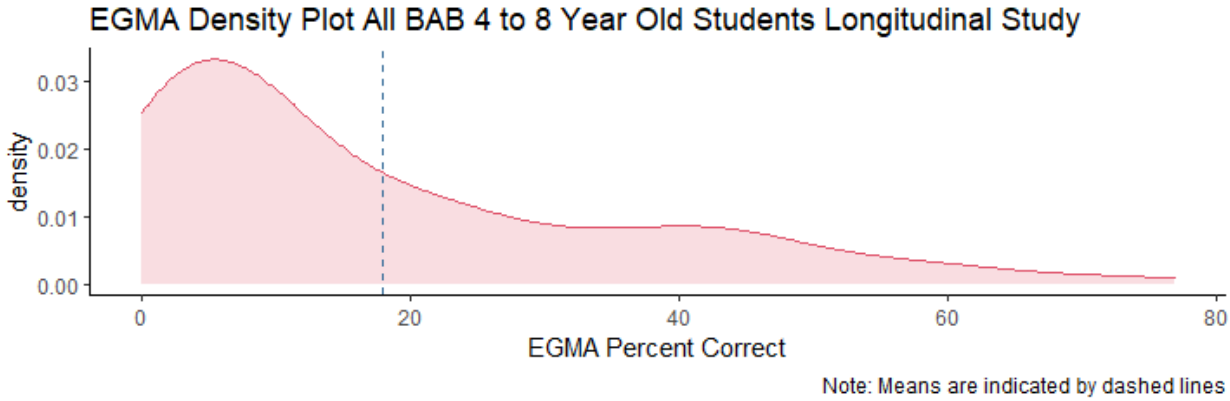

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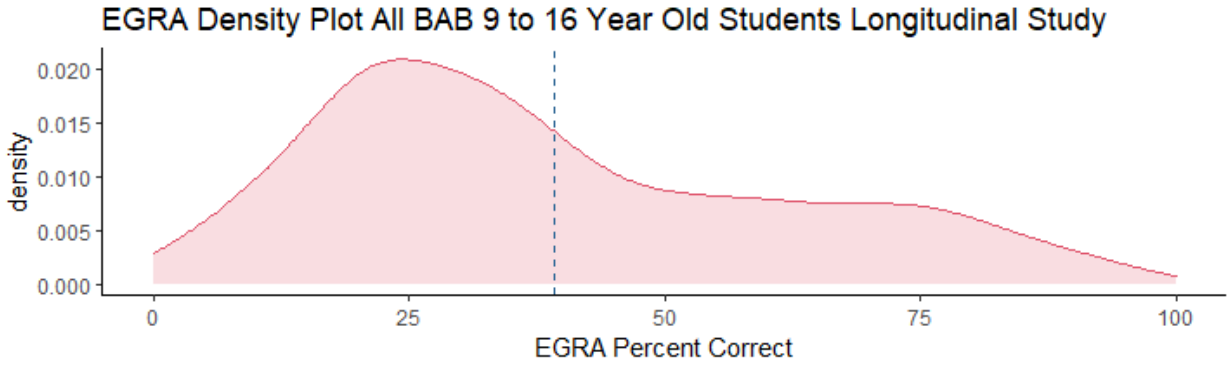

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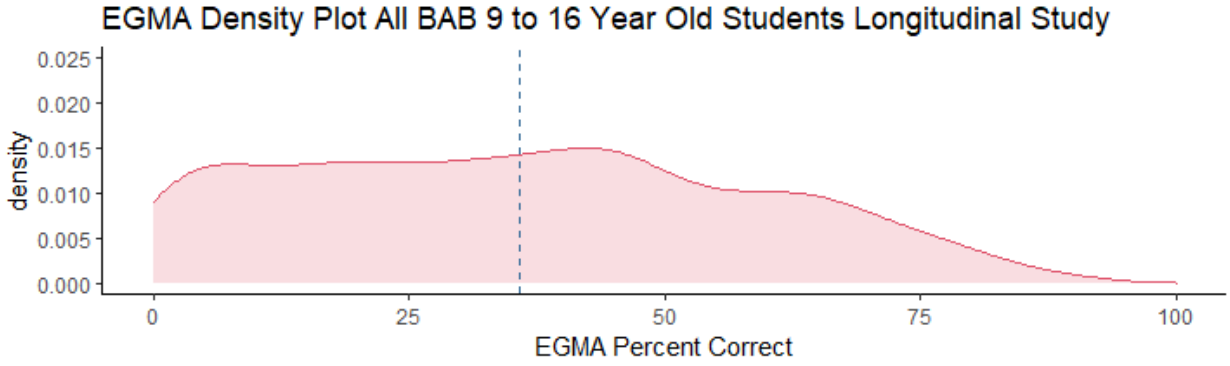

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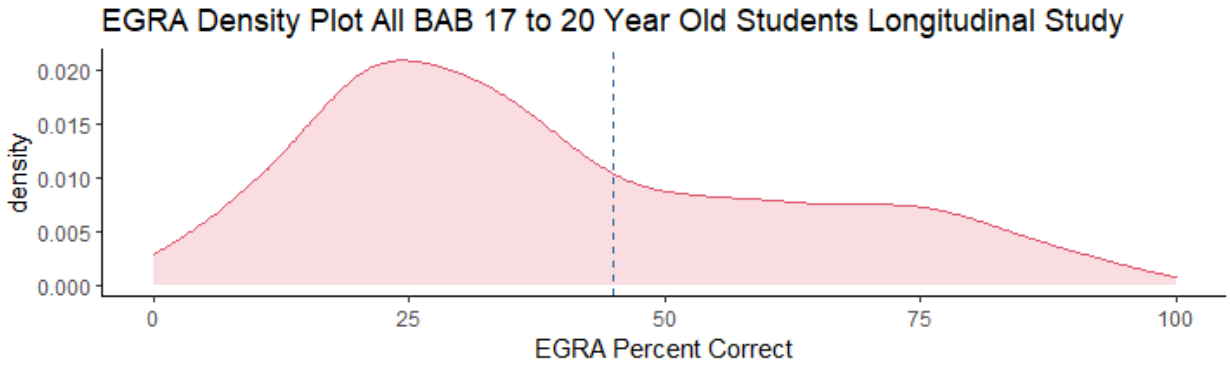

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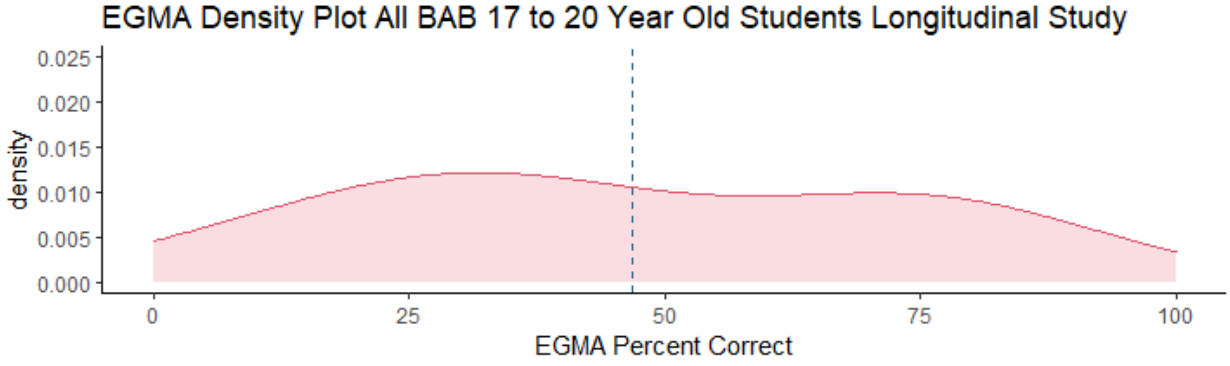

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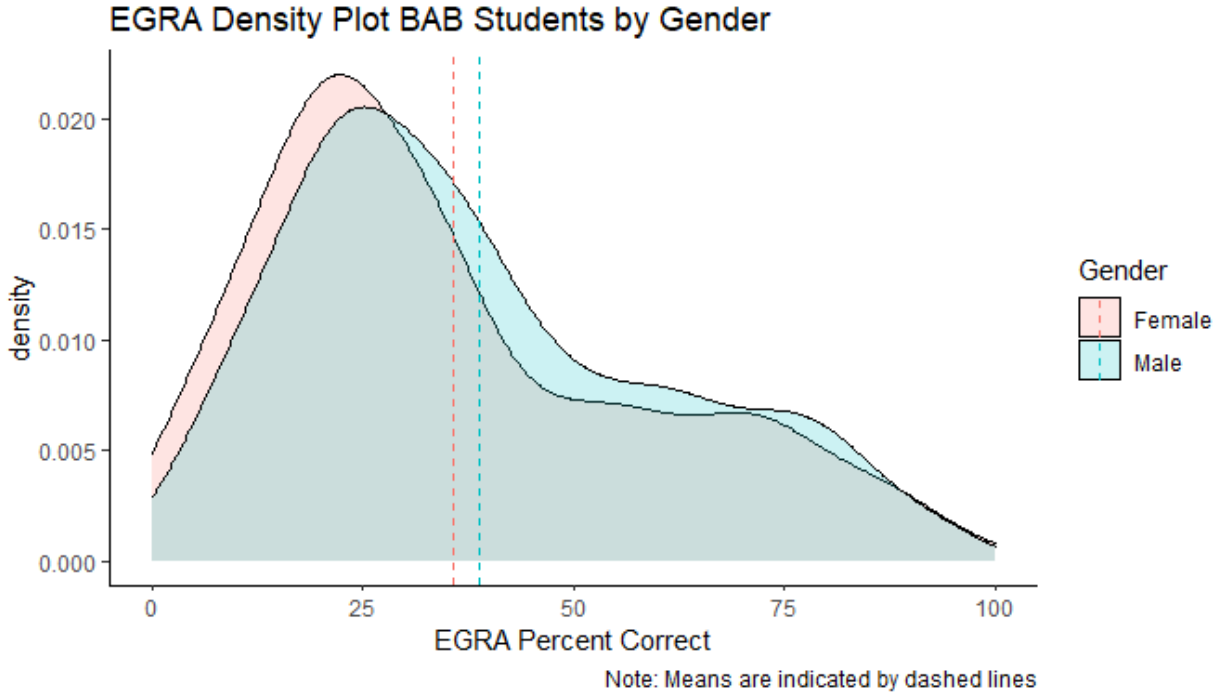

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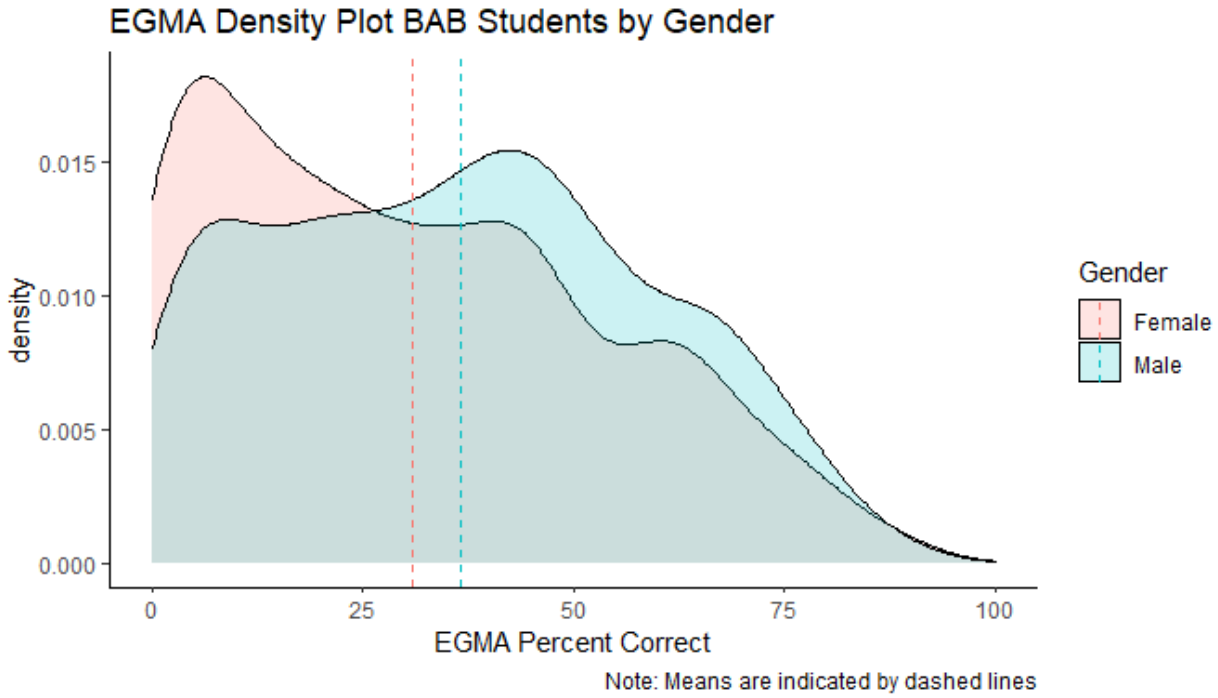

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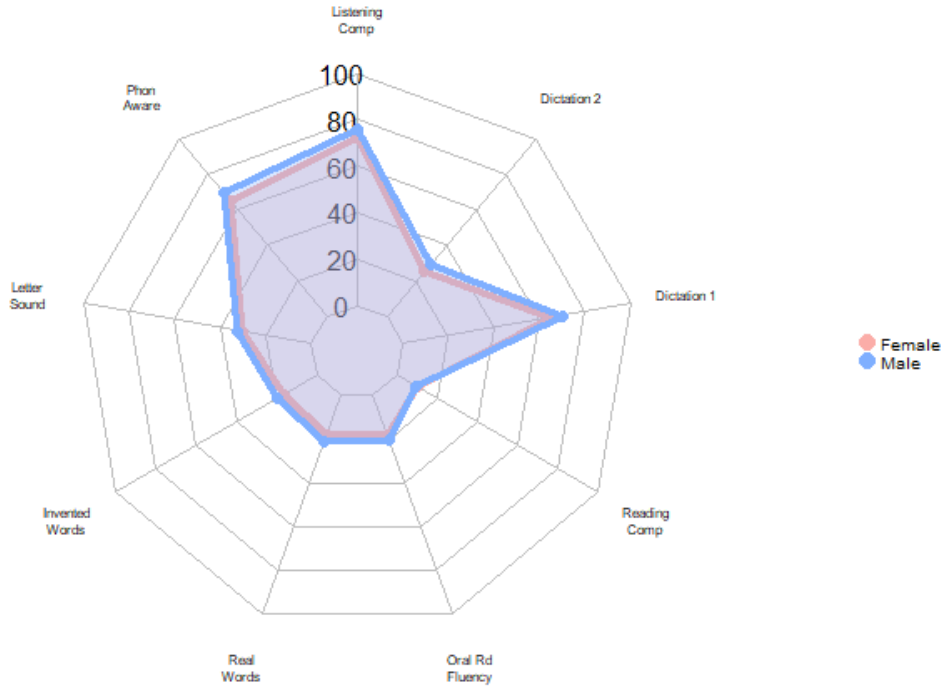
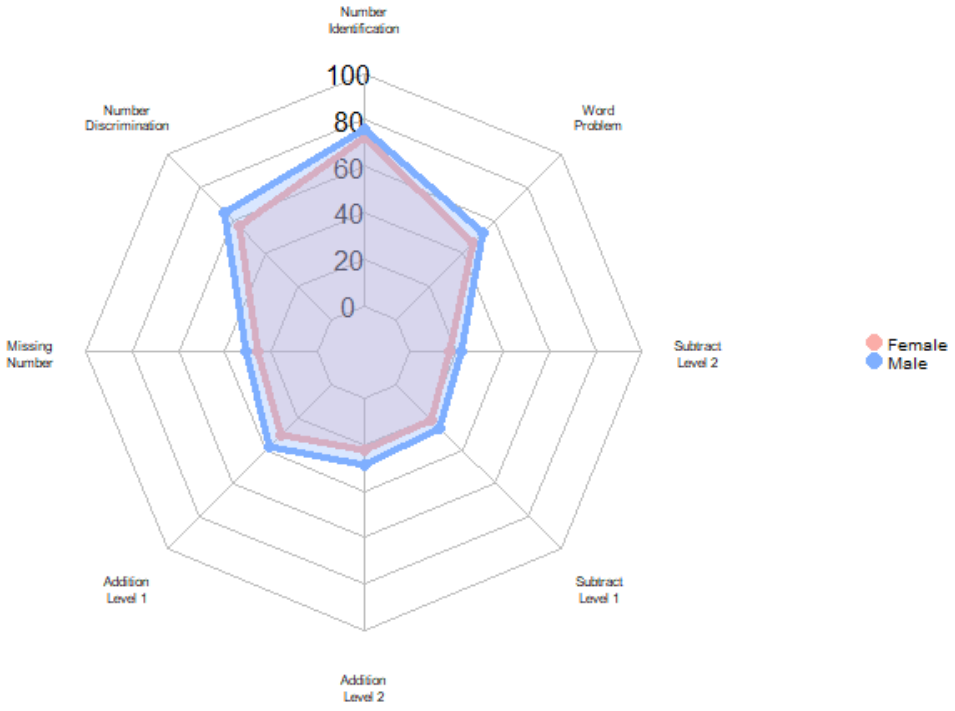
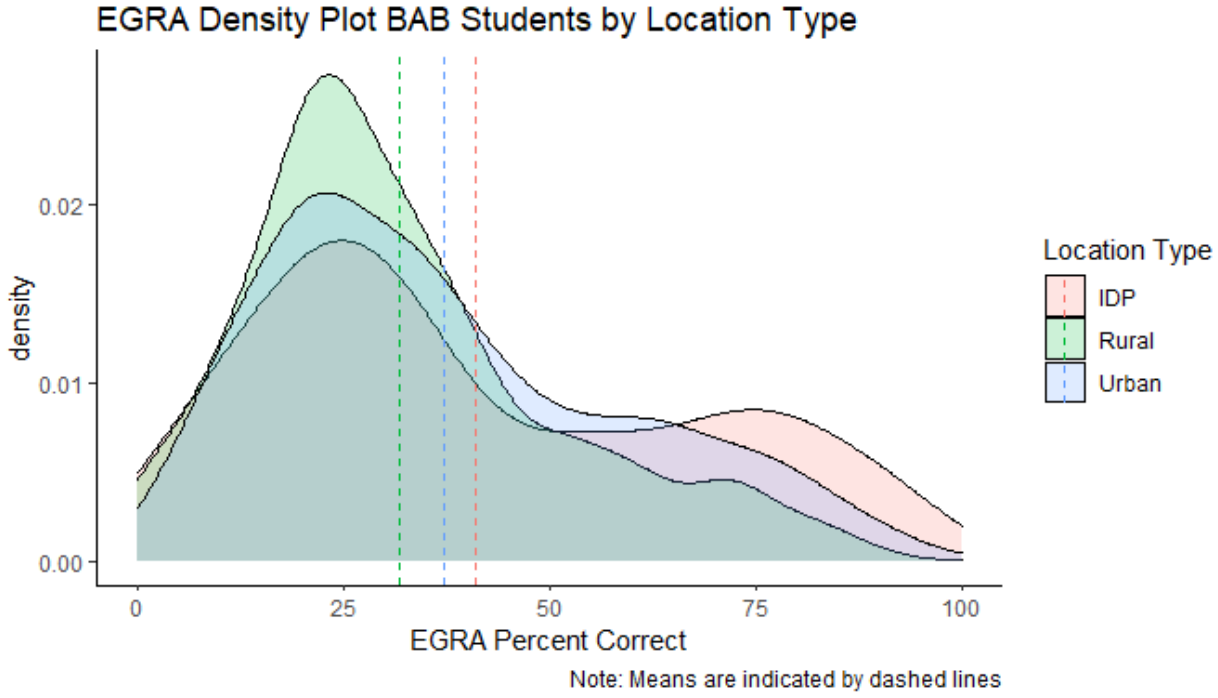
Means of EGRA Subsection Totals by Gender



Means of EGMA Subsection Totals by Gender





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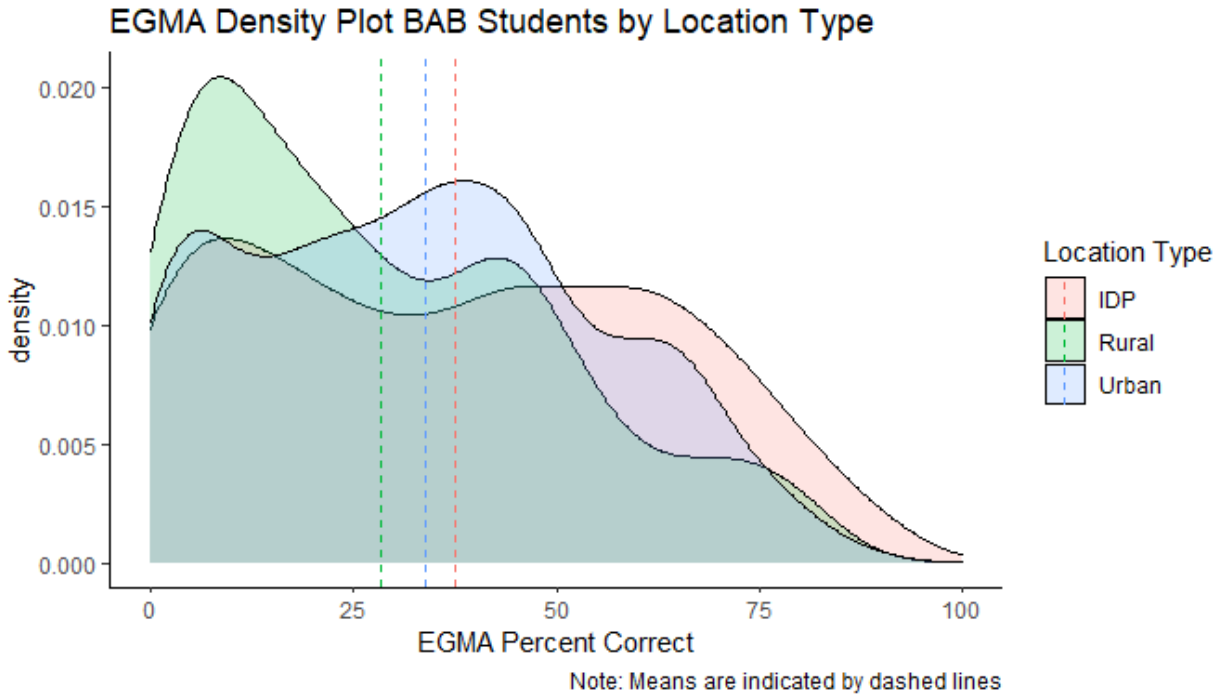
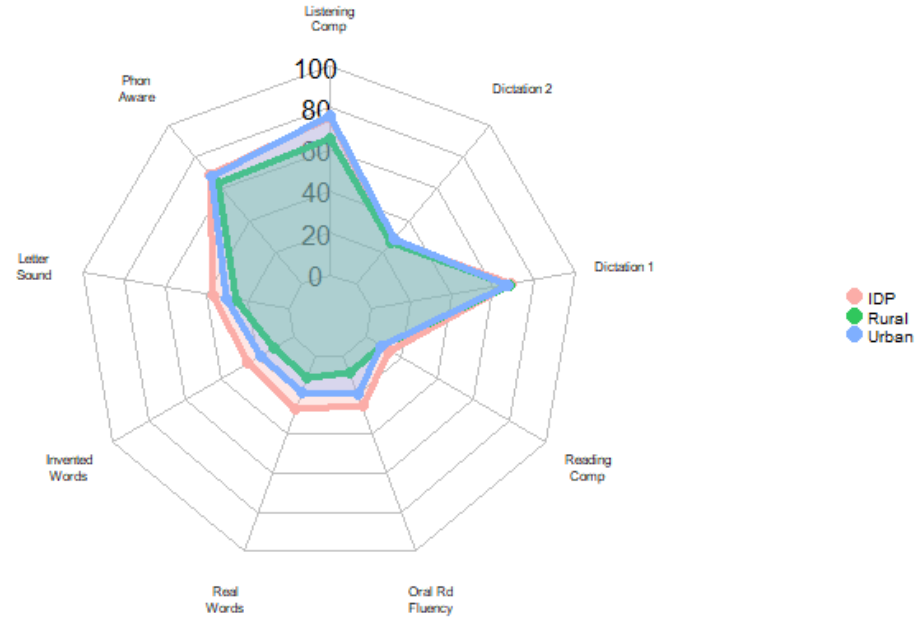
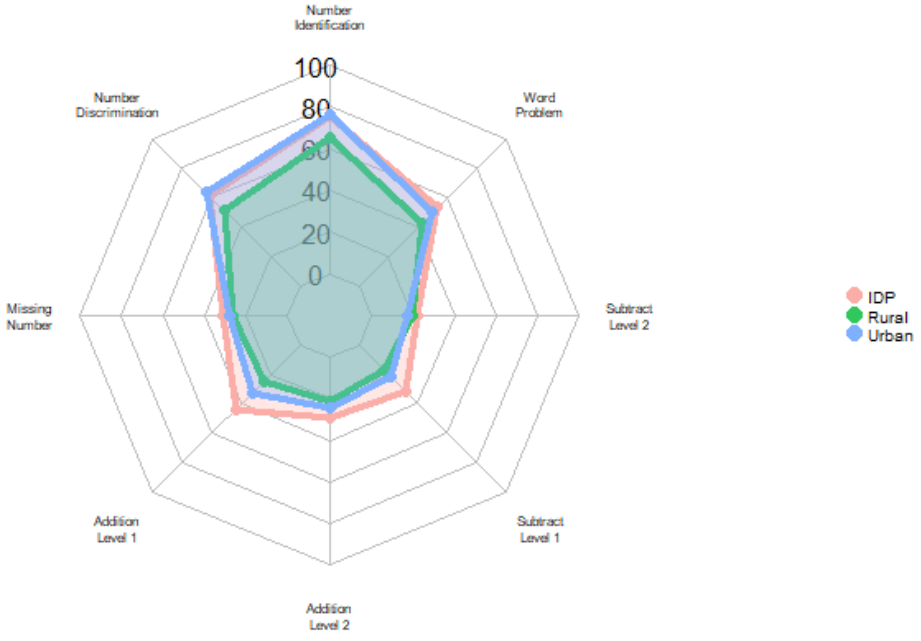


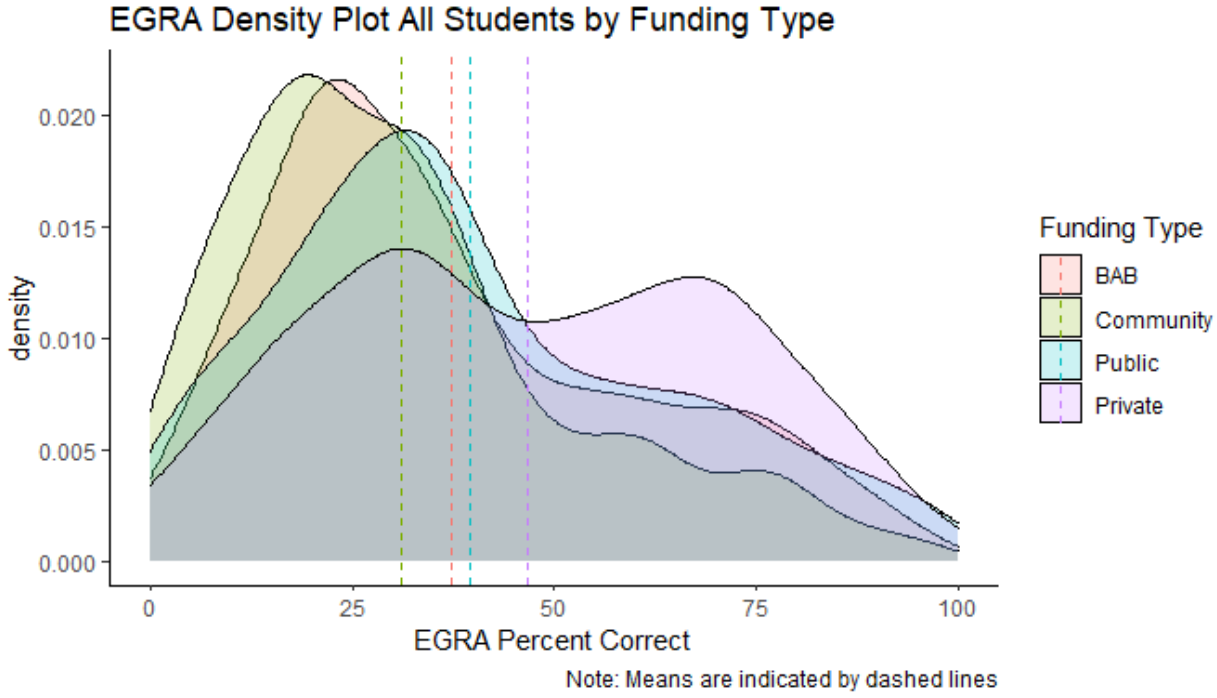
Note: Means are indicated by dashed lines

Means of EGRA Subsection Totals by Location Type

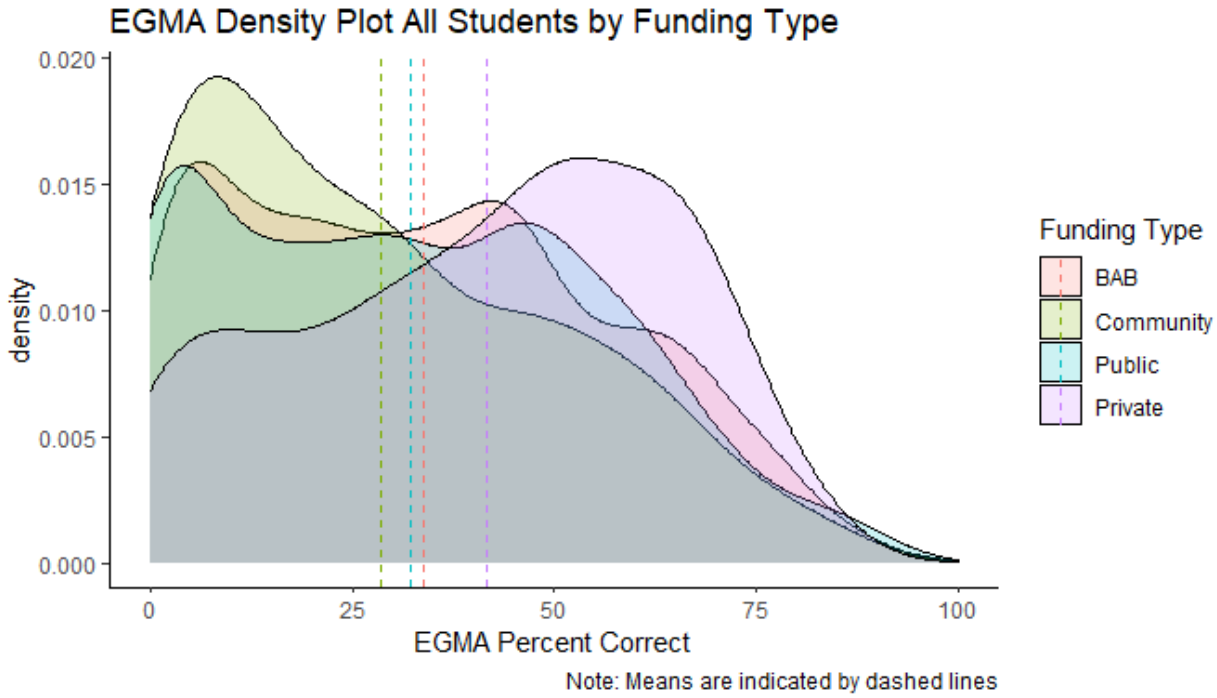


Means of EGMA Subsection Totals by Location Type



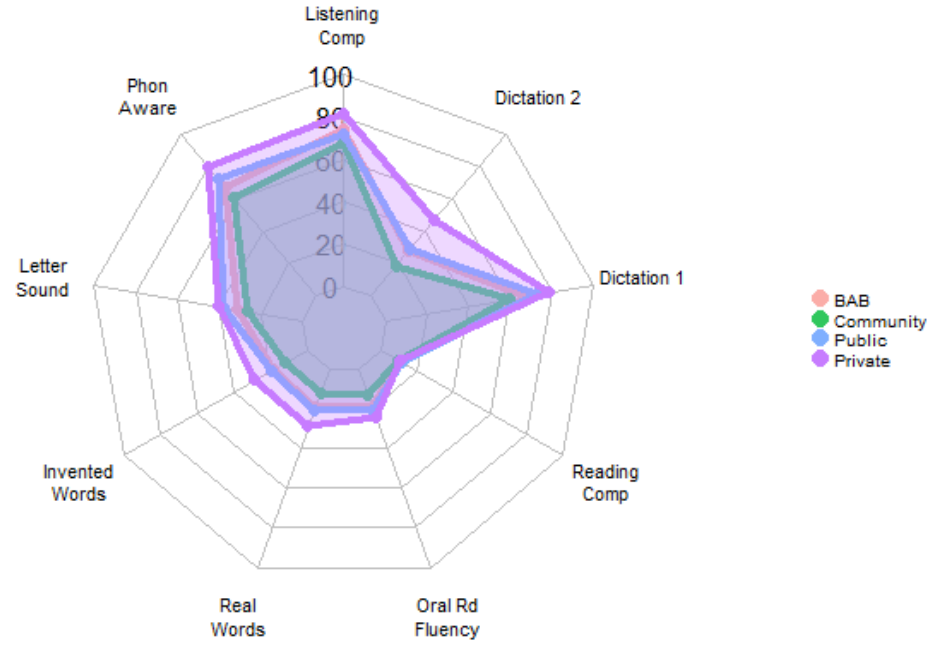


Note: Means are indicated by dashed lines

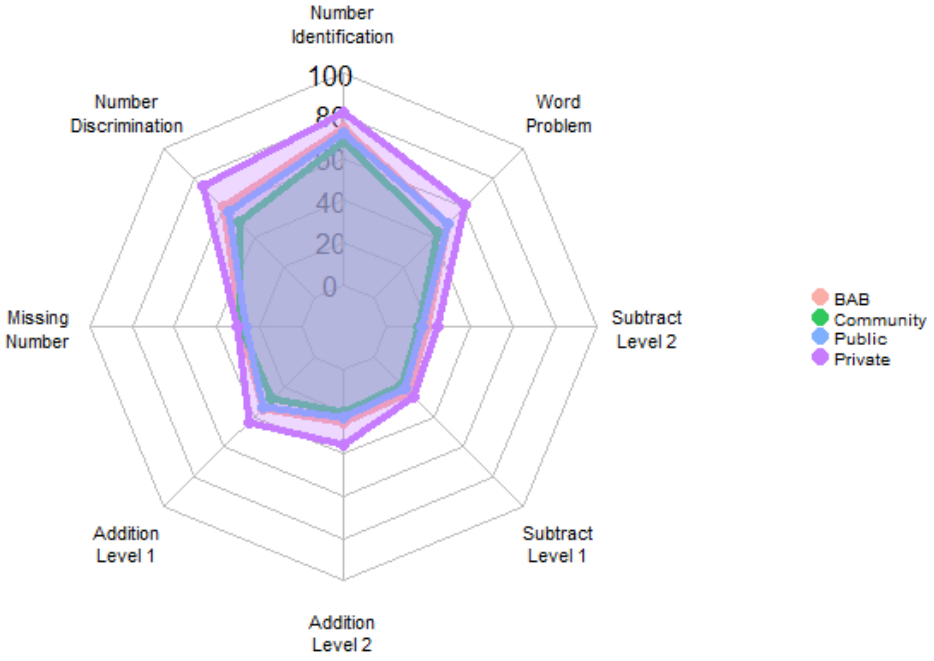


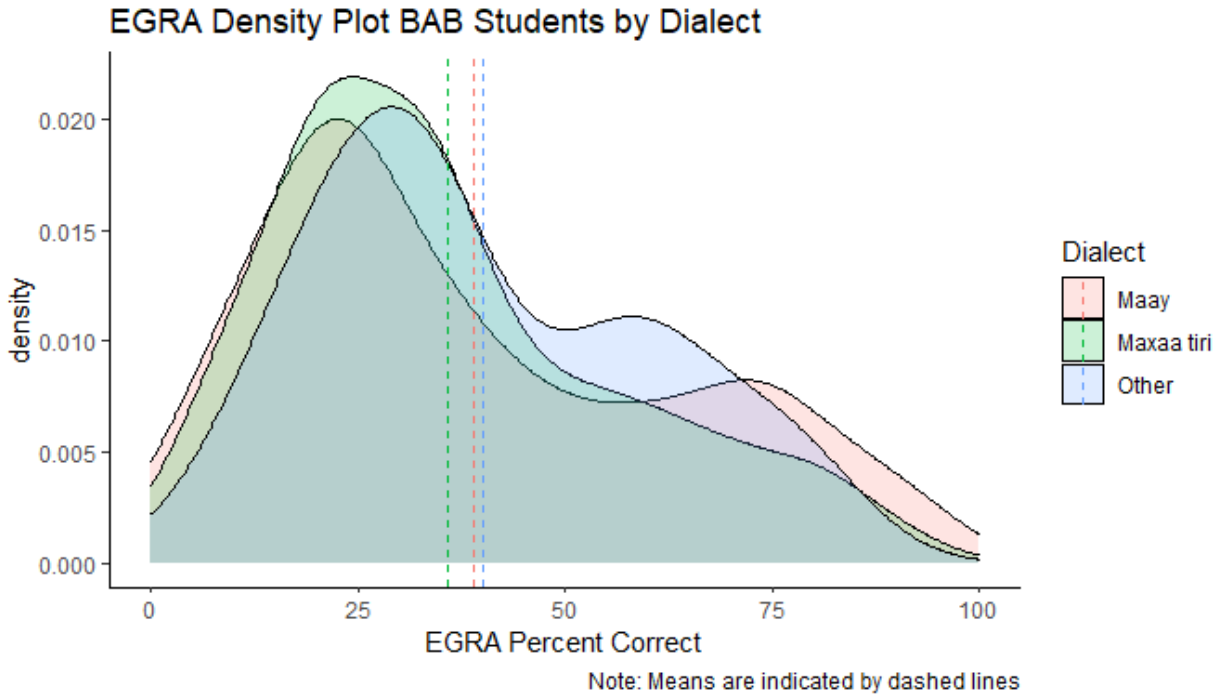
Note: Means are indicated by dashed lines

Means of EGRA Subsection Totals by Funding Type

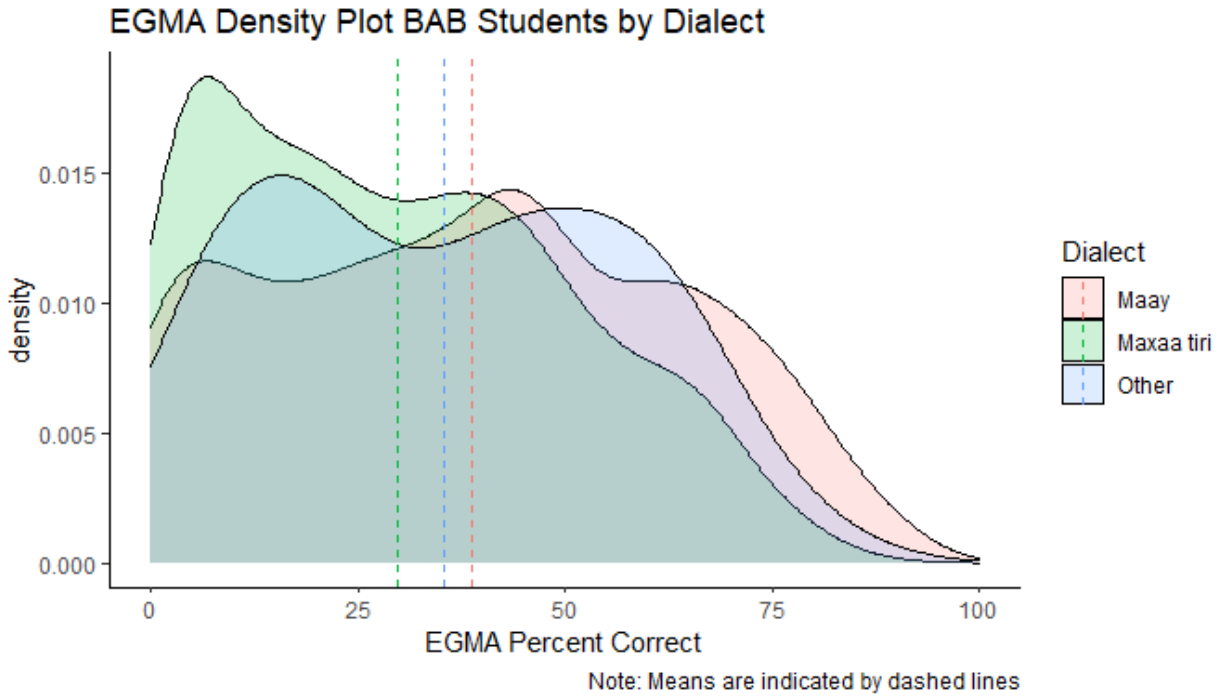


Means of EGMA Subsection Totals by Funding Type

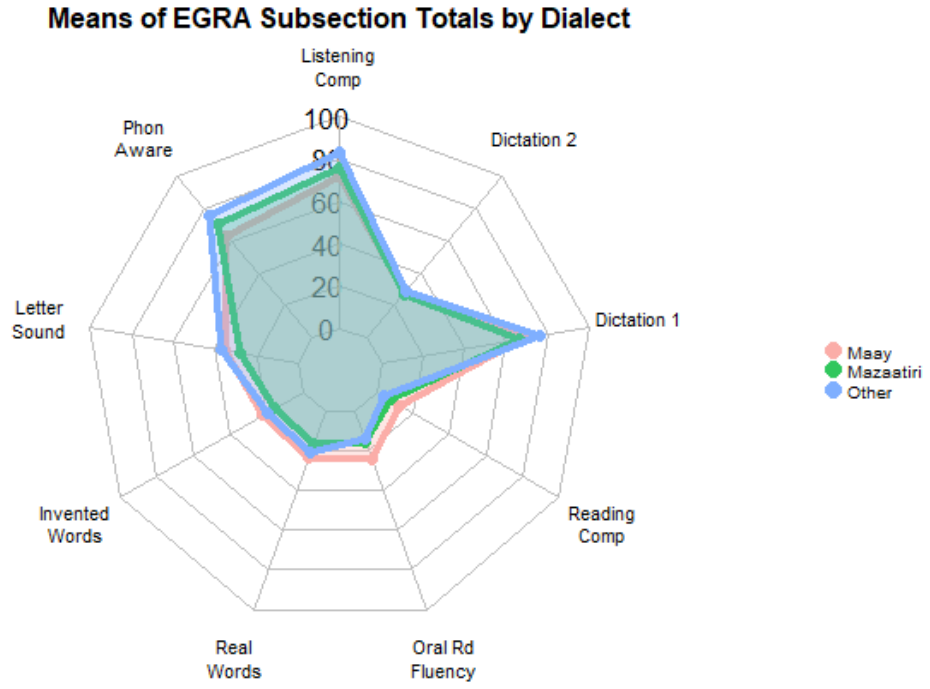


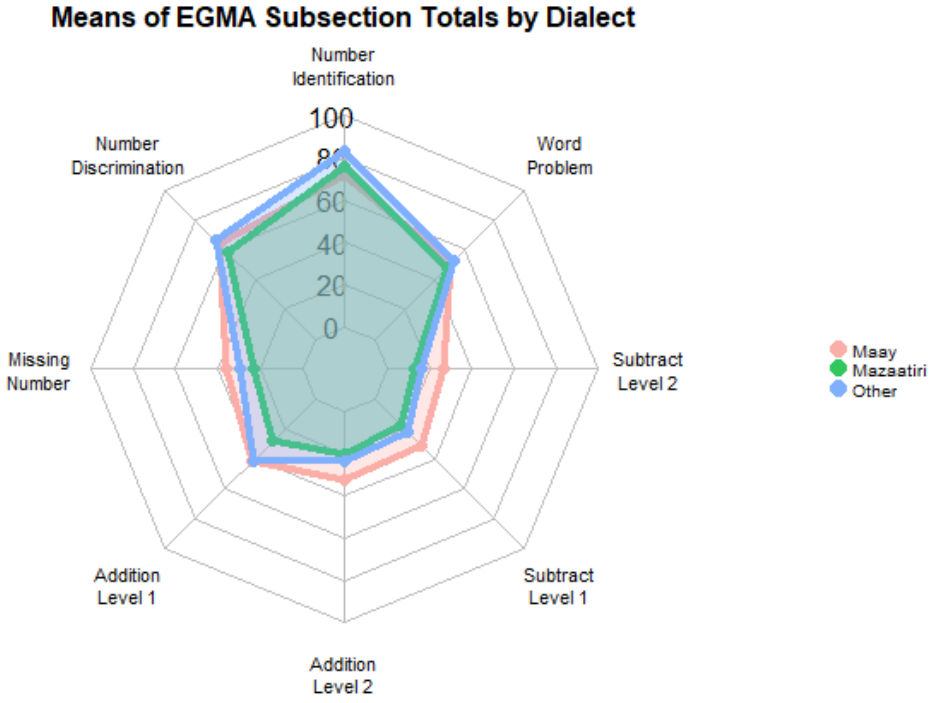


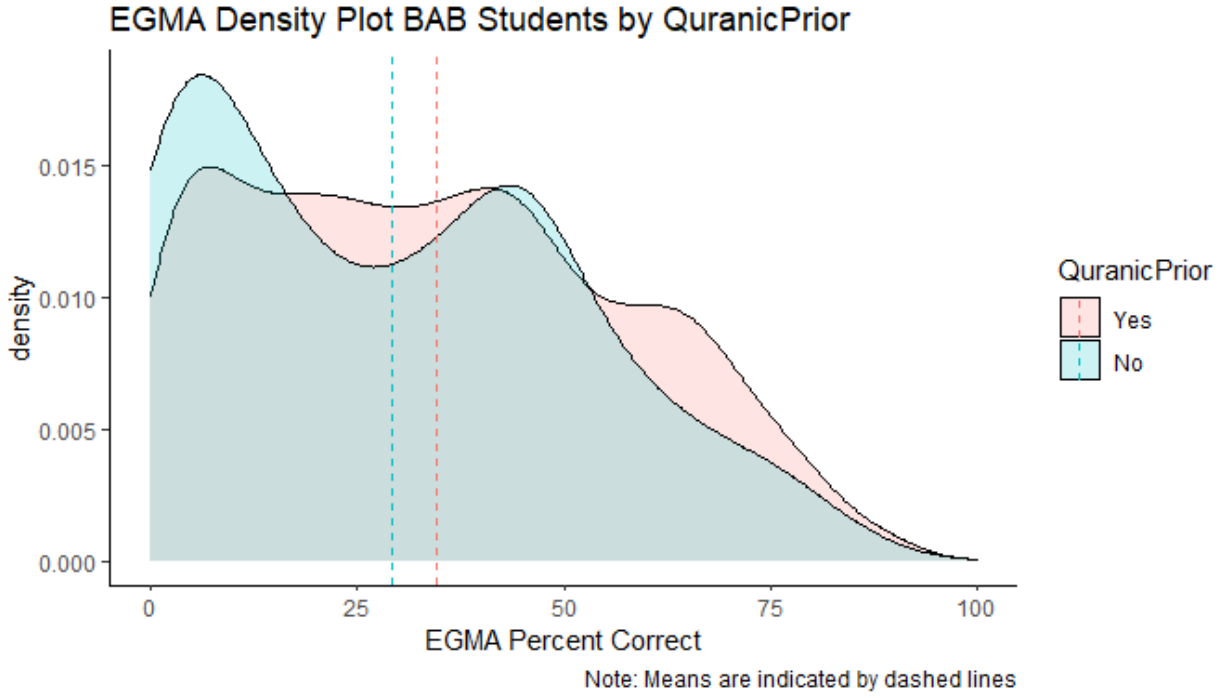
Note: Means are indicated by dashed lines



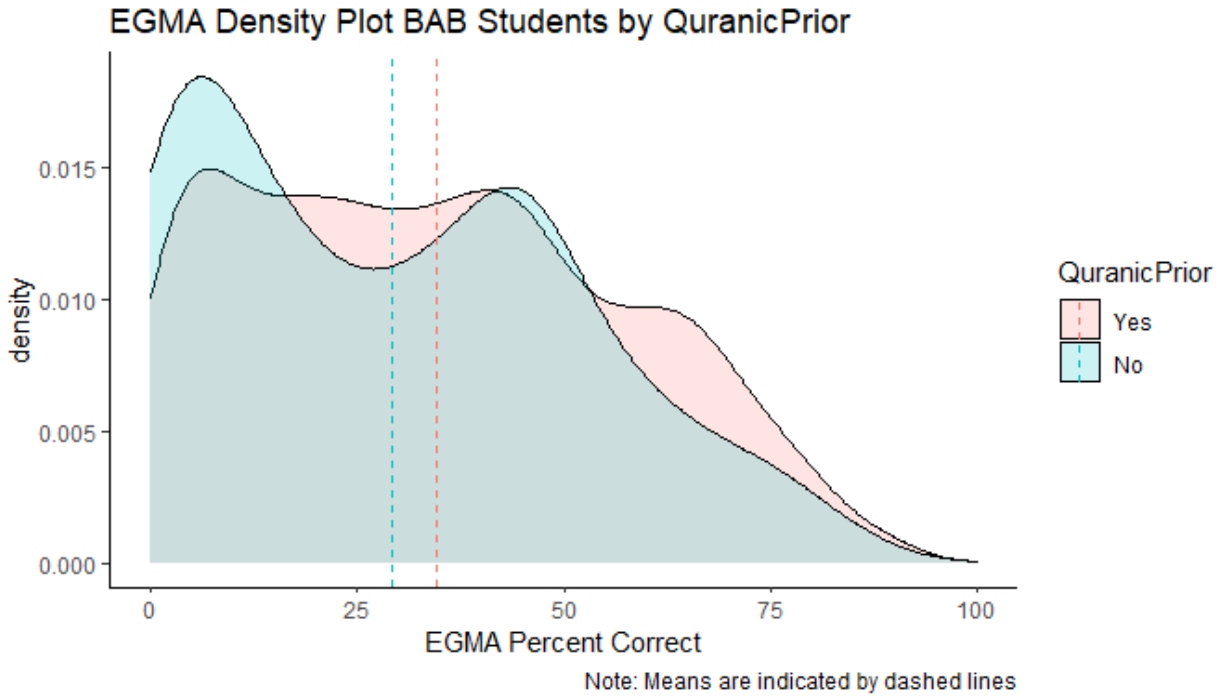
Note: Means are indicated by dashed lines


Means of EGRA Subsection Totals by Dialect
Listening Comp
Dictation 2
Dictation 1
Reading Comp
Oral Rd Fluency
Real Words
Invented Words
Letter Sound
Phon Aware
100
80
60
40
20
0
Maay
Mazaatiri
Other


Means of EGMA Subsection Totals by Dialect
Number Identification
Word Problem
Subtract Level 2
Subtract Level 1
Addition Level 2
Addition Level 1
Missing Number
Number Discrimination
100
80
60
40
20
0
Maay
Mazaatiri
Other

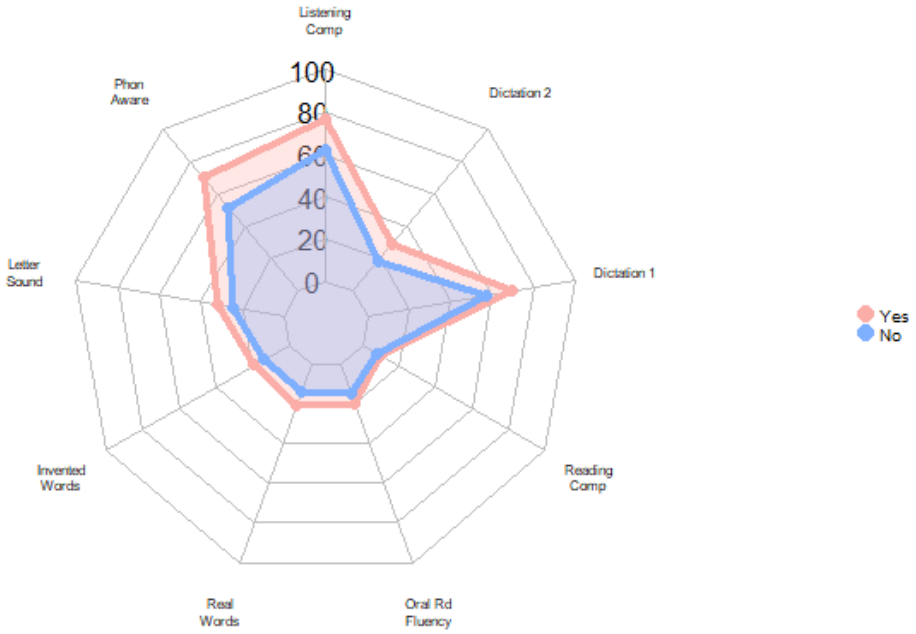


Note: Means are indicated by dashed lines

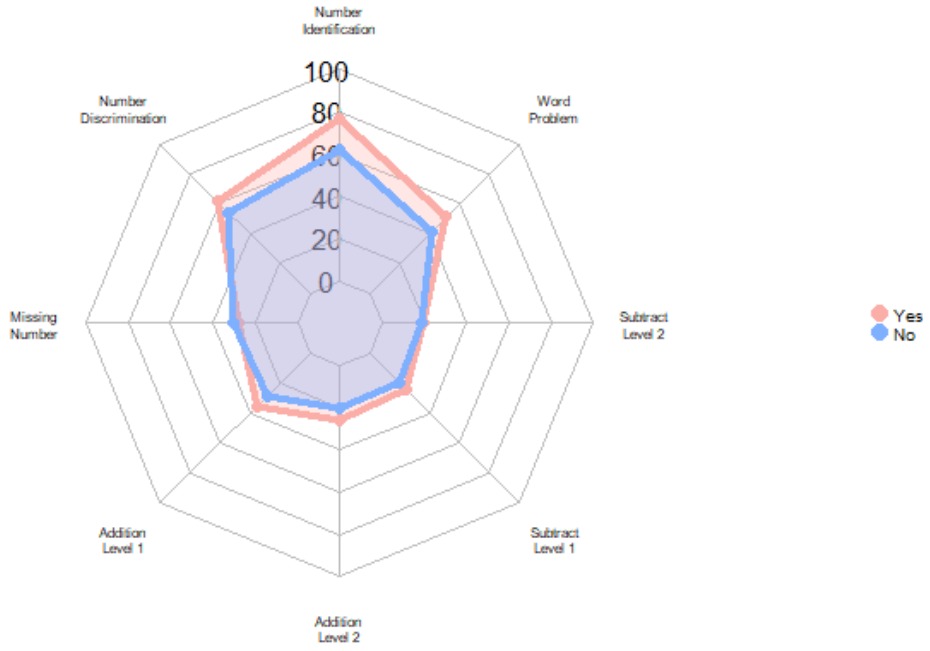


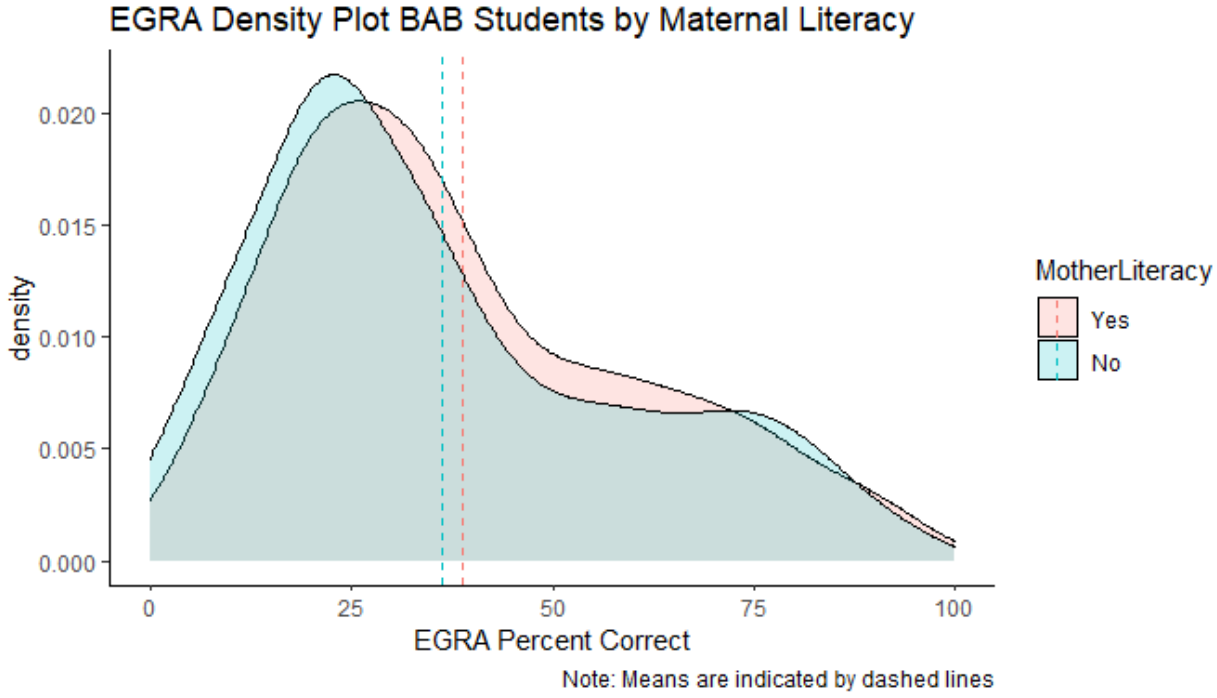
Note: Means are indicated by dashed lines

Means of EGRA Subsection Totals by Prior Quranic Schooling

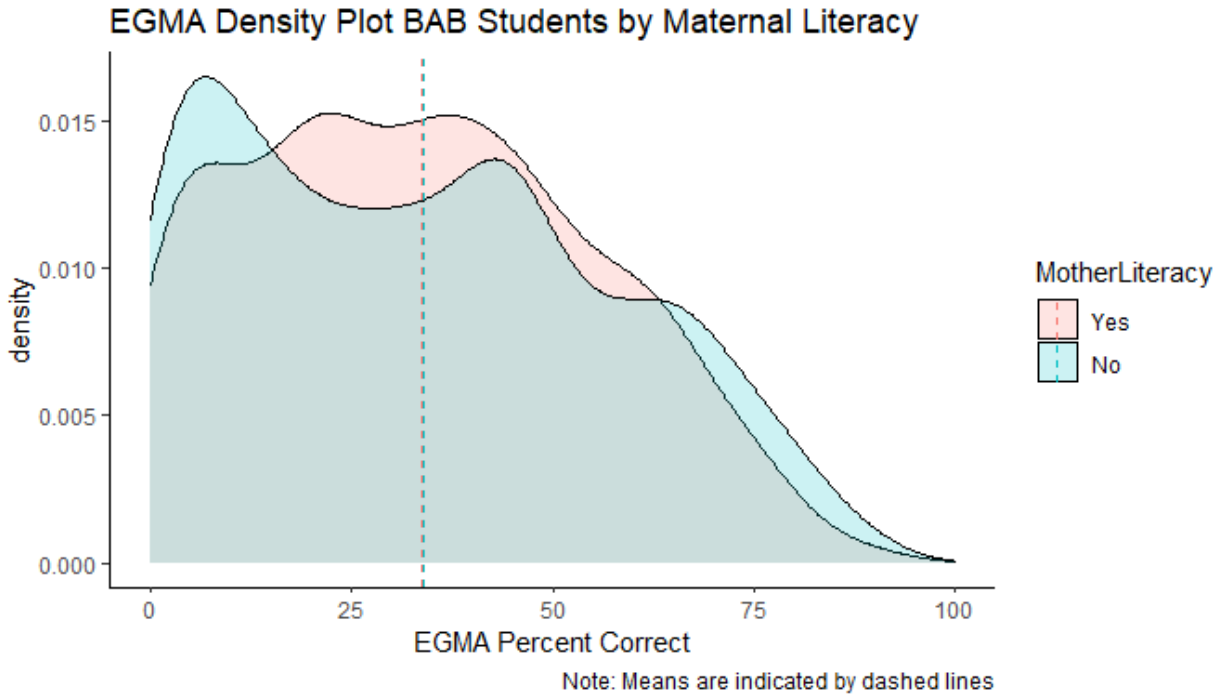


Means of EGMA Subsection Totals by Prior Quranic Schooling



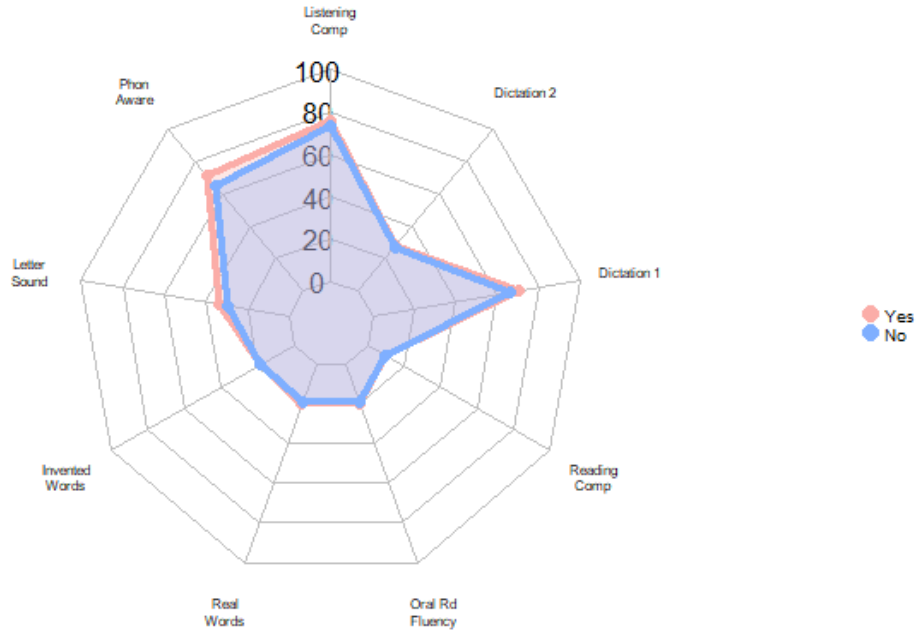


Note: Means are indicated by dashed lines

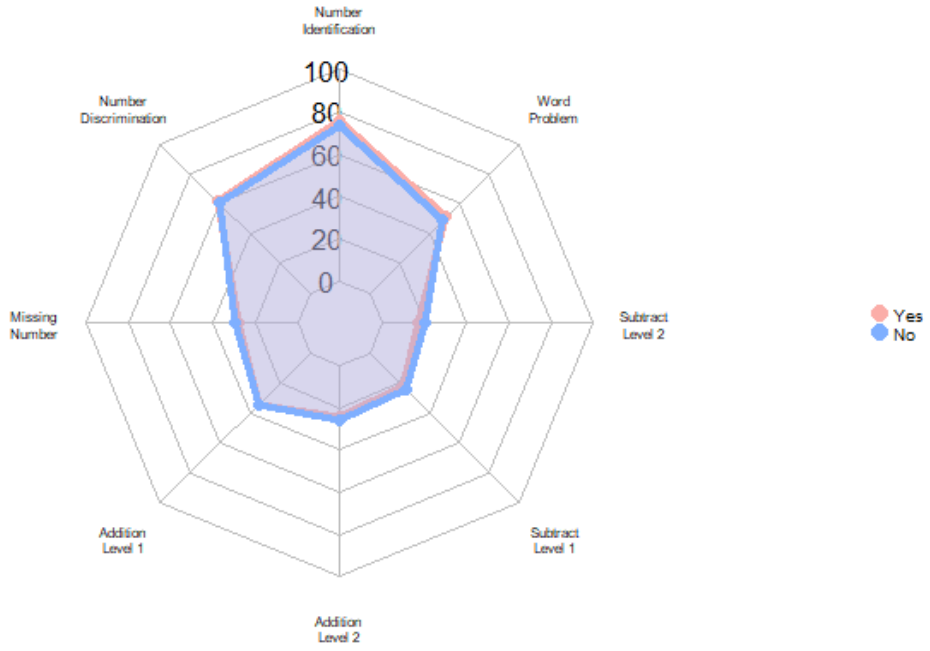


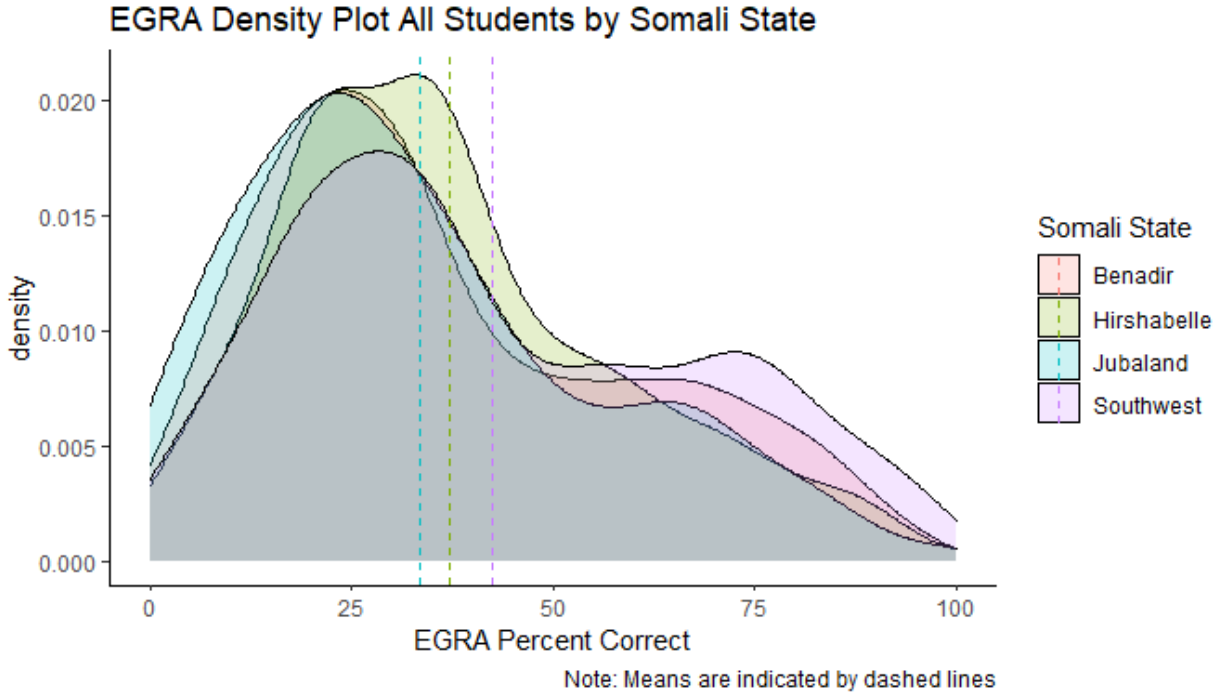
Note: Means are indicated by dashed lines

Means of EGRA Subsection Totals by Maternal Literacy

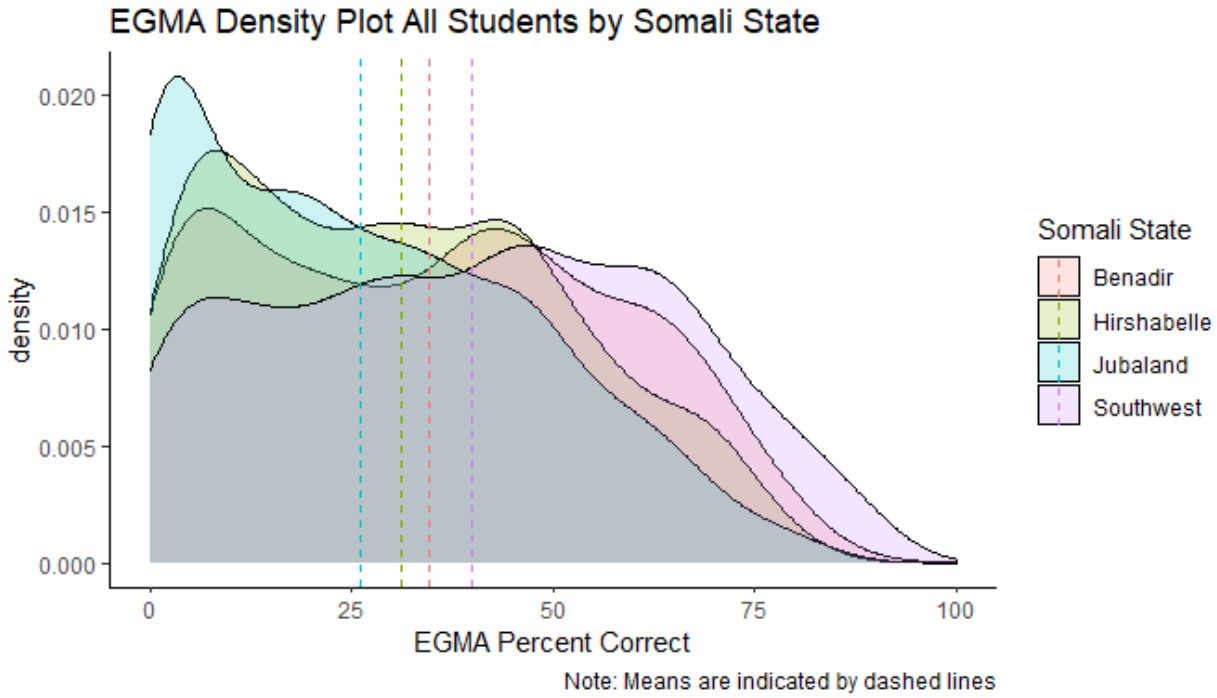


Means of EGMA Subsection Totals by Maternal Literacy



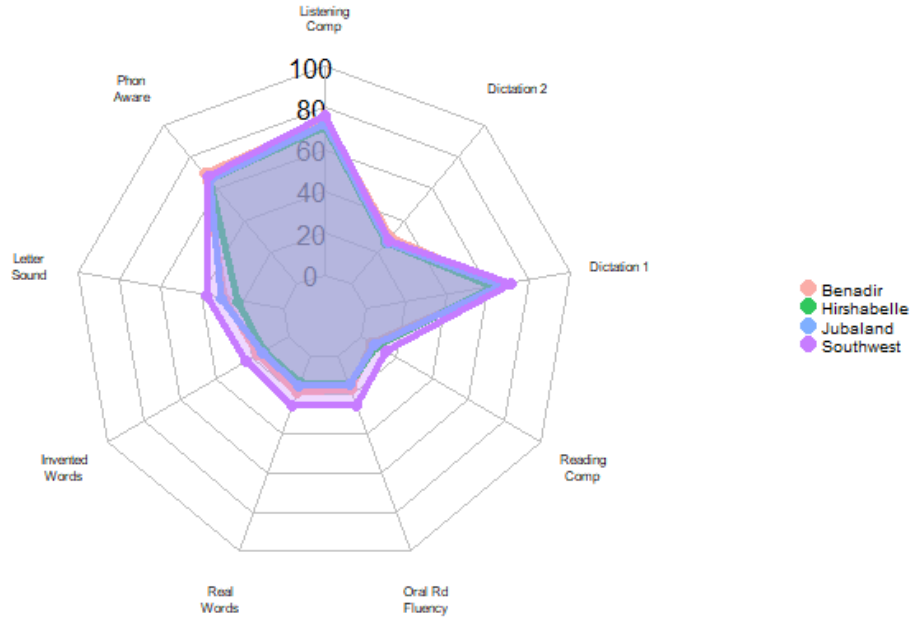


Note: Means are indicated by dashed lines

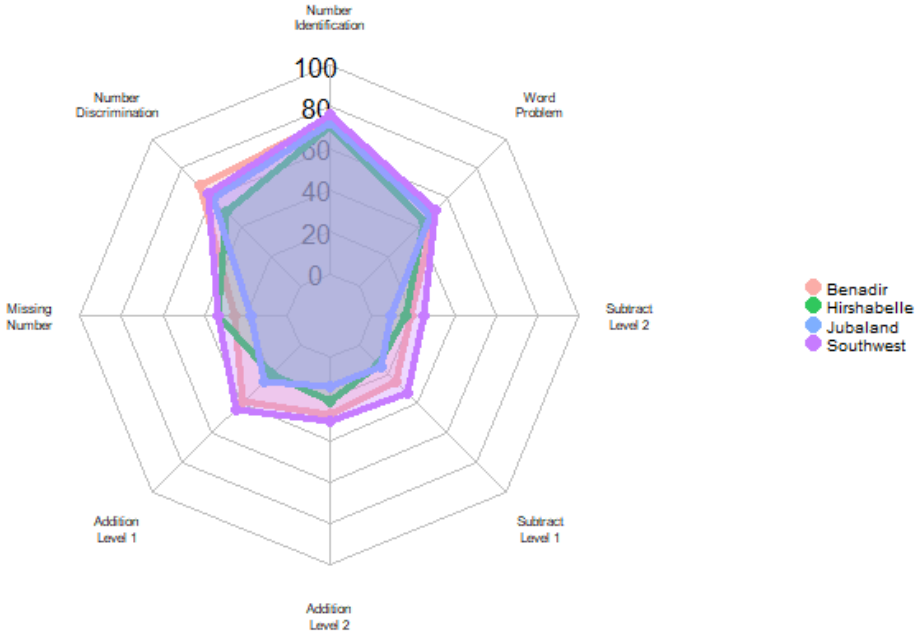


Note: Means are indicated by dashed lines

Means of EGRA Subsection Totals by State Type

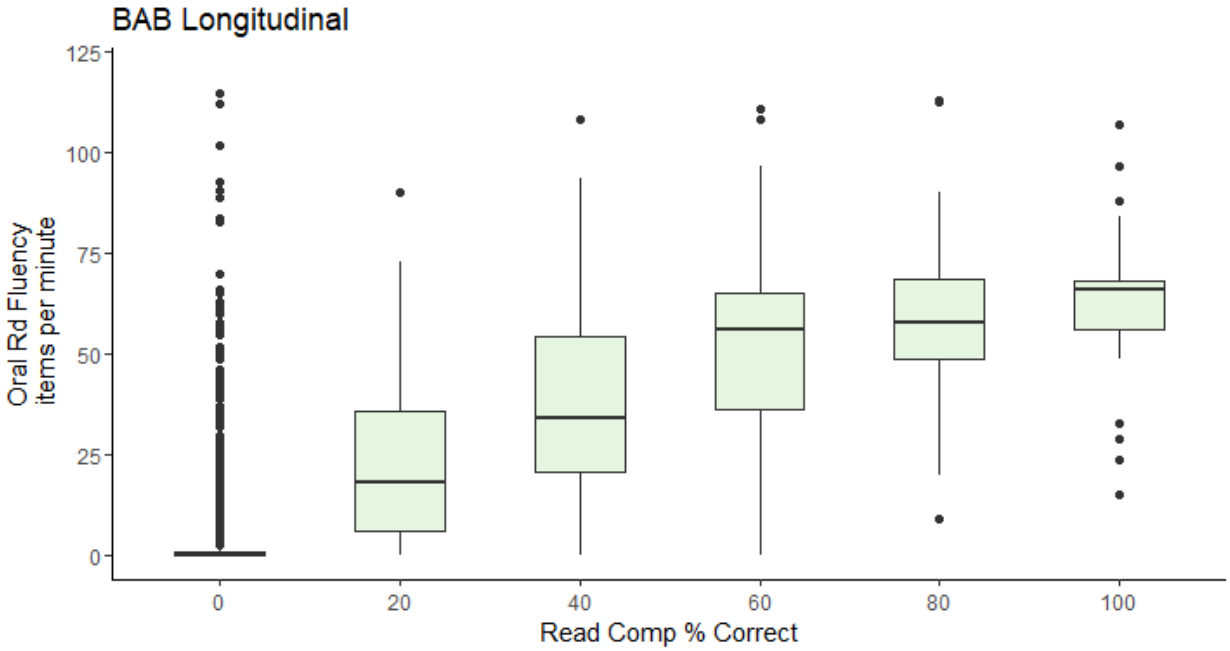


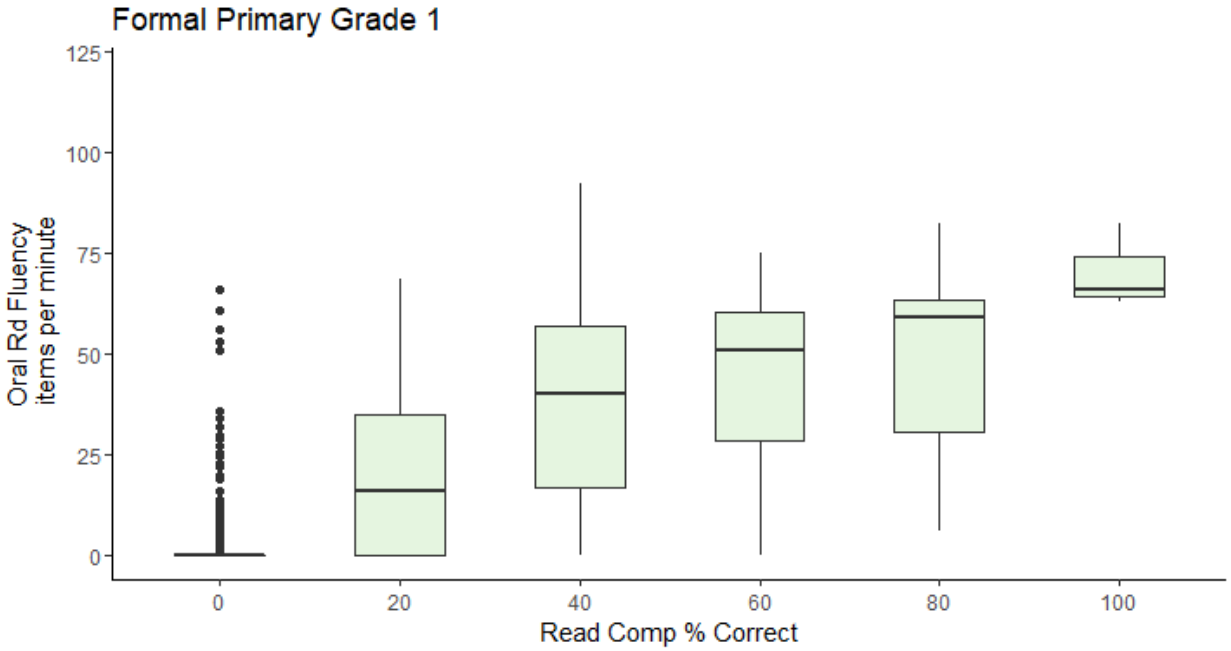
Means of EGMA Subsection Totals by State Type

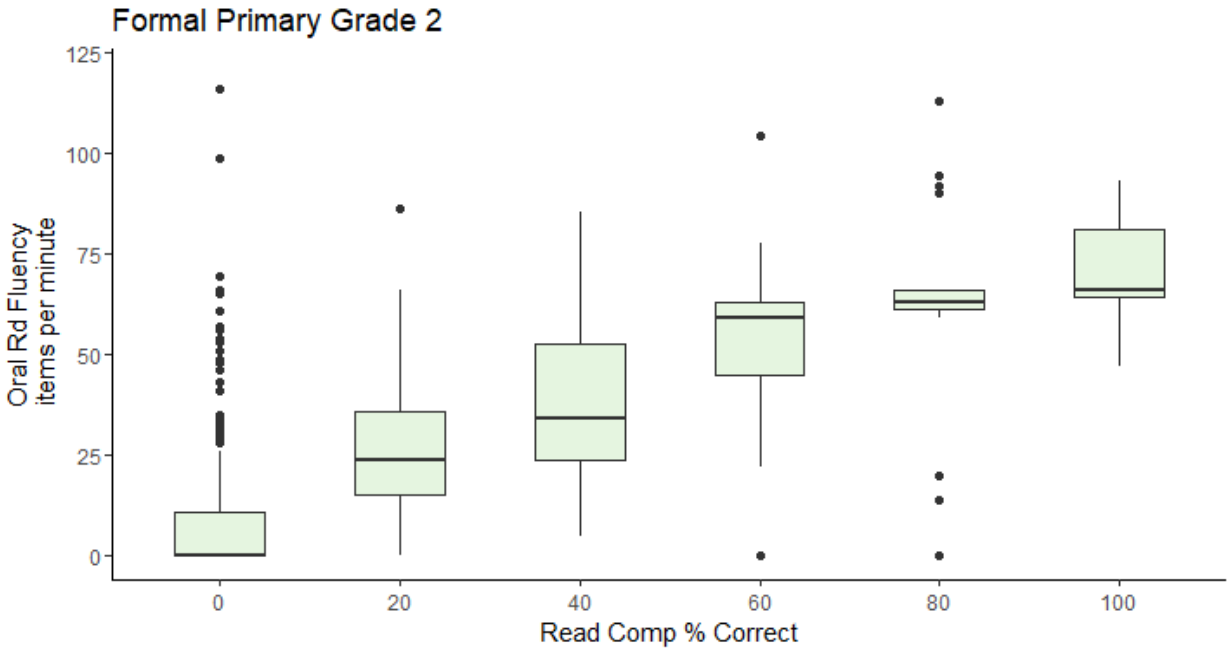


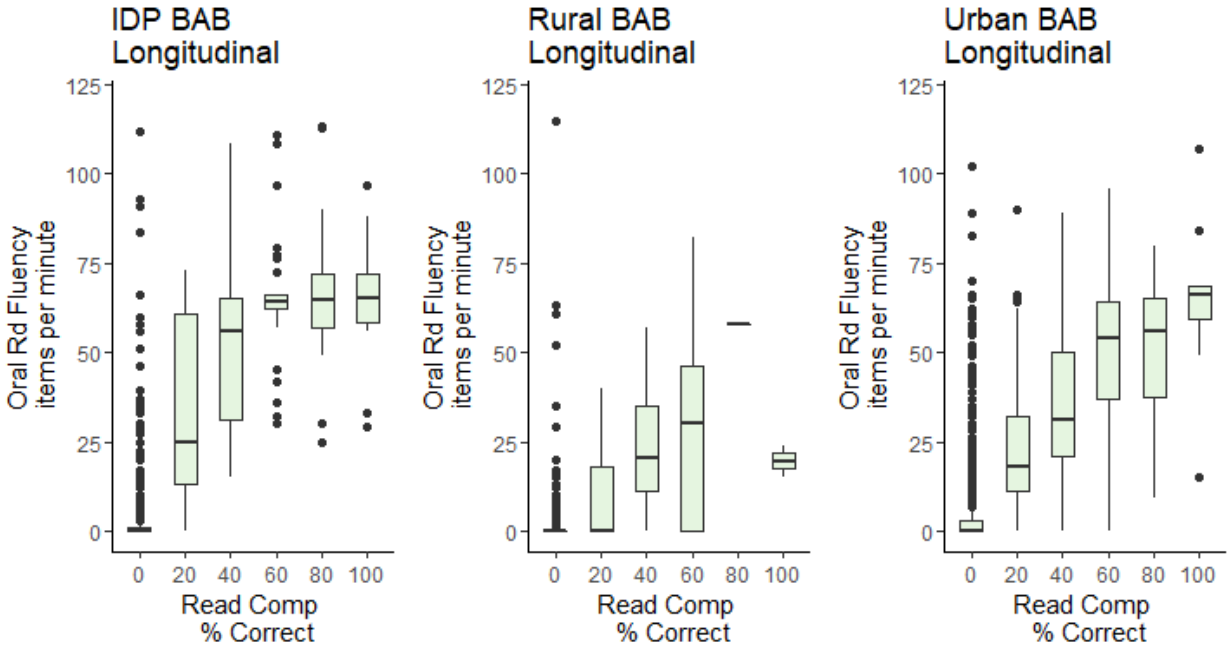
EGRA Overall Test Results

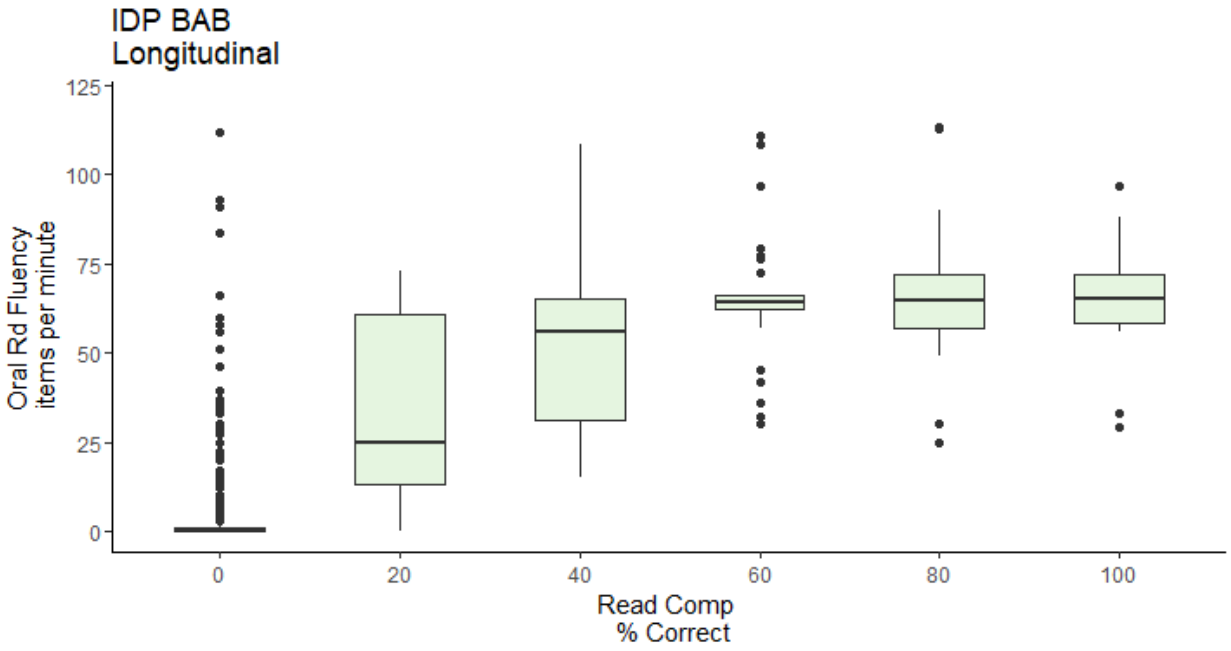
Baseline Oral Reading Fluency vs. Reading Comprehension on EGRA

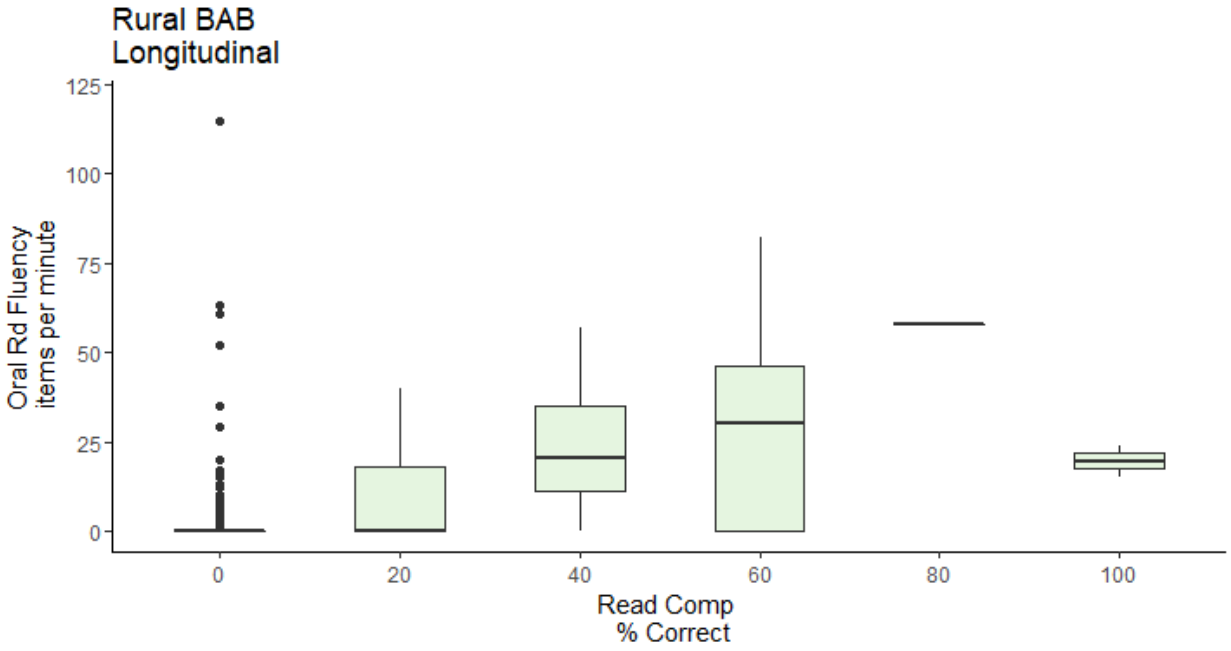


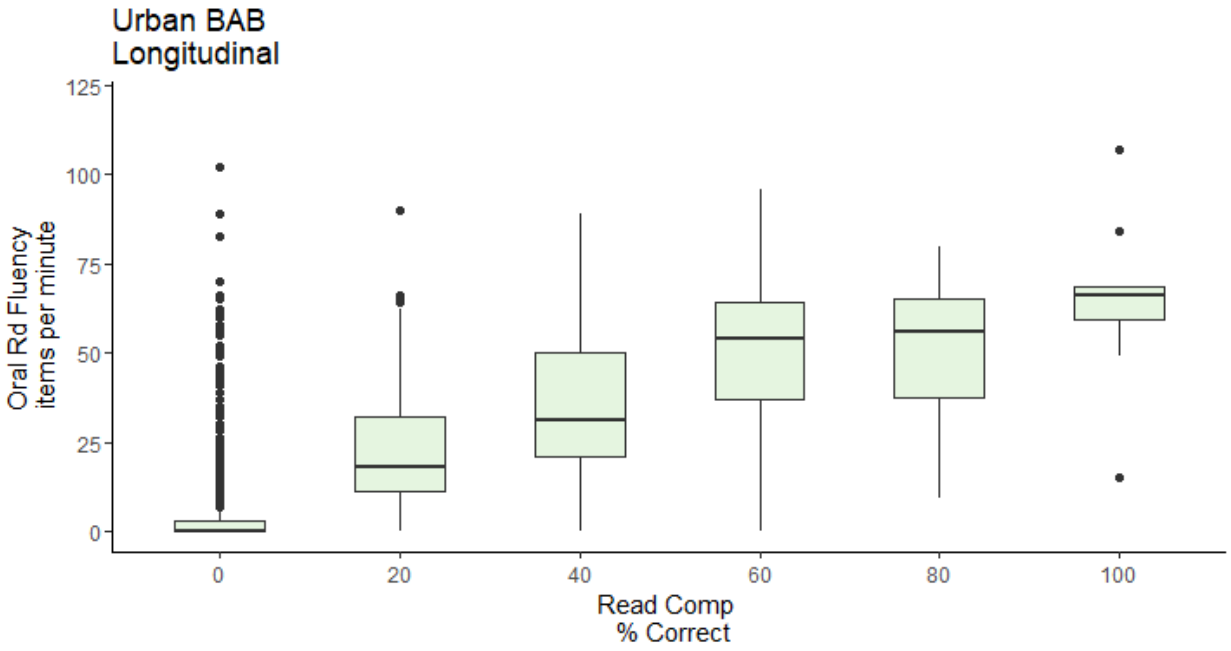

Formal Primary Grade 1
Oral Rd Fluency items per minute
125
100
75
50
25
0
0
20
40
60
80
100
Read Comp % Correct


Formal Primary Grade 2
Oral Rd Fluency items per minute
125
100
75
50
25
0
0
20
40
60
80
100
Read Comp % Correct


IDP BAB
Longitudinal
Rural BAB
Longitudinal
Urban BAB
Longitudinal
Oral Rd Fluency
items per minute
0
25
50
75
100
125
0
20
40
60
80
100
Read Comp
% Correct


IDP BAB
Longitudinal
Oral Rd Fluency
items per minute
0
25
50
75
100
125
0
20
40
60
80
100
Read Comp
% Correct





The 9 sub-sections of the EGRA were summed in equal weights to create a Total EGRA Score out of 100 possible points. The means by demographic groupings are provided in the tables below.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students EGRA Total Percent Correct			**38.18**	**23.50**	
Program Inclusion	*	BAB	37.22	22.97	-0.96

Group		Subgroup	Mean	SD	Diff from Overall Mean
		Formal Primary Grade 1	31.10	22.47	-7.08
		Formal Primary Grade 2	48.63	22.64	10.45

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students EGRA Total Percent Correct			**37.22**	**22.97**	
Location Type	*	IDP	40.99	26.40	3.77
		Rural	31.80	19.02	-5.42
		Urban	37.25	21.98	0.03
Gender	*	Male	38.76	22.49	1.54
		Female	35.65	23.35	-1.57
Age	*	4 to 8 year olds	22.38	16.80	-14.84
		9 to 16 year olds	39.24	22.95	2.01
		17 to 20 year olds	44.92	23.20	7.70
State	*	Benadir	36.45	23.16	-0.77
		Hirshabelle	33.04	18.88	-4.18
		Jubaland	34.82	21.74	-2.40
		Southwest	40.97	24.72	3.74

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students EGRA Total Percent Correct			**39.56**	**24.19**	
Location Type	*	IDP	32.24	23.96	-7.32
		Rural	30.89	19.44	-8.67
		Urban	45.31	24.06	5.75
School Funding Type	*	Community	31.02	21.07	-8.54
		Public	39.57	24.00	0.01
		Private	46.73	24.69	7.17
Gender		Male	40.30	24.01	0.74
		Female	38.79	24.36	-0.77
Age	*	4 to 8 year olds	22.03	19.28	-17.53
		9 to 16 year olds	43.85	23.38	4.29
		17 to 20 year olds	30.14	13.46	-9.42
State	*	Benadir	38.23	23.43	-1.33
		Hirshabelle	43.07	22.30	3.51

Group		Subgroup	Mean	SD	Diff from Overall Mean
		Jubaland	32.10	22.61	-7.46
		Southwest	45.07	25.39	5.51

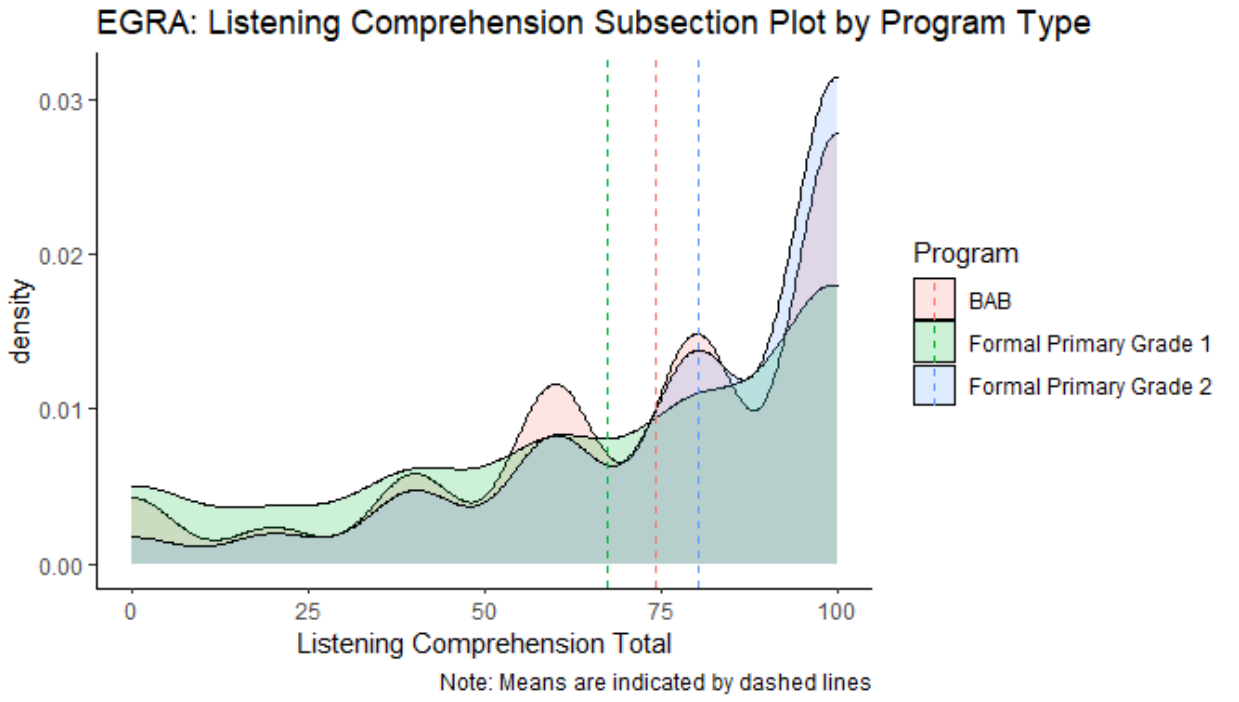
EGRA Listening Comprehension Subsection

In this subsection, the EGRA administrator reads a passage to the student, who does not see it. The student then responds to questions or statements read by the EGRA administrator. The Listening Comprehension Subsection contains 5 questions.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Listening Comprehension			**74.01**	**30.08**	
Program Inclusion	*	BAB	74.18	29.65	0.17
		Formal Primary Grade 1	67.55	33.43	-6.46
		Formal Primary Grade 2	80.45	25.89	6.44

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Listening Comprehension			**74.18**	**29.65**	
Location Type	*	IDP	75.66	29.06	1.48
		Rural	65.14	36.37	-9.04
		Urban	76.69	26.49	2.51
Gender	*	Male	76.24	27.92	2.06
		Female	72.08	31.20	-2.10
Age	*	4 to 8 year olds	62.97	33.87	-11.21
		9 to 16 year olds	75.70	28.75	1.52
		17 to 20 year olds	80.00	20.00	5.82
State		Benadir	74.27	26.71	0.09
		Hirshabelle	71.08	34.60	-3.10
		Jubaland	72.28	31.45	-1.90
		Southwest	76.60	27.55	2.42

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students		**Listening Comprehension**	**73.77**	**30.70**	
Location Type	*	IDP	66.47	31.54	-7.30
		Rural	62.04	35.09	-11.74
		Urban	80.52	26.81	6.75
School Funding Type	*	Community	68.09	31.92	-5.69
		Public	71.91	31.93	-1.86
		Private	81.79	25.56	8.02
Gender		Male	75.15	30.52	1.37
		Female	72.35	30.85	-1.43
Age	*	4 to 8 year olds	55.93	35.52	-17.84
		9 to 16 year olds	78.02	27.87	4.25
		17 to 20 year olds	80.00	20.00	6.23
State	*	Benadir	73.98	27.31	0.21
		Hirshabelle	79.20	30.61	5.43
		Jubaland	69.52	33.27	-4.25
		Southwest	74.16	30.22	0.38



EGRA Phonemic Awareness

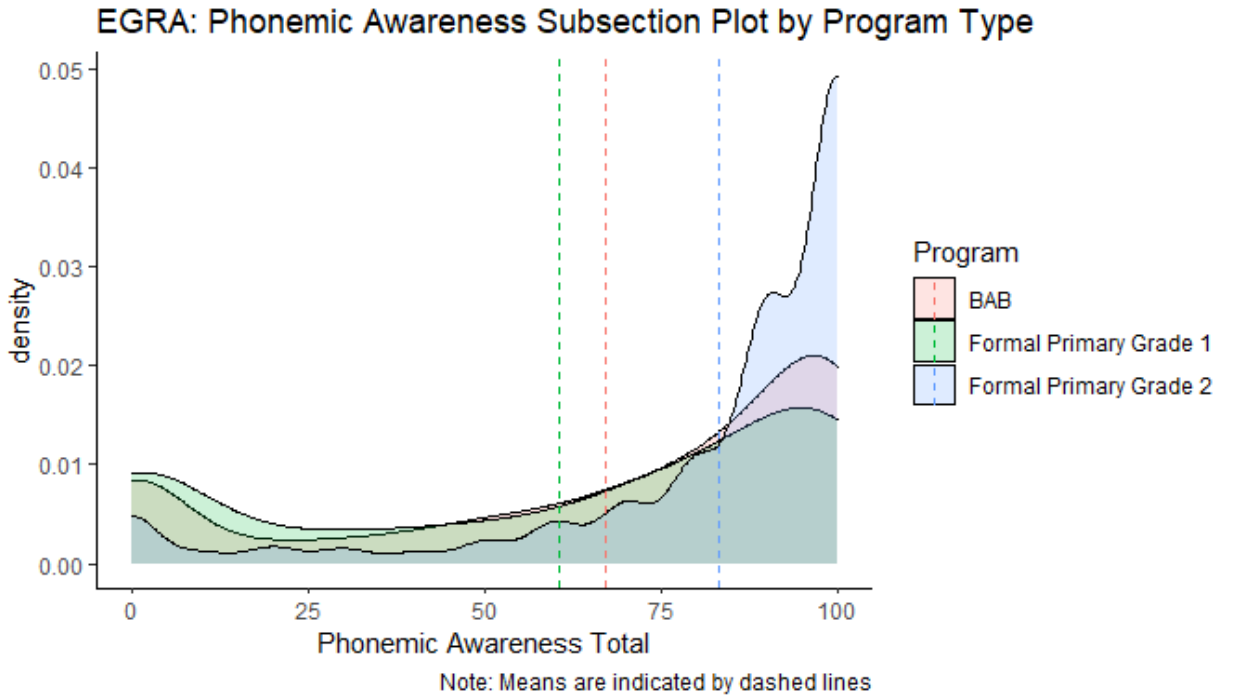
In this subsection, students are presented with a word orally and asked to isolate and pronounce only the first sound of the word. The Phonemic Awareness subsection contains 10 items.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Phonemic Awareness			**68.98**	**35.39**	
Program Inclusion	*	BAB	67.23	35.64	-1.75
		Formal Primary Grade 1	60.55	38.32	-8.44
		Formal Primary Grade 2	83.22	26.13	14.23

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Phonemic Awareness			**67.23**	**35.64**	
Location Type		IDP	68.94	34.75	1.70
		Rural	63.50	38.74	-3.73
		Urban	67.71	34.85	0.48
Gender	*	Male	69.24	34.41	2.00
		Female	65.19	36.76	-2.05
Age	*	4 to 8 year olds	44.93	37.85	-22.31
		9 to 16 year olds	70.27	34.25	3.03
		17 to 20 year olds	77.69	28.62	10.46
State		Benadir	69.75	34.51	2.52
		Hirshabelle	65.39	38.16	-1.85
		Jubaland	65.70	37.12	-1.54
		Southwest	67.36	34.24	0.13

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Phonemic Awareness			**71.49**	**34.88**	
Location Type	*	IDP	61.29	37.28	-10.19
		Rural	63.72	38.35	-7.77
		Urban	78.10	31.04	6.61
School Funding Type	*	Community	60.53	37.83	-10.95
		Public	71.91	34.06	0.42
		Private	79.97	31.11	8.48

Group		Subgroup	Mean	SD	Diff from Overall Mean
Gender		Male	72.34	34.21	0.86
		Female	70.60	35.57	-0.89
Age	*	4 to 8 year olds	48.01	40.03	-23.48
		9 to 16 year olds	77.09	31.02	5.61
		17 to 20 year olds	77.14	34.98	5.66
State	*	Benadir	72.37	34.07	0.88
		Hirshabelle	74.62	34.83	3.14
		Jubaland	64.22	38.67	-7.26
		Southwest	75.47	30.82	3.98



EGRA Letter Sound Identification

In this subsection, students are given a written list of capital and lowercase letters in random order and asked to articulate the sound of each letter. The Letter Sound Identification subsection contains 100 items. This is a timed subsection and students are given 1 minute to identify as many sounds as they can in the time period.

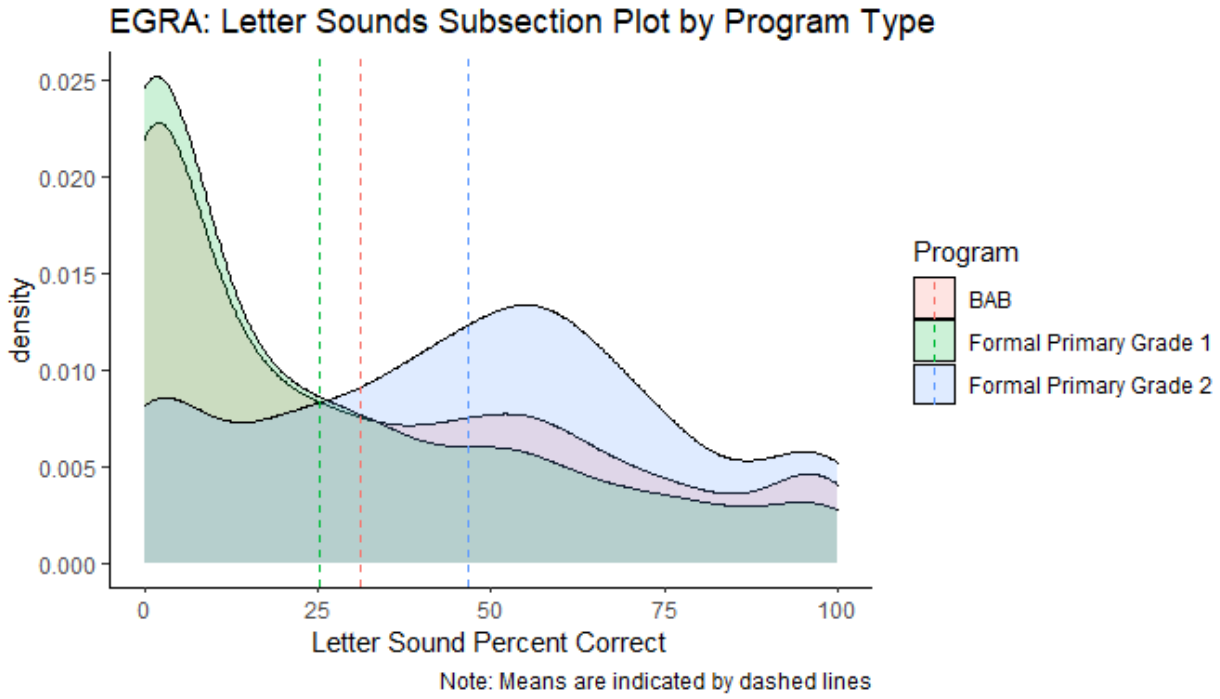
Group	Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Letter Sounds		**33.01**	**31.50**	

Group		Subgroup	Mean	SD	Diff from Overall Mean
Program Inclusion	*	BAB	31.22	31.40	-1.80
		Formal Primary Grade 1	25.20	29.72	-7.82
		Formal Primary Grade 2	46.74	29.45	13.72

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Letter Sounds			**31.22**	**31.40**	
Location Type	*	IDP	36.54	35.55	5.33
		Rural	25.74	27.44	-5.47
		Urban	30.46	30.06	-0.76
Gender	*	Male	32.37	30.98	1.16
		Female	30.04	31.80	-1.18
Age	*	4 to 8 year olds	13.47	25.08	-17.75
		9 to 16 year olds	33.64	31.39	2.42
		17 to 20 year olds	38.31	33.75	7.09
State	*	Benadir	29.00	28.59	-2.22
		Hirshabelle	22.11	28.01	-9.11
		Jubaland	30.42	29.17	-0.79
		Southwest	37.58	34.27	6.36

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Letter Sounds			**35.59**	**31.48**	
Location Type	*	IDP	27.23	34.25	-8.36
		Rural	31.28	29.12	-4.31
		Urban	40.34	30.18	4.75
School Funding Type	*	Community	25.99	28.66	-9.60
		Public	37.52	33.11	1.94
		Private	40.32	29.14	4.73
Gender		Male	35.51	30.36	-0.08
		Female	35.67	32.63	0.08
Age	*	4 to 8 year olds	14.35	24.95	-21.24
		9 to 16 year olds	40.81	30.76	5.22
		17 to 20 year olds	20.57	24.35	-15.02
State	*	Benadir	32.76	29.54	-2.83

Group		Subgroup	Mean	SD	Diff from Overall Mean
		Hirshabelle	35.35	27.49	-0.24
		Jubaland	28.93	29.25	-6.66
		Southwest	43.71	35.14	8.12



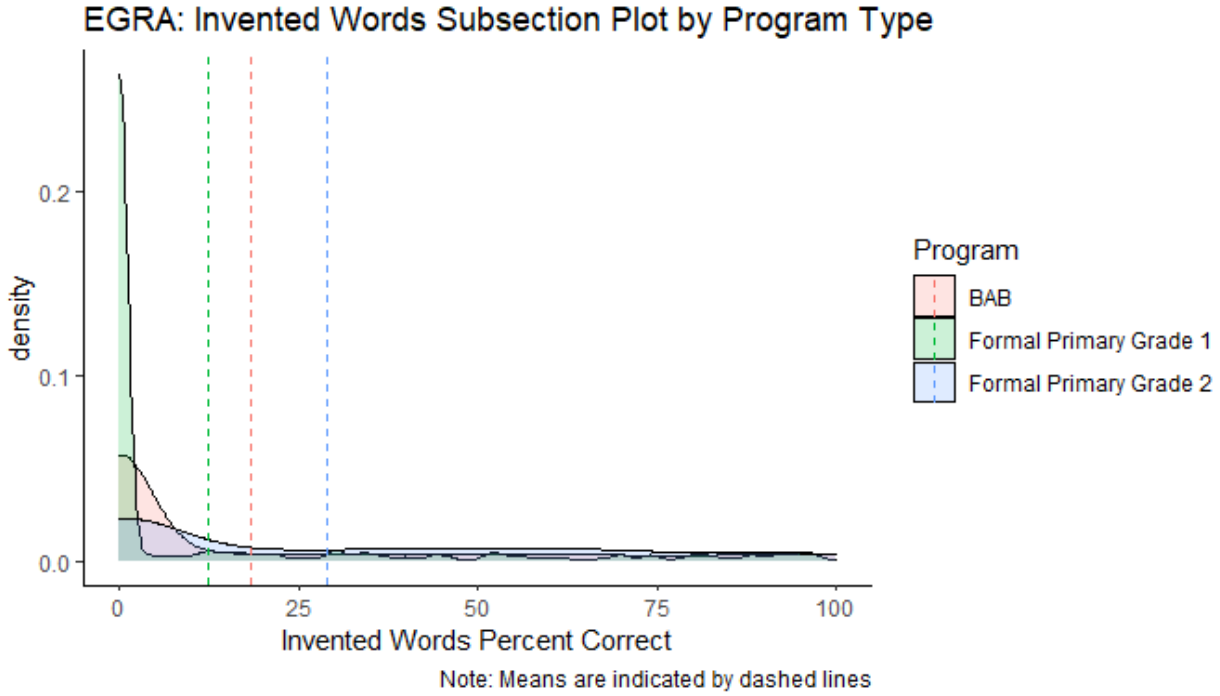
EGRA Invented Words

In this subsection, students are given a list of invented or non-words to see how many they can decode/pronounce. The Invented Words subsection contains 50 items. This is a timed subsection and students are given 1 minute to identify as many words as they can in the time period.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Invented Words			**19.19**	**30.54**	
Program Inclusion	*	BAB	18.39	30.48	-0.80
		Formal Primary Grade 1	12.40	25.75	-6.79
		Formal Primary Grade 2	28.84	33.04	9.65

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Invented Words			**18.39**	**30.48**	
Location Type	*	IDP	25.10	35.94	6.71
		Rural	10.36	20.99	-8.03
		Urban	17.85	29.57	-0.54
Gender	*	Male	20.00	31.00	1.61
		Female	16.75	29.86	-1.64
Age	*	4 to 8 year olds	4.37	17.43	-14.02
		9 to 16 year olds	20.27	31.33	1.88
		17 to 20 year olds	27.69	37.18	9.30
State	*	Benadir	16.98	28.81	-1.41
		Hirshabelle	13.13	25.05	-5.26
		Jubaland	14.68	28.14	-3.71
		Southwest	23.70	34.08	5.31

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Invented Words			**20.33**	**30.60**	
Location Type	*	IDP	14.58	30.01	-5.75
		Rural	9.63	19.61	-10.70
		Urban	26.12	32.39	5.79
School Funding Type	*	Community	11.84	24.76	-8.49
		Public	19.73	31.03	-0.60
		Private	28.53	32.25	8.19
Gender		Male	21.07	30.65	0.74
		Female	19.57	30.56	-0.76
Age	*	4 to 8 year olds	5.71	18.57	-14.62
		9 to 16 year olds	23.95	31.93	3.62
		17 to 20 year olds	6.29	10.80	-14.04
State	*	Benadir	18.95	28.54	-1.38
		Hirshabelle	22.10	30.23	1.77
		Jubaland	13.81	25.51	-6.52
		Southwest	26.08	35.01	5.75



EGRA Familiar/Real Words

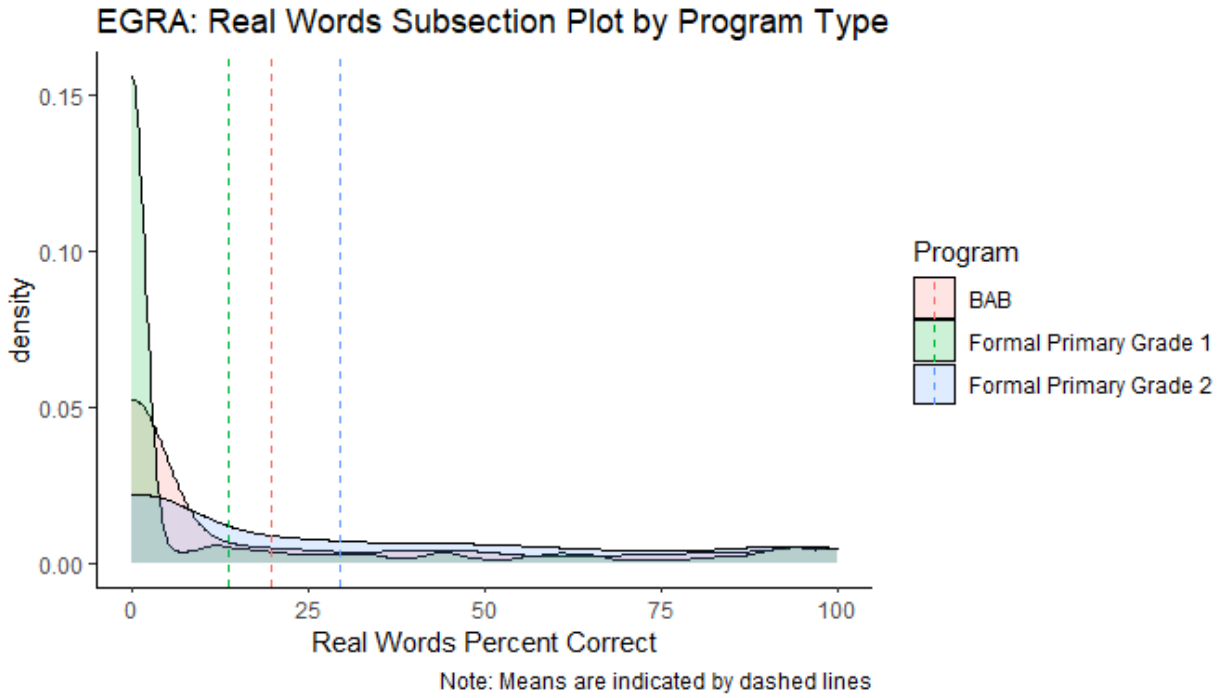
In this subsection, students are given a list of familiar or real words to see how many they can decode/pronounce. The Real Words subsection contains 50 items. This is a timed subsection and students are given 1 minute to identify as many words as they can in the time period.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Real Words			**20.34**	**31.73**	
Program Inclusion	*	BAB	19.72	31.63	-0.63
		Formal Primary Grade 1	13.66	28.03	-6.68
		Formal Primary Grade 2	29.37	33.70	9.03

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Real Words			**19.72**	**31.63**	
Location Type	*	IDP	27.37	37.72	7.65
		Rural	11.05	21.56	-8.67
		Urban	18.92	30.34	-0.80
Gender	*	Male	21.49	32.20	1.77

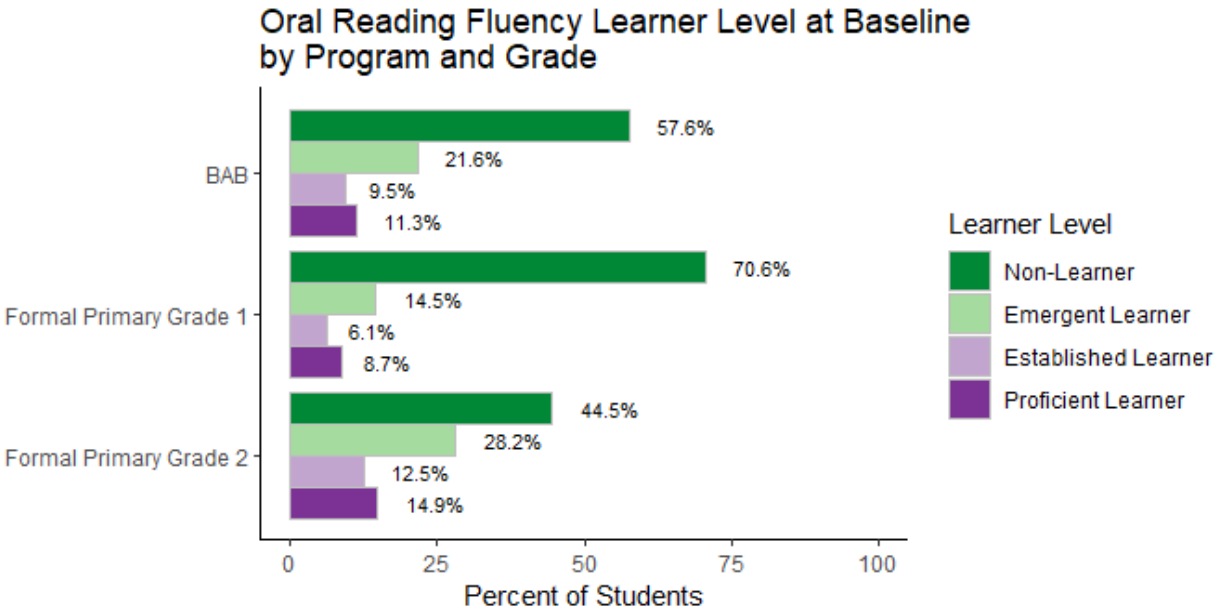
Group		Subgroup	Mean	SD	Diff from Overall Mean
		Female	17.91	30.94	-1.81
Age	*	4 to 8 year olds	5.89	20.37	-13.83
		9 to 16 year olds	21.55	32.35	1.83
		17 to 20 year olds	31.85	40.31	12.13
State	*	Benadir	18.88	30.72	-0.83
		Hirshabelle	13.54	24.99	-6.17
		Jubaland	15.62	28.98	-4.10
		Southwest	25.32	35.32	5.60

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students		**Real Words**	**21.24**	**31.87**	
Location Type	*	IDP	15.75	31.35	-5.49
		Rural	9.28	18.24	-11.96
		Urban	27.33	34.02	6.09
School Funding Type	*	Community	12.43	25.15	-8.81
		Public	20.91	32.73	-0.33
		Private	29.23	33.42	7.99
Gender		Male	22.16	32.03	0.92
		Female	20.28	31.70	-0.96
Age	*	4 to 8 year olds	6.56	20.56	-14.68
		9 to 16 year olds	24.88	33.14	3.64
		17 to 20 year olds	6.86	11.94	-14.38
State	*	Benadir	20.29	30.27	-0.95
		Hirshabelle	22.62	31.33	1.38
		Jubaland	13.57	25.48	-7.67
		Southwest	27.95	36.64	6.71



EGRA Oral Reading Fluency

The oral Reading Fluency subsection measures how quickly and accurately a student can read. The Oral Reading Fluency subsection contains a paragraph with 66 words for the student to read. This is a timed subsection and students are given 1 minute to read the paragraph. Students that score a zero in this section are frequently referred to as non-readers.



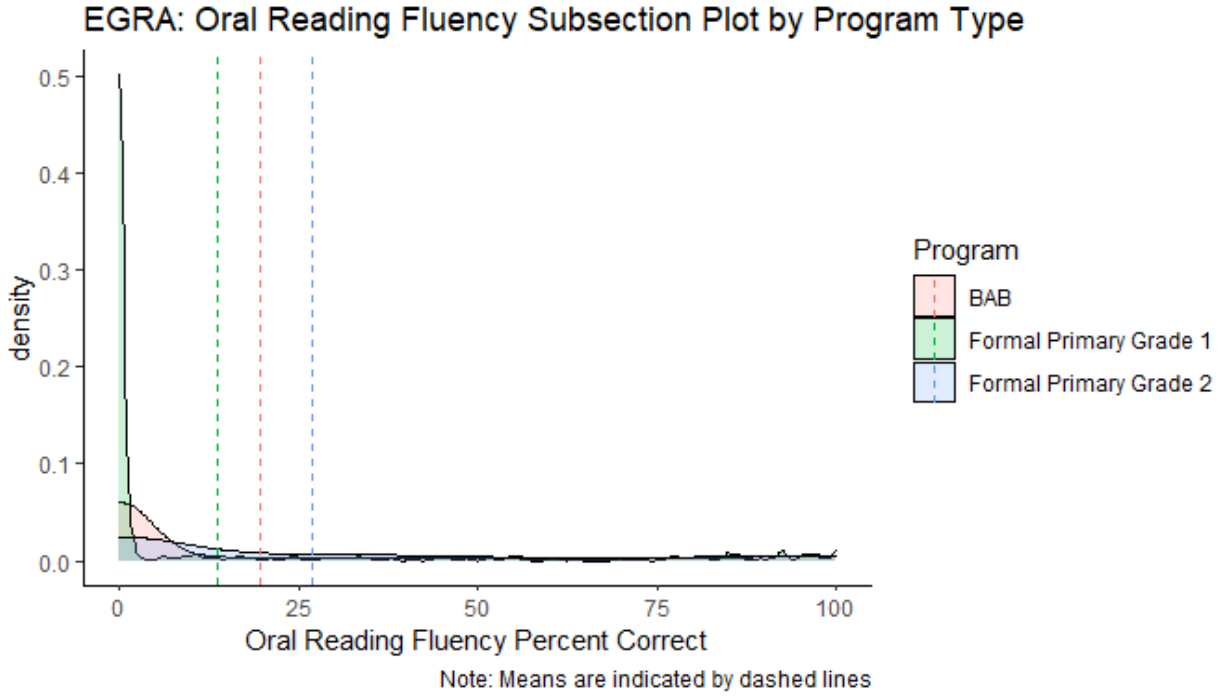
Note: Learner Level is based on the Oral Reading Fluency Items Correct Percent where: Non-Learner Score = 0, Emergent Learner 1 < Score < 40, Established Learner 41 < Score < 80, Proficient Learner 81 < Score < 100

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Oral Reading Fluency			**19.75**	**32.45**	
Program Inclusion	*	BAB	19.51	32.66	-0.23
		Formal Primary Grade 1	13.70	28.76	-6.05
		Formal Primary Grade 2	26.93	34.17	7.18

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Oral Reading Fluency			**19.51**	**32.66**	
Location Type	*	IDP	25.98	37.84	6.47
		Rural	9.24	22.09	-10.27
		Urban	19.91	32.11	0.39
Gender	*	Male	20.56	32.62	1.04
		Female	18.45	32.69	-1.07
Age	*	4 to 8 year olds	12.08	28.71	-7.44
		9 to 16 year olds	20.41	32.96	0.90
		17 to 20 year olds	35.90	41.28	16.38
State	*	Benadir	17.07	29.34	-2.45
		Hirshabelle	15.00	29.06	-4.51

Group		Subgroup	Mean	SD	Diff from Overall Mean
		Jubaland	14.55	29.45	-4.97
		Southwest	25.69	36.64	6.17

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Oral Reading Fluency			**20.08**	**32.16**	
Location Type	*	IDP	19.34	35.21	-0.74
		Rural	11.25	24.20	-8.83
		Urban	23.25	32.64	3.17
School Funding Type	*	Community	12.95	27.37	-7.12
		Public	20.93	33.95	0.85
		Private	24.60	31.78	4.53
Gender		Male	19.81	31.32	-0.27
		Female	20.36	33.04	0.28
Age	*	4 to 8 year olds	8.77	24.84	-11.31
		9 to 16 year olds	22.81	33.14	2.74
		17 to 20 year olds	18.18	31.77	-1.90
State	*	Benadir	16.18	26.34	-3.90
		Hirshabelle	23.39	33.96	3.31
		Jubaland	10.17	22.02	-9.91
		Southwest	29.74	38.81	9.66



EGRA Reading Comprehension

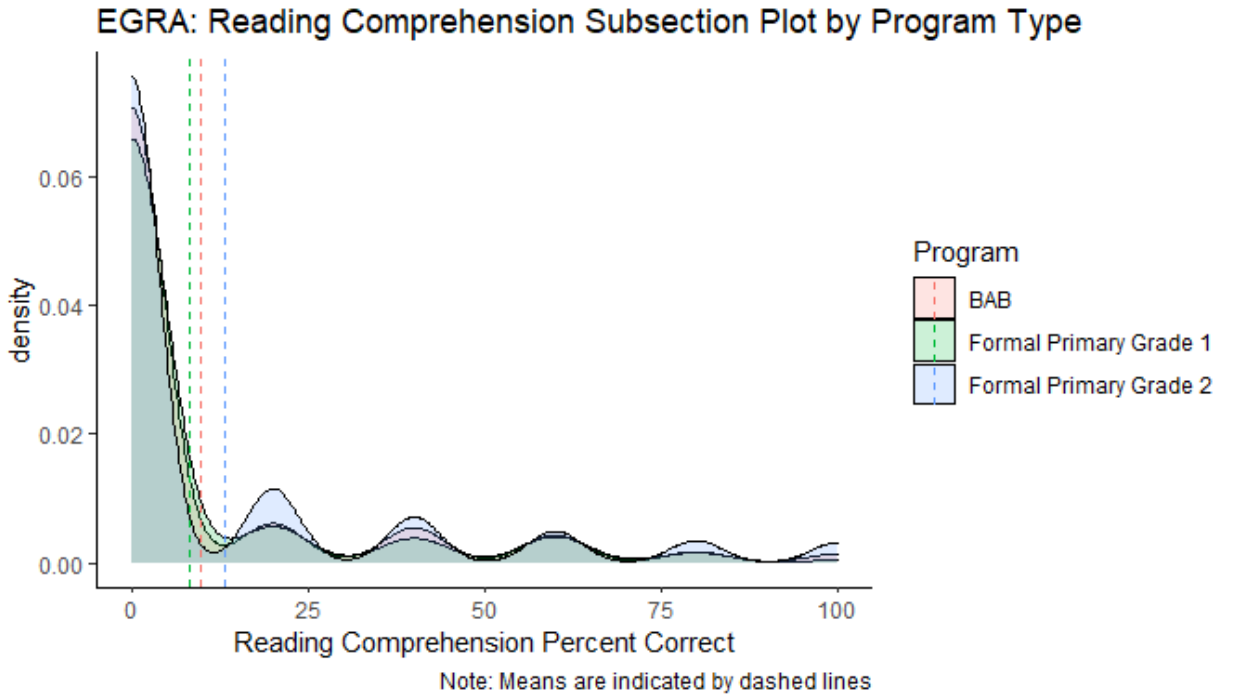
The Reading Comprehension subsection measures the reader's understanding of what they read. Comprehension is a complex task that requires some ability in all of the other reading skills. This subtask is paired with the Oral Reading Fluency(ORF) subtask. Depending on how much of the ORF passage the student was able to read, the EGRA administrator asks the student up to five questions about the story.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Reading Comprehension			**10.14**	**22.26**	
Program Inclusion	*	BAB	9.75	21.88	-0.38
		Formal Primary Grade 1	8.29	19.67	-1.85
		Formal Primary Grade 2	13.25	25.49	3.12

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Reading Comprehension			**9.75**	**21.88**	
Location Type	*	IDP	13.36	26.38	3.61
		Rural	8.22	18.75	-1.54

Group		Subgroup	Mean	SD	Diff from Overall Mean
		Urban	8.46	20.12	-1.30
Gender		Male	9.68	20.92	-0.08
		Female	9.83	22.83	0.08
Age	*	4 to 8 year olds	3.44	12.85	-6.31
		9 to 16 year olds	10.62	22.74	0.86
		17 to 20 year olds	12.31	20.88	2.55
State	*	Benadir	5.83	16.03	-3.93
		Hirshabelle	8.56	20.20	-1.19
		Jubaland	7.85	20.20	-1.91
		Southwest	13.69	25.67	3.93

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students		**Reading Comprehension**	**10.68**	**22.79**	
Location Type	*	IDP	9.93	24.55	-0.76
		Rural	5.13	13.67	-5.55
		Urban	12.80	24.10	2.11
School Funding Type		Community	9.65	22.40	-1.04
		Public	11.33	24.56	0.64
		Private	10.45	19.75	-0.24
Gender		Male	10.30	21.84	-0.39
		Female	11.09	23.74	0.40
Age	*	4 to 8 year olds	3.20	13.65	-7.48
		9 to 16 year olds	12.54	24.20	1.86
		17 to 20 year olds	2.86	7.56	-7.83
State	*	Benadir	6.32	14.41	-4.37
		Hirshabelle	14.84	24.31	4.16
		Jubaland	4.13	13.46	-6.55
		Southwest	17.16	30.01	6.47



EGRA Dictation 1

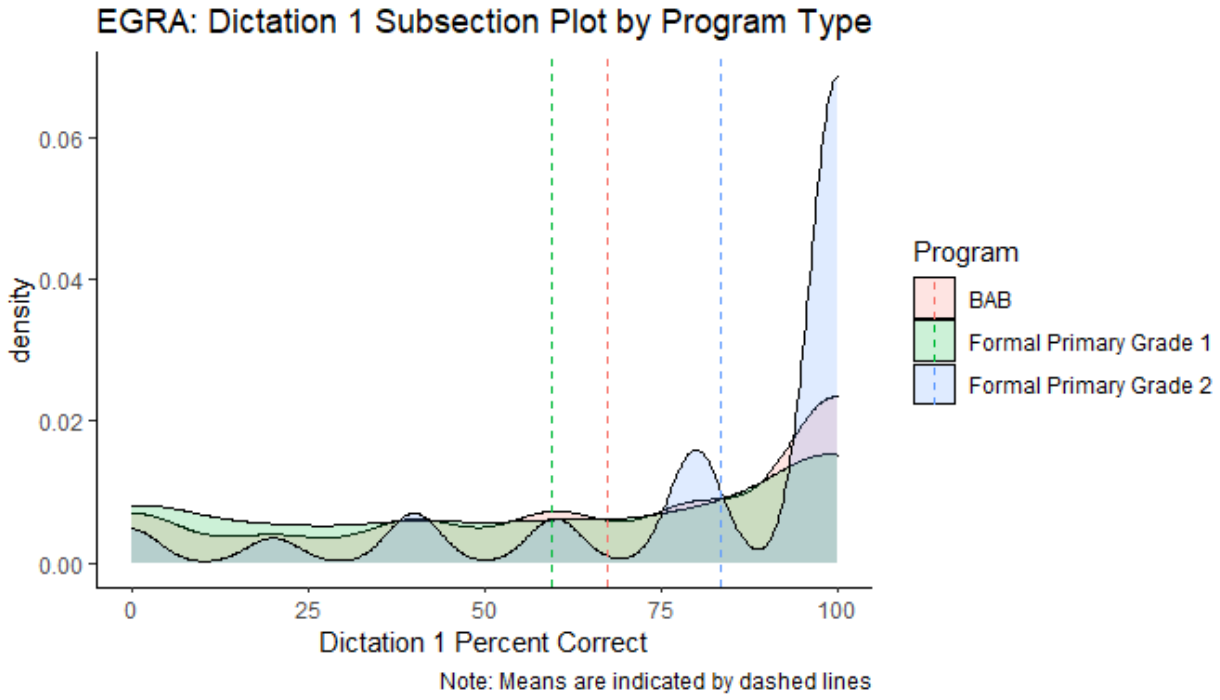
The Dictation subsection captures the student's ability to write letters. The student is given a pencil and a lined sheet of paper. The enumerator then reads each of 5 letters to the student one by one.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Dictation 1			**68.99**	**35.88**	
Program Inclusion	*	BAB	67.48	35.88	-1.51
		Formal Primary Grade 1	59.58	38.34	-9.41
		Formal Primary Grade 2	83.56	27.97	14.57

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Dictation 1			**67.48**	**35.88**	
Location Type		IDP	68.30	36.52	0.82
		Rural	67.49	36.61	0.01
		Urban	67.05	35.31	-0.43
Gender	*	Male	69.77	34.42	2.29

Group		Subgroup	Mean	SD	Diff from Overall Mean
		Female	65.14	37.19	-2.34
Age	*	4 to 8 year olds	43.73	36.58	-23.75
		9 to 16 year olds	70.74	34.56	3.26
		17 to 20 year olds	75.38	30.72	7.91
State	*	Benadir	67.11	35.39	-0.37
		Hirshabelle	62.28	38.21	-5.20
		Jubaland	66.01	36.35	-1.47
		Southwest	71.05	34.40	3.57

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students		**Dictation 1**	**71.15**	**35.79**	
Location Type	*	IDP	59.35	39.32	-11.80
		Rural	63.45	36.72	-7.70
		Urban	78.39	32.08	7.23
School Funding Type	*	Community	59.57	36.69	-11.58
		Public	72.46	35.51	1.31
		Private	78.63	33.11	7.47
Gender		Male	72.46	34.93	1.31
		Female	69.80	36.65	-1.36
Age	*	4 to 8 year olds	43.90	37.26	-27.26
		9 to 16 year olds	77.88	32.13	6.72
		17 to 20 year olds	48.57	30.24	-22.58
State	*	Benadir	69.62	35.36	-1.53
		Hirshabelle	76.98	32.59	5.83
		Jubaland	59.52	38.99	-11.63
		Southwest	79.14	31.98	7.99



EGRA Dictation 2

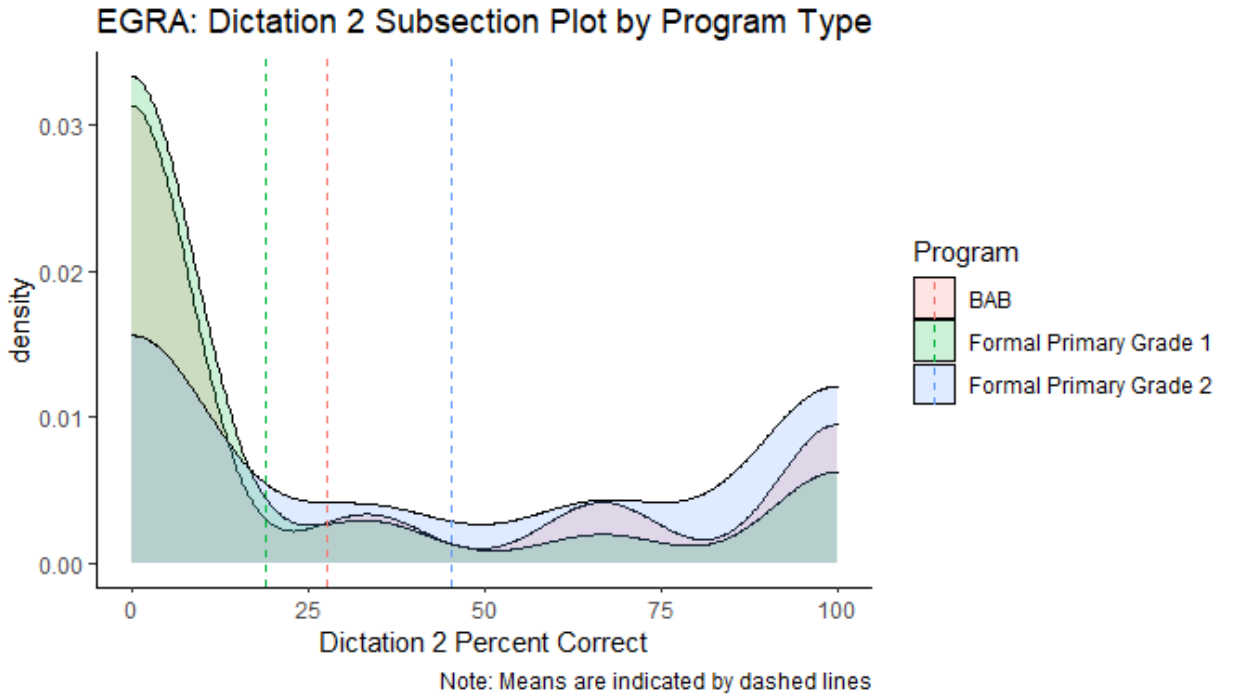
The Dictation subsection captures the developmental nature of spelling skills using a scoring protocol awarding partial correctness. Enumerators dictate 4 words for students to write.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Dictation 2			**29.29**	**41.47**	
Program Inclusion	*	BAB	27.62	40.70	-1.68
		Formal Primary Grade 1	19.09	36.14	-10.21
		Formal Primary Grade 2	45.21	44.55	15.92

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Dictation 2			**27.62**	**40.70**	
Location Type		IDP	27.73	41.29	0.11
		Rural	25.78	40.29	-1.84
		Urban	28.22	40.56	0.61
Gender	*	Male	29.56	40.78	1.95
		Female	25.63	40.54	-1.99

Group		Subgroup	Mean	SD	Diff from Overall Mean
Age	*	4 to 8 year olds	10.85	30.48	-16.77
		9 to 16 year olds	29.98	41.39	2.37
		17 to 20 year olds	25.64	43.36	-1.97
State		Benadir	29.14	41.58	1.52
		Hirshabelle	26.35	40.08	-1.27
		Jubaland	26.69	40.21	-0.93
		Southwest	27.77	40.76	0.15

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students		**Dictation 2**	**31.69**	**42.46**	
Location Type	*	IDP	16.31	34.54	-15.38
		Rural	22.42	38.48	-9.27
		Urban	40.87	44.15	9.18
School Funding Type	*	Community	18.32	35.89	-13.37
		Public	29.37	41.50	-2.32
		Private	46.97	44.64	15.27
Gender		Male	33.77	42.84	2.08
		Female	29.54	41.99	-2.16
Age	*	4 to 8 year olds	11.98	30.23	-19.71
		9 to 16 year olds	36.60	43.65	4.91
		17 to 20 year olds	9.52	25.20	-22.17
State	*	Benadir	33.46	43.20	1.77
		Hirshabelle	38.52	44.96	6.83
		Jubaland	25.15	39.34	-6.54
		Southwest	32.17	42.42	0.48



EGMA (Early Grade Math Assessment) Overall Test Results

The 8 sub-sections of the EGMA were summed in equal weights to create a Total EGRA Score out of 100 possible points. The means by demographic groupings are provided in the tables below.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students EGMA Total Percent Correct			**33.88**	**23.13**	
Program Inclusion	*	BAB	33.79	22.92	-0.09
		Formal Primary Grade 1	25.75	22.21	-8.13
		Formal Primary Grade 2	42.86	21.39	8.98

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students EGMA Total Percent Correct			**33.79**	**22.92**	
Location Type	*	IDP	37.54	25.31	3.75
		Rural	28.34	21.68	-5.45
		Urban	33.83	21.66	0.04
Gender	*	Male	36.68	22.39	2.89

Group		Subgroup	Mean	SD	Diff from Overall Mean
		Female	30.84	23.09	-2.95
Age	*	4 to 8 year olds	17.99	17.97	-15.80
		9 to 16 year olds	35.89	22.62	2.10
		17 to 20 year olds	46.77	27.15	12.98
State	*	Benadir	35.53	22.51	1.74
		Hirshabelle	27.53	19.77	-6.26
		Jubaland	27.73	19.48	-6.06
		Southwest	38.80	24.75	5.01

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students		**EGMA Total Percent Correct**	**34.00**	**23.43**	
Location Type	*	IDP	27.29	23.37	-6.71
		Rural	23.68	21.13	-10.33
		Urban	40.05	22.25	6.05
School Funding Type	*	Community	28.60	22.37	-5.40
		Public	32.21	23.28	-1.80
		Private	41.67	22.71	7.67
Gender	*	Male	36.22	23.29	2.22
		Female	31.70	23.37	-2.30
Age	*	4 to 8 year olds	14.18	17.67	-19.82
		9 to 16 year olds	38.73	22.16	4.72
		17 to 20 year olds	40.29	16.30	6.28
State	*	Benadir	33.05	23.02	-0.95
		Hirshabelle	36.32	21.35	2.32
		Jubaland	24.64	22.14	-9.36
		Southwest	41.67	23.10	7.67

EGMA Number Identification

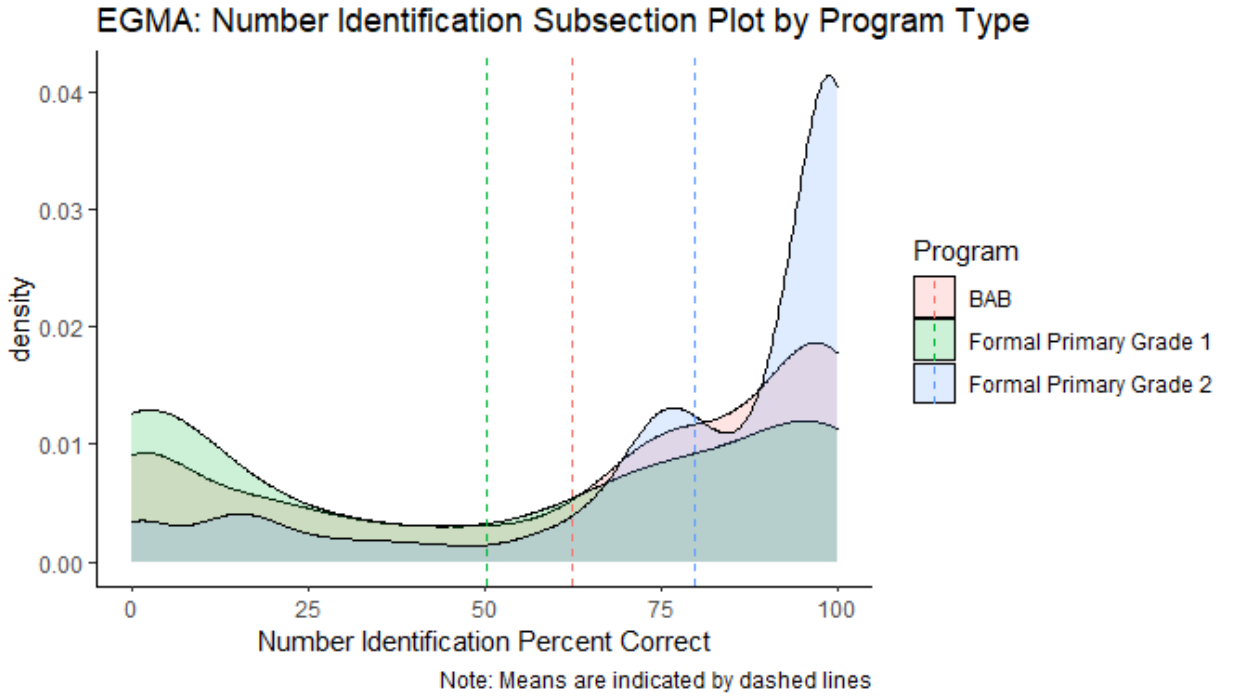
In the Number Identification subsection students are asked: 'Here are some numbers. I want you to show me each number, tell me its name. You can answer questions in any language you want.' The Number Identification subsection contains 20 items. This is a timed subsection and students are given 1 minute to identify as many numbers as they can in the time period.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Number Identification			**63.20**	**37.91**	
Program Inclusion	*	BAB	62.30	37.58	-0.90
		Formal Primary Grade 1	50.29	40.72	-12.91
		Formal Primary Grade 2	79.71	28.74	16.51

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Number Identification			**62.30**	**37.58**	
Location Type	*	IDP	64.57	37.30	2.27
		Rural	51.93	37.51	-10.37
		Urban	64.90	37.14	2.59
Gender	*	Male	67.39	35.96	5.09
		Female	57.11	38.50	-5.19
Age	*	4 to 8 year olds	31.87	35.90	-30.44
		9 to 16 year olds	66.44	35.89	4.14
		17 to 20 year olds	76.54	26.57	14.23
State	*	Benadir	64.79	37.99	2.49
		Hirshabelle	49.24	38.51	-13.07
		Jubaland	61.04	38.11	-1.26
		Southwest	68.00	34.94	5.70

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Number Identification			**64.48**	**38.36**	
Location Type	*	IDP	51.69	40.06	-12.79
		Rural	47.88	40.22	-16.61
		Urban	75.01	33.30	10.53
School Funding Type	*	Community	52.73	37.18	-11.75
		Public	62.44	39.54	-2.05
		Private	77.93	33.04	13.44
Gender	*	Male	68.98	36.94	4.50
		Female	59.81	39.28	-4.67
Age	*	4 to 8 year olds	28.61	36.45	-35.87
		9 to 16 year olds	72.96	33.62	8.48
		17 to 20 year olds	85.71	22.07	21.23

Group		Subgroup	Mean	SD	Diff from Overall Mean
State	*	Benadir	63.93	39.68	-0.55
		Hirshabelle	66.44	34.35	1.96
		Jubaland	51.75	42.72	-12.73
		Southwest	75.09	31.76	10.61



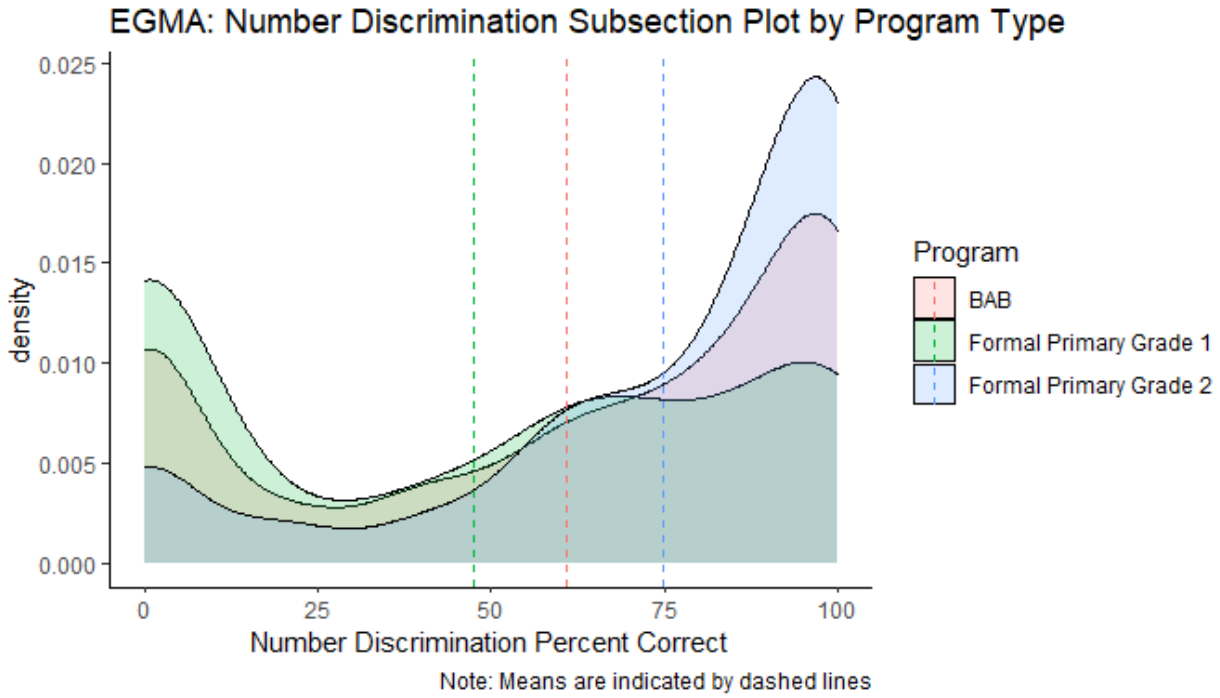
EGMA Number Discrimination

In the Number Discrimination subsection students are asked: 'Look at these numbers. I want you to tell me which one of them is greater?' The Number Discrimination subsection contains 10 items. This is a timed subsection and students are given 1 minute to discriminate as many number pairs as they can in the time period.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Number Discrimination			**60.75**	**38.06**	
Program Inclusion	*	BAB	60.87	37.90	0.12
		Formal Primary Grade 1	47.39	39.69	-13.36
		Formal Primary Grade 2	74.71	31.10	13.96

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Number Discrimination			**60.87**	**37.90**	
Location Type	*	IDP	61.62	36.45	0.75
		Rural	51.06	39.54	-9.81
		Urban	64.04	37.47	3.17
Gender	*	Male	65.23	36.93	4.36
		Female	56.42	38.38	-4.45
Age	*	4 to 8 year olds	38.09	38.89	-22.78
		9 to 16 year olds	63.93	36.71	3.06
		17 to 20 year olds	76.15	30.15	15.28
State	*	Benadir	68.00	34.69	7.13
		Hirshabelle	50.15	40.99	-10.72
		Jubaland	59.21	38.47	-1.66
		Southwest	62.72	36.70	1.85

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Number Discrimination			**60.57**	**38.30**	
Location Type	*	IDP	47.12	37.34	-13.45
		Rural	46.42	39.41	-14.15
		Urban	70.56	35.14	9.99
School Funding Type	*	Community	50.53	37.10	-10.04
		Public	57.31	39.40	-3.25
		Private	74.66	33.20	14.09
Gender	*	Male	64.23	37.89	3.66
		Female	56.77	38.39	-3.80
Age	*	4 to 8 year olds	31.00	36.78	-29.57
		9 to 16 year olds	67.56	35.22	6.99
		17 to 20 year olds	77.14	28.70	16.58
State	*	Benadir	64.85	37.73	4.28
		Hirshabelle	60.22	37.39	-0.35
		Jubaland	51.23	41.86	-9.34
		Southwest	66.09	34.27	5.52



EGMA Missing Number

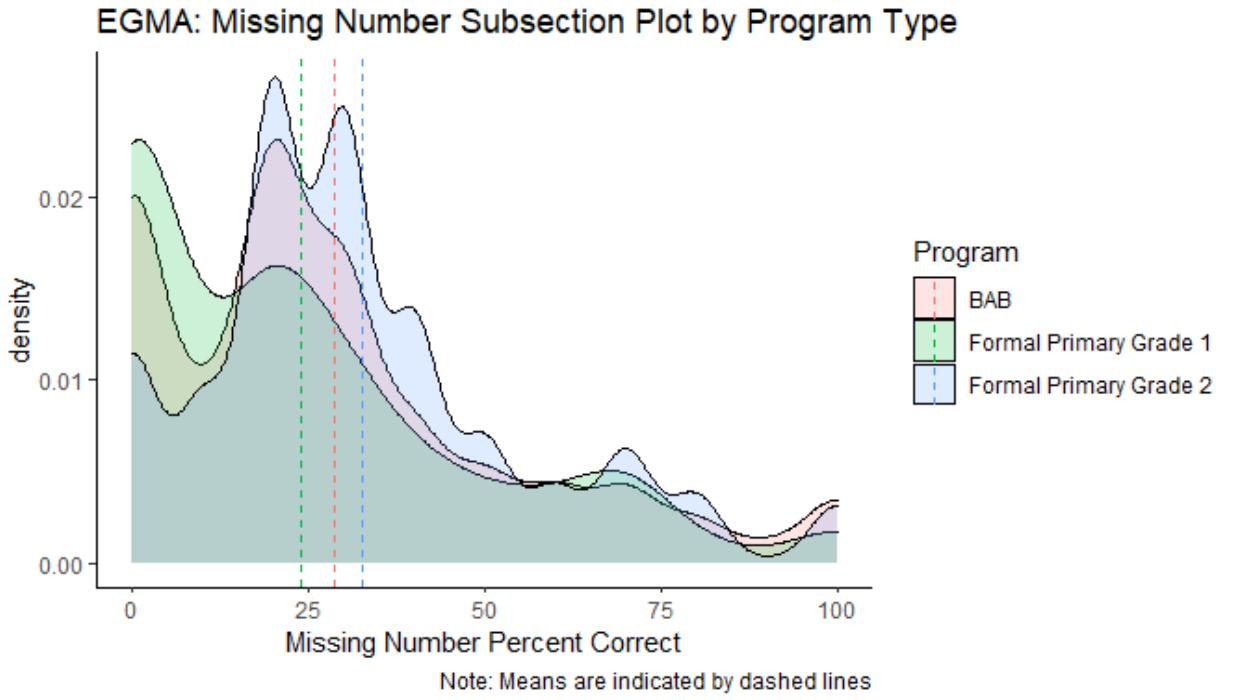
In the Missing Number subsection students are asked: 'In a sequence of related numbers, which number is missing?' The Missing Number subsection contains 10 sequences of numbers. This is a timed subsection and students are given 1 minute to identify as many missing numbers as they can in the time period.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Missing Number			**28.42**	**25.58**	
Program Inclusion	*	BAB	28.62	26.01	0.20
		Formal Primary Grade 1	23.98	25.69	-4.43
		Formal Primary Grade 2	32.58	23.36	4.16

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Missing Number			**28.62**	**26.01**	
Location Type	*	IDP	31.11	26.99	2.49
		Rural	26.31	28.31	-2.30
		Urban	28.17	24.50	-0.45

Group		Subgroup	Mean	SD	Diff from Overall Mean
Gender	*	Male	31.17	26.51	2.55
		Female	26.01	25.23	-2.60
Age	*	4 to 8 year olds	19.81	26.47	-8.81
		9 to 16 year olds	29.78	25.66	1.16
		17 to 20 year olds	36.92	31.19	8.31
State	*	Benadir	25.60	19.07	-3.01
		Hirshabelle	33.65	33.29	5.04
		Jubaland	17.63	18.61	-10.99
		Southwest	33.19	26.71	4.57

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Missing Number			**28.13**	**24.95**	
Location Type	*	IDP	25.43	25.20	-2.70
		Rural	17.52	20.76	-10.61
		Urban	32.67	24.93	4.54
School Funding Type	*	Community	29.15	27.76	1.02
		Public	26.30	25.52	-1.83
		Private	30.45	20.98	2.32
Gender	*	Male	29.64	24.43	1.51
		Female	26.56	25.42	-1.57
Age	*	4 to 8 year olds	13.42	20.98	-14.71
		9 to 16 year olds	31.65	24.63	3.52
		17 to 20 year olds	31.43	10.69	3.30
State	*	Benadir	23.50	18.06	-4.63
		Hirshabelle	39.56	30.40	11.43
		Jubaland	13.92	15.28	-14.21
		Southwest	37.27	25.43	9.14



EGMA Addition Level 1

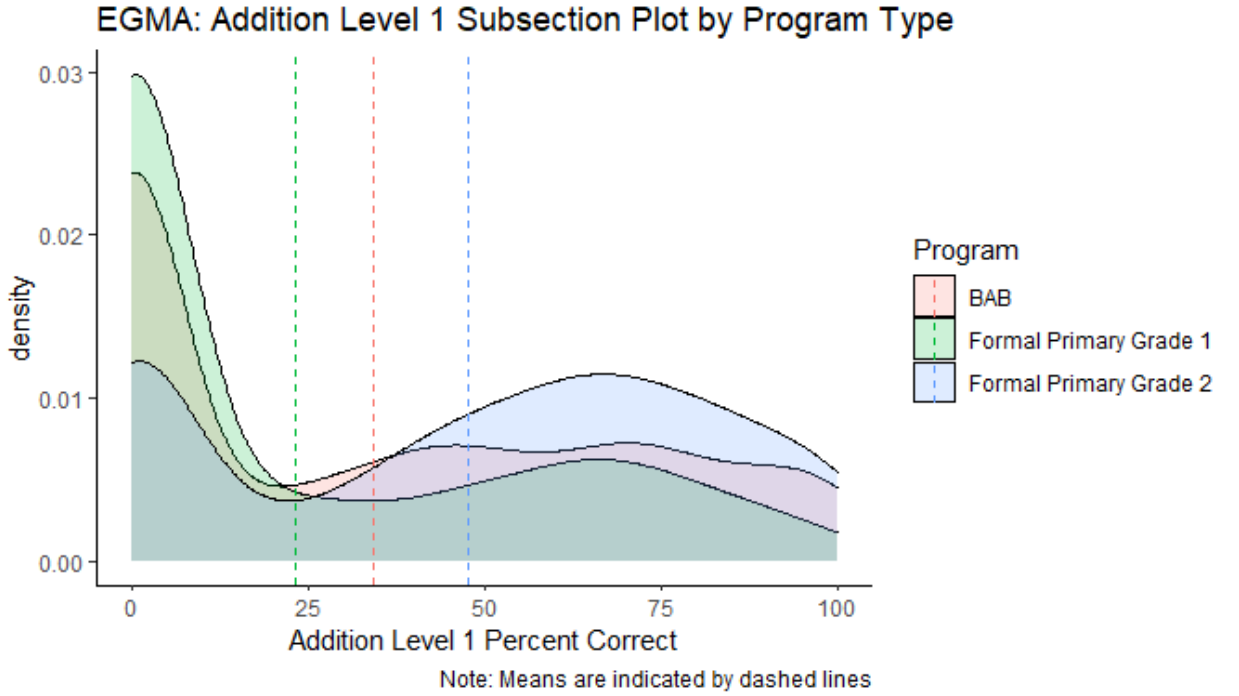
In the Addition Level 1 subsection students are asked to evaluate 20 addition problems, most of which are single digit numbers. The Addition Level 1 is a timed subsection and students are given 1 minute to evaluate as many addition problems as they can in the time period.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Addition Level 1			**34.60**	**34.93**	
Program Inclusion	*	BAB	34.31	34.95	-0.29
		Formal Primary Grade 1	23.31	31.61	-11.30
		Formal Primary Grade 2	47.60	33.90	12.99

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Addition Level 1			**34.31**	**34.95**	
Location Type	*	IDP	43.96	38.27	9.65
		Rural	24.71	30.92	-9.60
		Urban	32.82	33.35	-1.49
Gender	*	Male	37.74	34.62	3.43

Group		Subgroup	Mean	SD	Diff from Overall Mean
		Female	30.81	34.96	-3.50
Age	*	4 to 8 year olds	14.71	25.53	-19.60
		9 to 16 year olds	36.96	35.17	2.66
		17 to 20 year olds	44.62	41.05	10.31
State	*	Benadir	38.48	35.11	4.17
		Hirshabelle	19.60	26.79	-14.71
		Jubaland	24.49	31.42	-9.81
		Southwest	43.91	36.45	9.60

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Addition Level 1			**35.03**	**34.90**	
Location Type	*	IDP	29.62	36.09	-5.40
		Rural	20.86	30.27	-14.16
		Urban	41.80	34.10	6.78
School Funding Type	*	Community	27.82	34.10	-7.21
		Public	33.57	34.84	-1.45
		Private	43.61	34.02	8.59
Gender	*	Male	36.96	35.18	1.93
		Female	33.02	34.52	-2.01
Age	*	4 to 8 year olds	9.87	22.84	-25.15
		9 to 16 year olds	41.09	34.63	6.06
		17 to 20 year olds	33.57	33.51	-1.45
State	*	Benadir	35.55	34.72	0.52
		Hirshabelle	31.91	31.41	-3.11
		Jubaland	22.72	31.97	-12.30
		Southwest	47.55	35.39	12.52



EGMA Addition Level 2

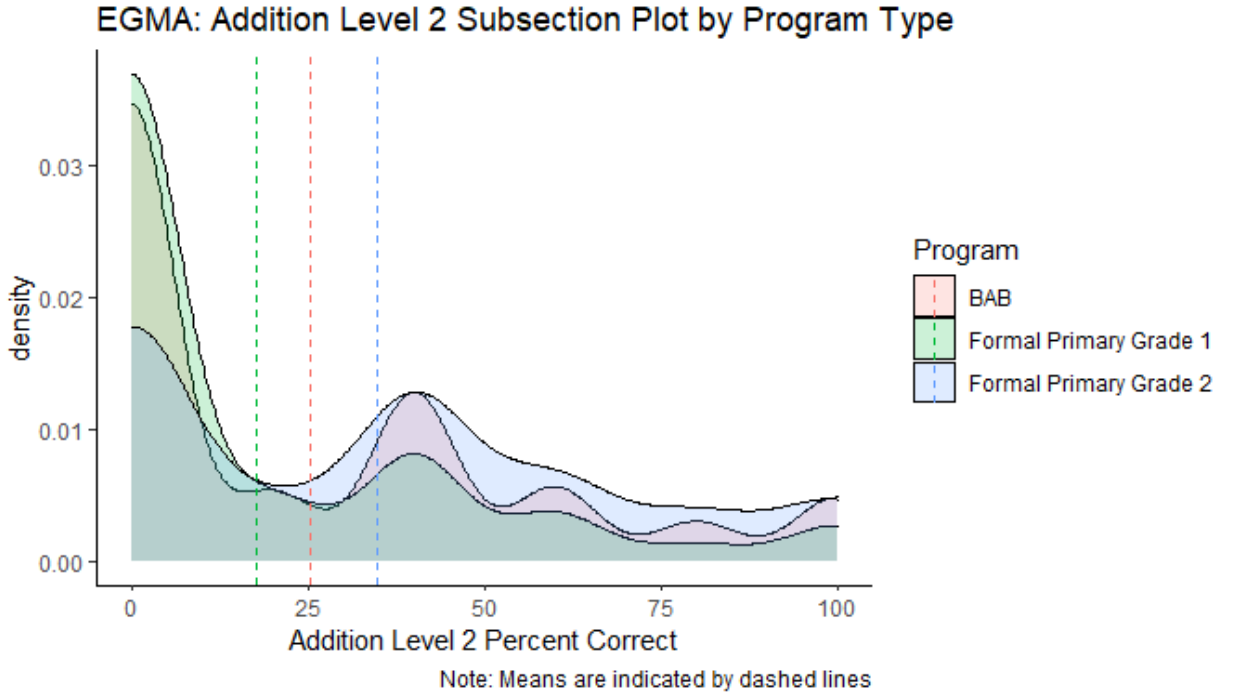
In the Addition Level 2 subsection students are asked to evaluate 5 additional addition problems, most of which are two digit numbers. If all items from Addition Level 1 were answered incorrectly, then this section is skipped.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Addition Level 2			**25.49**	**31.91**	
Program Inclusion	*	BAB	25.29	32.00	-0.21
		Formal Primary Grade 1	17.52	28.12	-7.98
		Formal Primary Grade 2	34.67	33.13	9.18

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Addition Level 2			**25.29**	**32.00**	
Location Type	*	IDP	29.23	33.51	3.95
		Rural	21.33	32.11	-3.96
		Urban	24.69	30.96	-0.60
Gender	*	Male	28.43	33.09	3.14

Group		Subgroup	Mean	SD	Diff from Overall Mean
		Female	22.08	30.54	-3.21
Age	*	4 to 8 year olds	13.30	26.77	-11.98
		9 to 16 year olds	26.85	32.20	1.56
		17 to 20 year olds	38.46	44.32	13.18
State	*	Benadir	27.41	31.66	2.12
		Hirshabelle	21.62	32.71	-3.67
		Jubaland	14.43	24.47	-10.86
		Southwest	31.05	33.51	5.76

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Addition Level 2			**25.79**	**31.80**	
Location Type	*	IDP	18.42	28.49	-7.38
		Rural	14.42	25.70	-11.37
		Urban	32.45	33.16	6.66
School Funding Type	*	Community	20.07	29.59	-5.72
		Public	22.72	29.74	-3.07
		Private	35.94	34.71	10.15
Gender	*	Male	28.07	32.99	2.27
		Female	23.44	30.37	-2.36
Age	*	4 to 8 year olds	8.92	23.11	-16.88
		9 to 16 year olds	29.83	32.25	4.04
		17 to 20 year olds	28.57	38.05	2.78
State	*	Benadir	24.66	29.32	-1.13
		Hirshabelle	32.53	35.22	6.74
		Jubaland	14.37	26.02	-11.42
		Southwest	32.76	33.09	6.97



EGMA Subtraction Level 1

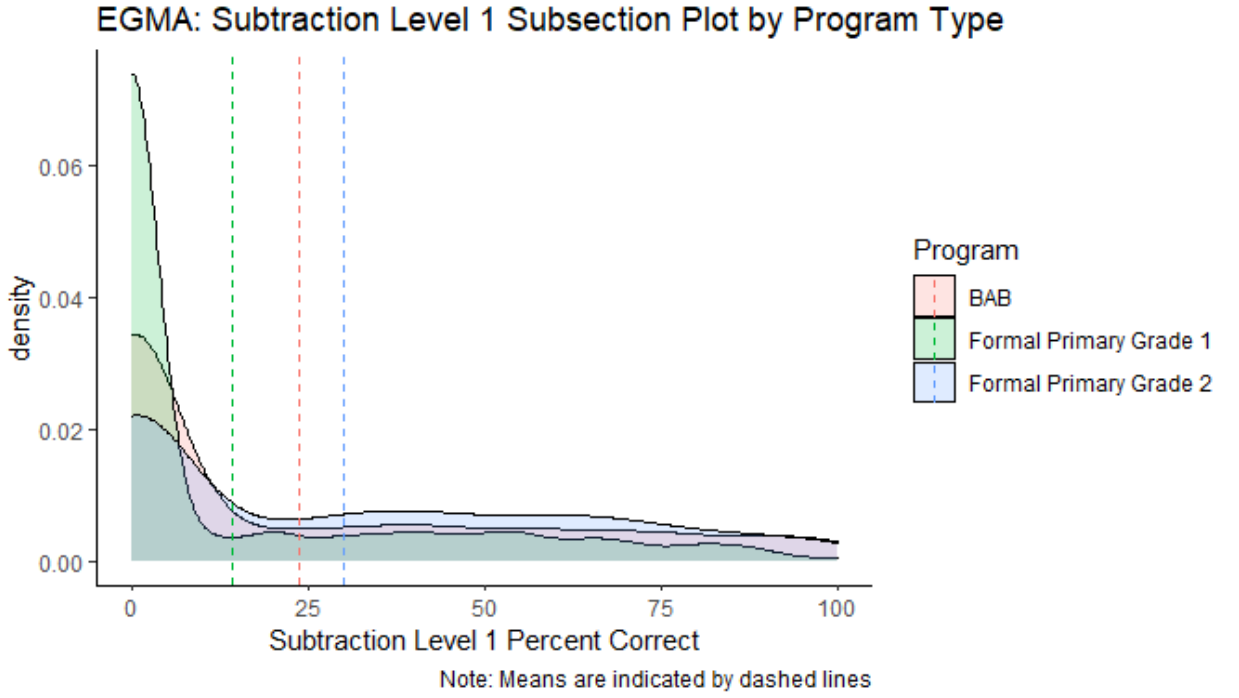
In the Subtraction Level 1 subsection students are asked to evaluate 20 subtraction problems, most of which are single digit numbers. The Subtraction Level 1 is a timed subsection and students are given 1 minute to evaluate as many subtraction problems as they can in the time period.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Subtraction Level 1			**23.01**	**31.05**	
Program Inclusion	*	BAB	23.83	31.85	0.82
		Formal Primary Grade 1	14.33	25.21	-8.68
		Formal Primary Grade 2	29.90	32.24	6.89

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Subtraction Level 1			**23.83**	**31.85**	
Location Type	*	IDP	32.01	36.10	8.18
		Rural	17.34	27.96	-6.49
		Urban	21.97	29.99	-1.86

Group		Subgroup	Mean	SD	Diff from Overall Mean
Gender	*	Male	26.20	32.10	2.37
		Female	21.40	31.44	-2.42
Age	*	4 to 8 year olds	9.16	21.61	-14.66
		9 to 16 year olds	25.72	32.41	1.89
		17 to 20 year olds	42.69	40.50	18.87
State	*	Benadir	24.60	30.25	0.78
		Hirshabelle	13.26	23.99	-10.56
		Jubaland	14.56	25.98	-9.27
		Southwest	33.15	35.78	9.32

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Subtraction Level 1			**21.84**	**29.84**	
Location Type	*	IDP	18.35	30.89	-3.50
		Rural	13.56	26.33	-8.28
		Urban	25.94	29.78	4.10
School Funding Type	*	Community	18.58	29.93	-3.26
		Public	20.64	29.90	-1.20
		Private	26.67	29.16	4.83
Gender	*	Male	23.52	29.99	1.68
		Female	20.09	29.60	-1.75
Age	*	4 to 8 year olds	5.24	16.23	-16.60
		9 to 16 year olds	25.87	31.01	4.03
		17 to 20 year olds	17.14	24.81	-4.70
State	*	Benadir	20.81	27.54	-1.03
		Hirshabelle	18.00	24.69	-3.84
		Jubaland	13.89	25.61	-7.95
		Southwest	32.01	34.64	10.17



EGMA Subtraction Level 2

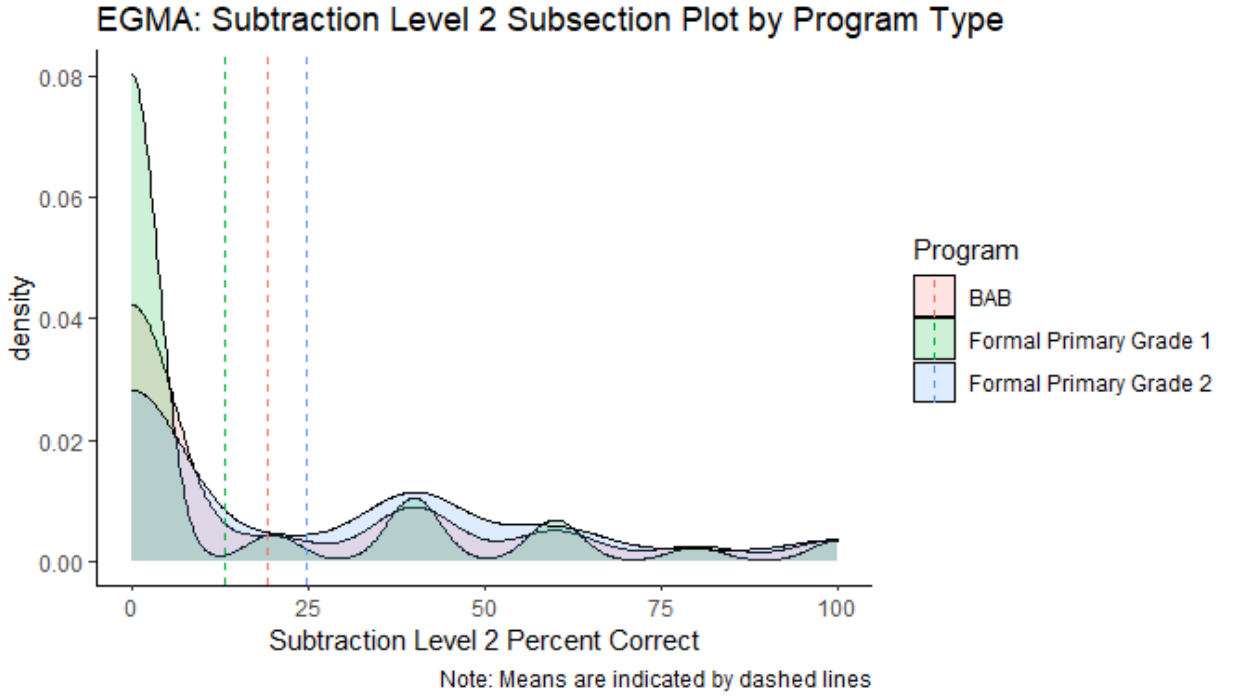
In the Subtraction Level 2 subsection students are asked to evaluate 5 additional subtraction problems, all of which are two digit numbers. If all items from Subtraction Level 1 were answered incorrectly, then this section is skipped.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Subtraction Level 2			**19.03**	**29.55**	
Program Inclusion	*	BAB	19.24	29.95	0.21
		Formal Primary Grade 1	13.19	25.79	-5.84
		Formal Primary Grade 2	24.67	30.99	5.64

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Subtraction Level 2			**19.24**	**29.95**	
Location Type		IDP	21.96	31.56	2.72
		Rural	19.58	32.71	0.34
		Urban	17.72	27.93	-1.52
Gender	*	Male	21.73	31.06	2.49

Group		Subgroup	Mean	SD	Diff from Overall Mean
		Female	16.70	28.57	-2.54
Age	*	4 to 8 year olds	9.67	24.74	-9.58
		9 to 16 year olds	20.38	30.18	1.13
		17 to 20 year olds	43.08	43.85	23.84
State	*	Benadir	18.96	28.35	-0.28
		Hirshabelle	16.65	30.93	-2.59
		Jubaland	9.75	20.12	-9.49
		Southwest	25.28	32.88	6.04

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Subtraction Level 2			**18.73**	**28.98**	
Location Type	*	IDP	13.60	27.36	-5.13
		Rural	11.77	25.04	-6.96
		Urban	23.05	30.04	4.32
School Funding Type	*	Community	15.11	28.59	-3.62
		Public	17.18	28.00	-1.55
		Private	24.48	30.21	5.75
Gender	*	Male	21.15	30.07	2.42
		Female	16.22	27.60	-2.51
Age	*	4 to 8 year olds	4.85	17.91	-13.88
		9 to 16 year olds	22.04	30.14	3.31
		17 to 20 year olds	22.86	29.28	4.13
State	*	Benadir	15.64	25.46	-3.09
		Hirshabelle	22.93	32.30	4.20
		Jubaland	10.42	21.85	-8.31
		Southwest	25.84	32.48	7.11



EGMA Word Problems

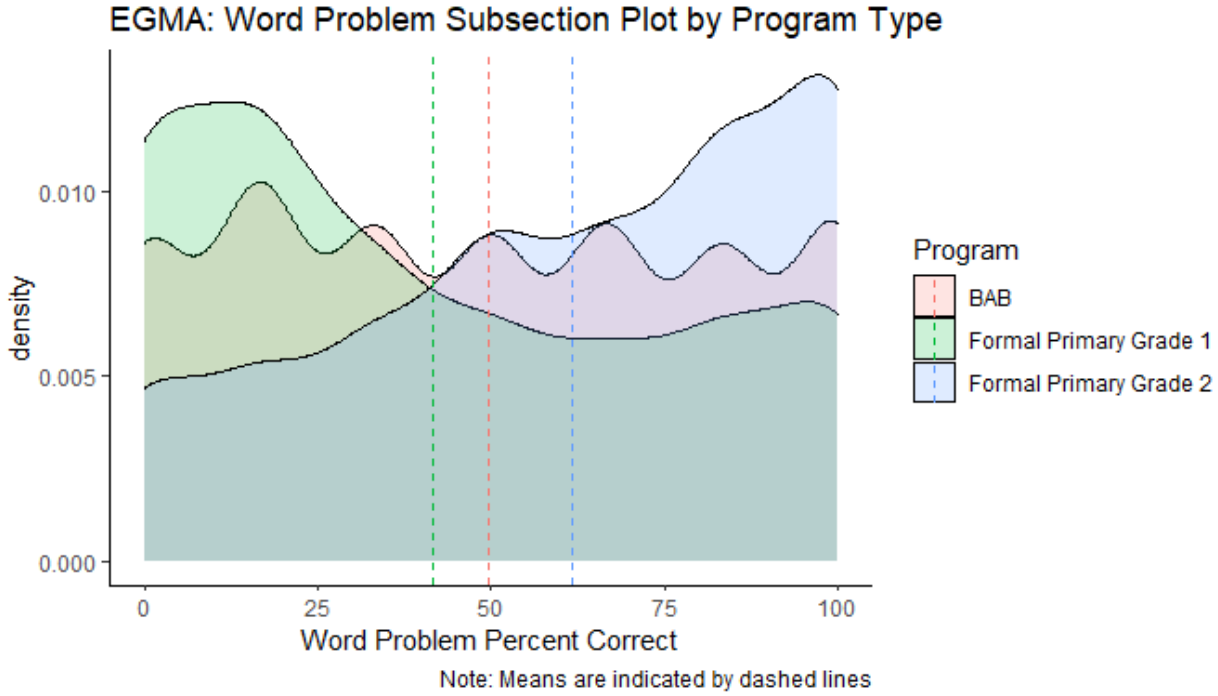
In the Word Problem subsection, Students are read a word problem then prompted to answer. The Word Problem subsection contains 6 items. An example of the one of the questions is: Ali has 2 books, his father gave him 1 extra book. How many books does Ali have now? Answer: 3.

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Longitudinal Study Students Word Problems			**50.33**	**34.16**	
Program Inclusion	*	BAB	49.59	33.54	-0.74
		Formal Primary Grade 1	41.67	34.66	-8.67
		Formal Primary Grade 2	61.82	32.33	11.49

Group		Subgroup	Mean	SD	Diff from Overall Mean
All BAB Students Word Problems			**49.59**	**33.54**	
Location Type	*	IDP	53.23	32.93	3.64
		Rural	42.80	33.25	-6.79
		Urban	50.18	33.63	0.59
Gender	*	Male	52.25	32.86	2.66

Group		Subgroup	Mean	SD	Diff from Overall Mean
		Female	46.88	34.02	-2.72
Age	*	4 to 8 year olds	25.04	26.71	-24.55
		9 to 16 year olds	52.90	32.92	3.31
		17 to 20 year olds	64.10	38.40	14.51
State	*	Benadir	51.77	32.80	2.18
		Hirshabelle	43.66	35.29	-5.93
		Jubaland	48.52	32.11	-1.07
		Southwest	51.77	33.44	2.18

Group		Subgroup	Mean	SD	Diff from Overall Mean
All Formal Primary Students Word Problems			**51.39**	**35.02**	
Location Type	*	IDP	41.31	31.40	-10.08
		Rural	40.41	34.30	-10.98
		Urban	59.01	34.70	7.61
School Funding Type	*	Community	43.26	34.04	-8.13
		Public	49.57	34.56	-1.82
		Private	61.39	34.42	10.00
Gender	*	Male	53.31	34.94	1.91
		Female	49.40	35.02	-1.99
Age	*	4 to 8 year olds	25.40	27.75	-25.99
		9 to 16 year olds	57.53	33.78	6.14
		17 to 20 year olds	66.67	21.52	15.28
State	*	Benadir	48.56	33.41	-2.83
		Hirshabelle	55.26	37.24	3.87
		Jubaland	43.31	35.35	-8.08
		Southwest	58.31	32.81	6.92

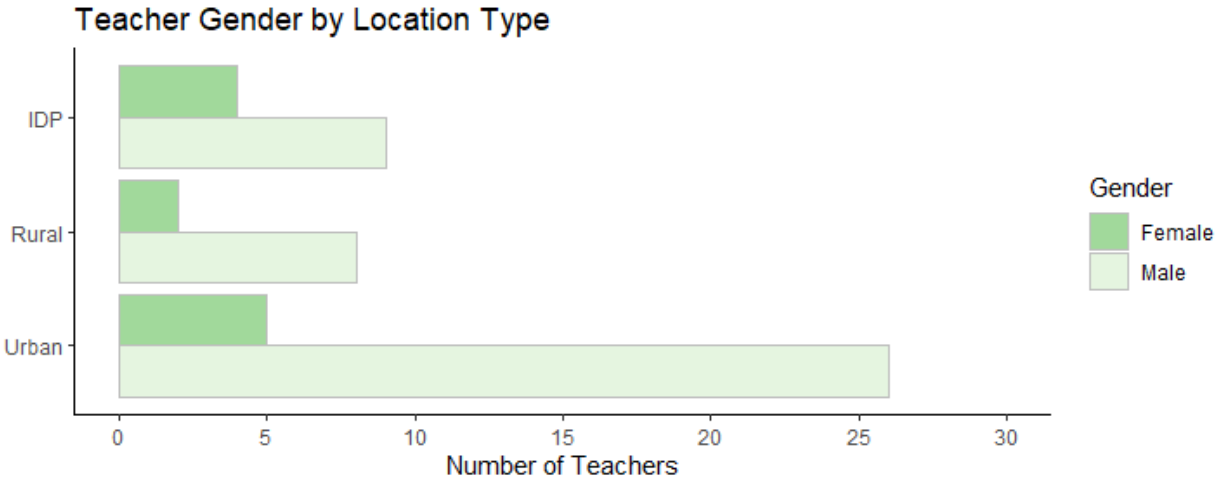

EGMA: Word Problem Subsection Plot by Program Type
density
0.010
0.005
0.000
0
25
50
75
100
Word Problem Percent Correct
Note: Means are indicated by dashed lines
Program
BAB
Formal Primary Grade 1
Formal Primary Grade 2

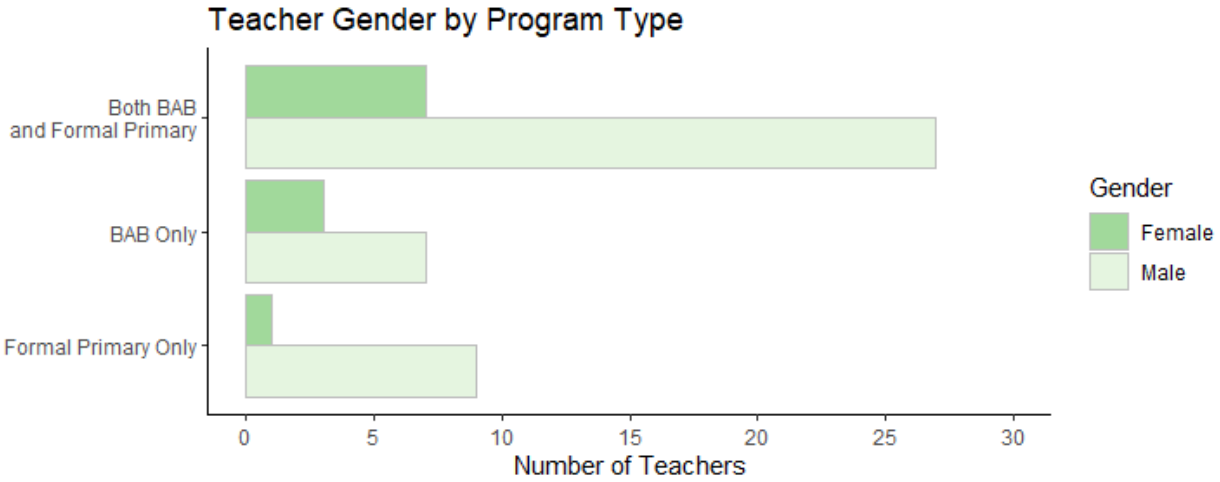
Longitudinal Study Summary Teacher Survey Data

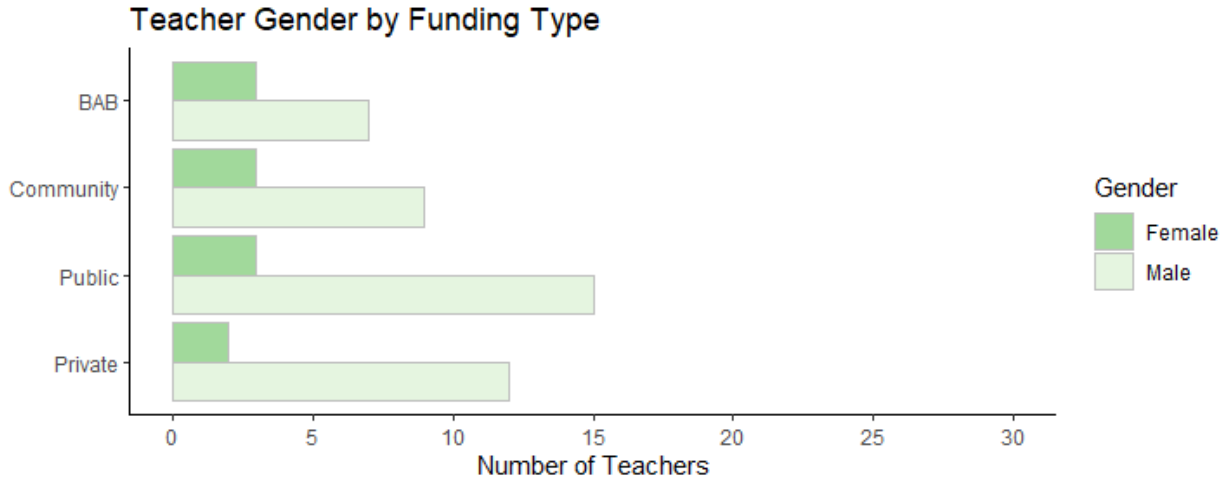
Total Teachers = 54 from a Total of 44 Schools

Teachers that teach in Both BAB and Formal Primary Schools: 34 teachers from 33 Schools
Teachers that teach in only BAB Schools = 10 teachers from 10 Schools
Teachers that teach in only Formal Primary Schools = 10 teachers from 8 schools

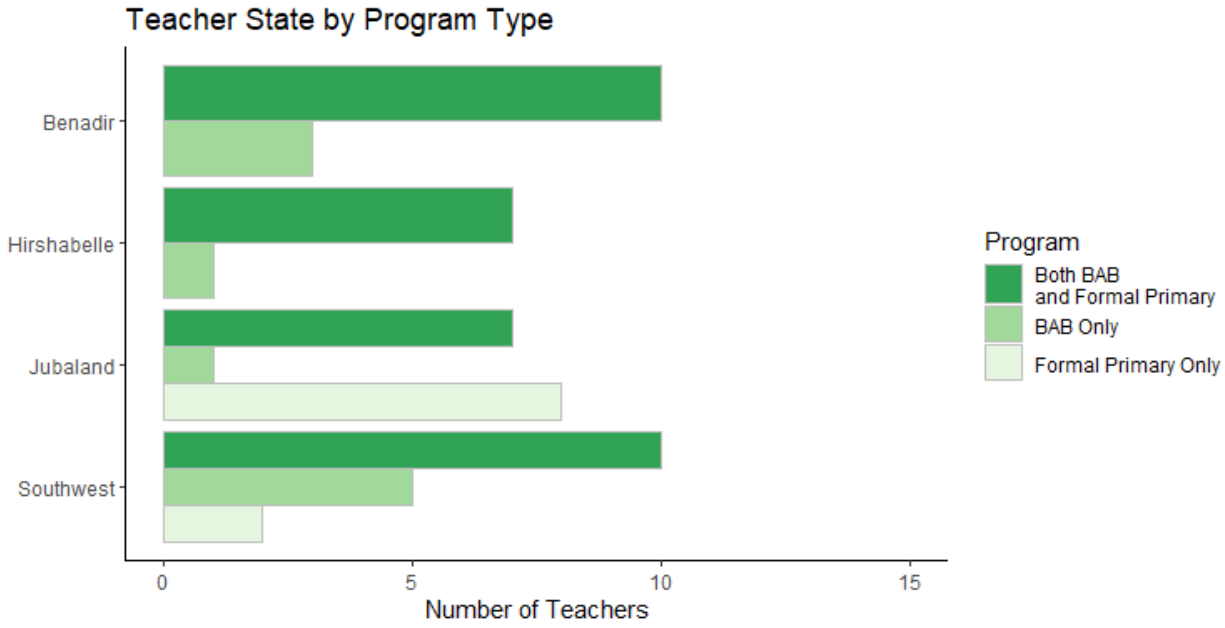
Teacher Gender Disaggregation

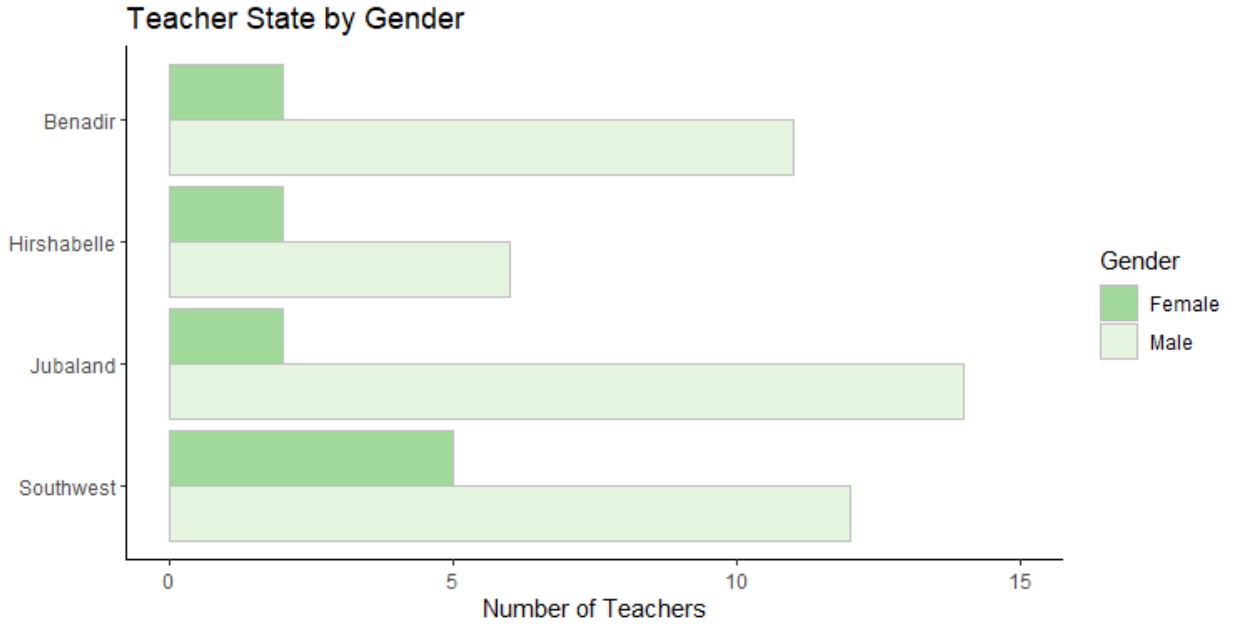




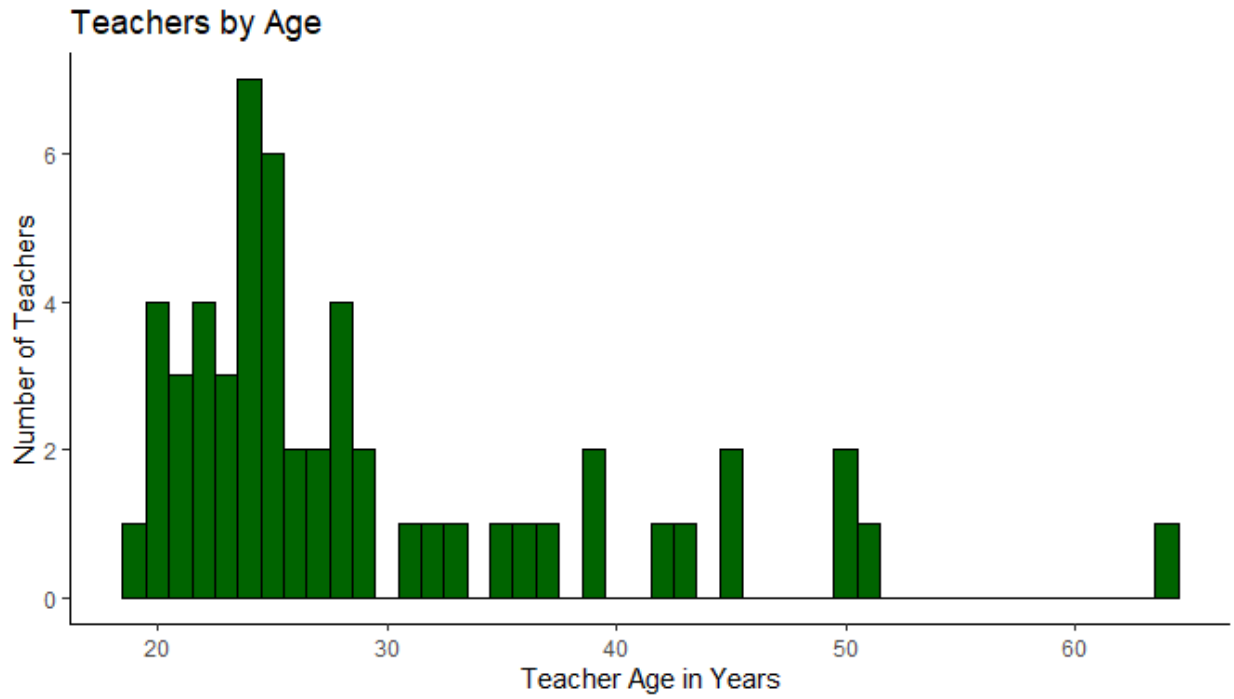


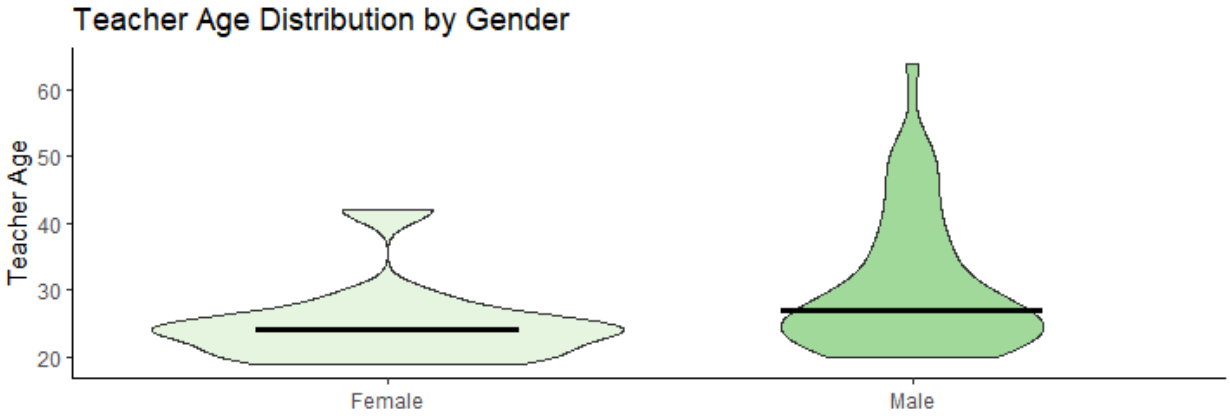
Teacher Program Disaggregated by State



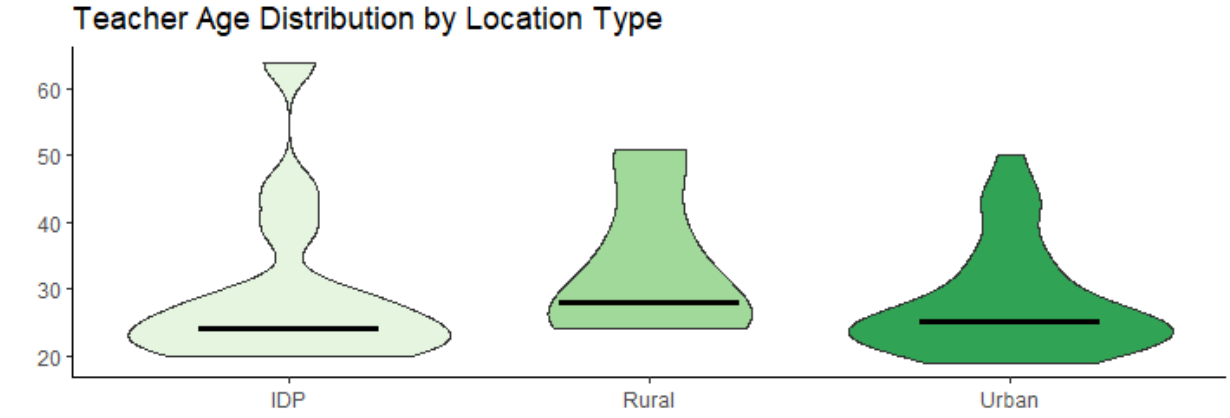


Teacher Age Disaggregation

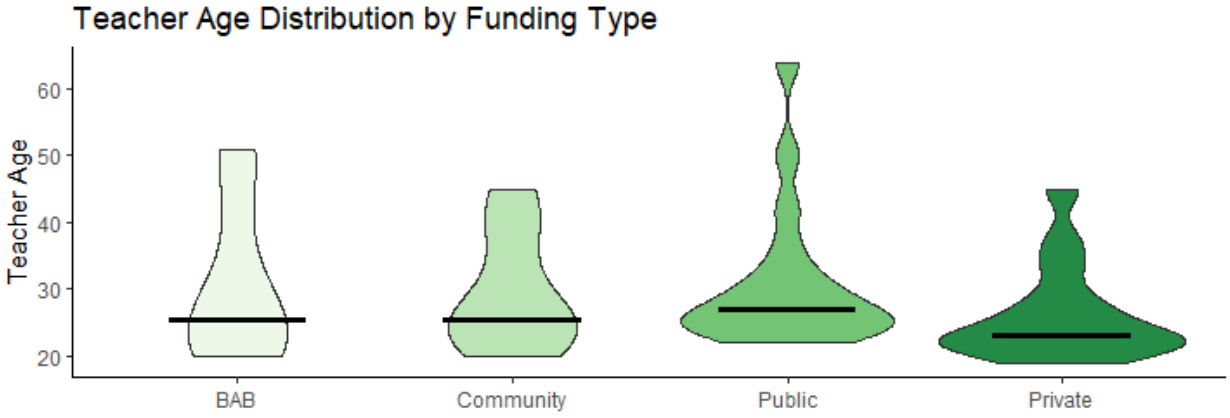




Note: Medians are indicated by solid line

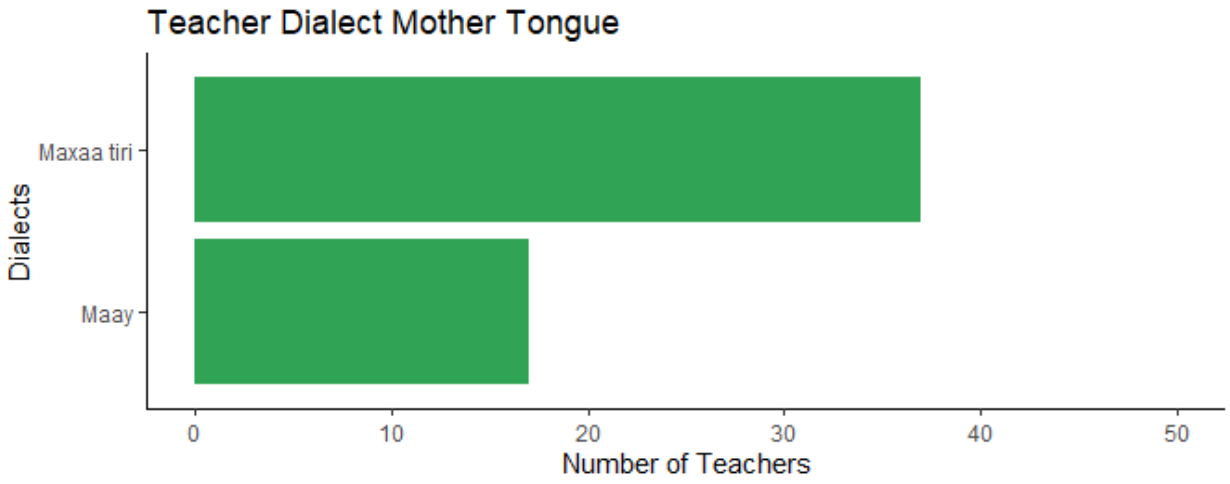


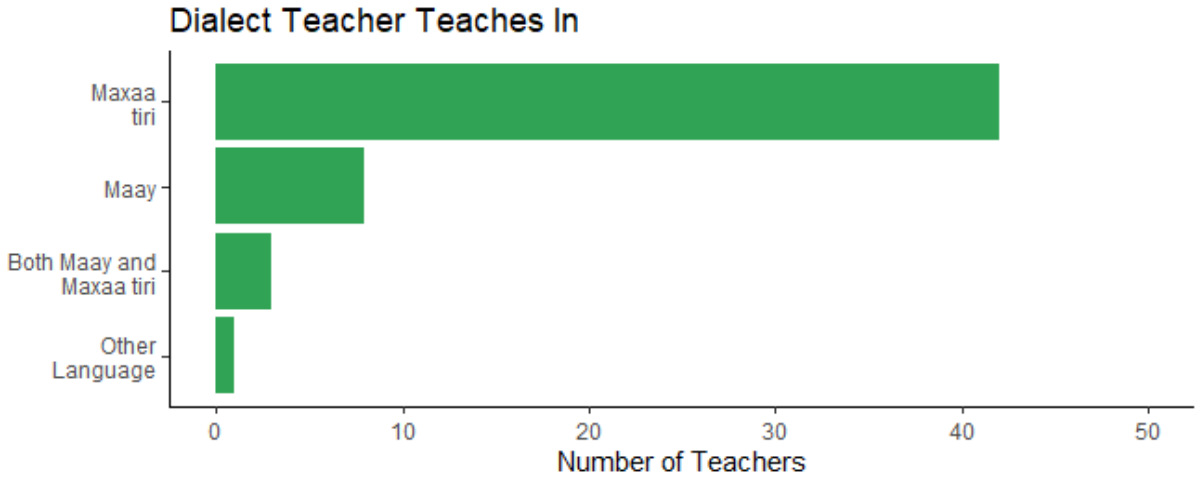
Note: Medians are indicated by solid line



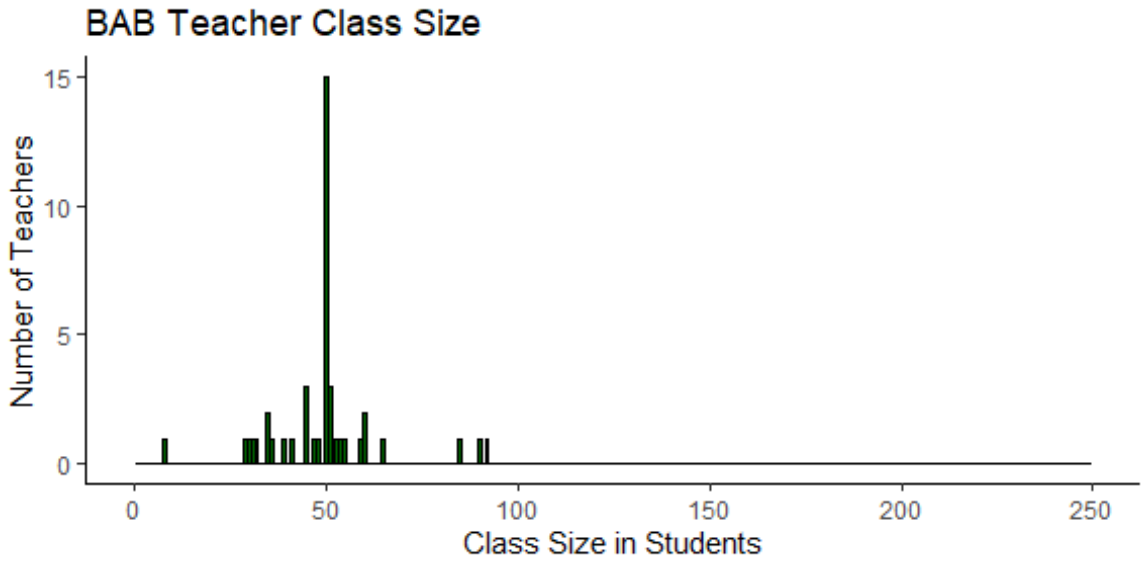
Note: Medians are indicated by solid line

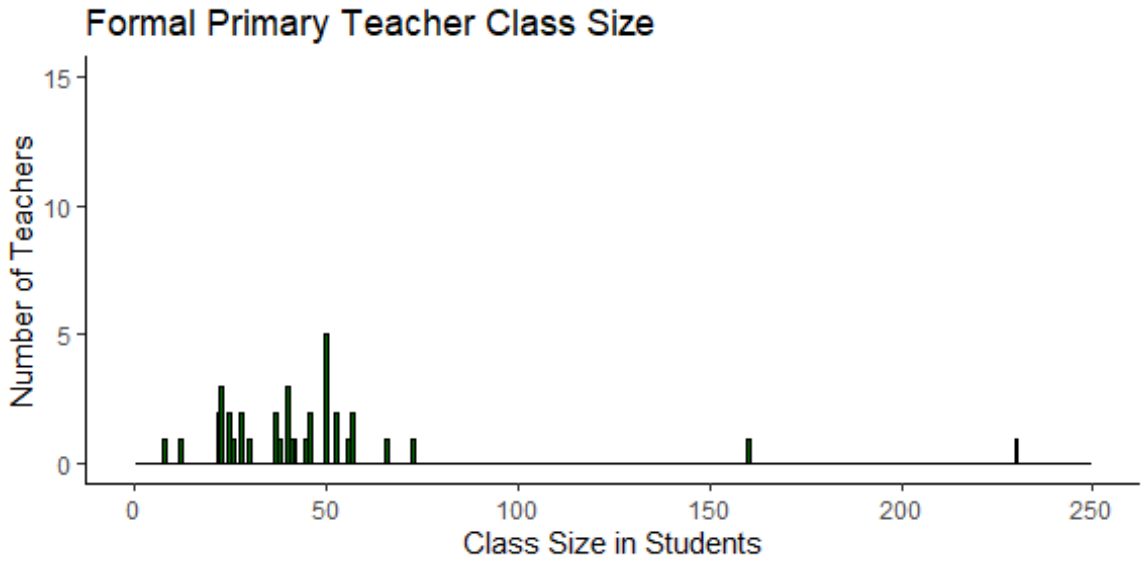
Teacher Dialect



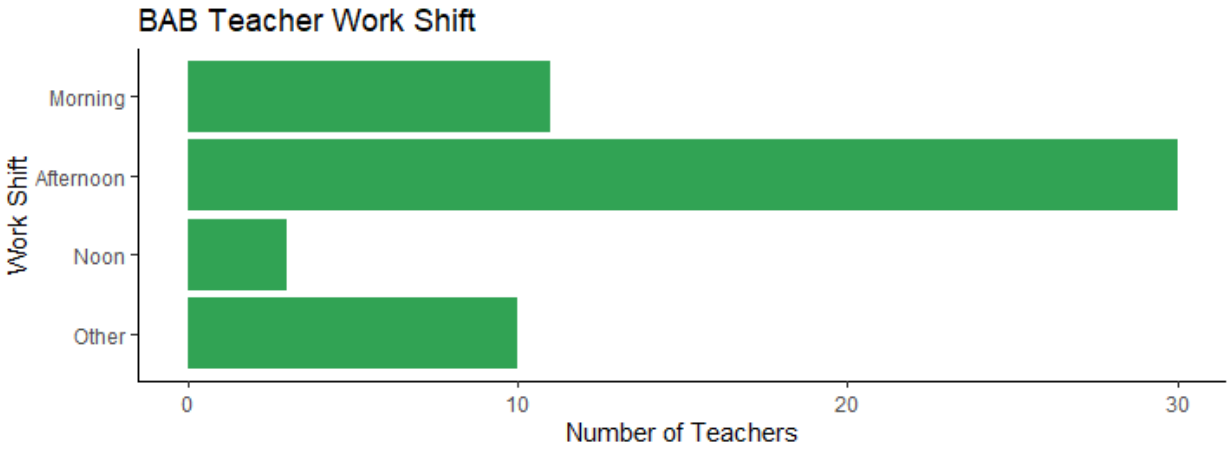


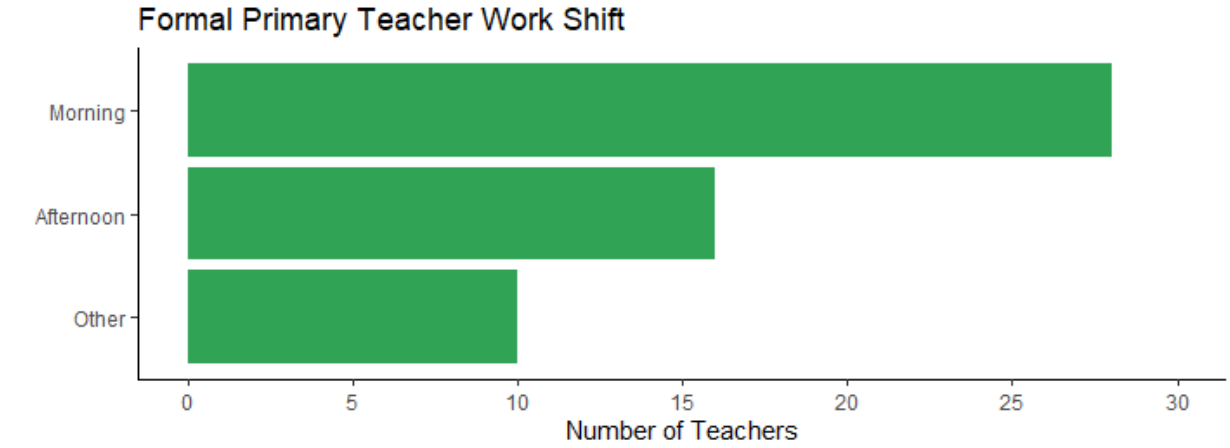
Teacher Class Size

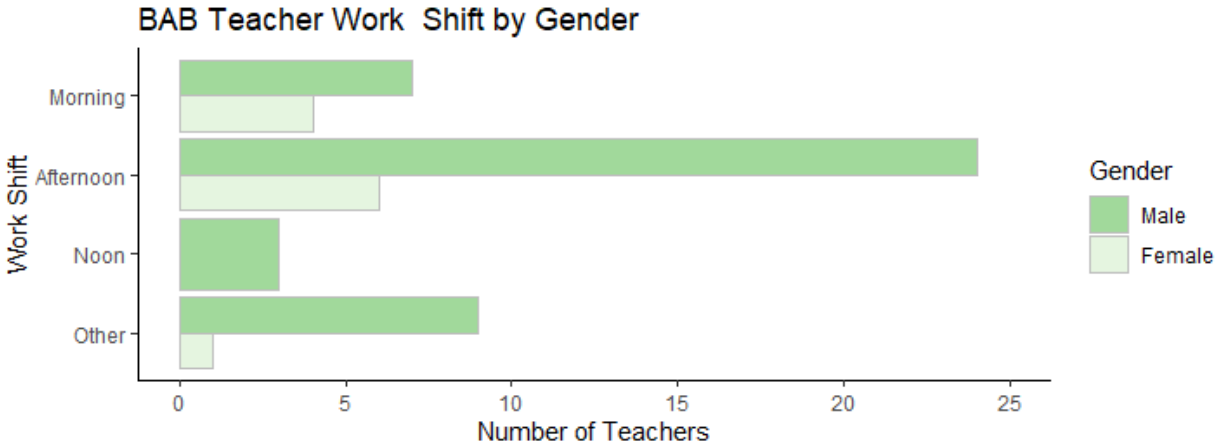


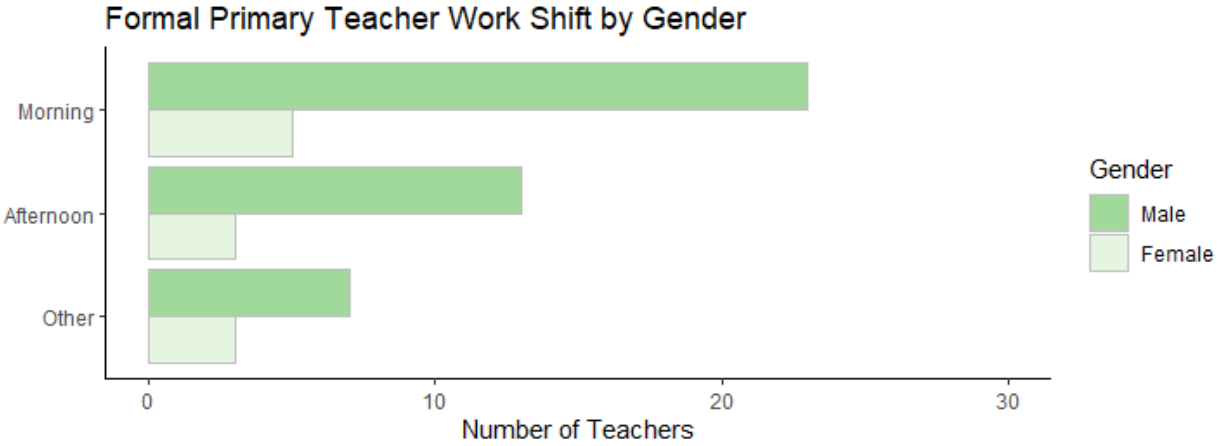


Teacher Working Shifts

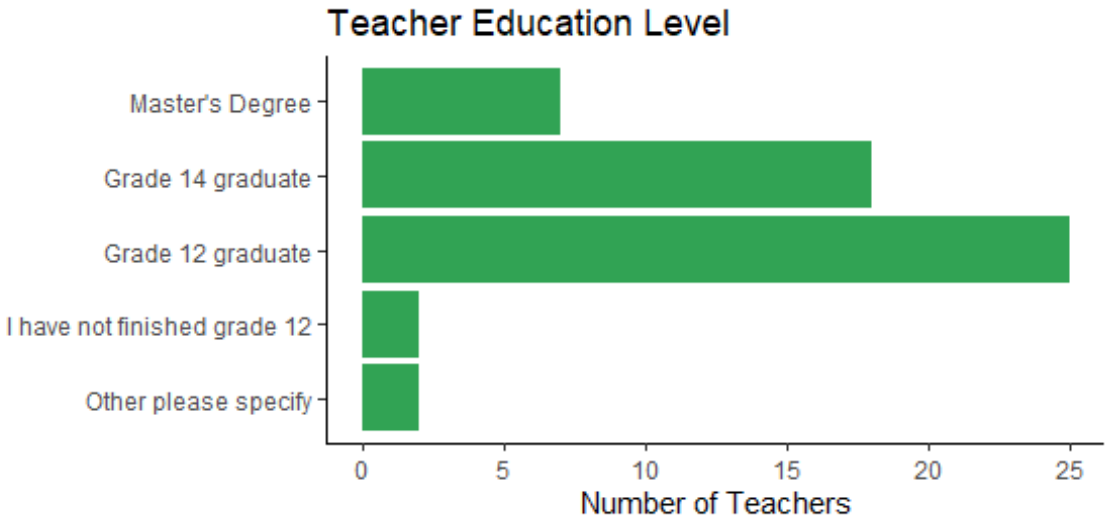


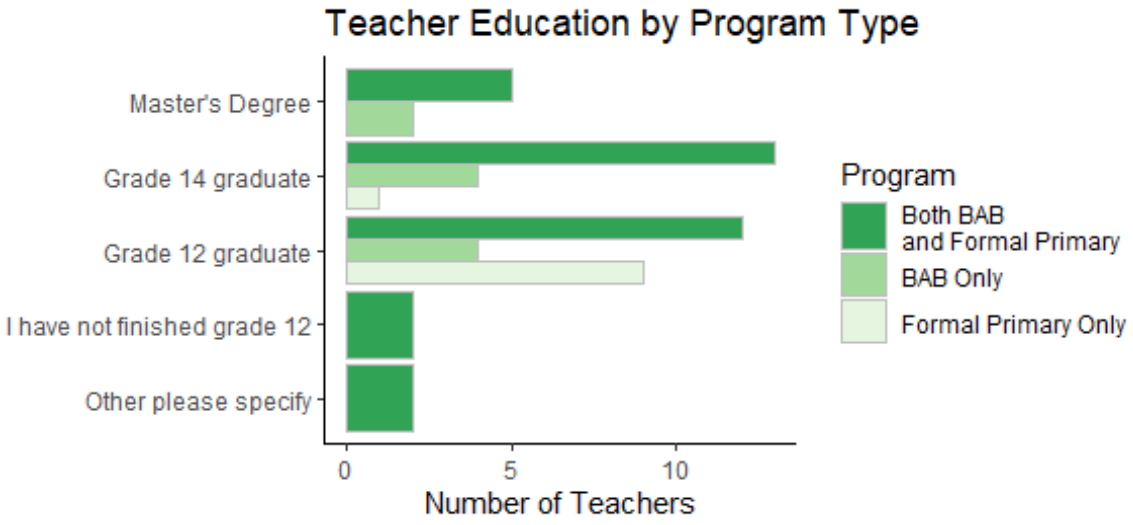


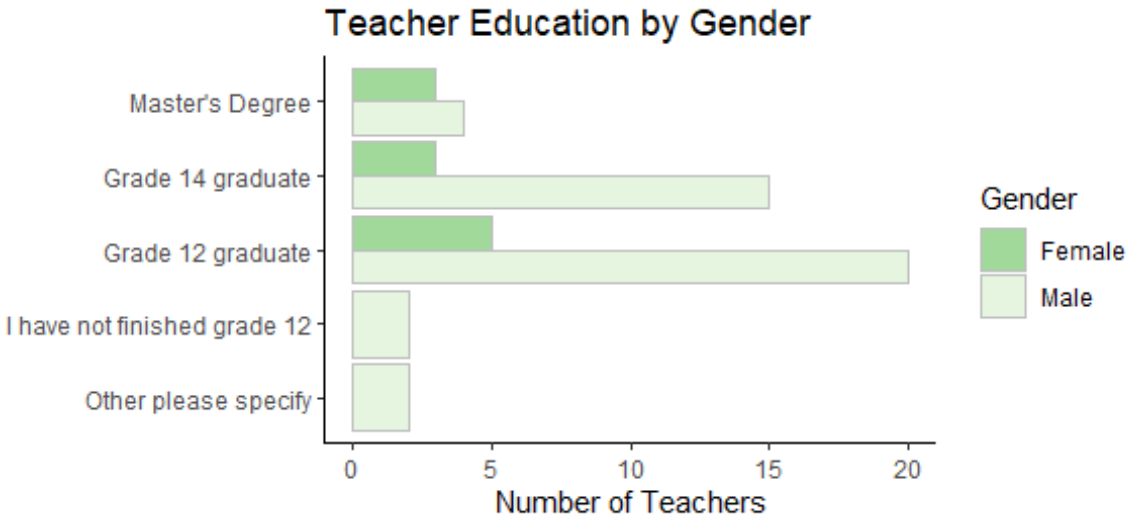

BAB Teacher Work Shift by Gender
Work Shift
Morning
Afternoon
Noon
Other
0
5
10
15
20
25
Number of Teachers
Gender
Male
Female


Formal Primary Teacher Work Shift by Gender
Morning
Afternoon
Other
0
10
20
30
Number of Teachers
Gender
Male
Female

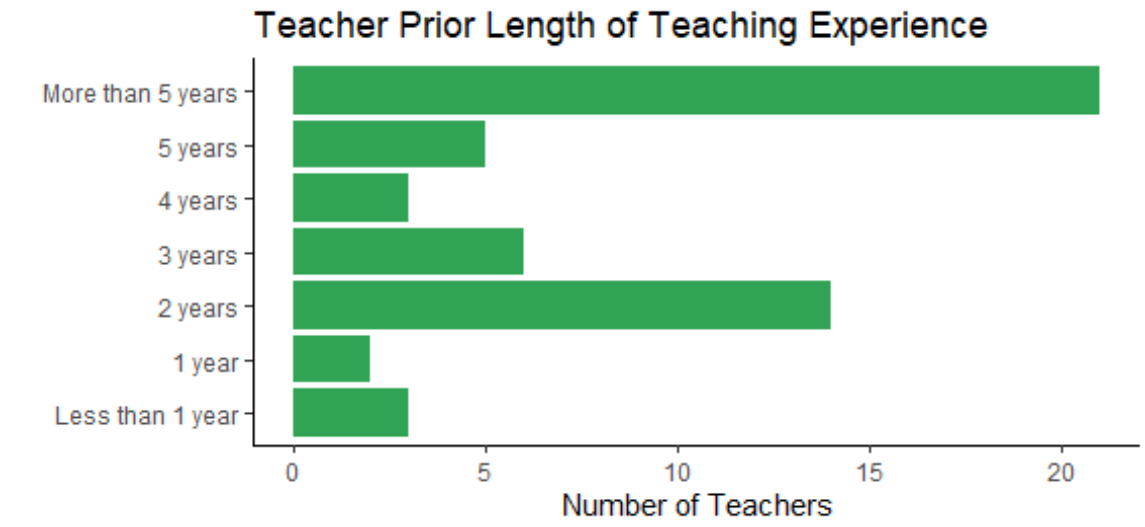
Teacher Education Levels

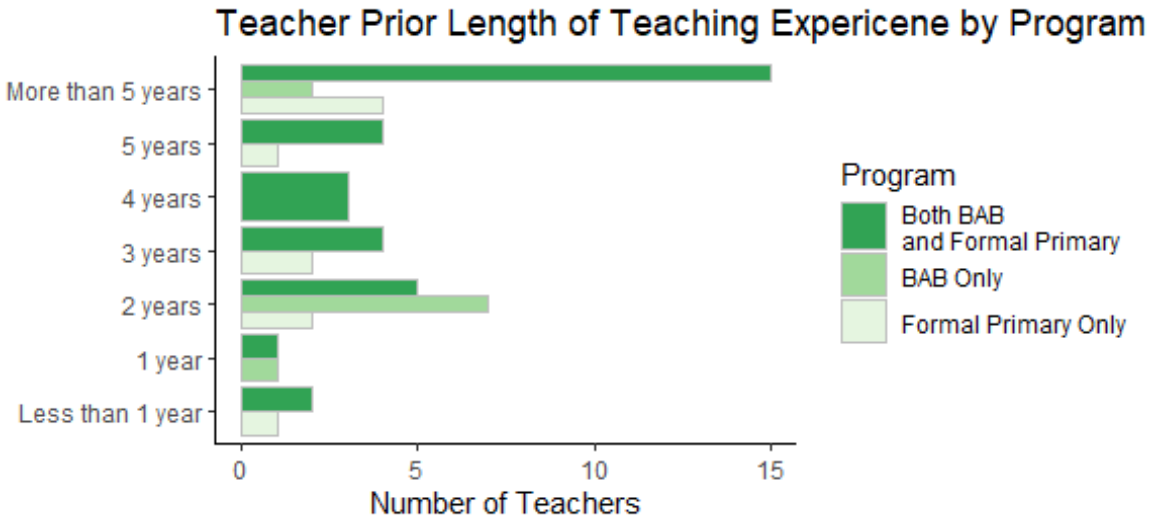


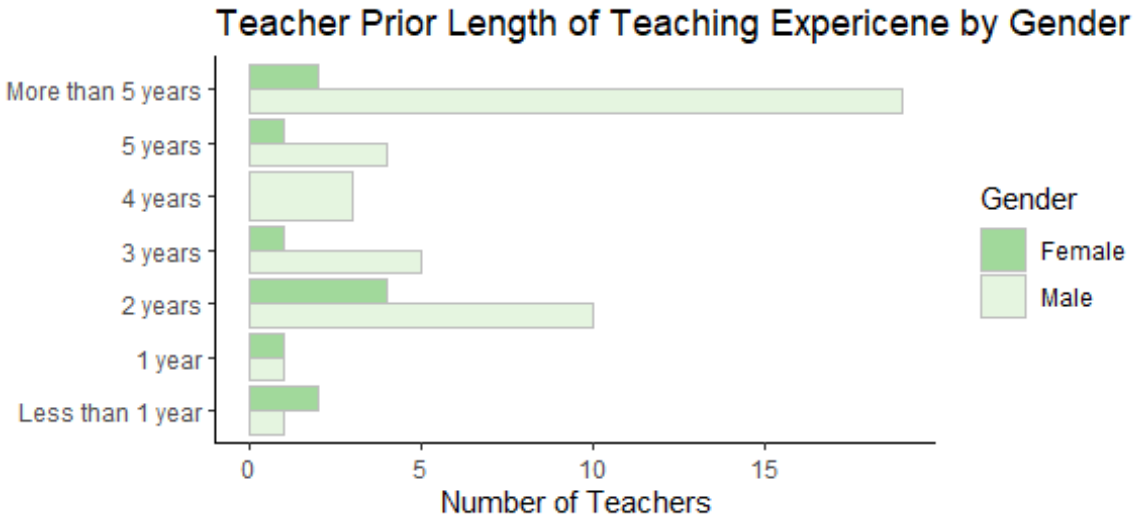




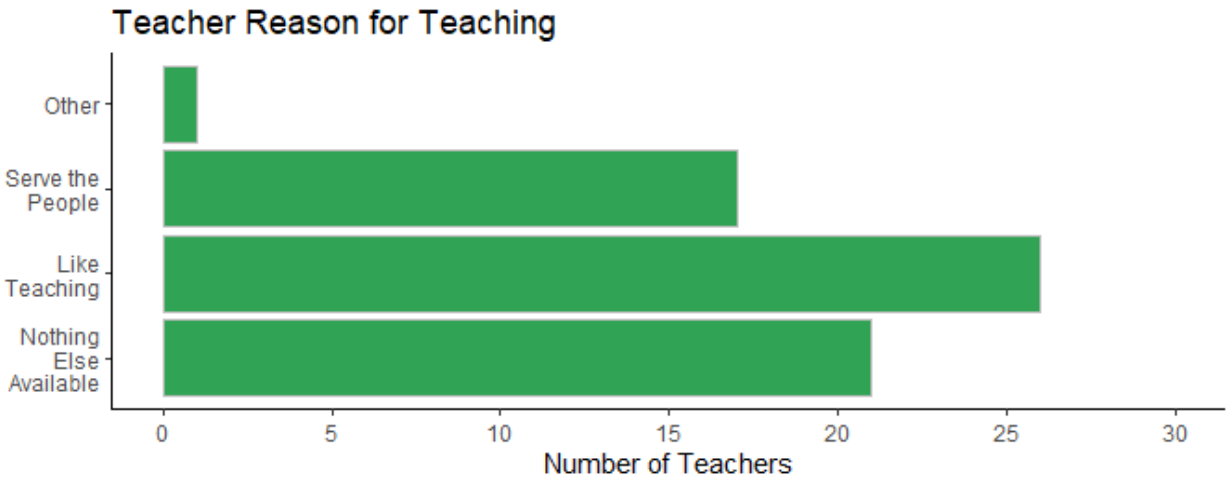
Teacher Prior Length of Teaching Experience

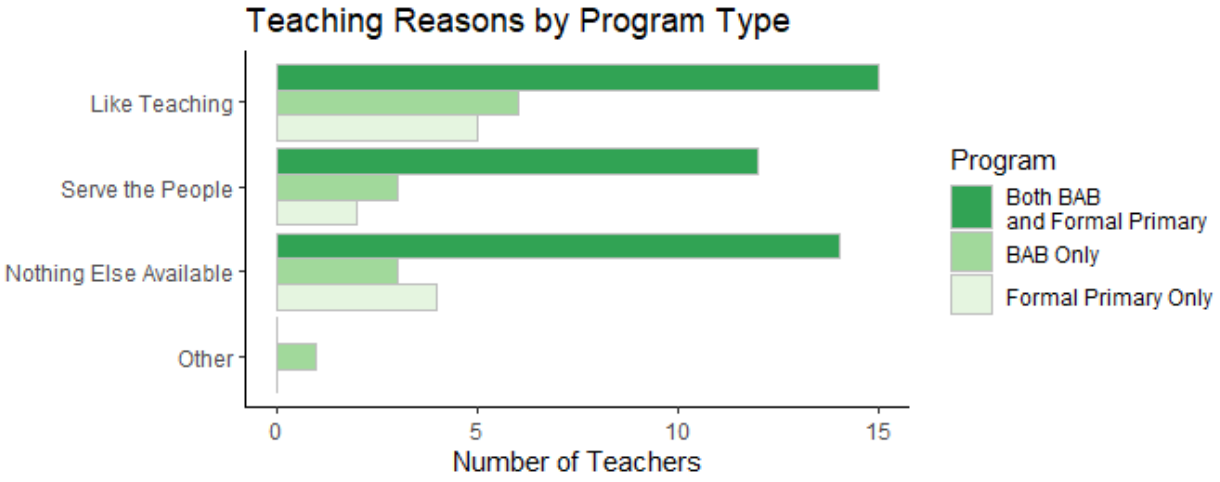


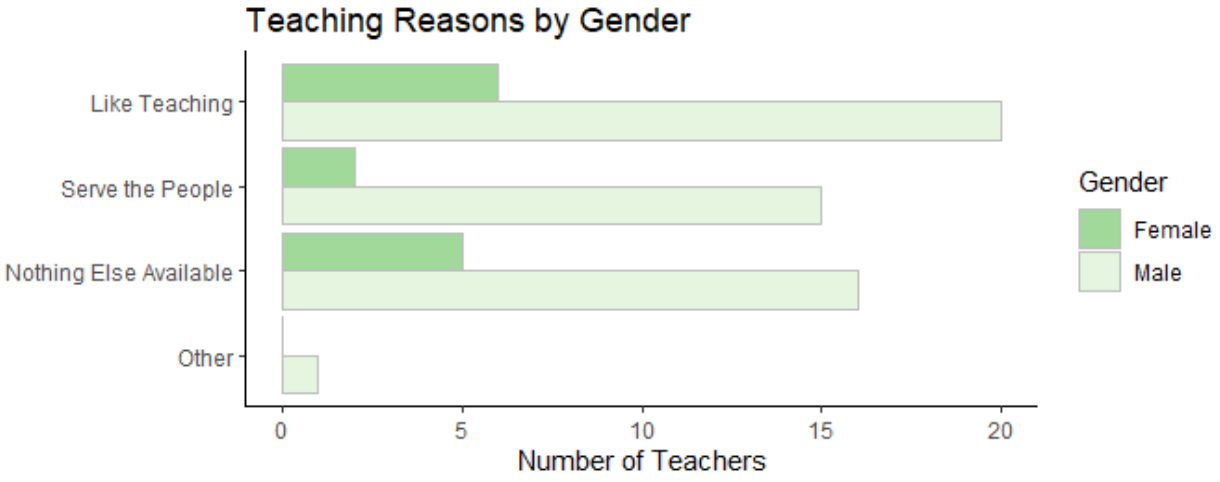




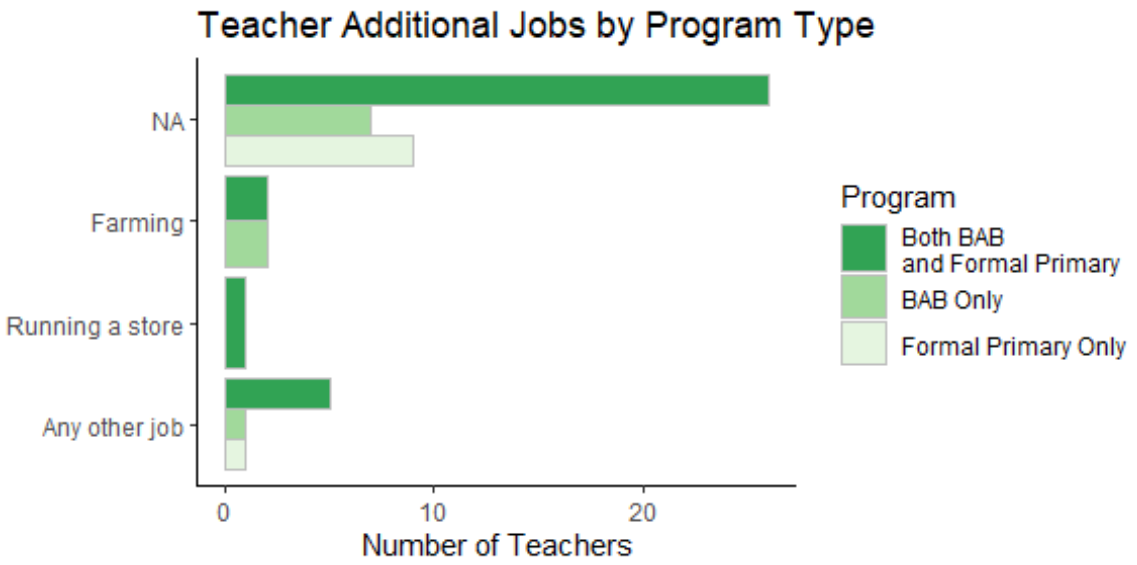
Teacher Reason for Teaching

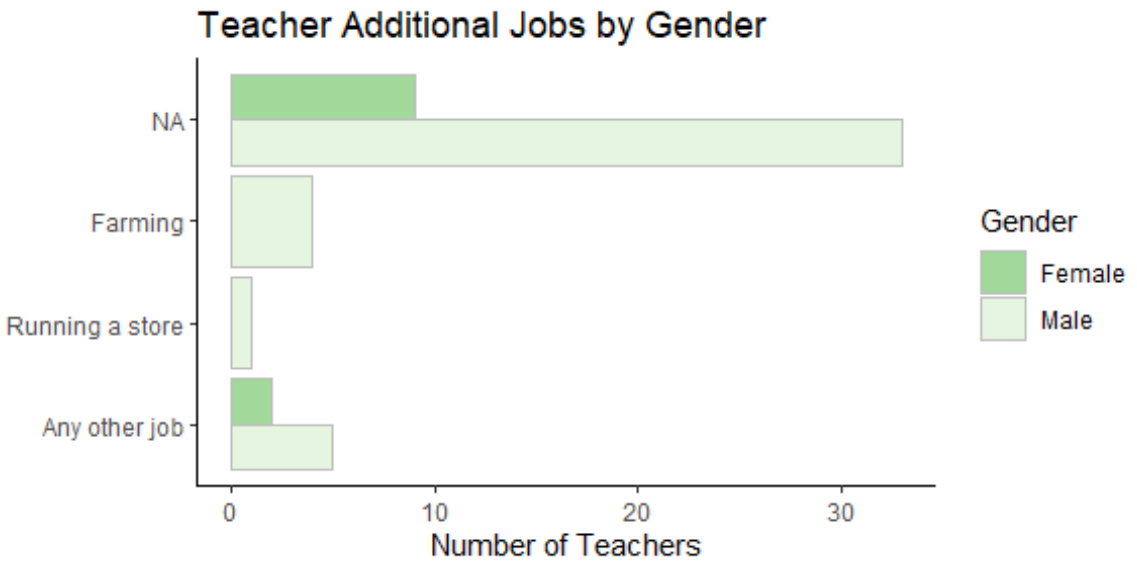






Teacher Additional Job besides Teaching





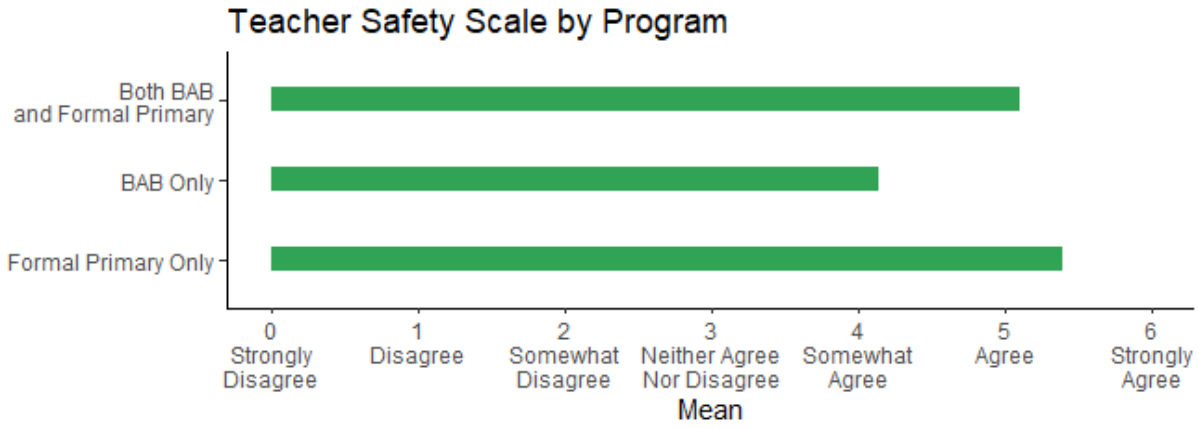
Teacher Safety Scale

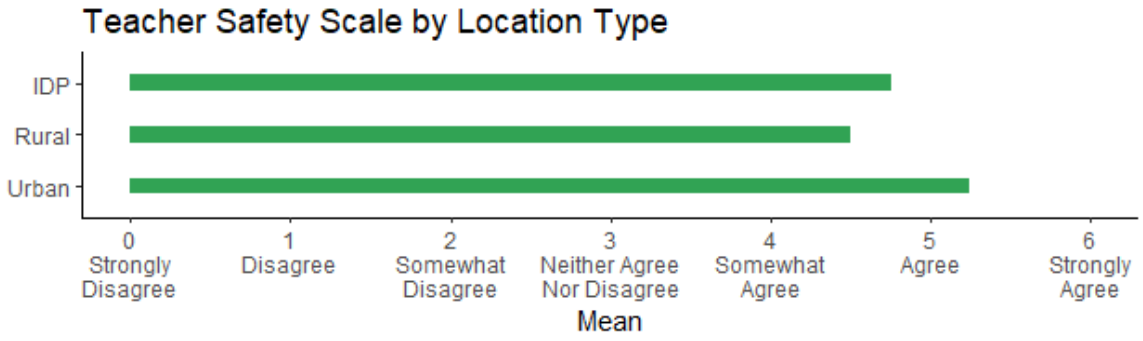
The Safety scale items were used to assess Teacher's perception of safety in the school environment. The scale is composed of the average of the following 4 items:

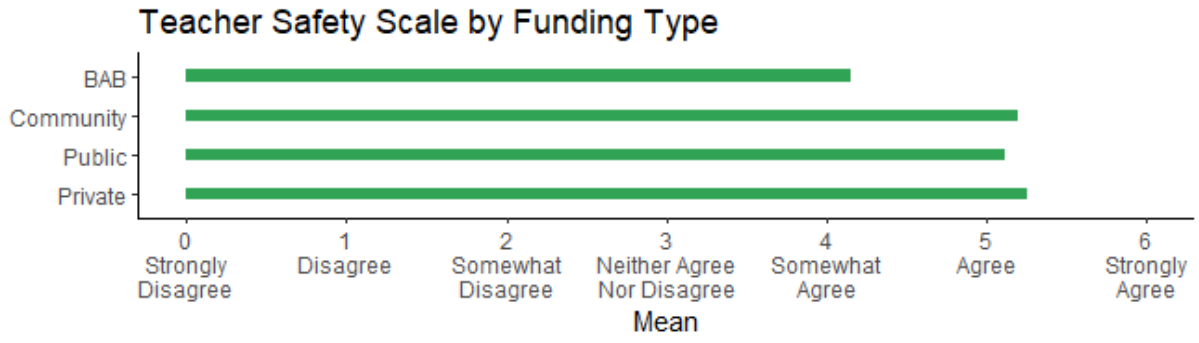
- I feel physically safe at school.
- All my students are physically safe at school, regardless of their gender, age, family background, disability, or other characteristics.
- All my students, regardless of gender, age, disability, family background, or other characteristics are safe on their way to school.

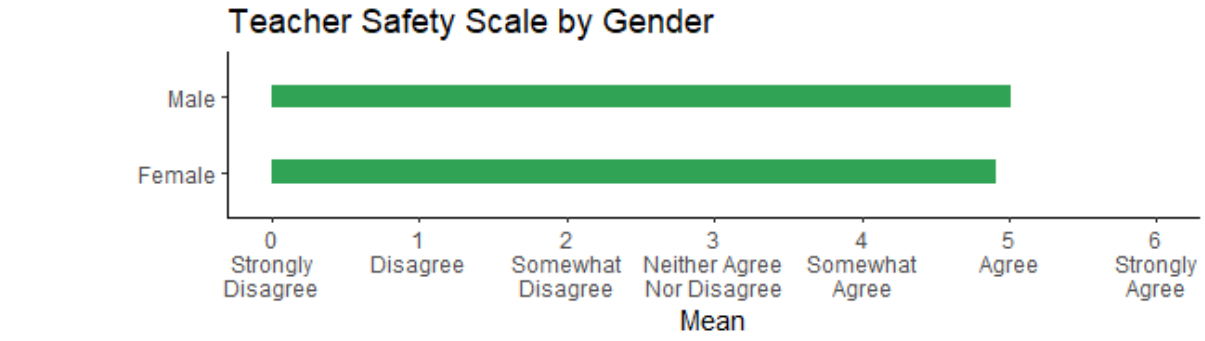
- All my students, regardless of gender, age, disability, family background, or other characteristics are accepted and emotionally supported in my school.

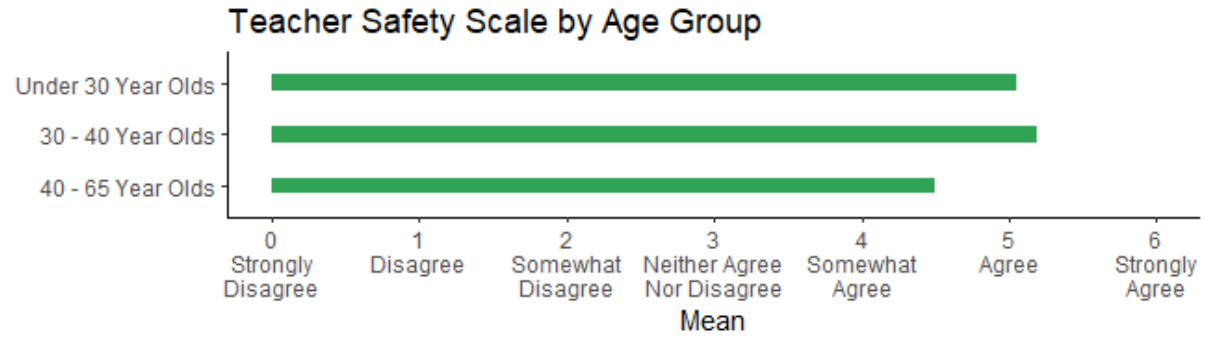
All items were measured on a 6 point Likert scale (0-strongly disagree, 1-disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-agree, 6-strongly agree) where teachers indicated their perceived safety of themselves and their students.

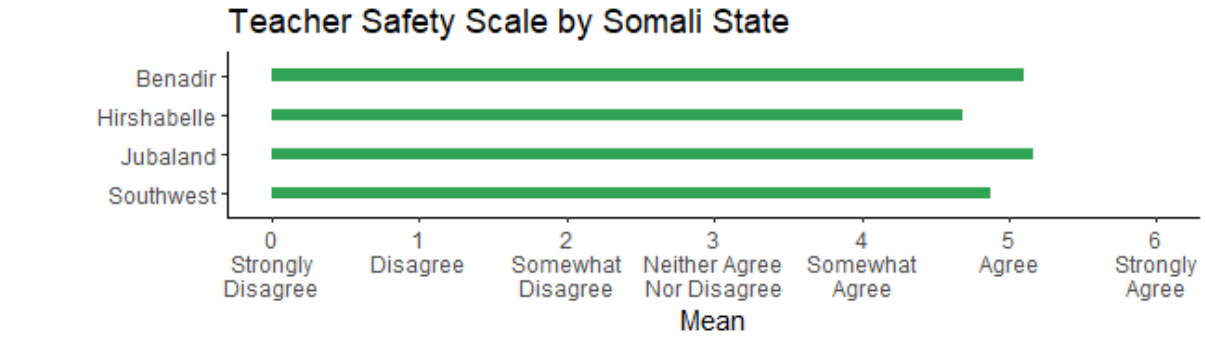












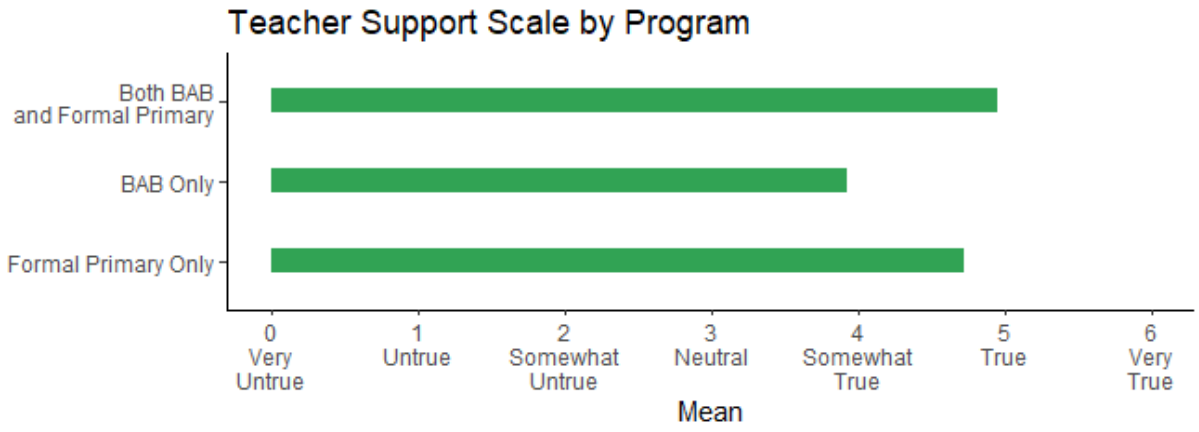
Group		Subgroup	Mean	SD	Diff from Overal l Mean
All Teachers Safety Scale			**4.99**	**1.01**	
Program	*	Both BAB and Formal Primary	5.11	0.80	0.12
		BAB Only	4.15	1.56	-0.84
		Formal Primary Only	5.40	0.50	0.41
Location Type		IDP	4.75	0.95	-0.24
		Rural	4.50	1.87	-0.49
		Urban	5.24	0.49	0.26
Funding Type		BAB	4.15	1.56	-0.84
		Community	5.19	0.69	0.20
		Public	5.11	0.94	0.12
		Private	5.25	0.51	0.26

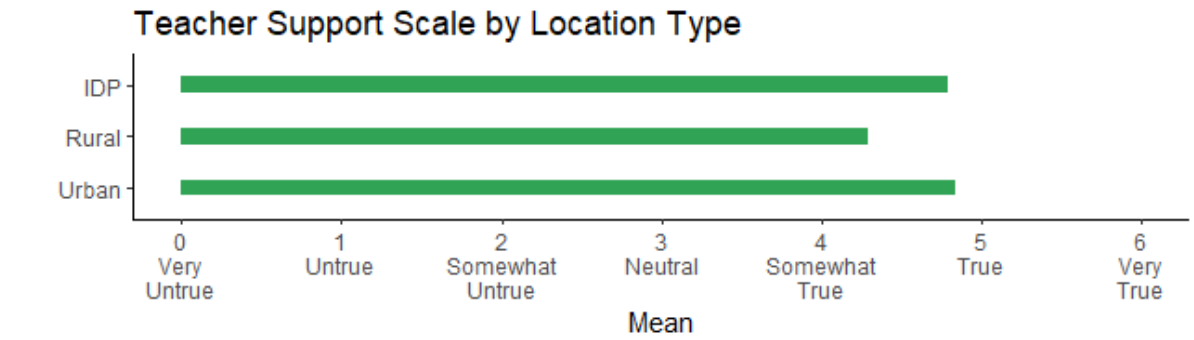
Group	Subgroup	Mean	SD	Diff from Overal l Mean
Gender	Male	5.01	1.07	0.02
	Female	4.91	0.80	-0.08
Age Group	Under 30 Year Olds	5.05	0.89	0.06
	30 - 40 Year Olds	5.19	0.40	0.20
	40 - 65 Year Olds	4.50	1.75	-0.49
State	Benadir	5.10	0.50	0.11
	Hirshabelle	4.69	1.84	-0.30
	Jubaland	5.17	0.93	0.19
	Southwest	4.87	0.91	-0.12

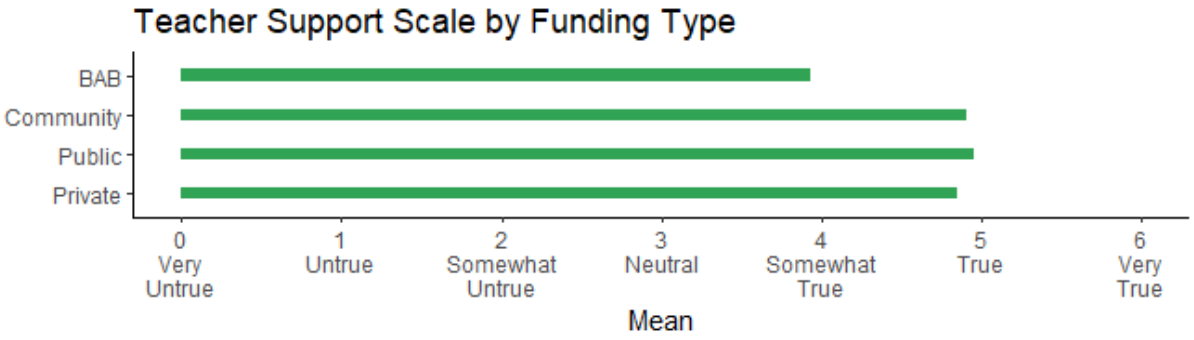
Teacher Support Scale

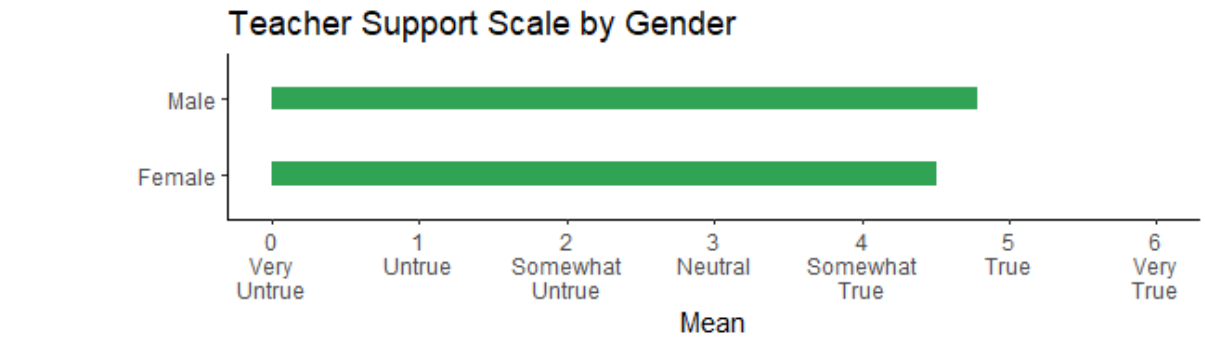
The Support scale items were used to assess Teacher's perception of support in the school environment. The scale is a composite of the Internal and External dimensions. The two separate dimensions can be found below.

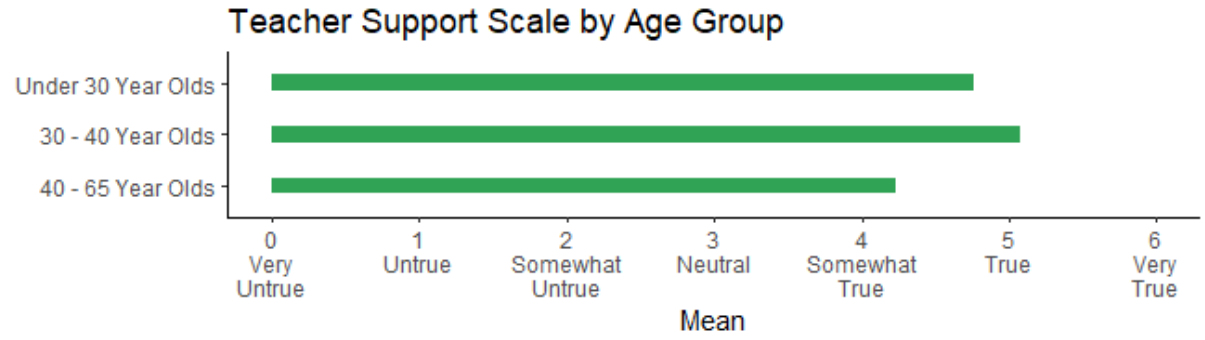
All items were measured on a 7 point Likert scale (0-very untrue, 1-untrue, 2-somewhat untrue, 3-neutral, 4-somewhat true, 5-true, 6-very true) where teachers indicated their perceived level of support.

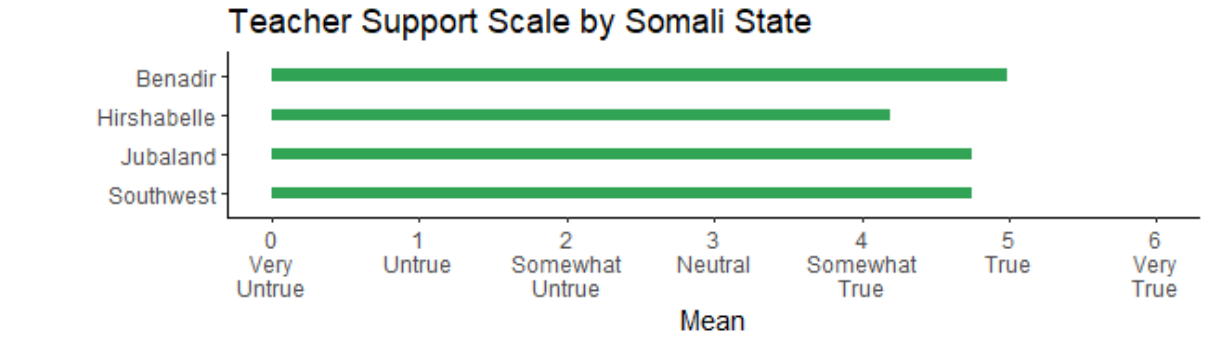



Teacher Support Scale by Location Type
IDP
Rural
Urban
0 Very Untrue
1 Untrue
2 Somewhat Untrue
3 Neutral
4 Somewhat True
5 True
6 Very True
Mean


Teacher Support Scale by Funding Type
BAB
Community
Public
Private
0 Very Untrue
1 Untrue
2 Somewhat Untrue
3 Neutral
4 Somewhat True
5 True
6 Very True
Mean







Group		Subgroup	Mean	SD	Diff from Overal l Mean
All Teachers Support Scale			**4.72**	**0.94**	
Program	*	Both BAB and Formal Primary	4.96	0.65	0.23
		BAB Only	3.93	1.56	-0.80
		Formal Primary Only	4.73	0.52	0.00
Location Type		IDP	4.79	0.84	0.07
		Rural	4.29	1.67	-0.44
		Urban	4.84	0.60	0.11
Funding Type		BAB	3.93	1.56	-0.80
		Community	4.90	0.76	0.18
		Public	4.95	0.60	0.23
		Private	4.85	0.58	0.12

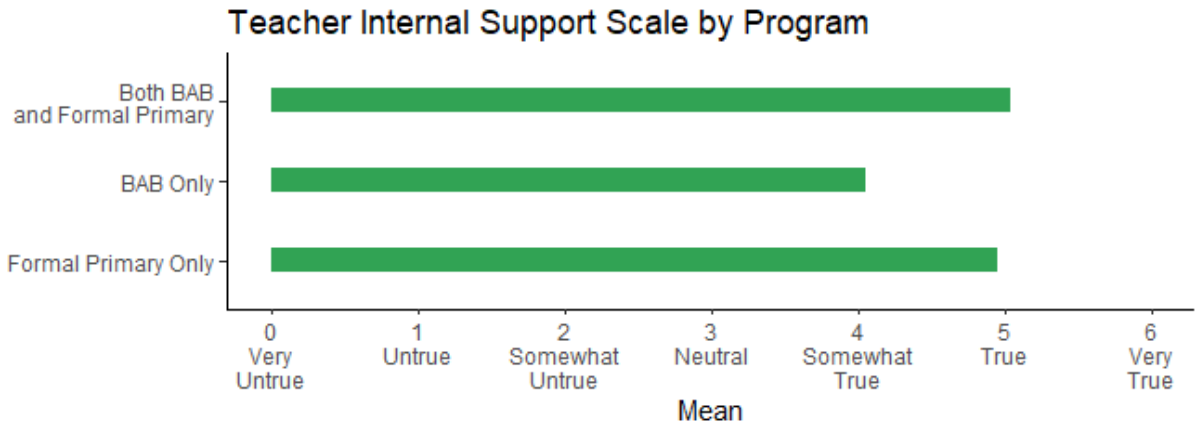
Group	Subgroup	Mean	SD	Diff from Overal l Mean
Gender	Male	4.78	0.95	0.06
	Female	4.51	0.91	-0.22
Age Group	Under 30 Year Olds	4.76	0.71	0.03
	30 - 40 Year Olds	5.07	0.60	0.35
	40 - 65 Year Olds	4.23	1.79	-0.49
State	Benadir	4.99	0.28	0.27
	Hirshabelle	4.20	1.90	-0.53
	Jubaland	4.75	0.53	0.03
	Southwest	4.75	0.90	0.02

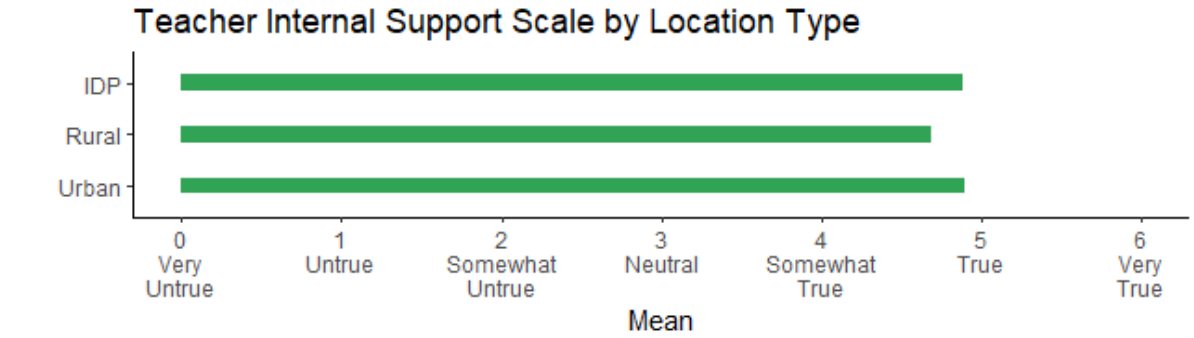
Teacher Internal Support Dimension Subscale

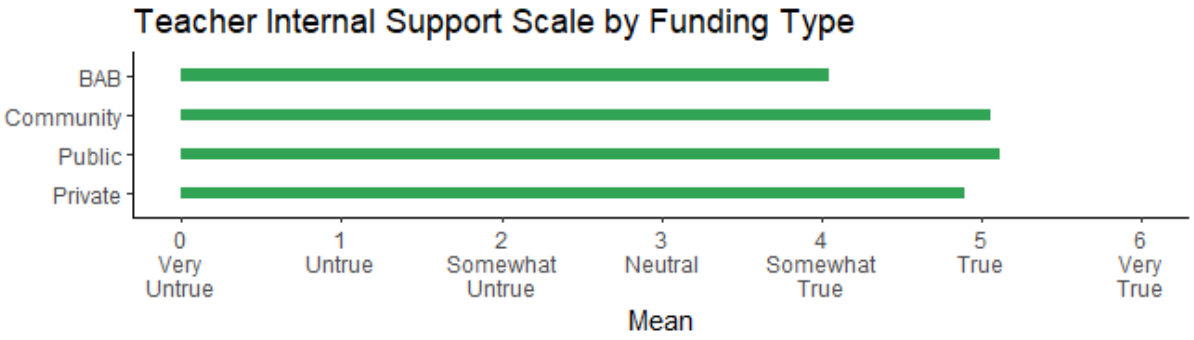
Internal Dimension:

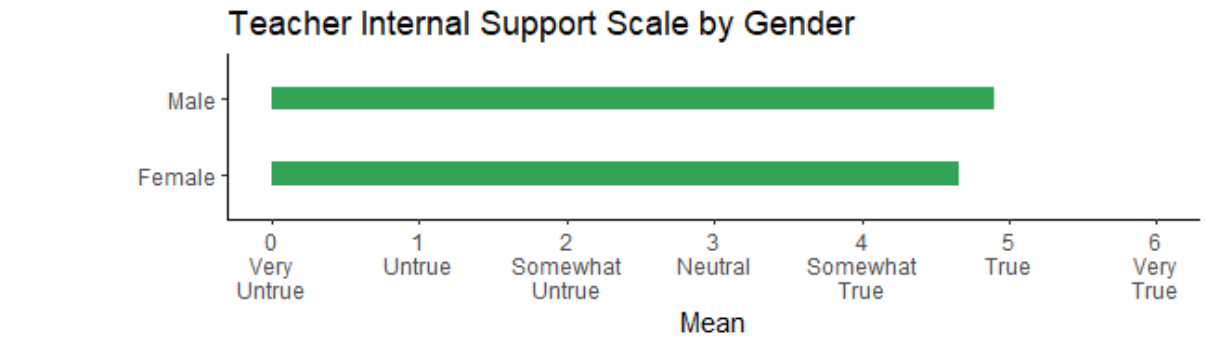
- I have the content knowledge I need to effectively teach my class.
- I have a range of techniques to effectively teach all students in my class.
- I have the knowledge and skills I need to effectively teach all children in my class, regardless of their gender, age, or family background, disability, or other characteristics.
- I have various strategies to effectively manage my classroom.

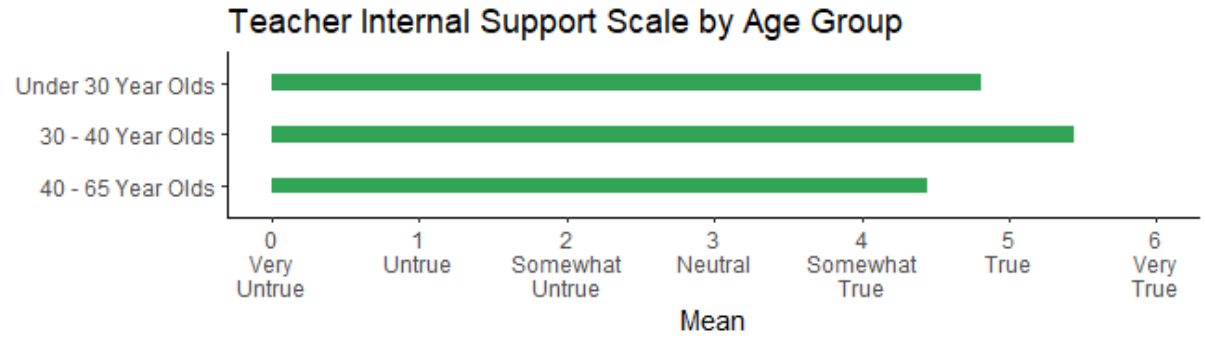
All items were measured on a 7 point Likert scale (0-very untrue, 1-untrue, 2-somewhat untrue, 3-neutral, 4-somewhat true, 5-true, 6-very true) where teachers indicated their perceived level of support.

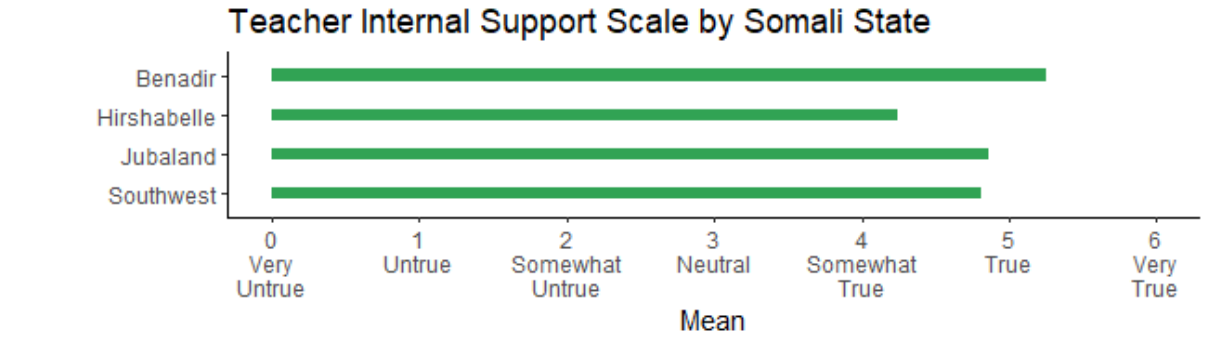



Teacher Internal Support Scale by Location Type
IDP
Rural
Urban
0 Very Untrue
1 Untrue
2 Somewhat Untrue
3 Neutral
4 Somewhat True
5 True
6 Very True
Mean


Teacher Internal Support Scale by Funding Type
BAB
Community
Public
Private
0 Very Untrue
1 Untrue
2 Somewhat Untrue
3 Neutral
4 Somewhat True
5 True
6 Very True
Mean







Group	Subgroup	Mean	SD	Diff from Overal l Mean
All Teachers Internal Support Scale		**4.85**	**1.05**	
Program	Both BAB and Formal Primary	5.05	0.76	0.20
	BAB Only	4.05	1.69	-0.80
	Formal Primary Only	4.95	0.80	0.10
Location Type	IDP	4.88	0.94	0.04
	Rural	4.68	1.86	-0.17
	Urban	4.89	0.73	0.04
Funding Type	BAB	4.05	1.69	-0.80
	Community	5.06	0.81	0.22
	Public	5.11	0.77	0.26
	Private	4.89	0.75	0.05

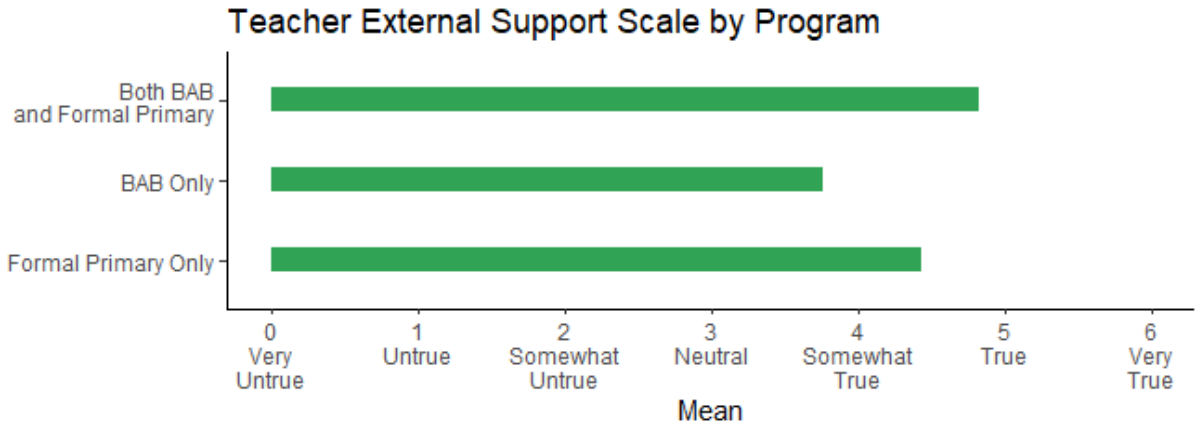
Group	Subgroup	Mean	SD	Diff from Overal l Mean
Gender	Male	4.90	1.05	0.05
	Female	4.66	1.07	-0.19
Age Group	Under 30 Year Olds	4.81	0.87	-0.04
	30 - 40 Year Olds	5.44	0.44	0.59
	40 - 65 Year Olds	4.44	1.87	-0.41
State	Benadir	5.25	0.27	0.40
	Hirshabelle	4.25	1.95	-0.60
	Jubaland	4.86	0.77	0.01
	Southwest	4.81	1.03	-0.04

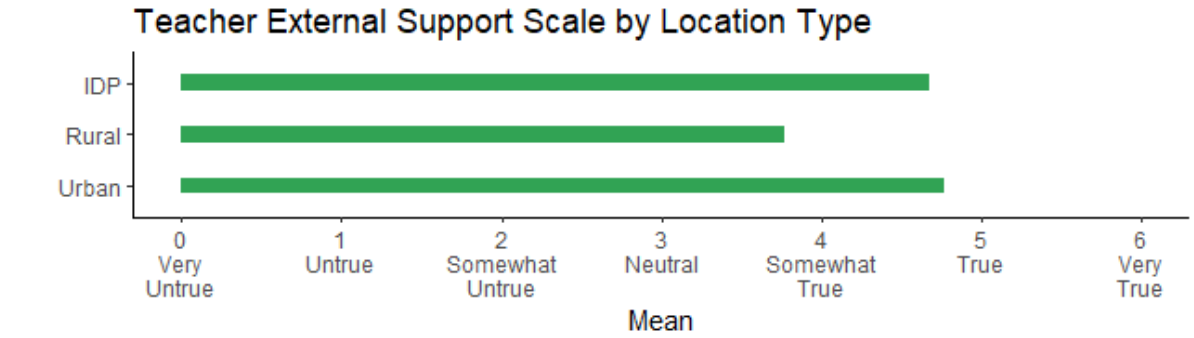
Teacher External Support Dimension Subscale

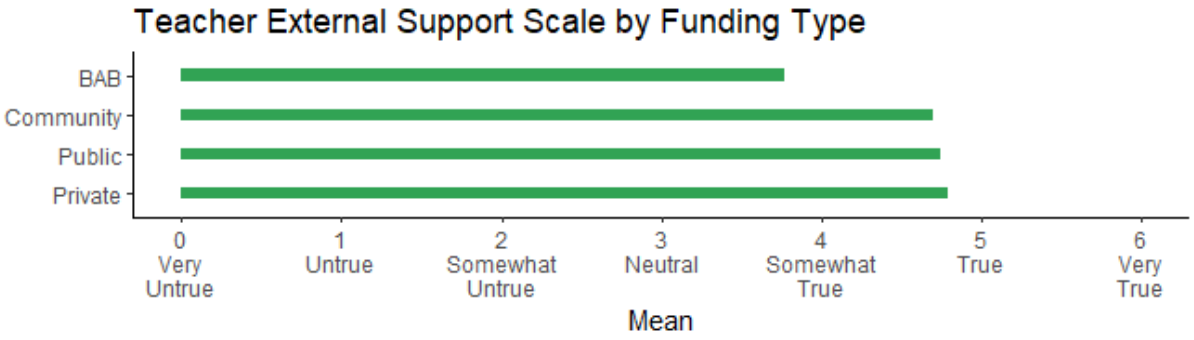
External Dimension:

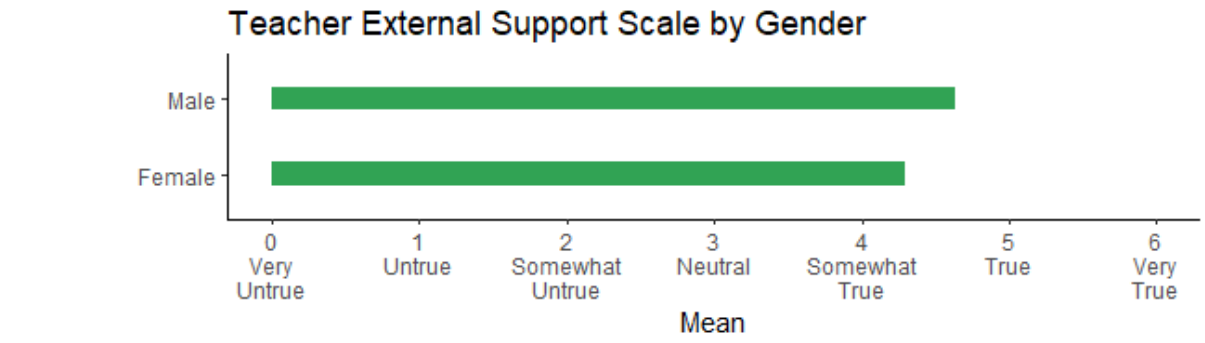
- I have the support I need to effectively teach my class.
- I have the materials I need to effectively teach my class.
- I have people and resources I can draw on when I have challenges in my classroom.

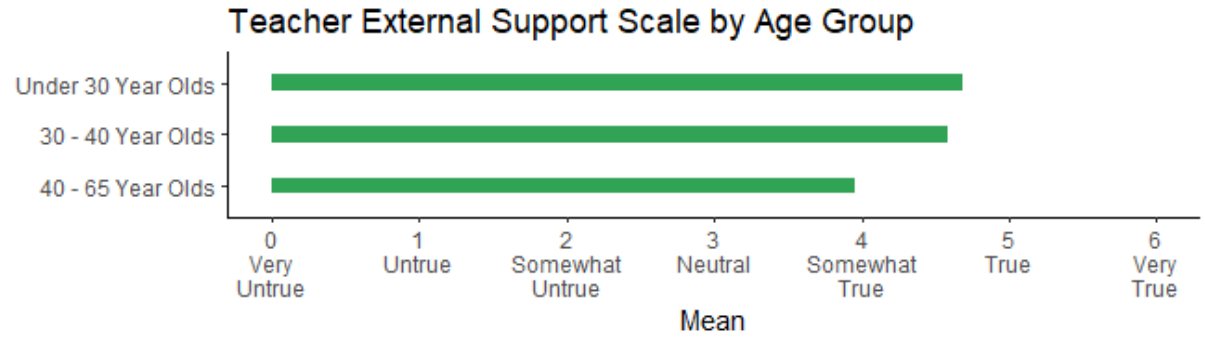
All items were measured on a 7 point Likert scale (0-very untrue, 1-untrue, 2-somewhat untrue, 3-neutral, 4-somewhat true, 5-true, 6-very true) where teachers indicated their perceived level of support.

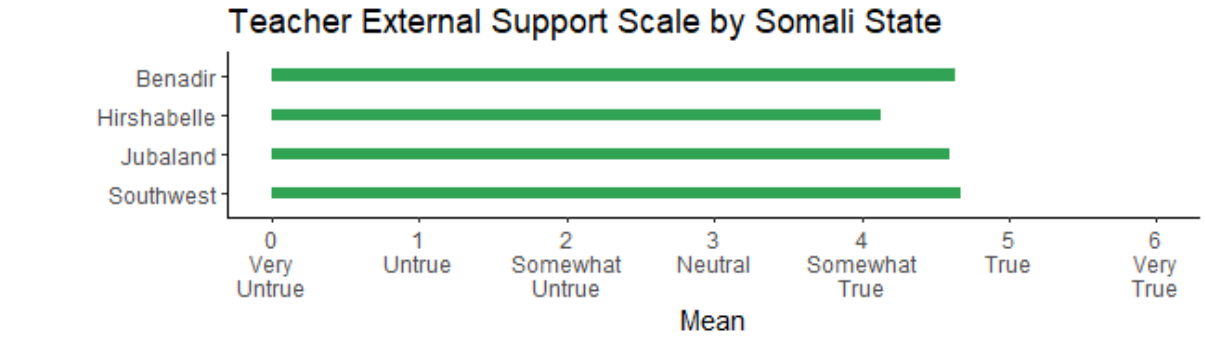



Teacher External Support Scale by Location Type
IDP
Rural
Urban
0 Very Untrue
1 Untrue
2 Somewhat Untrue
3 Neutral
4 Somewhat True
5 True
6 Very True
Mean


Teacher External Support Scale by Funding Type
BAB
Community
Public
Private
0 Very Untrue
1 Untrue
2 Somewhat Untrue
3 Neutral
4 Somewhat True
5 True
6 Very True
Mean







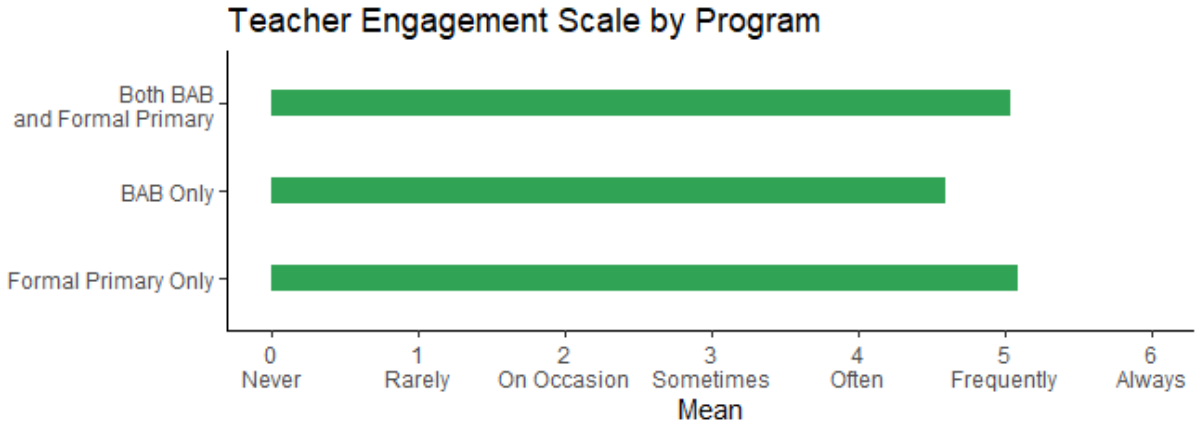
Group		Subgroup	Mean	SD	Diff from Overal l Mean
All Teachers External Support Scale			**4.56**	**1.05**	
Program	*	Both BAB and Formal Primary	4.83	0.86	0.27
		BAB Only	3.77	1.44	-0.80
		Formal Primary Only	4.43	0.83	-0.13
Location Type	*	IDP	4.67	0.95	0.10
		Rural	3.77	1.60	-0.79
		Urban	4.77	0.74	0.21
Funding Type		BAB	3.77	1.44	-0.80
		Community	4.70	0.95	0.13
		Public	4.74	0.96	0.18
		Private	4.79	0.70	0.22

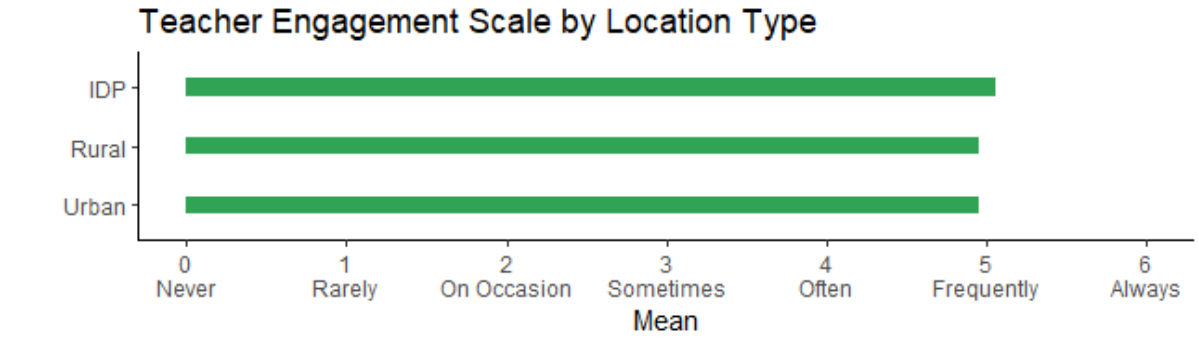
Group	Subgroup	Mean	SD	Diff from Overal l Mean
Gender	Male	4.63	1.11	0.07
	Female	4.30	0.78	-0.26
Age Group	Under 30 Year Olds	4.68	0.85	0.12
	30 - 40 Year Olds	4.58	0.89	0.02
	40 - 65 Year Olds	3.96	1.81	-0.60
State	Benadir	4.64	0.62	0.08
	Hirshabelle	4.13	1.97	-0.44
	Jubaland	4.60	0.94	0.04
	Southwest	4.67	0.86	0.10

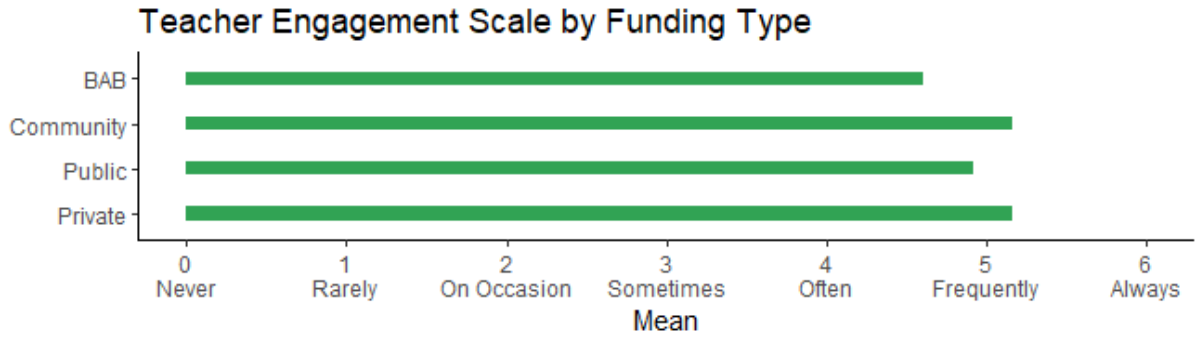
Teacher Engagement Scale

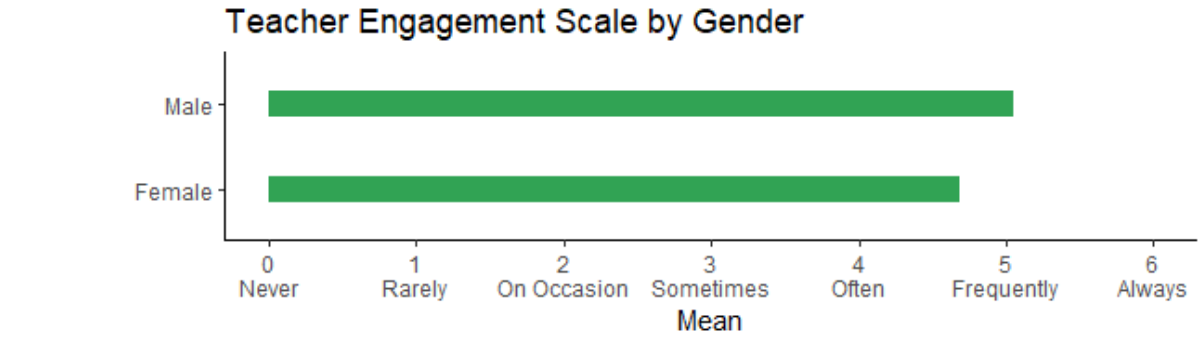
The Engagement scale items were used to assess Teacher's engagement in the classroom. The scale is a composite of the Emotional, Social and Cognitive dimensions. The three separate dimensions can be found below.

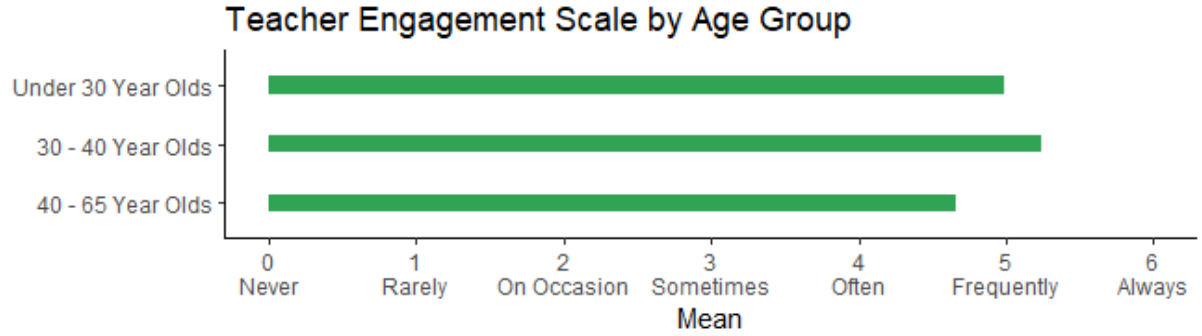
All items were measured on a 7 point Likert scale (0-Never, 1-Rarely, 2-On occasion, 3-Sometimes, 4-Often, 5-Frequently, 6-Always) where teachers indicated their perceived level of support.

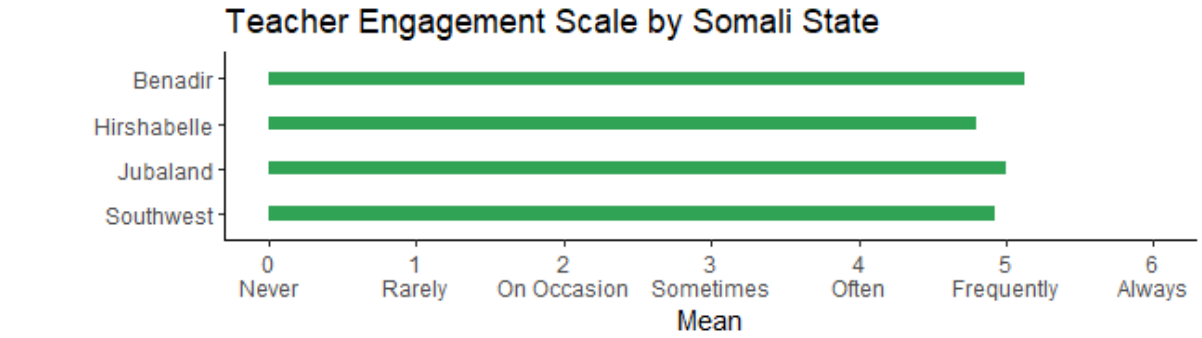



Teacher Engagement Scale by Location Type
IDP
Rural
Urban
0
Never
1
Rarely
2
On Occasion
3
Sometimes
4
Often
5
Frequently
6
Always
Mean


Teacher Engagement Scale by Funding Type
BAB
Community
Public
Private
0
Never
1
Rarely
2
On Occasion
3
Sometimes
4
Often
5
Frequently
6
Always
Mean







Group	Subgroup	Mean	SD	Diff from Overal l Mean
All Teachers Teacher Engagement Scale		**4.98**	**0.74**	
Program	Both BAB and Formal Primary	5.05	0.71	0.08
	BAB Only	4.60	1.00	-0.38
	Formal Primary Only	5.09	0.37	0.11
Location Type	IDP	5.06	0.86	0.09
	Rural	4.95	0.77	-0.03
	Urban	4.95	0.70	-0.03
Funding Type	BAB	4.60	1.00	-0.38
	Community	5.16	0.45	0.18
	Public	4.92	0.83	-0.05
	Private	5.16	0.51	0.18

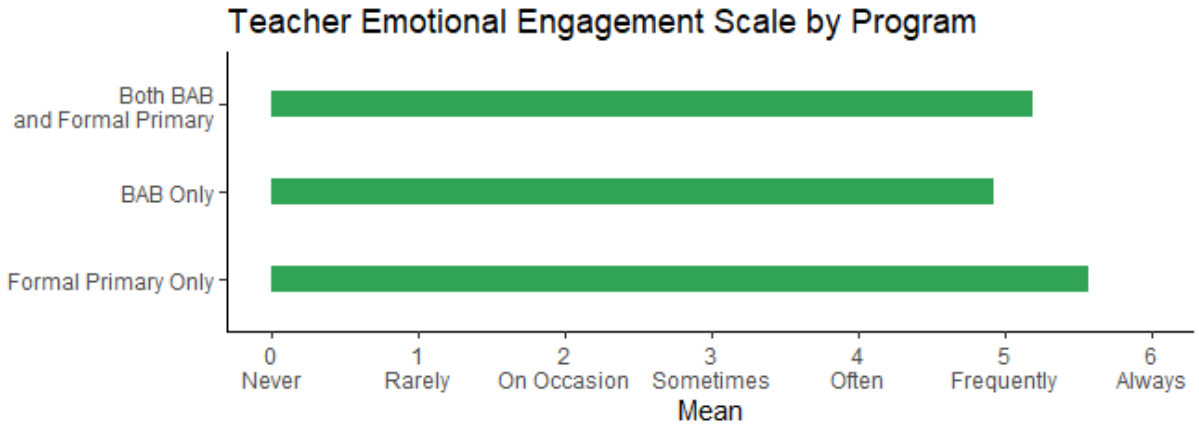
Group	Subgroup	Mean	SD	Diff from Overal l Mean
Gender	Male	5.05	0.67	0.08
	Female	4.68	0.93	-0.29
Age Group	Under 30 Year Olds	4.99	0.62	0.01
	30 - 40 Year Olds	5.24	0.42	0.26
	40 - 65 Year Olds	4.66	1.32	-0.31
State	Benadir	5.12	0.37	0.15
	Hirshabelle	4.80	0.94	-0.18
	Jubaland	5.00	0.38	0.02
	Southwest	4.92	1.06	-0.05

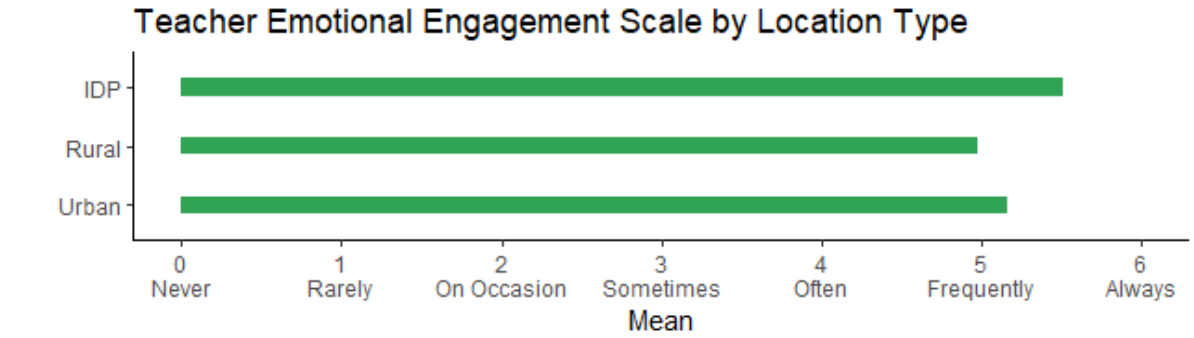
Teacher Emotional Engagement Dimension SubScale

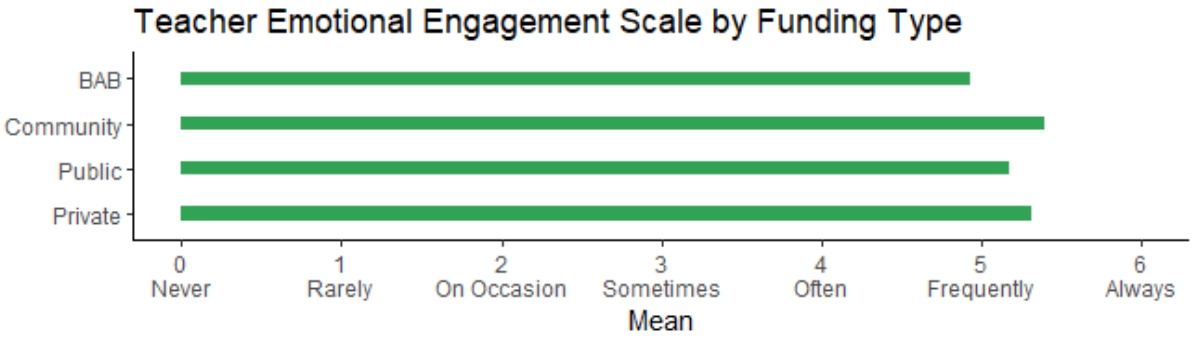
Emotional Engagement Dimension:

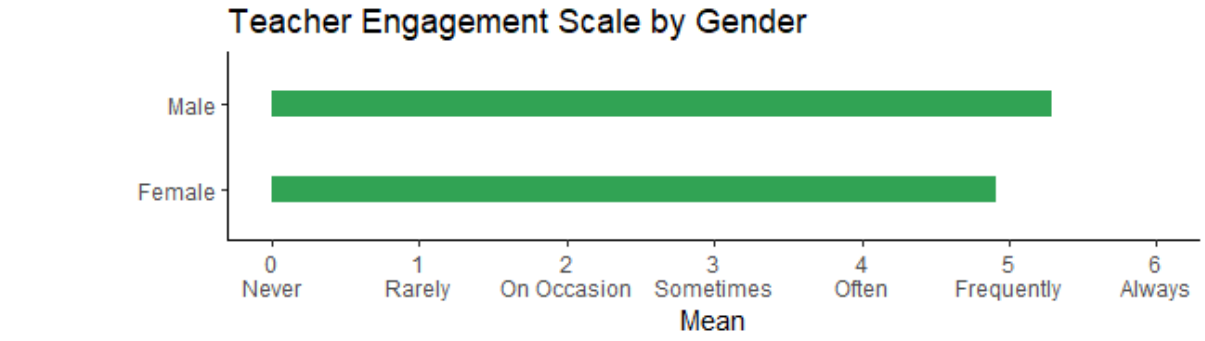
- I am excited about teaching.
- I feel happy while teaching.
- I love teaching.

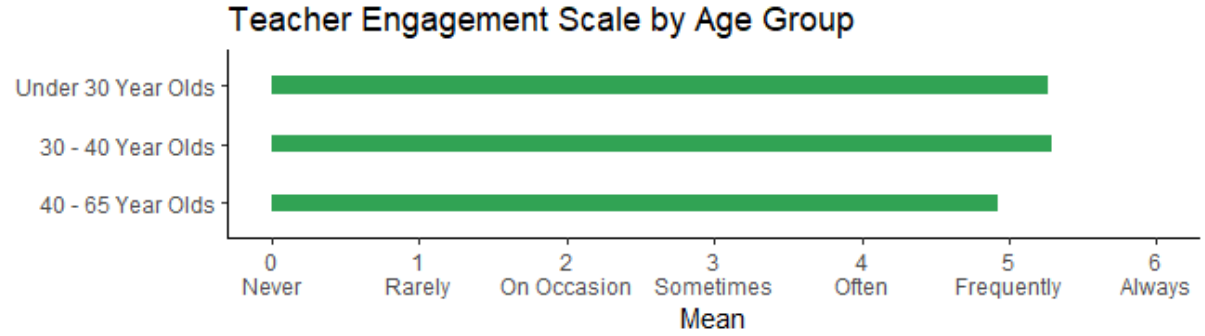
All items were measured on a 7 point Likert scale (0-Never, 1-Rarely, 2-On occasion, 3-Sometimes, 4-Often, 5-Frequently, 6-Always) where teachers indicated their perceived level of support.

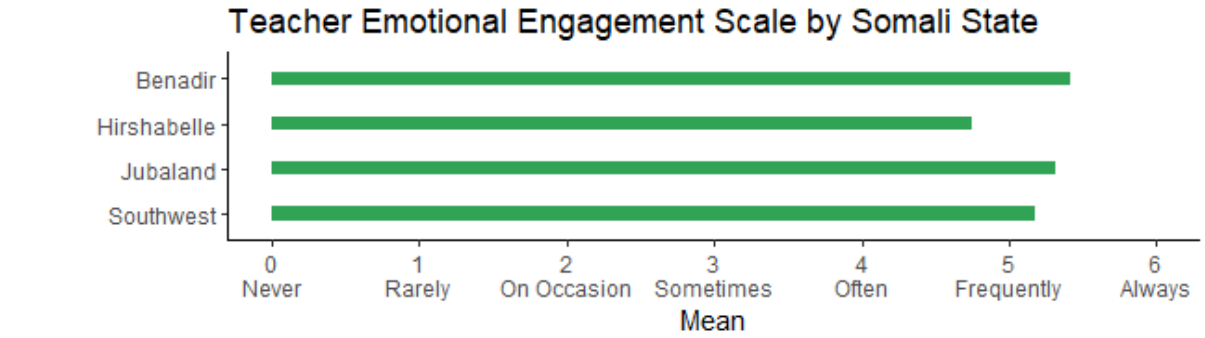



Teacher Emotional Engagement Scale by Location Type
IDP
Rural
Urban
0
Never
1
Rarely
2
On Occasion
3
Sometimes
4
Often
5
Frequently
6
Always
Mean


Teacher Emotional Engagement Scale by Funding Type
BAB
Community
Public
Private
0
Never
1
Rarely
2
On Occasion
3
Sometimes
4
Often
5
Frequently
6
Always
Mean







Group	Subgroup	Mean	SD	Diff from Overal l Mean
All Teachers Emotional Engagement Scale		**5.21**	**0.77**	
Program	Both BAB and Formal Primary	5.19	0.74	-0.02
	BAB Only	4.93	1.00	-0.28
	Formal Primary Only	5.57	0.45	0.36
Location Type	IDP	5.51	0.68	0.30
	Rural	4.97	0.96	-0.24
	Urban	5.16	0.72	-0.05
Funding Type	BAB	4.93	1.00	-0.28
	Community	5.39	0.58	0.18
	Public	5.17	0.82	-0.04
	Private	5.31	0.66	0.10

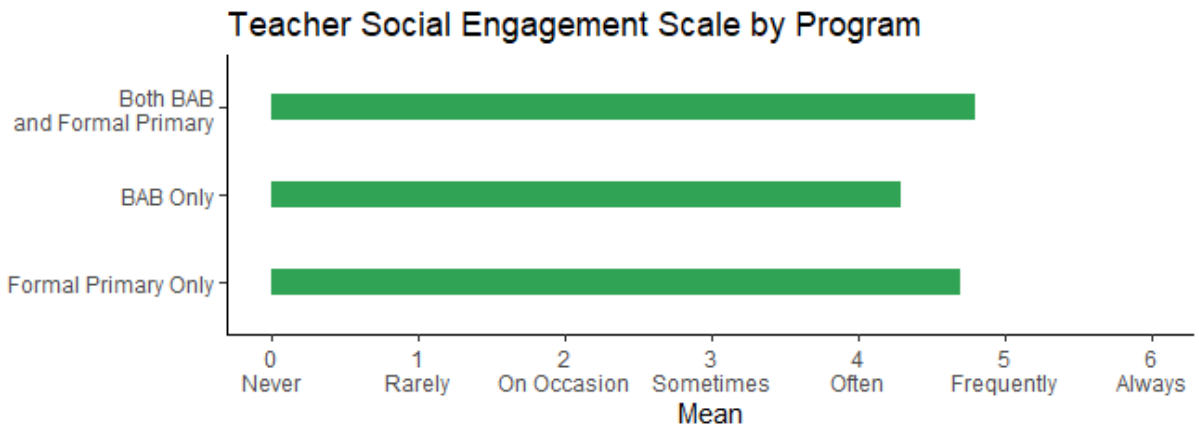
Group	Subgroup	Mean	SD	Diff from Overal l Mean
Gender	Male	5.29	0.67	0.08
	Female	4.91	1.06	-0.30
Age Group	Under 30 Year Olds	5.26	0.70	0.04
	30 - 40 Year Olds	5.29	0.38	0.08
	40 - 65 Year Olds	4.92	1.28	-0.29
State	Benadir	5.41	0.51	0.20
	Hirshabelle	4.75	0.87	-0.46
	Jubaland	5.31	0.60	0.10
	Southwest	5.18	0.97	-0.03

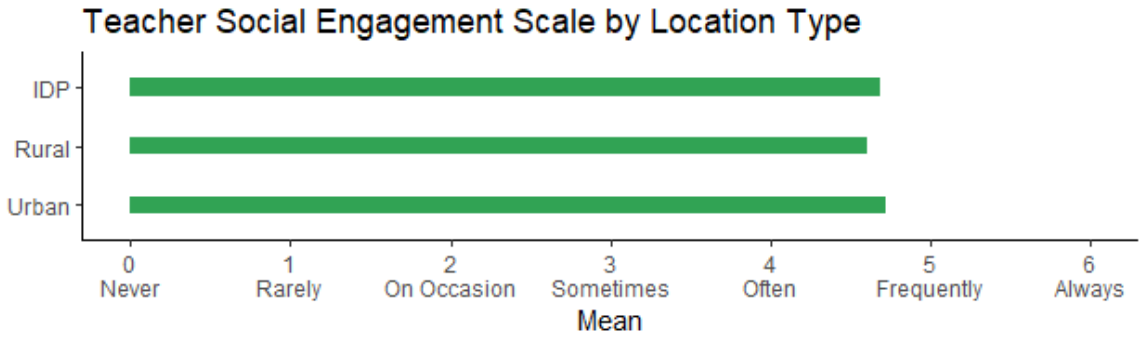
Teacher Social Engagement Scale

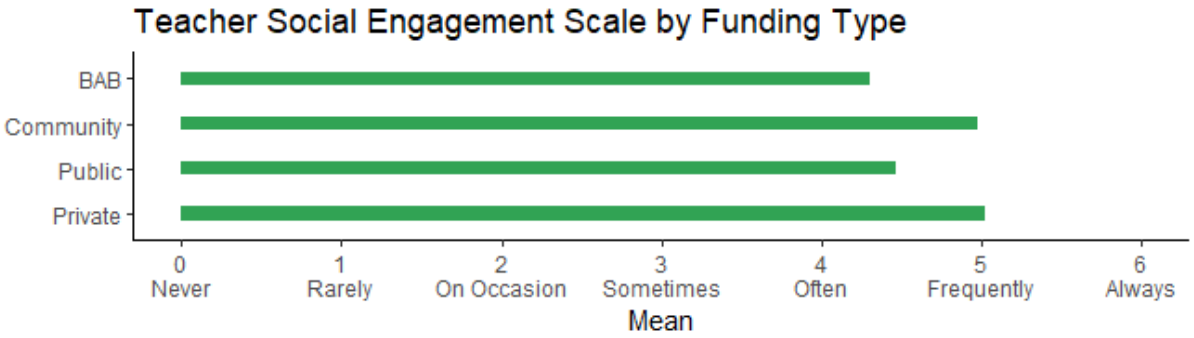
Social Dimension:

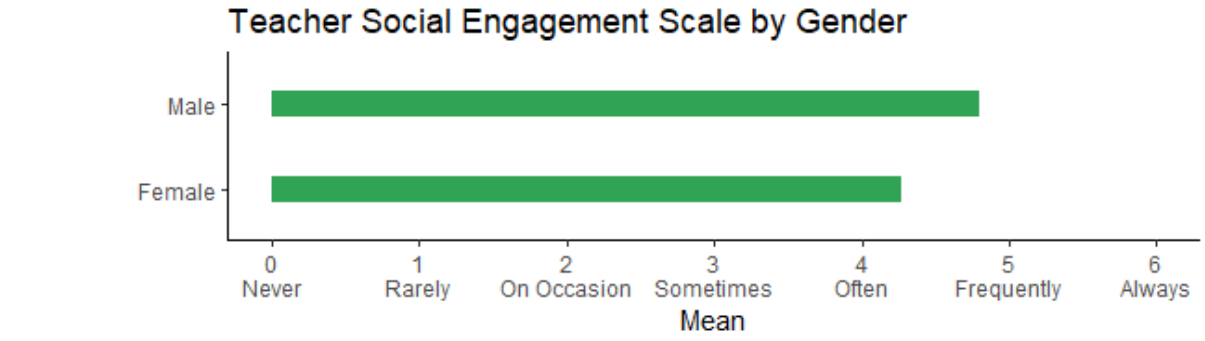
- In class, I show warmth to my students.
- In class, I am aware of my students' feelings.
- In class, I am empathetic towards my students.

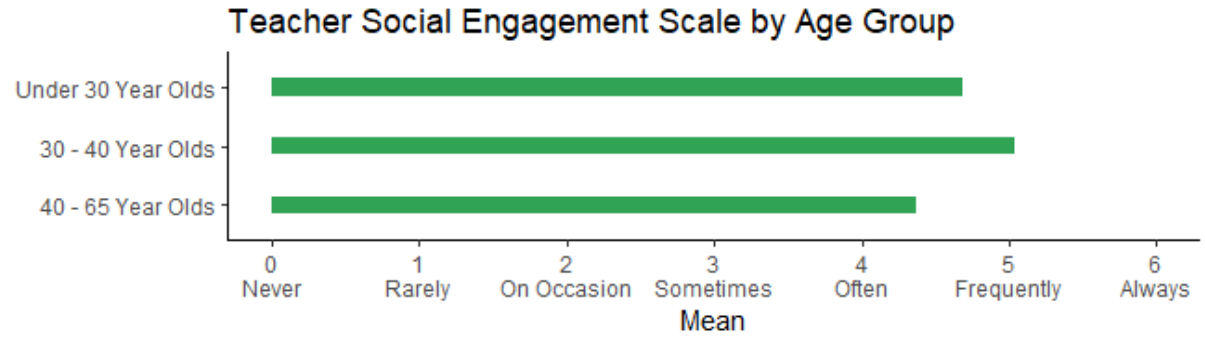
All items were measured on a 7 point Likert scale (0-Never, 1-Rarely, 2-On occasion, 3-Sometimes, 4-Often, 5-Frequently, 6-Always) where teachers indicated their perceived level of support.

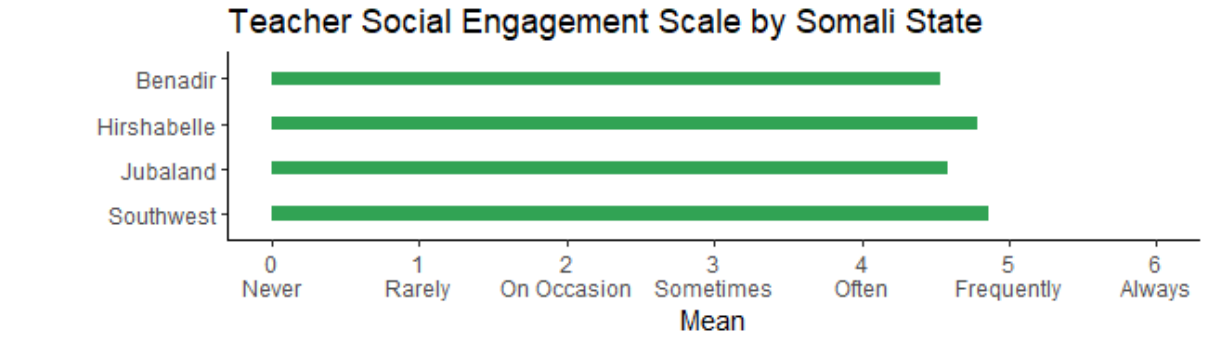



Teacher Social Engagement Scale by Location Type
IDP
Rural
Urban
0
Never
1
Rarely
2
On Occasion
3
Sometimes
4
Often
5
Frequently
6
Always
Mean


Teacher Social Engagement Scale by Funding Type
BAB
Community
Public
Private
0
Never
1
Rarely
2
On Occasion
3
Sometimes
4
Often
5
Frequently
6
Always
Mean







Group	Subgroup	Mean	SD	Diff from Overal l Mean
All Teachers Social Engagement Scale		**4.69**	**1.04**	
Program	Both BAB and Formal Primary	4.80	1.04	0.11
	BAB Only	4.30	1.28	-0.39
	Formal Primary Only	4.70	0.73	0.01
Location Type	IDP	4.69	1.18	0.00
	Rural	4.60	1.20	-0.09
	Urban	4.72	0.95	0.03
Funding Type	BAB	4.30	1.28	-0.39
	Community	4.97	0.80	0.28
	Public	4.46	1.21	-0.23
	Private	5.02	0.63	0.33

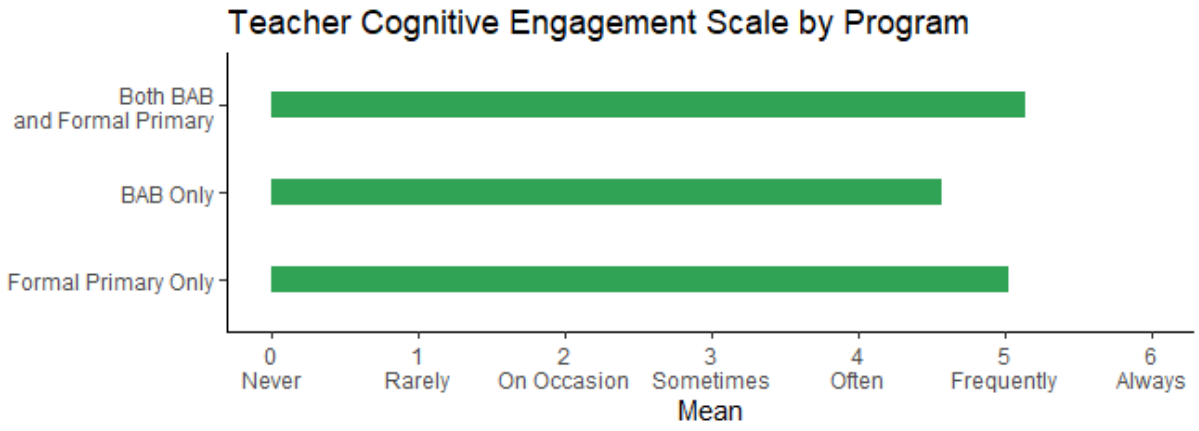
Group	Subgroup	Mean	SD	Diff from Overal l Mean
Gender	Male	4.80	0.98	0.11
	Female	4.27	1.18	-0.42
Age Group	Under 30 Year Olds	4.68	0.91	-0.01
	30 - 40 Year Olds	5.04	0.84	0.35
	40 - 65 Year Olds	4.37	1.68	-0.32
State	Benadir	4.54	0.57	-0.15
	Hirshabelle	4.79	1.35	0.10
	Jubaland	4.58	0.78	-0.11
	Southwest	4.86	1.37	0.17

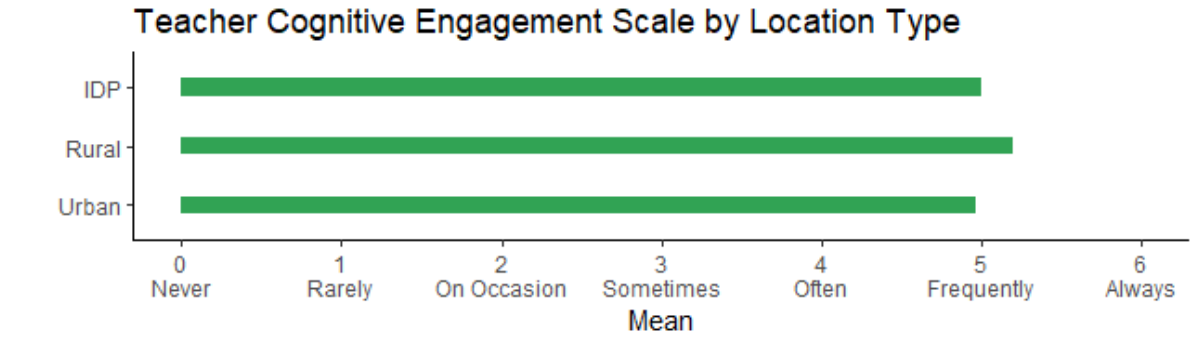
Teacher Cognitive Engagement Scale

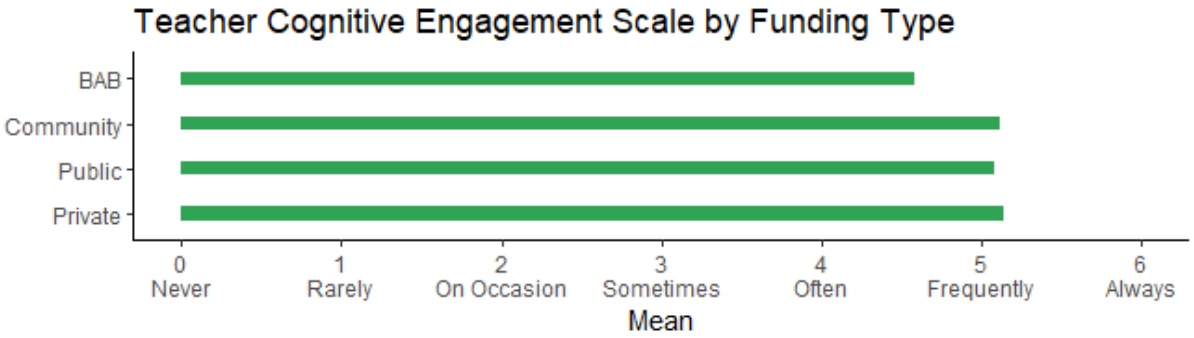
Cognitive Dimension:

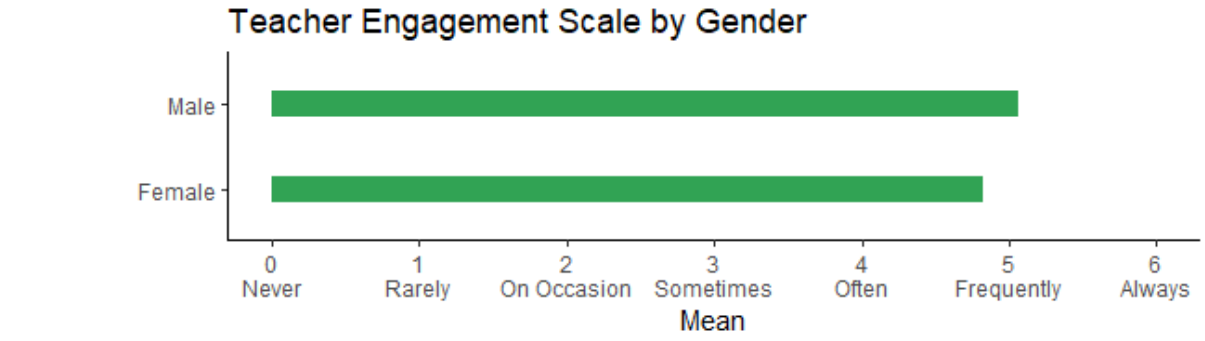
- I try my hardest to perform well while teaching.
- While teaching, I really –"throw" myself into my work.
- While teaching I pay a lot of attention to my work.
- While teaching, I work with intensity.

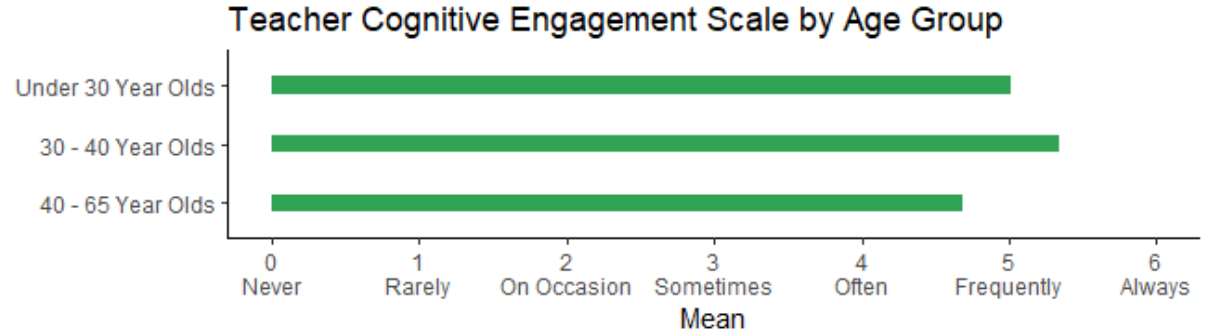
All items were measured on a 7 point Likert scale (0-Never, 1-Rarely, 2-On occasion, 3-Sometimes, 4-Often, 5-Frequently, 6-Always) where teachers indicated their perceived level of support.

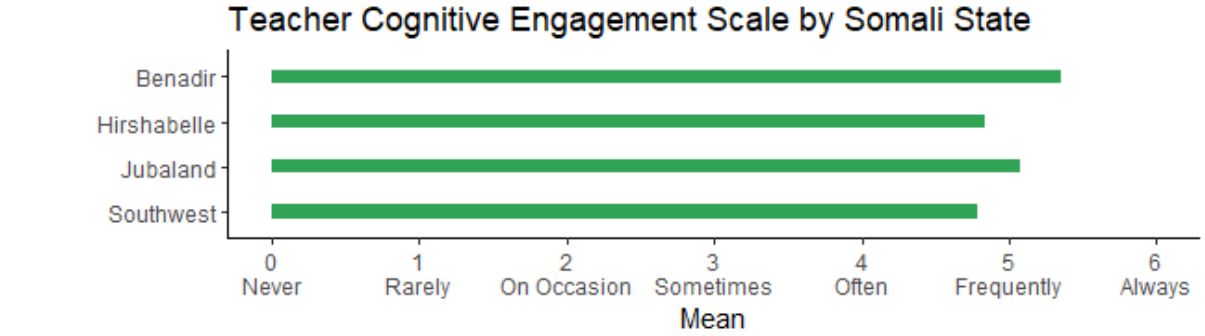



Teacher Cognitive Engagement Scale by Location Type
IDP
Rural
Urban
0
Never
1
Rarely
2
On Occasion
3
Sometimes
4
Often
5
Frequently
6
Always
Mean


Teacher Cognitive Engagement Scale by Funding Type
BAB
Community
Public
Private
0
Never
1
Rarely
2
On Occasion
3
Sometimes
4
Often
5
Frequently
6
Always
Mean







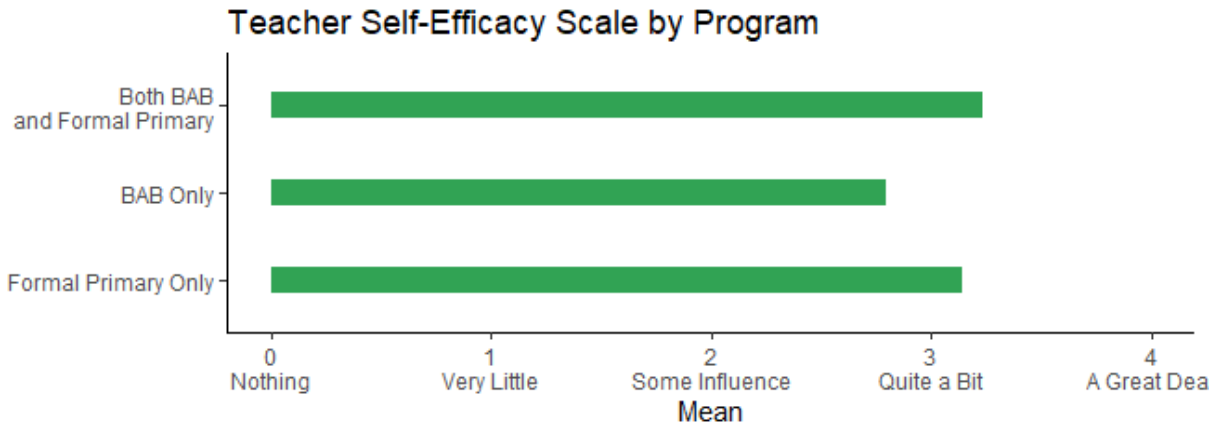
Group	Subgroup	Mean	SD	Diff from Overal l Mean
All Teachers Cognitive Engagement Scale		**5.01**	**0.81**	
Program	Both BAB and Formal Primary	5.14	0.75	0.13
	BAB Only	4.58	1.09	-0.44
	Formal Primary Only	5.03	0.55	0.01
Location Type	IDP	5.00	0.96	-0.01
	Rural	5.20	0.66	0.19
	Urban	4.96	0.79	-0.05
Funding Type	BAB	4.58	1.09	-0.44
	Community	5.12	0.54	0.11
	Public	5.08	0.84	0.07
	Private	5.14	0.68	0.13

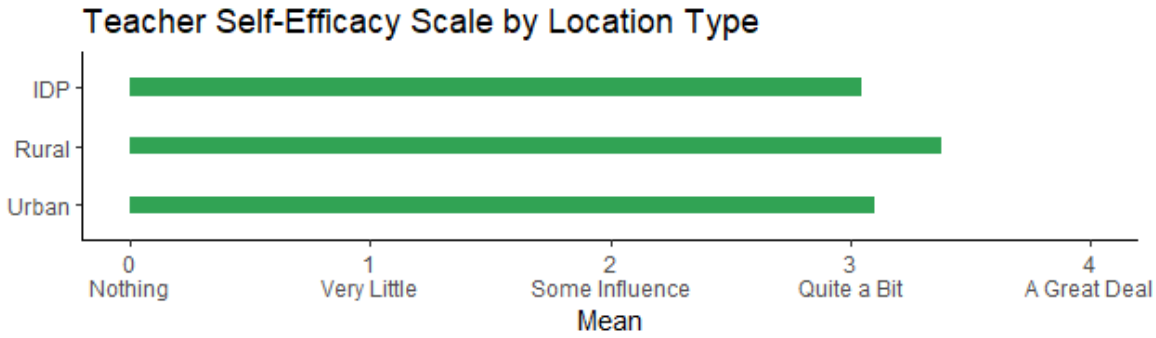
Group	Subgroup	Mean	SD	Diff from Overal l Mean
Gender	Male	5.06	0.77	0.05
	Female	4.82	0.95	-0.20
Age Group	Under 30 Year Olds	5.01	0.75	0.00
	30 - 40 Year Olds	5.34	0.40	0.33
	40 - 65 Year Olds	4.69	1.23	-0.33
State	Benadir	5.35	0.53	0.33
	Hirshabelle	4.84	0.86	-0.17
	Jubaland	5.08	0.56	0.06
	Southwest	4.78	1.08	-0.23

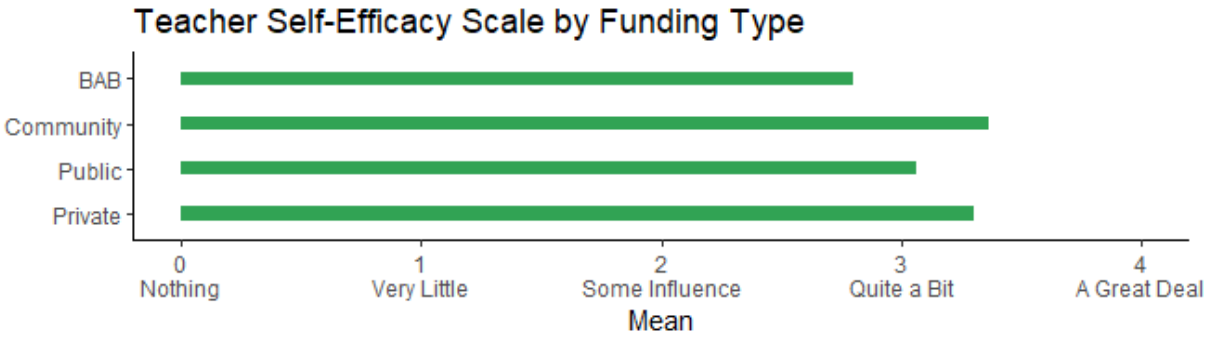
Teacher Self-Efficacy Scale

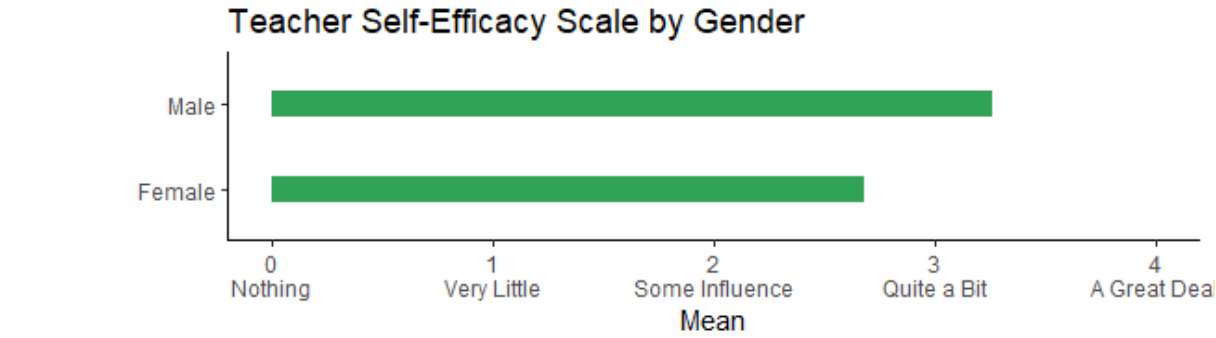
The Self-Efficacy scale questions were used to assess Teacher's self-efficacy. This scale is a composite of the Instructional and Disciplinary dimensions. The two separate dimensions can be found below.

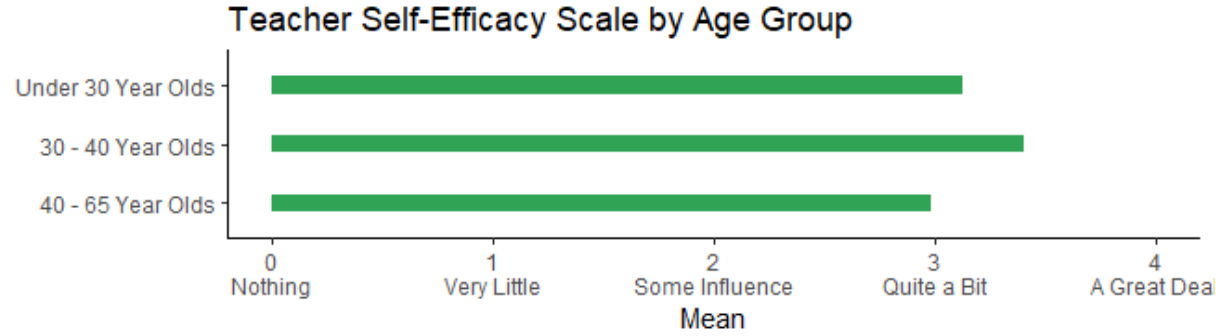
All items were measured on a 5 point Likert scale (0-nothing, 1-very little, 2-some influence, 3-quite a bit, 4-a great deal) where teachers indicated their level of self-efficacy.

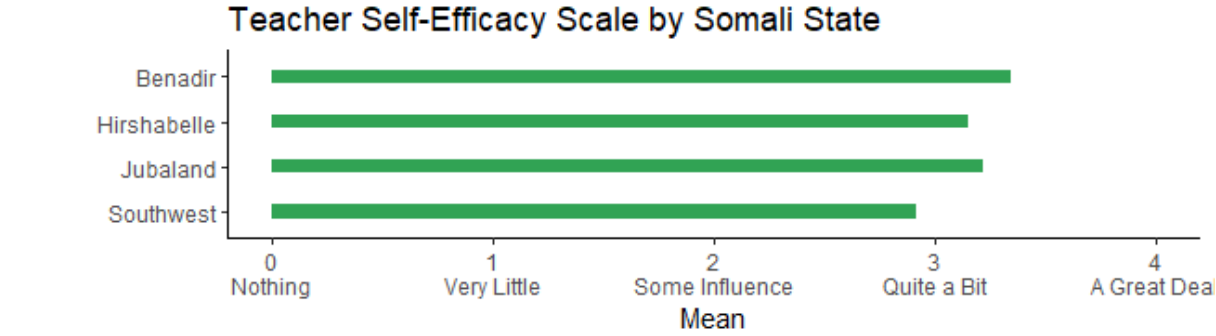



Teacher Self-Efficacy Scale by Location Type
IDP
Rural
Urban
0
Nothing
1
Very Little
2
Some Influence
3
Quite a Bit
4
A Great Deal
Mean


Teacher Self-Efficacy Scale by Funding Type
BAB
Community
Public
Private
0
Nothing
1
Very Little
2
Some Influence
3
Quite a Bit
4
A Great Deal
Mean







Group	Subgroup	Mean	SD	Diff from Overal l Mean
All Teachers Self-Efficacy Scale		**3.14**	**0.59**	
Program	Both BAB and Formal Primary	3.24	0.63	0.10
	BAB Only	2.80	0.52	-0.34
	Formal Primary Only	3.14	0.43	0.00
Location Type	IDP	3.05	0.67	-0.09
	Rural	3.38	0.49	0.24
	Urban	3.10	0.59	-0.04
Funding Type	BAB	2.80	0.52	-0.34
	Community	3.36	0.46	0.22
	Public	3.06	0.69	-0.08
	Private	3.30	0.51	0.16

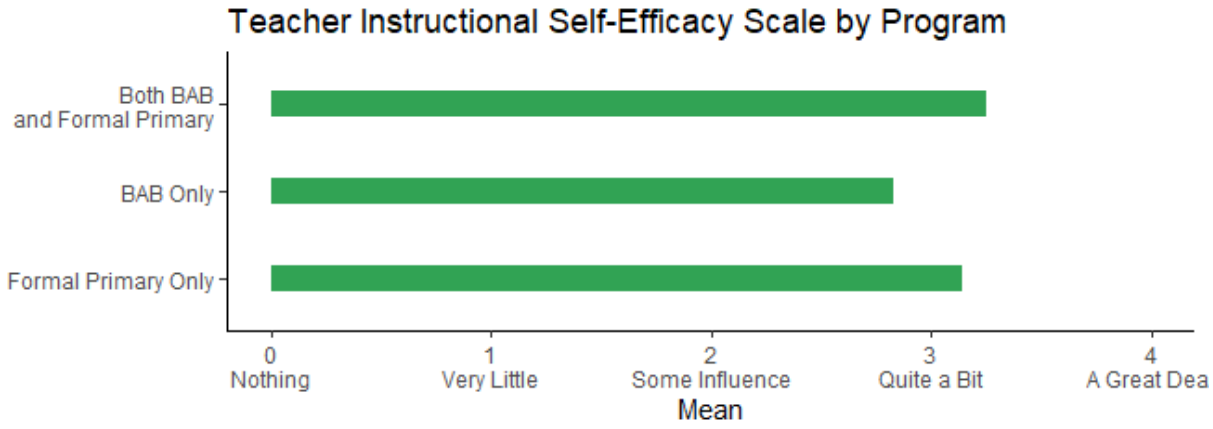
Group		Subgroup	Mean	SD	Diff from Overal l Mean
Gender	*	Male	3.26	0.52	0.12
		Female	2.68	0.68	-0.46
Age Group		Under 30 Year Olds	3.12	0.62	-0.02
		30 - 40 Year Olds	3.40	0.50	0.26
		40 - 65 Year Olds	2.98	0.51	-0.16
State		Benadir	3.34	0.44	0.20
		Hirshabelle	3.15	0.85	0.01
		Jubaland	3.22	0.40	0.08
		Southwest	2.91	0.68	-0.23

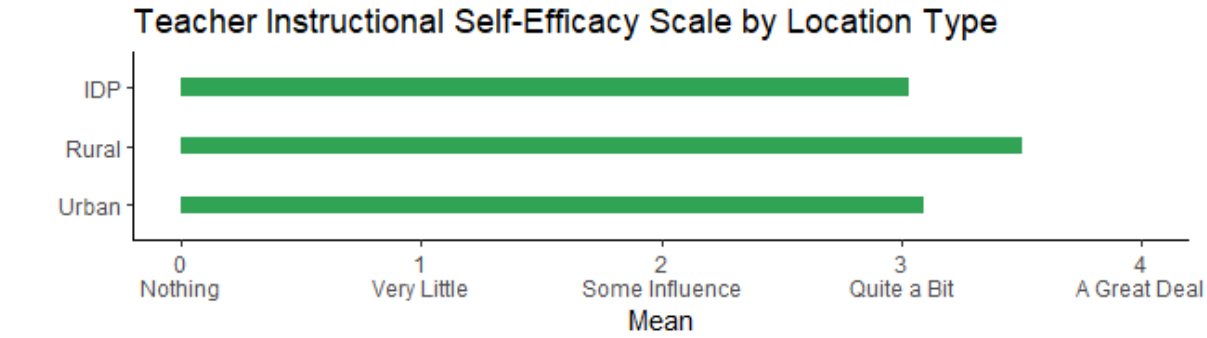
Teacher Instructional Self-Efficacy Scale

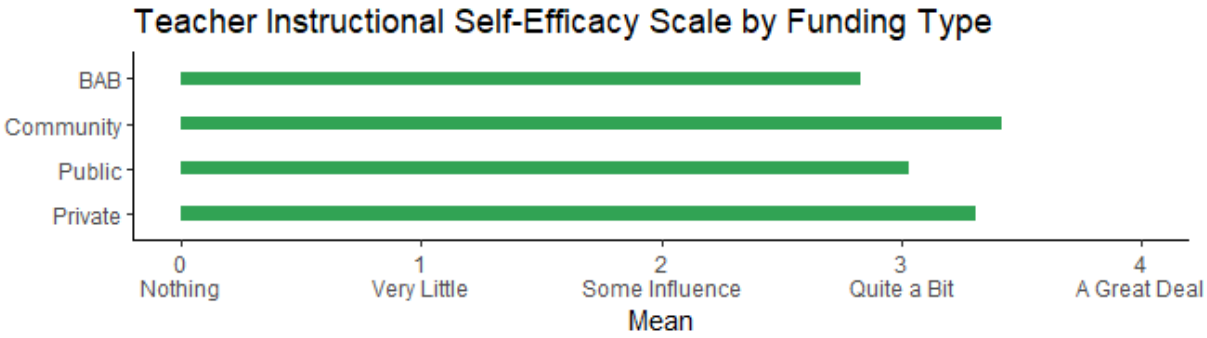
The Instructional Self-Efficacy scale questions were used to assess Teacher's self-efficacy in regards to instruction. The scale is a composed of the items below:

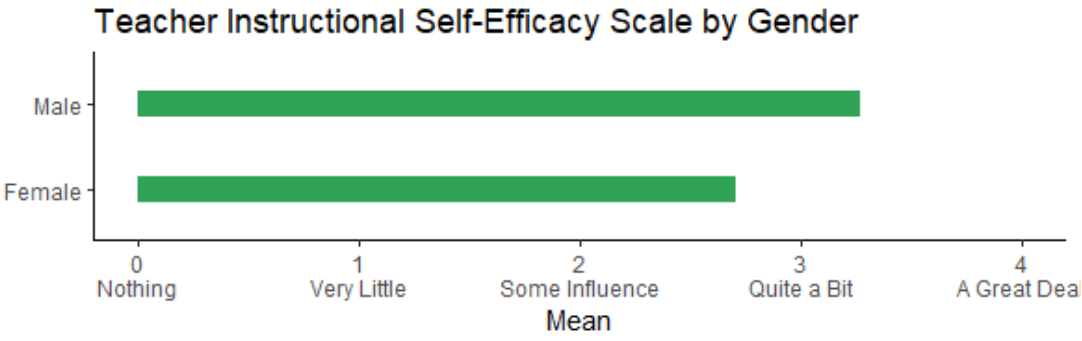
- How much can you do to get through to the most difficult students?
- How much can you do to promote learning when there is lack of support from the home?
- How much can you do to increase students' memory of what they have been taught in previous lessons?
- How much can you do to motivate students who show low interest in schoolwork?
- How much can you do to get students to work together?
- How much can you do to overcome the influence of adverse community conditions on students' learning?
- How much can you do to get children to do their homework?

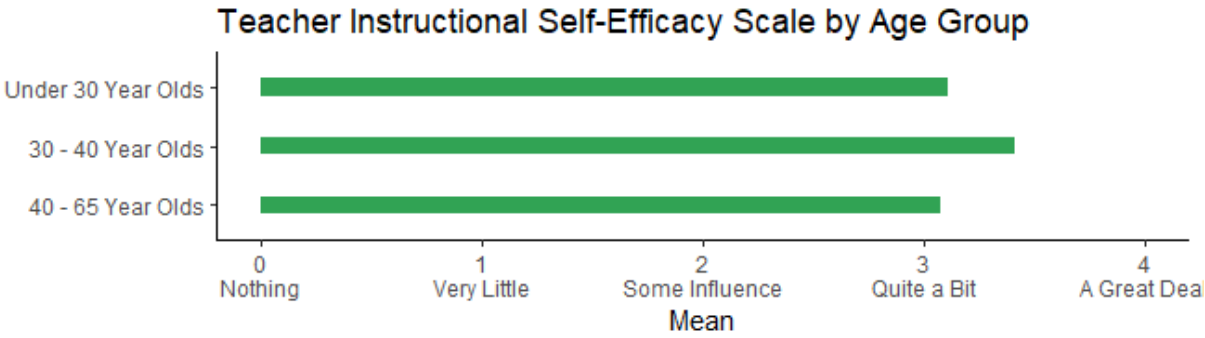
All items were measured on a 5 point Likert scale (0-nothing, 1-very little, 2-some influence, 3-quite a bit, 4-a great deal) where teachers indicated their level of self-efficacy.

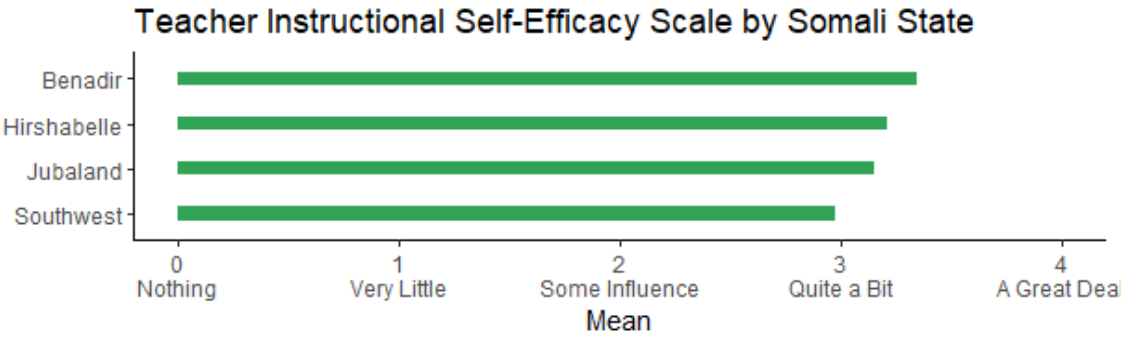



Teacher Instructional Self-Efficacy Scale by Location Type
IDP
Rural
Urban
0
Nothing
1
Very Little
2
Some Influence
3
Quite a Bit
4
A Great Deal
Mean


Teacher Instructional Self-Efficacy Scale by Funding Type
BAB
Community
Public
Private
0
Nothing
1
Very Little
2
Some Influence
3
Quite a Bit
4
A Great Deal
Mean







Group	Subgroup	Mean	SD	Diff from Overal l Mean
All Teachers Instructional Self-Efficacy Scale		**3.15**	**0.62**	
Program	Both BAB and Formal Primary	3.25	0.67	0.10
	BAB Only	2.83	0.59	-0.32
	Formal Primary Only	3.14	0.32	-0.01
Location Type	IDP	3.03	0.67	-0.12
	Rural	3.50	0.45	0.35
	Urban	3.09	0.62	-0.06
Funding Type	BAB	2.83	0.59	-0.32
	Community	3.42	0.45	0.27
	Public	3.03	0.71	-0.12
	Private	3.31	0.54	0.16

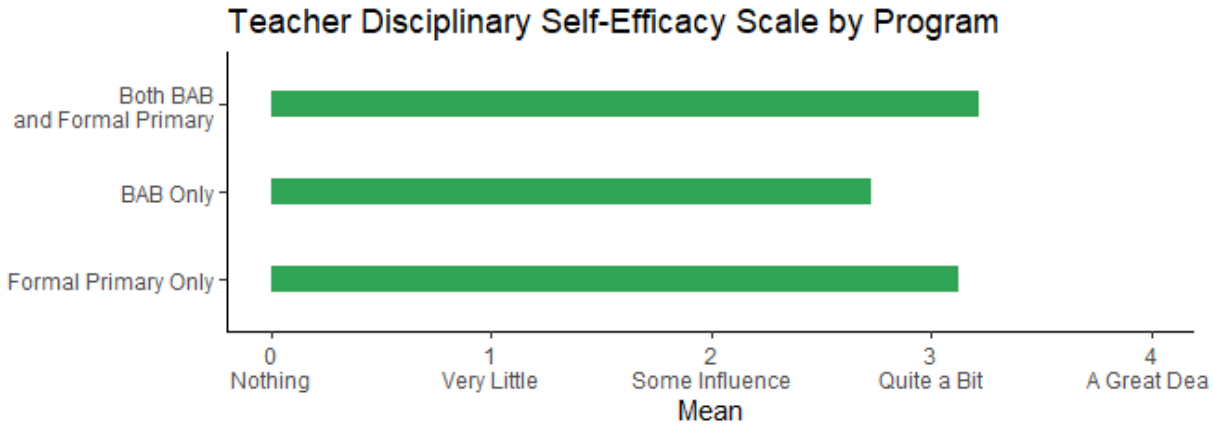
Group		Subgroup	Mean	SD	Diff from Overal l Mean
Gender	*	Male	3.27	0.54	0.11
		Female	2.70	0.72	-0.45
Age Group		Under 30 Year Olds	3.11	0.63	-0.04
		30 - 40 Year Olds	3.41	0.68	0.26
		40 - 65 Year Olds	3.07	0.52	-0.08
State		Benadir	3.34	0.50	0.19
		Hirshabelle	3.21	0.81	0.06
		Jubaland	3.15	0.40	0.00
		Southwest	2.97	0.76	-0.18

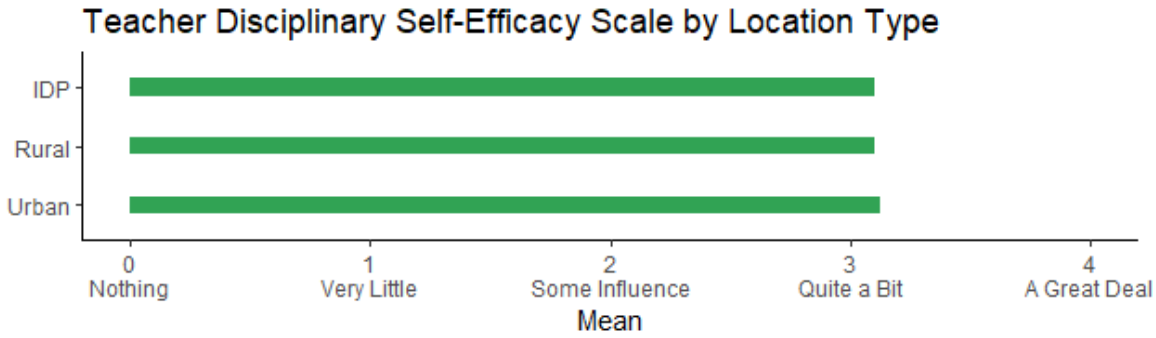
Teacher Disciplinary Self-Efficacy Scale

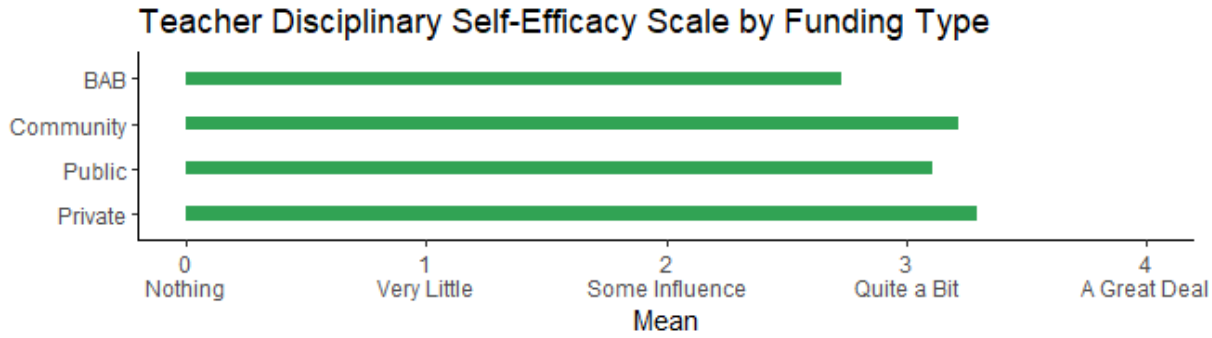
The Disciplinary Self-Efficacy scale questions were used to assess Teacher's self-efficacy in regards to discipline. The scale is a composed of the items below:

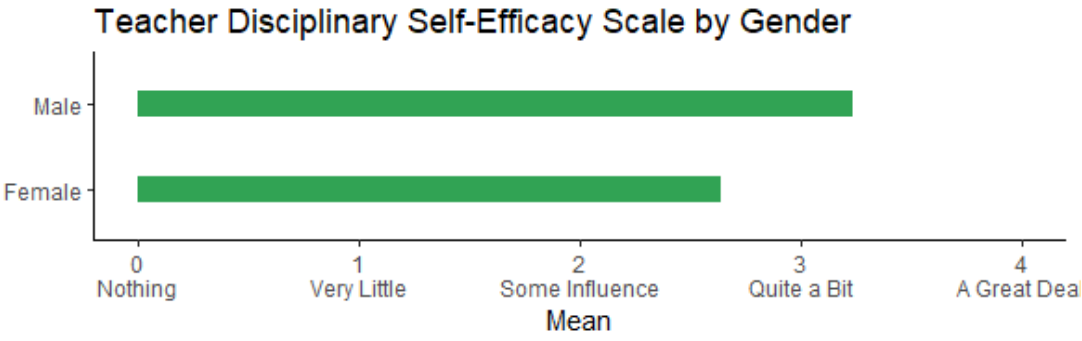
- How much can you do to get children to follow classroom rules?
- How much can you do to control disruptive behavior in the classroom?
- How much can you do to prevent problem behavior on the school grounds?

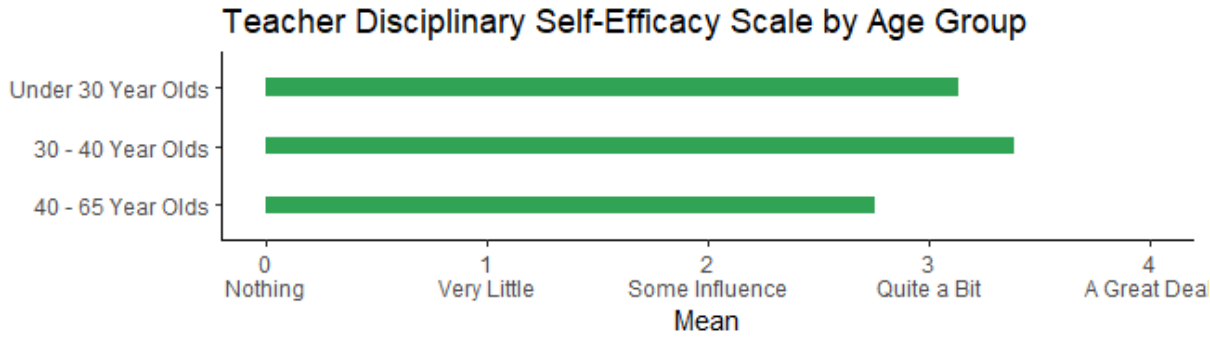
All items were measured on a 5 point Likert scale (0-nothing, 1-very little, 2-some influence, 3-quite a bit, 4-a great deal) where teachers indicated their level of self-efficacy.

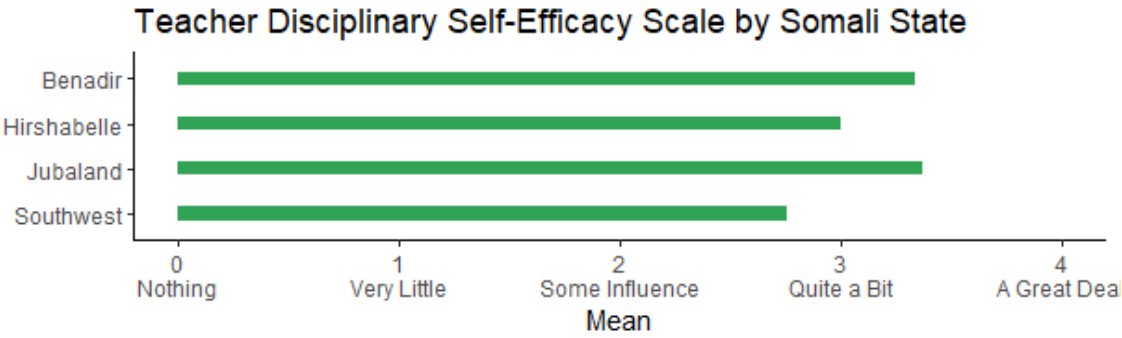



Teacher Disciplinary Self-Efficacy Scale by Location Type
IDP
Rural
Urban
0
Nothing
1
Very Little
2
Some Influence
3
Quite a Bit
4
A Great Deal
Mean


Teacher Disciplinary Self-Efficacy Scale by Funding Type
BAB
Community
Public
Private
0
Nothing
1
Very Little
2
Some Influence
3
Quite a Bit
4
A Great Deal
Mean







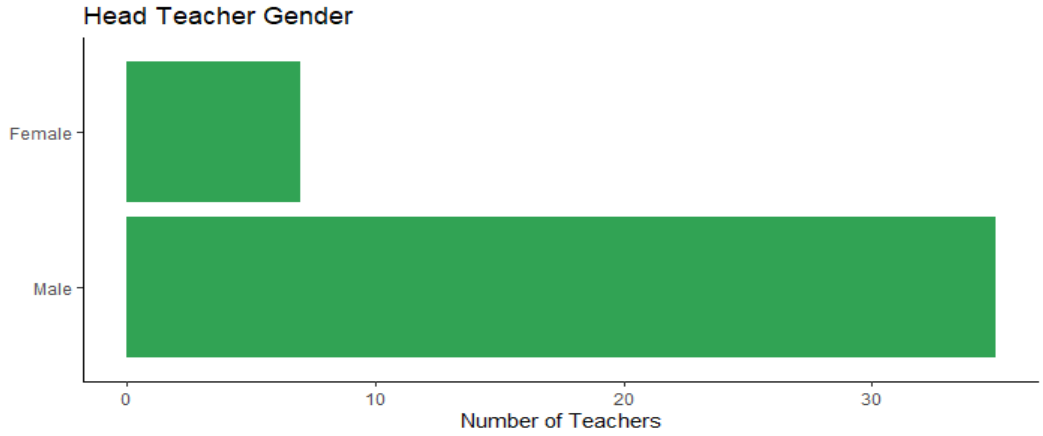
Group	Subgroup	Mean	SD	Diff from Overal l Mean
All Teachers Disciplinary Self-Efficacy Scale		**3.11**	**0.73**	
Program	Both BAB and Formal Primary	3.22	0.73	0.11
	BAB Only	2.73	0.61	-0.38
	Formal Primary Only	3.13	0.81	0.02
Location Type	IDP	3.10	0.74	-0.01
	Rural	3.10	0.82	-0.01
	Urban	3.12	0.73	0.01
Funding Type	BAB	2.73	0.61	-0.38
	Community	3.22	0.70	0.11
	Public	3.11	0.91	0.00
	Private	3.29	0.54	0.17

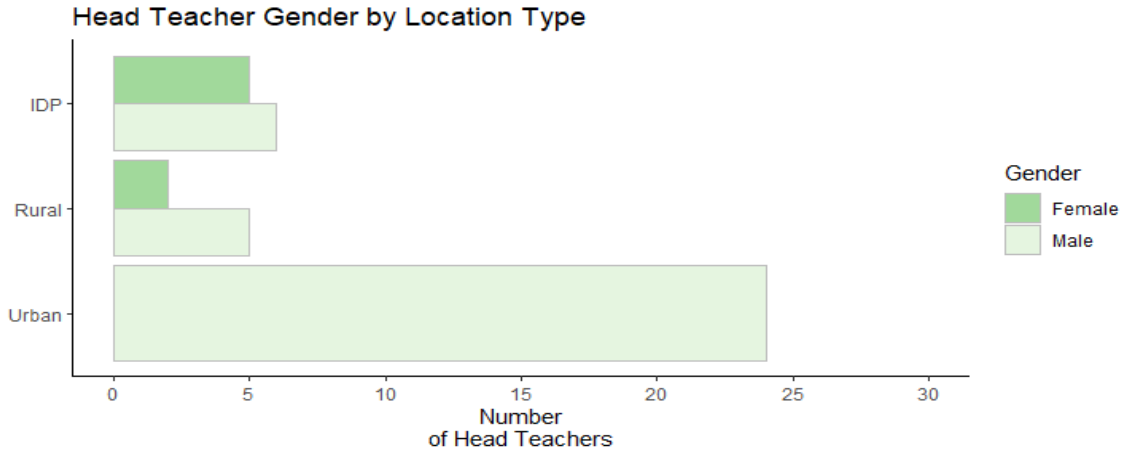
Group		Subgroup	Mean	SD	Diff from Overal l Mean
Gender	*	Male	3.23	0.69	0.12
		Female	2.64	0.72	-0.47
Age Group		Under 30 Year Olds	3.13	0.77	0.02
		30 - 40 Year Olds	3.38	0.57	0.26
		40 - 65 Year Olds	2.75	0.64	-0.36
State	*	Benadir	3.33	0.53	0.22
		Hirshabelle	3.00	0.96	-0.11
		Jubaland	3.37	0.72	0.26
	*	Southwest	2.75	0.65	-0.37

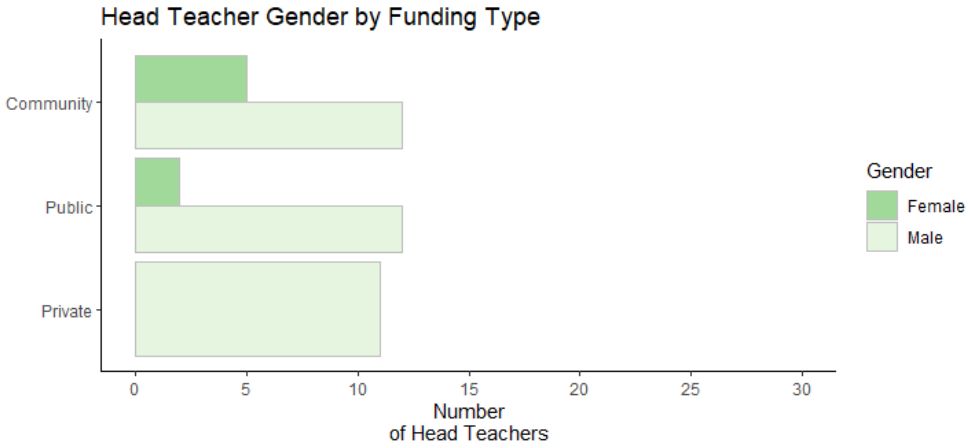
Longitudinal Study Summary Head Teacher Survey Data

Total Head Teachers = 42 from a Total of 42 Schools

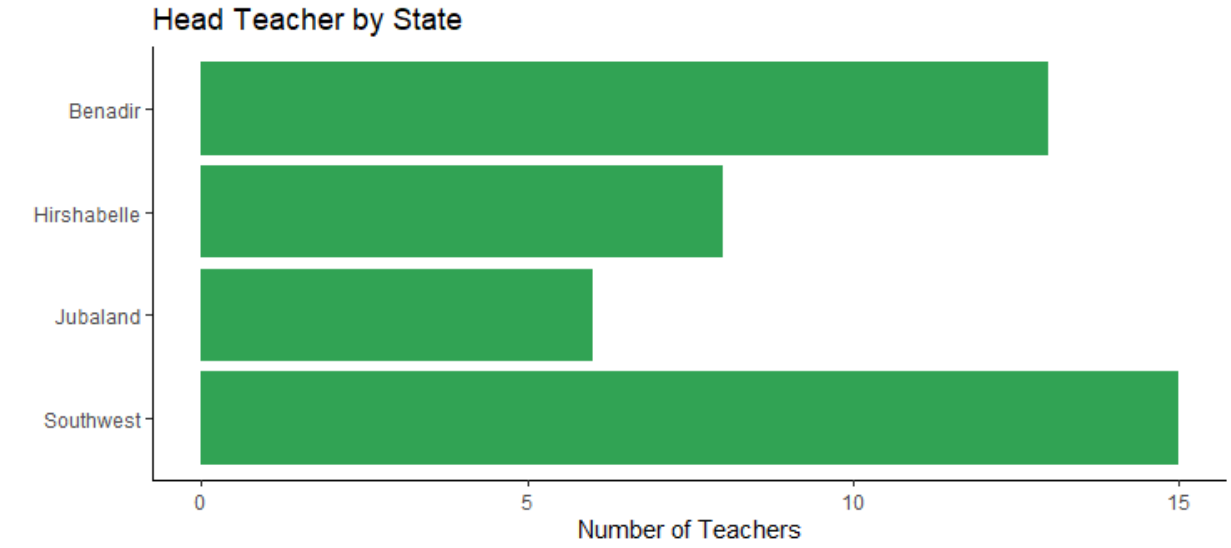
Head Teacher Gender Disaggregation

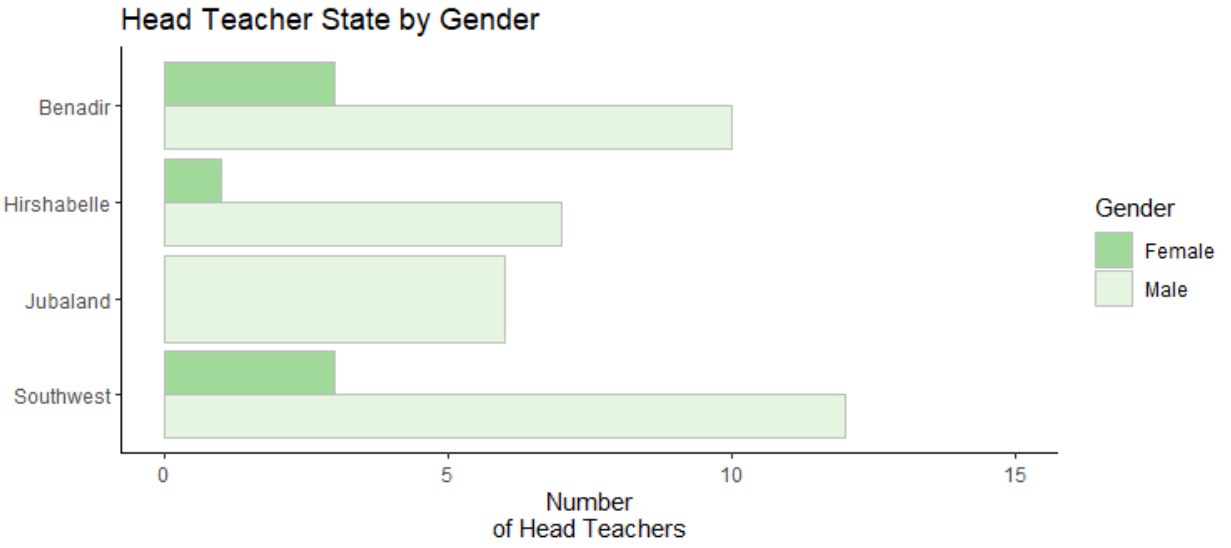




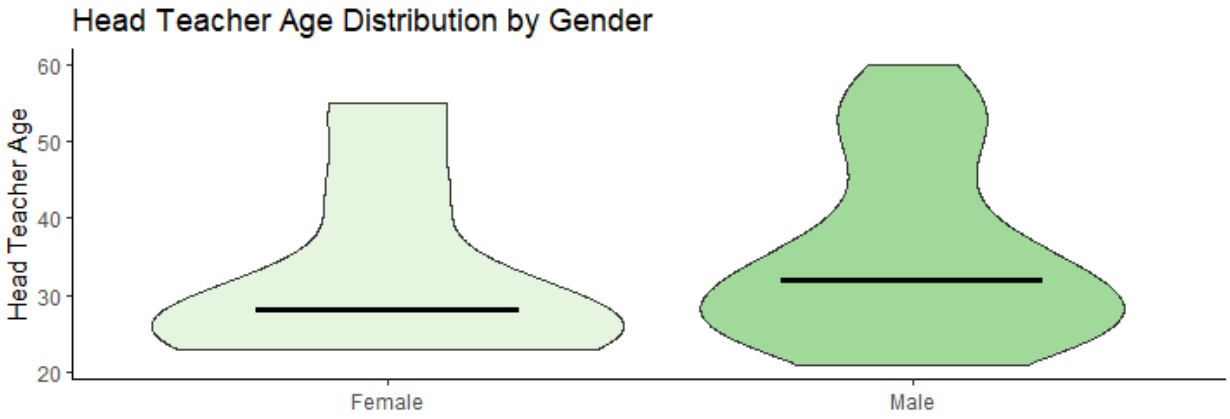


Head Teacher Program Disaggregated by State

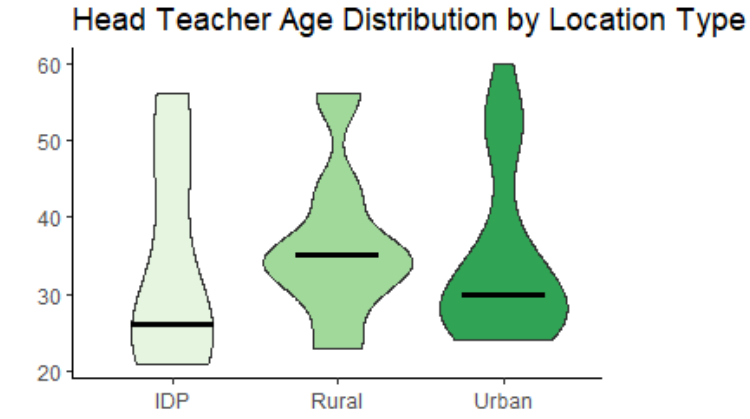




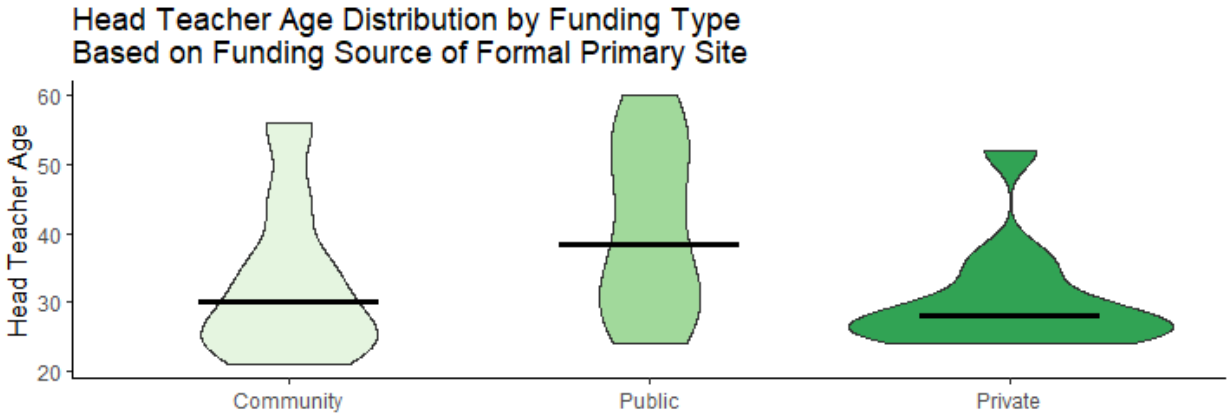
Head Teacher Age Disaggregation



Note: Medians are indicated by solid line

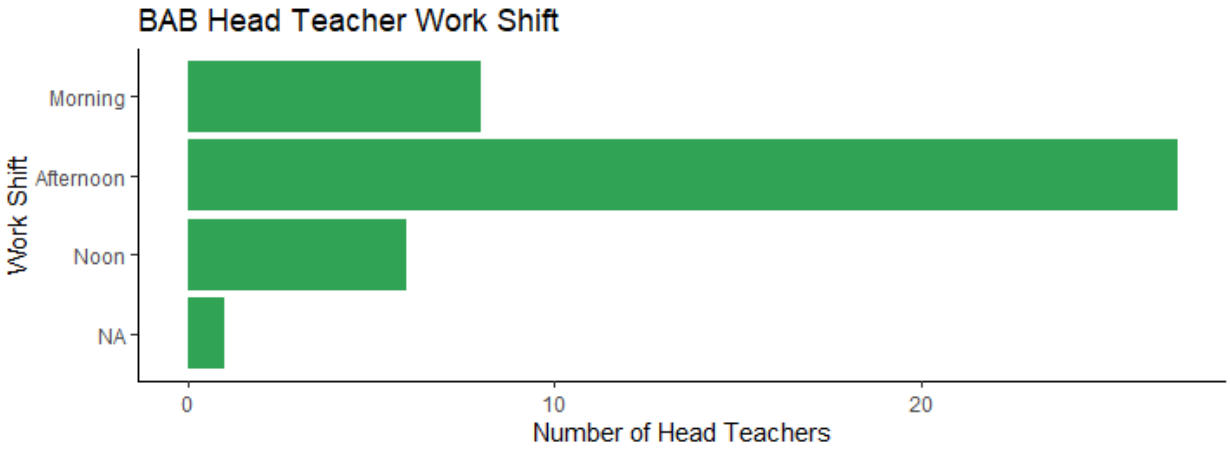


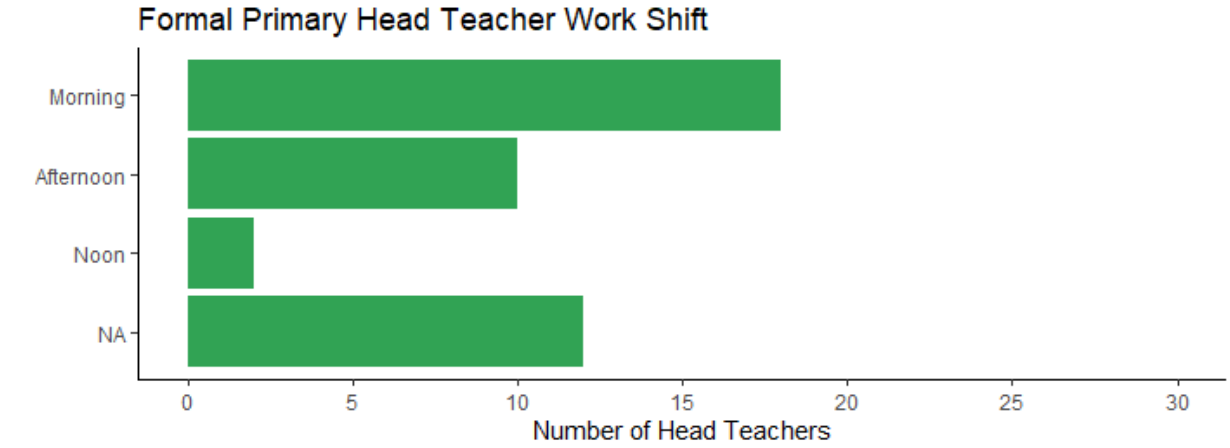
Note: Medians are indicated by solid line

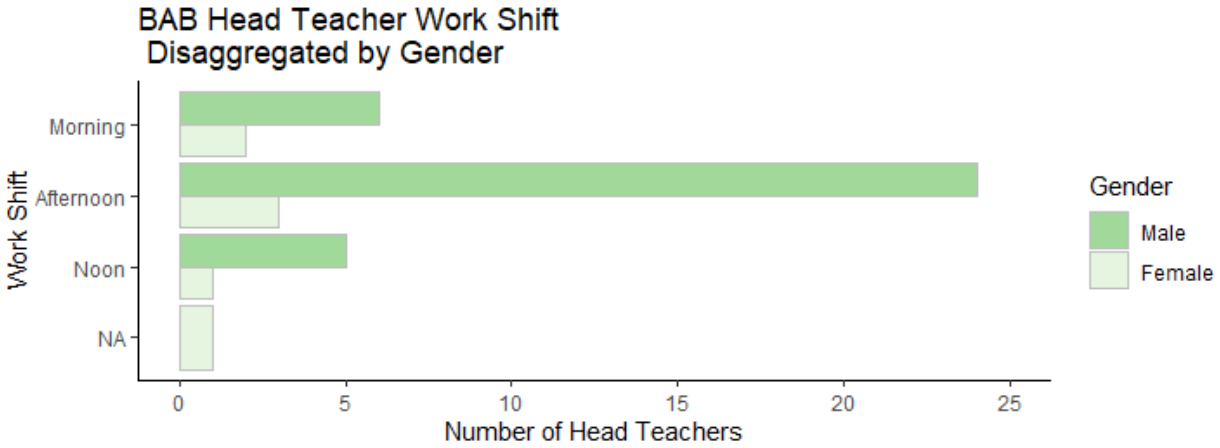


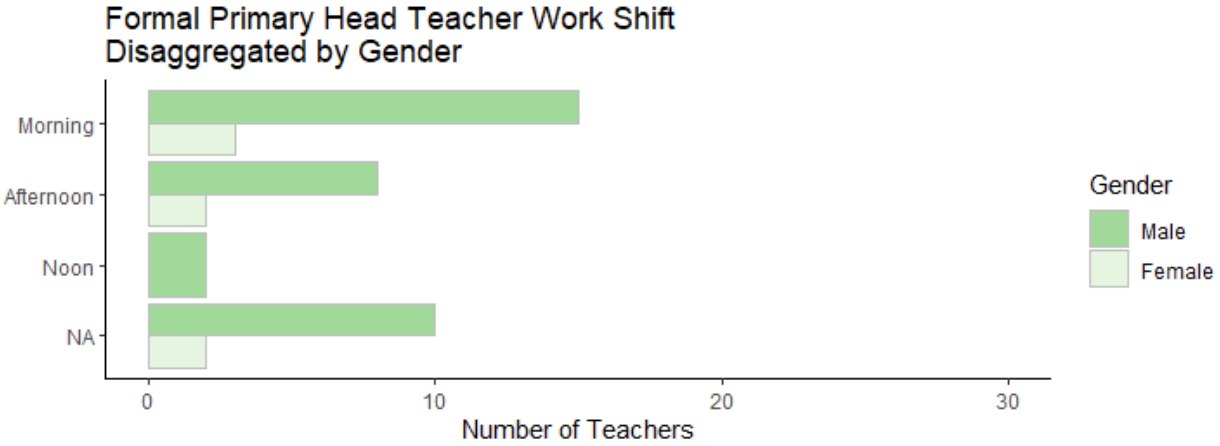
Note: Medians are indicated by solid line

Head Teacher Working Shifts

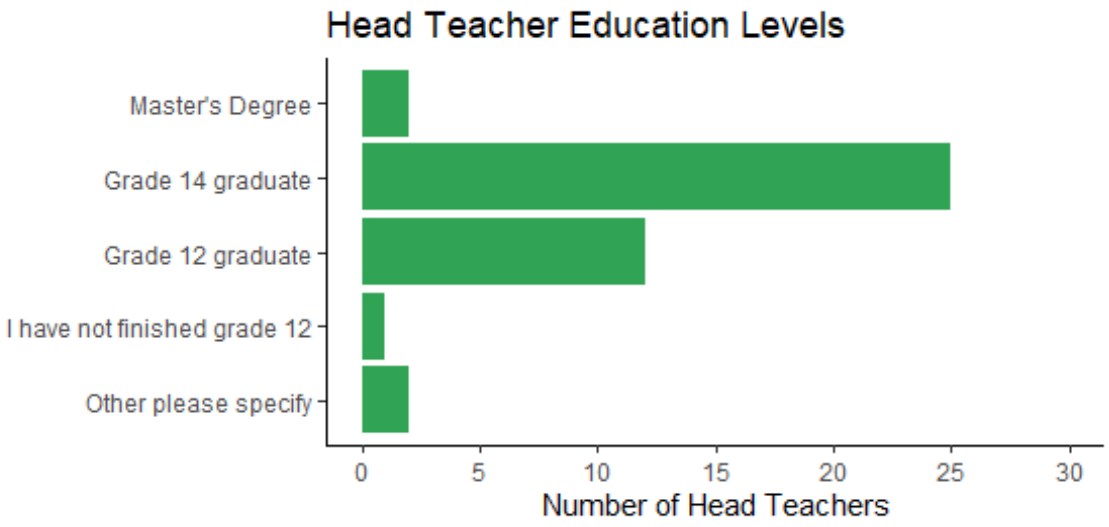


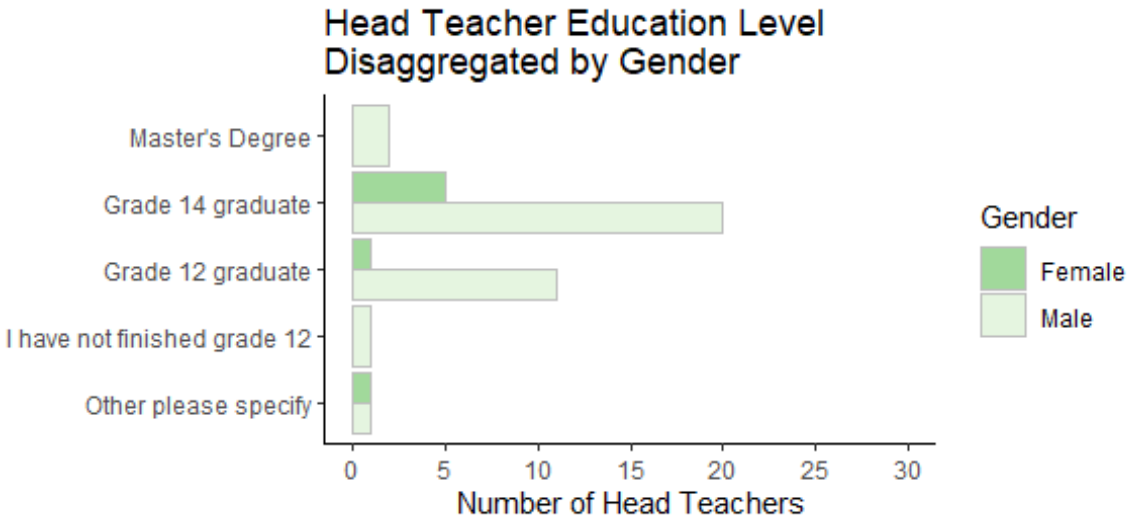



BAB Head Teacher Work Shift
Disaggregated by Gender
Work Shift
Morning
Afternoon
Noon
NA
0
5
10
15
20
25
Number of Head Teachers
Gender
Male
Female

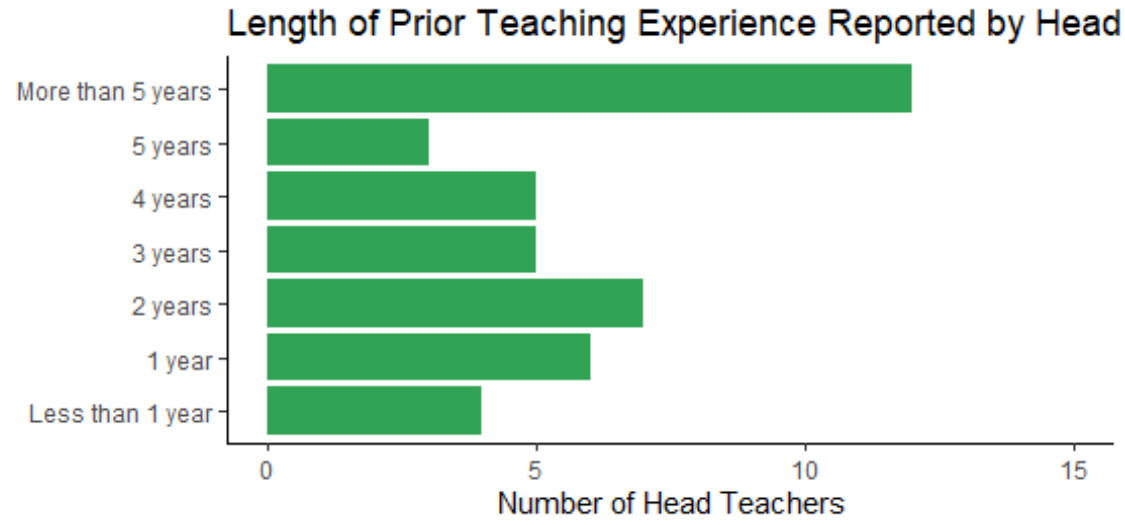

Formal Primary Head Teacher Work Shift
Disaggregated by Gender
Morning
Afternoon
Noon
NA
0
10
20
30
Number of Teachers
Gender
Male
Female

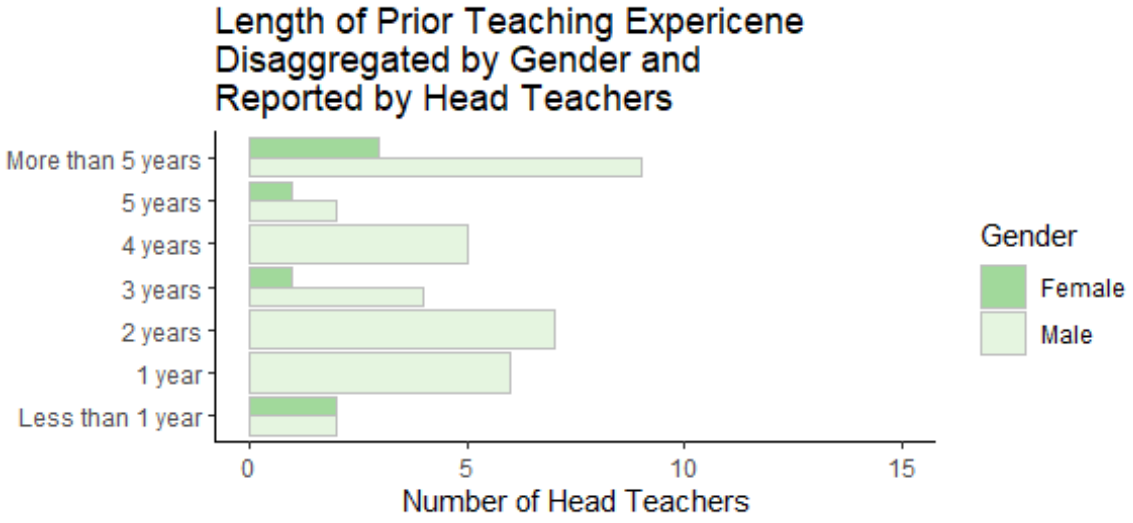
Head Teacher Education Levels



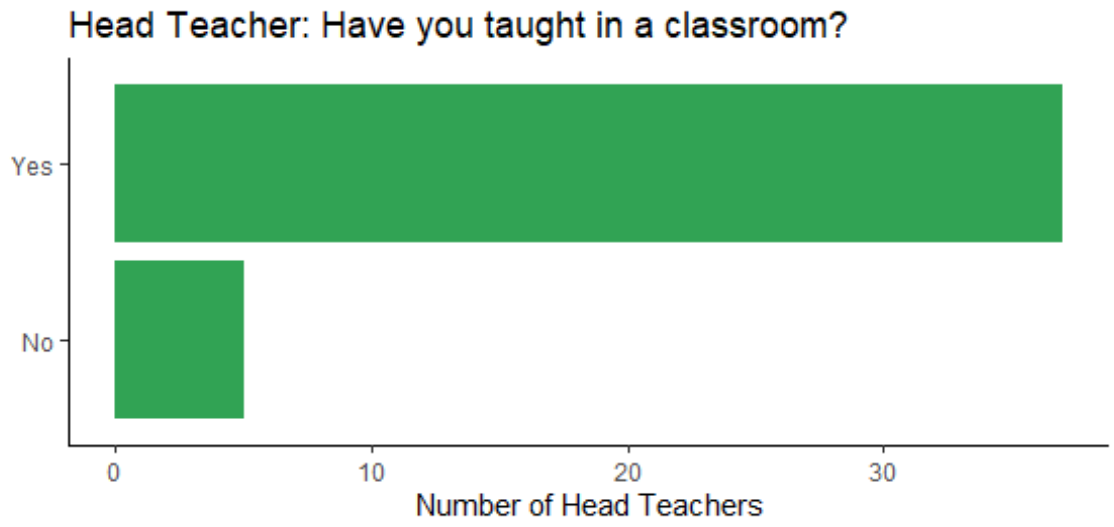


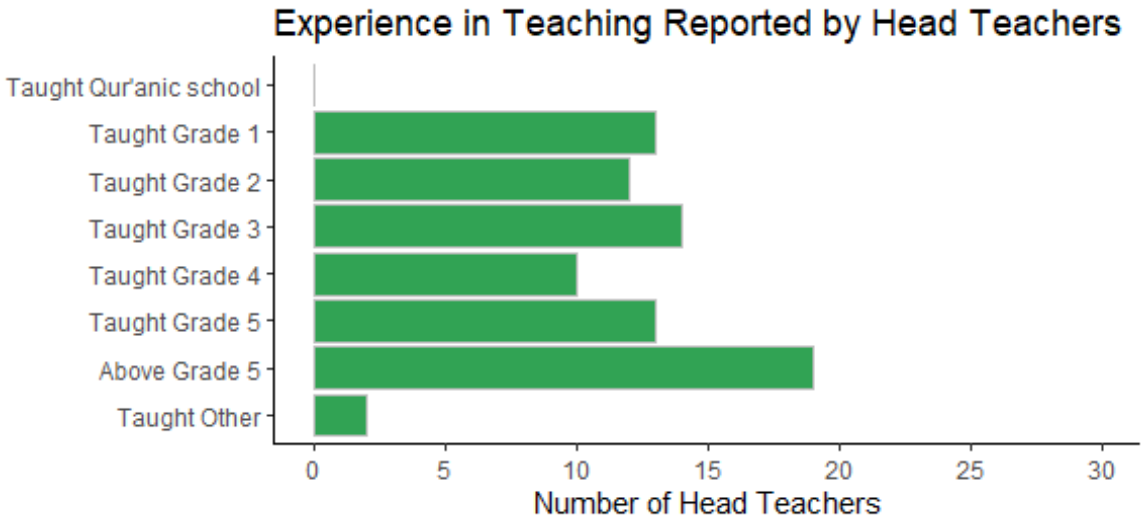
Head Teacher Prior Teaching Experience

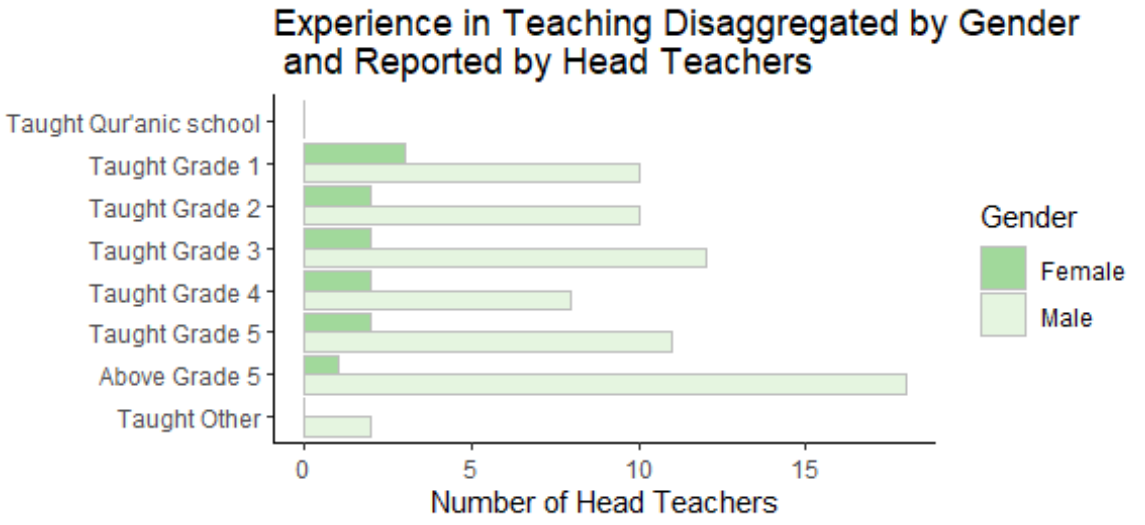




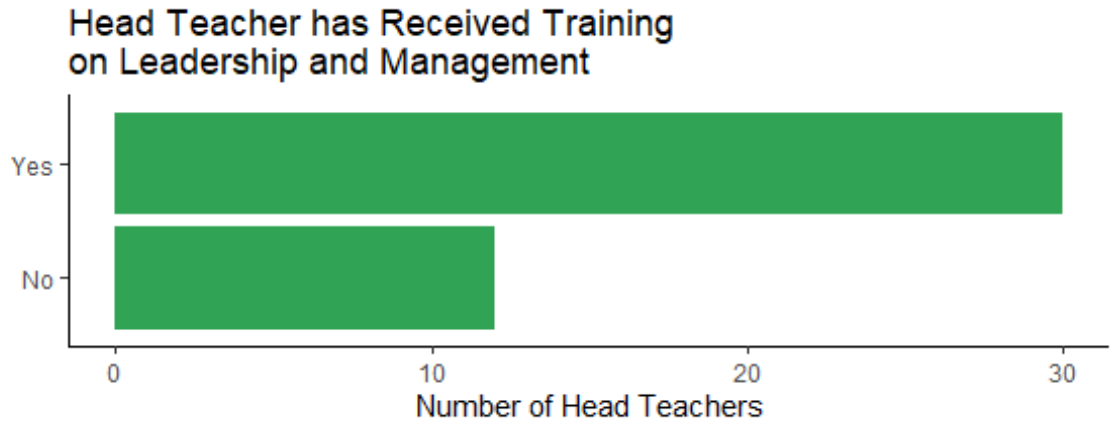
Head Teacher Grade Level Teaching Experience

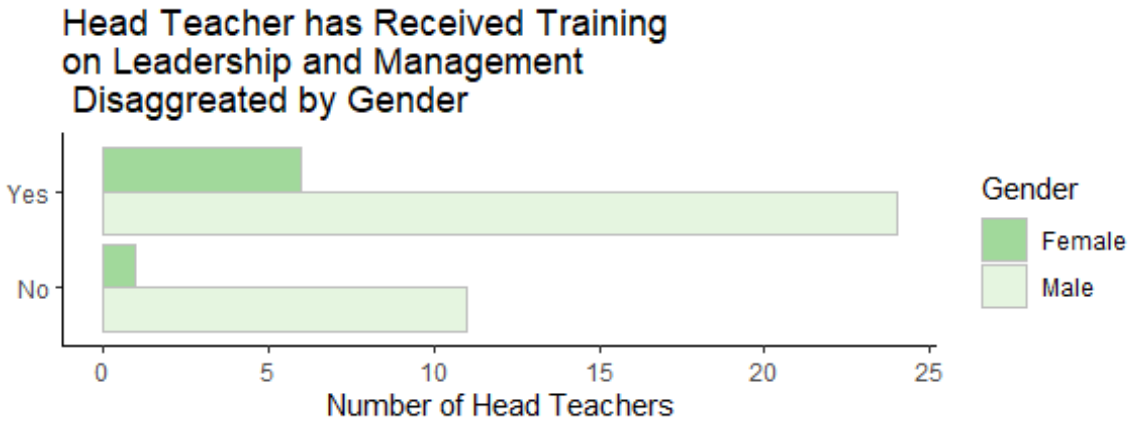


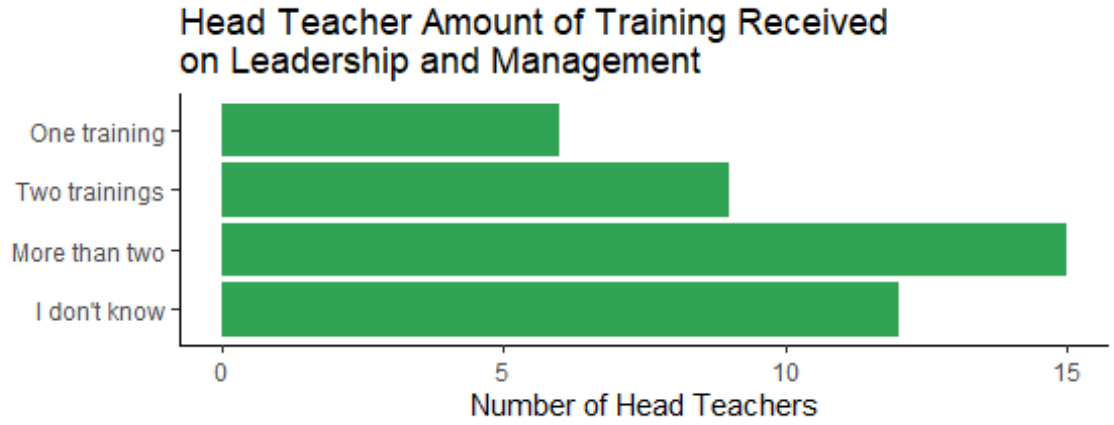




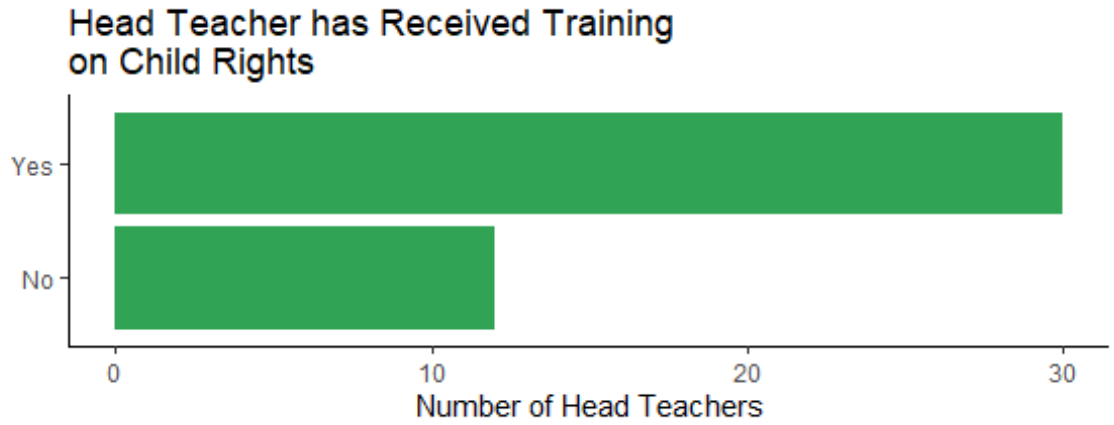
Head Teacher Leadership and Management Training Experience

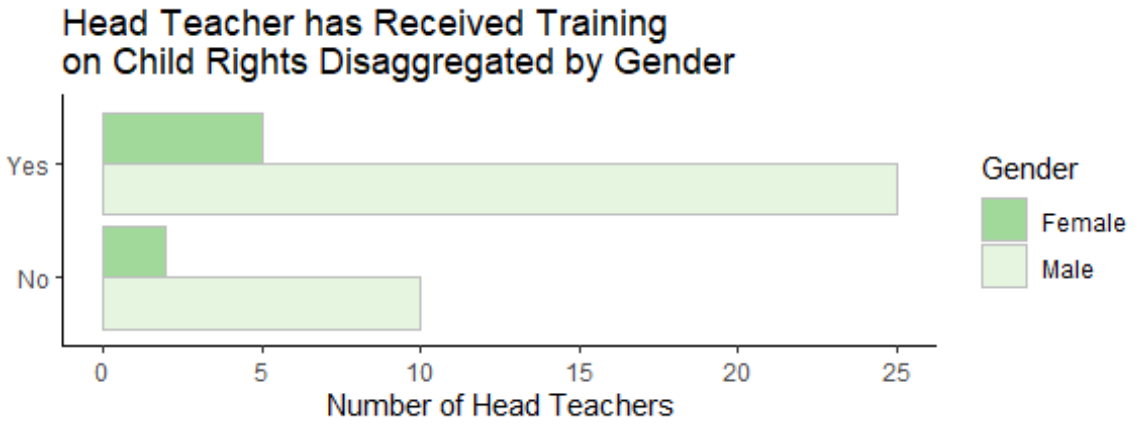


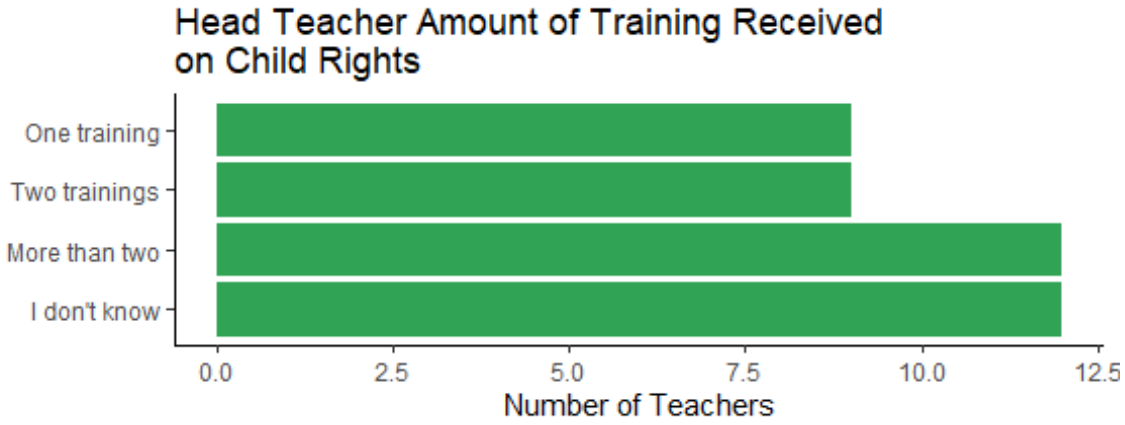




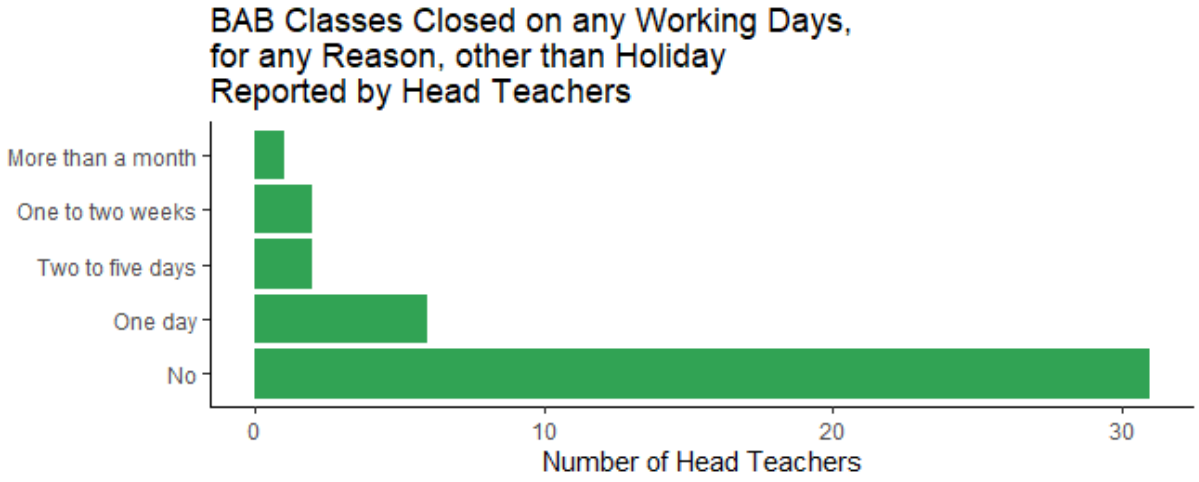
Head Teacher Child Rights Training Experience

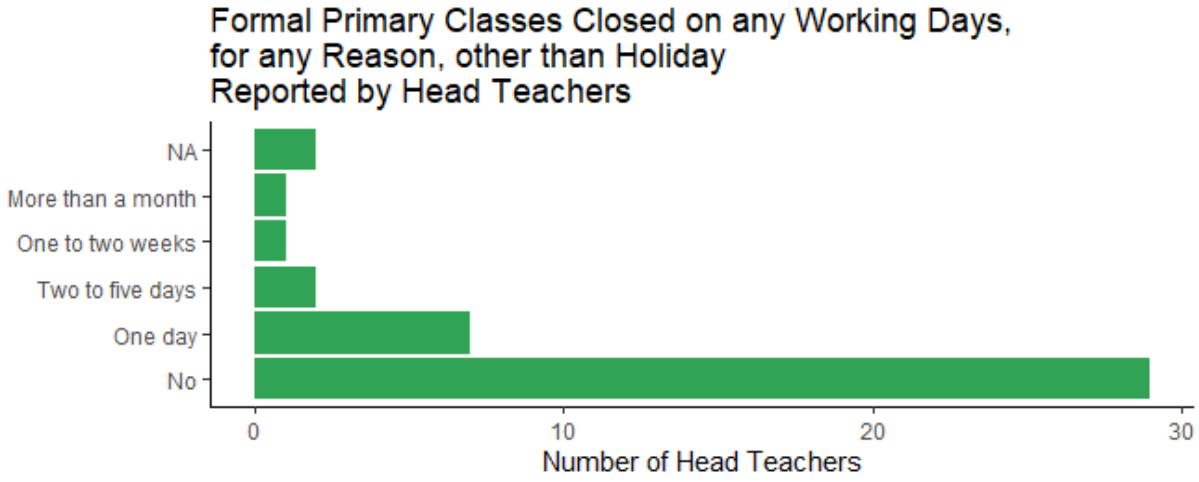




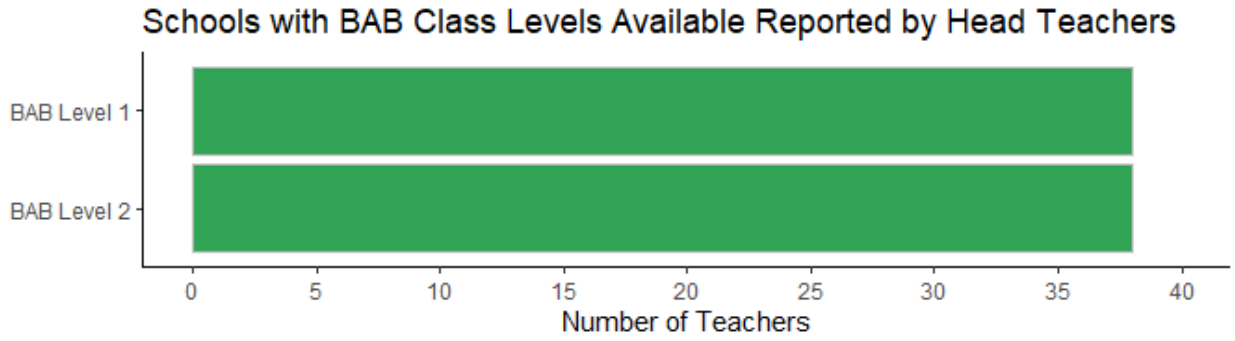


Head Teacher BAB School Closures

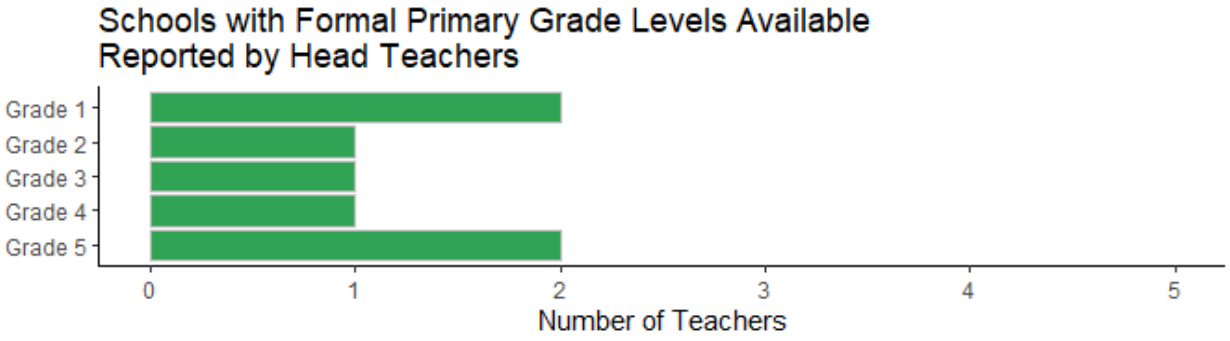




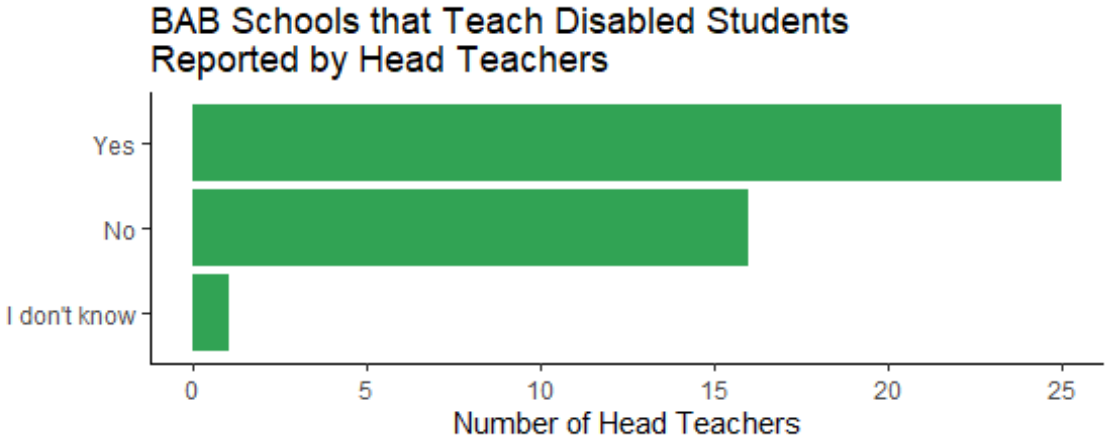
Head Teacher BAB Levels Available in their Schools

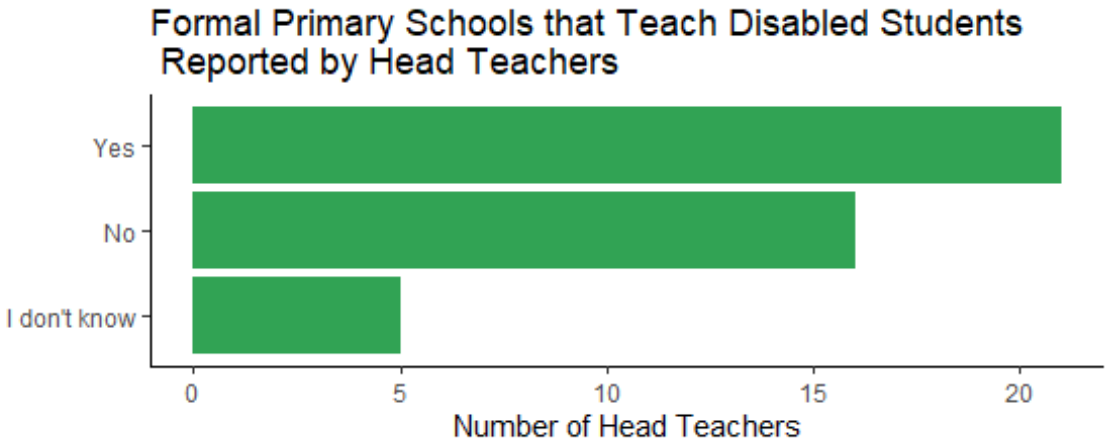


Head Teacher Formal Primary Grade Levels Available in their Schools

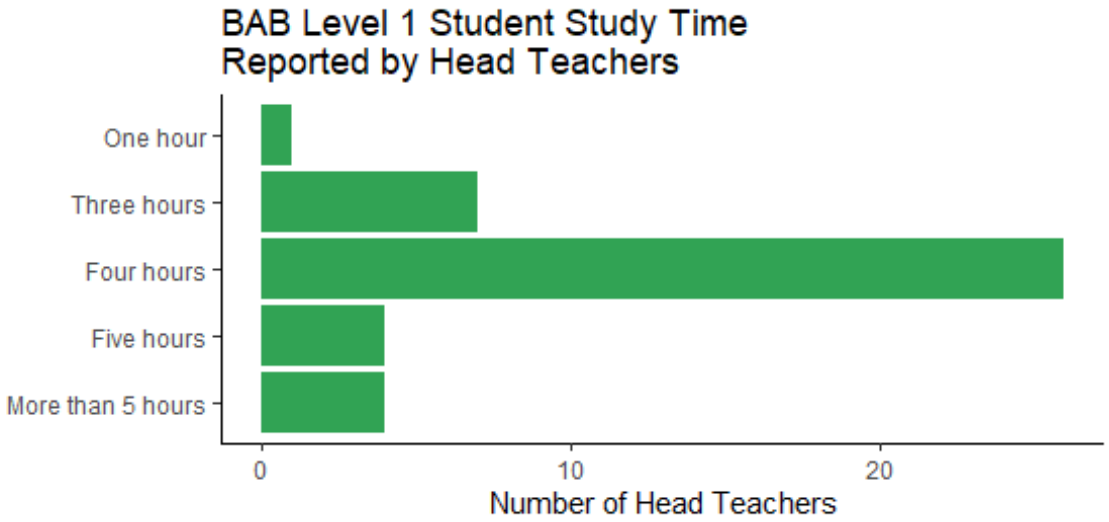


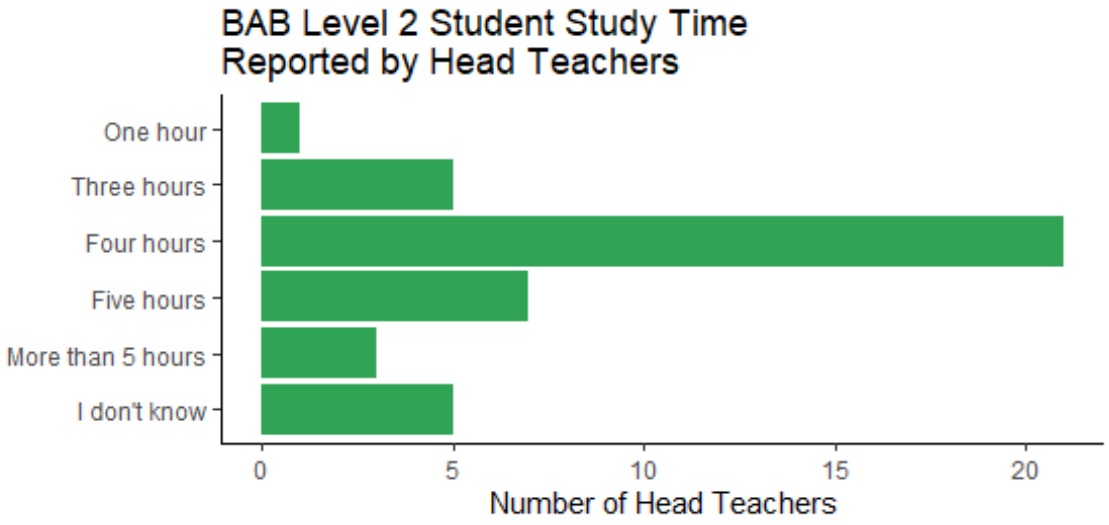
Head Teacher Schools that Teach Disabled Students

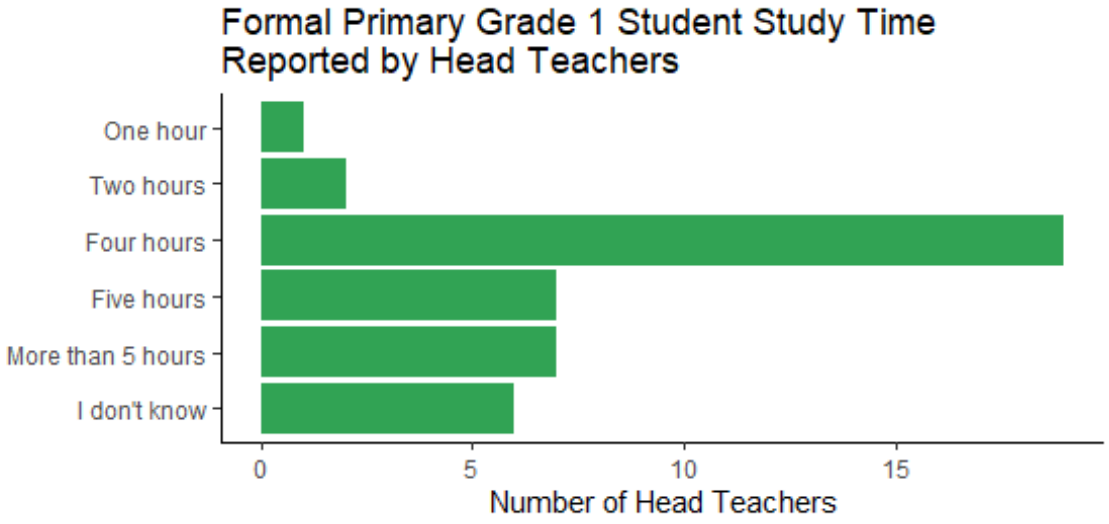


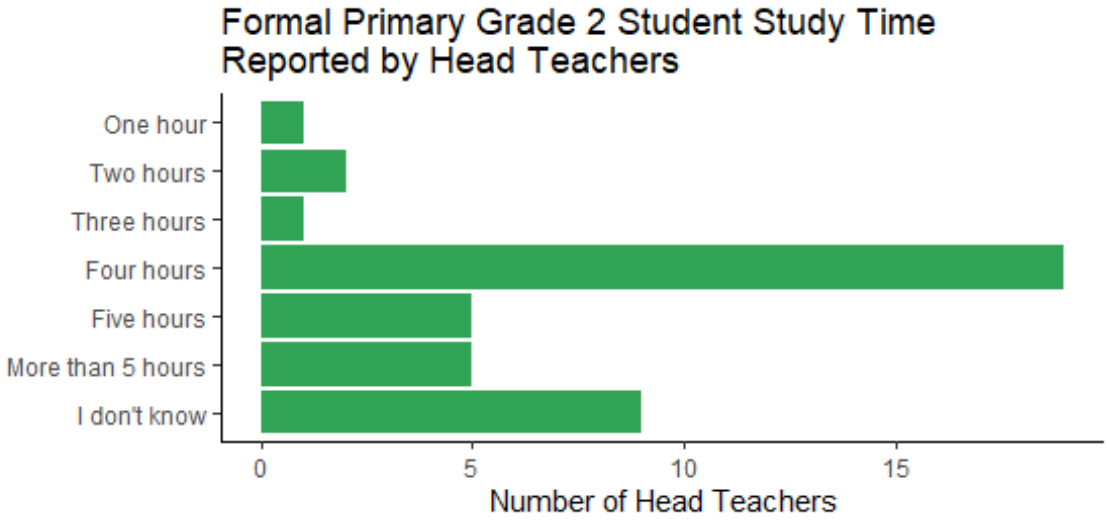


Head Teacher Student Study Hours

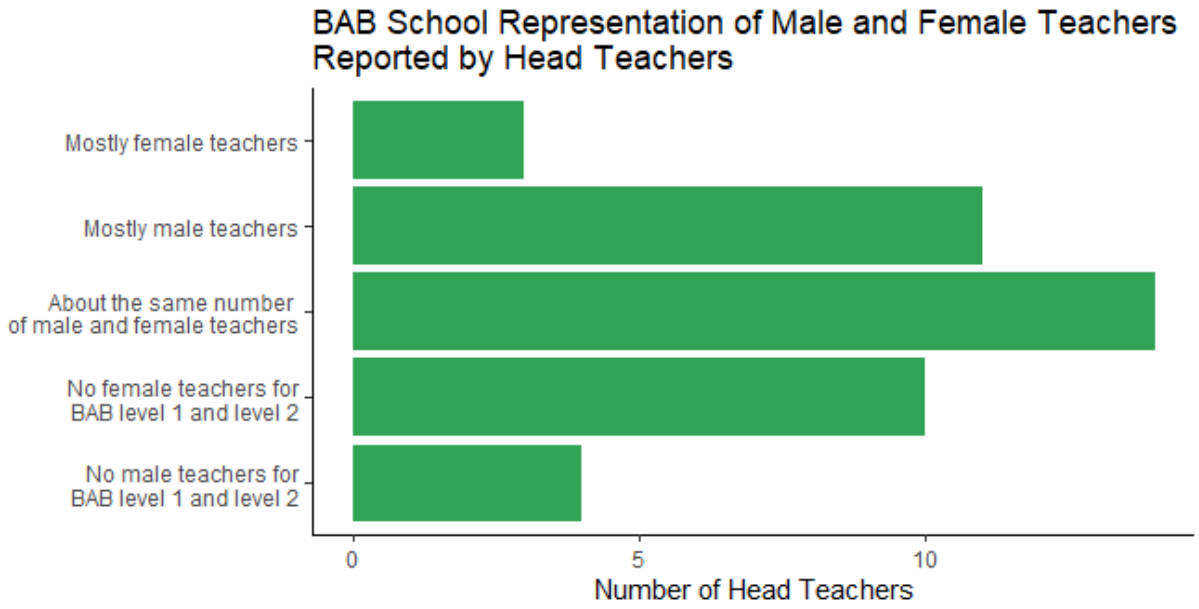


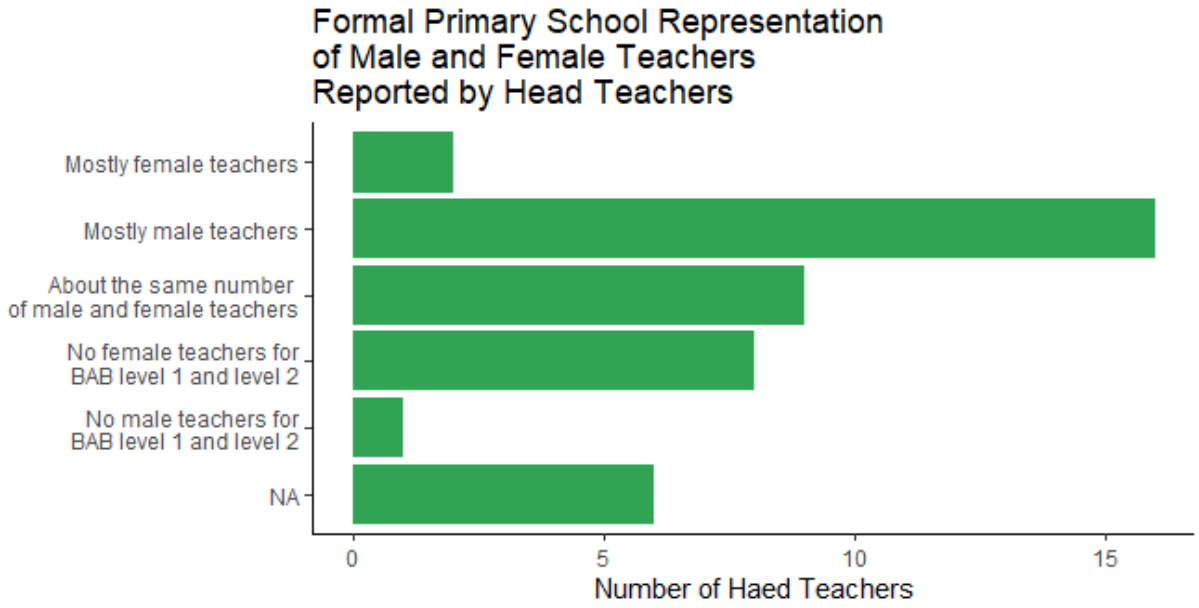



Formal Primary Grade 1 Student Study Time
Reported by Head Teachers
One hour
Two hours
Four hours
Five hours
More than 5 hours
I don't know
0
5
10
15
Number of Head Teachers

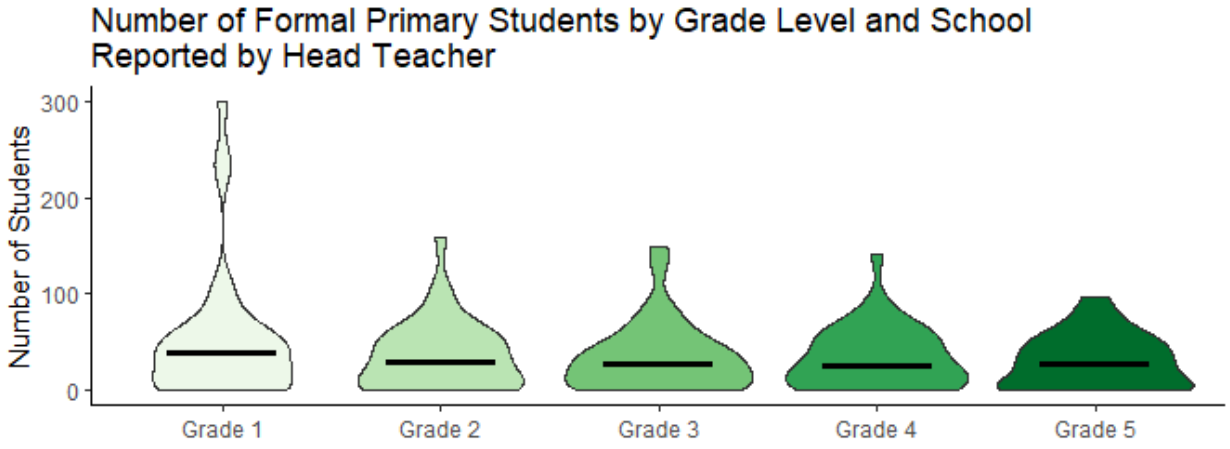

Formal Primary Grade 2 Student Study Time
Reported by Head Teachers
One hour
Two hours
Three hours
Four hours
Five hours
More than 5 hours
I don't know
0
5
10
15
Number of Head Teachers

Head Teacher Representation of Male and Female Teachers

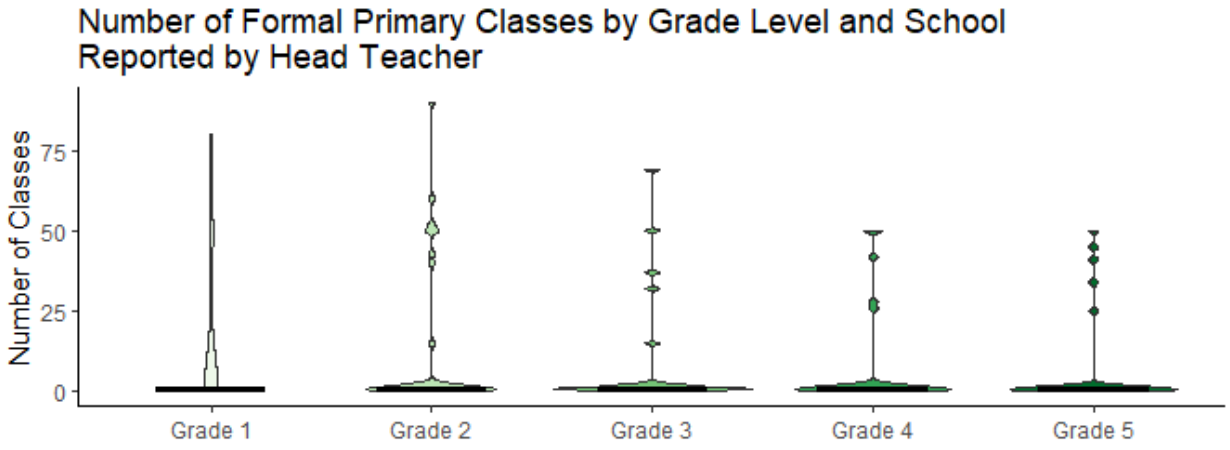




Head Teacher Formal Primary Student and Class Sizes

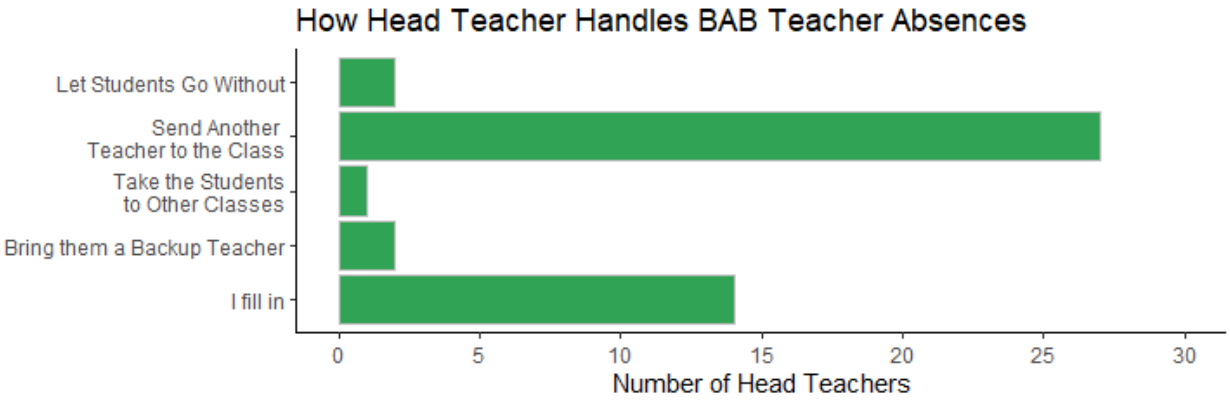


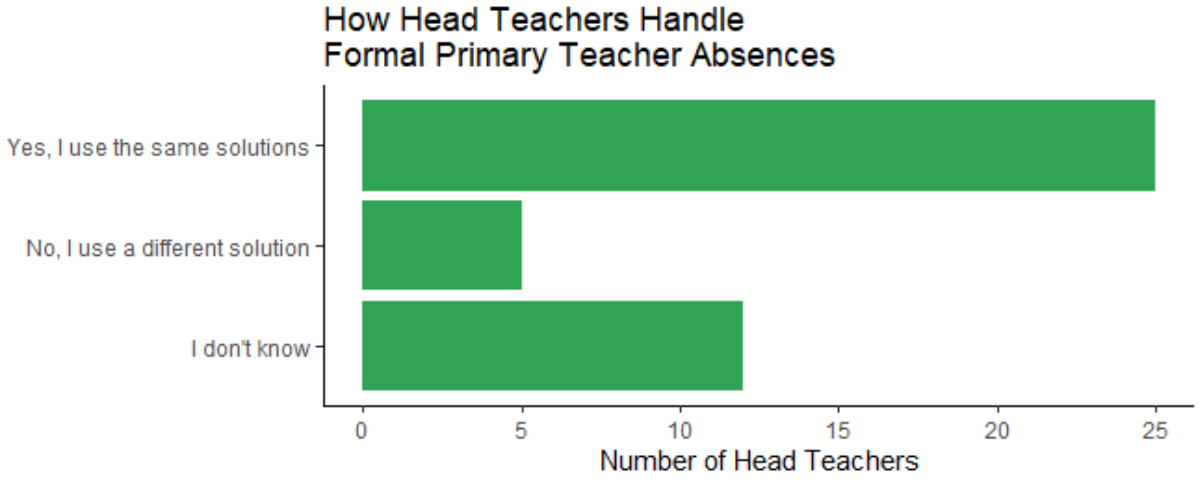
Note: Medians are indicated by solid line



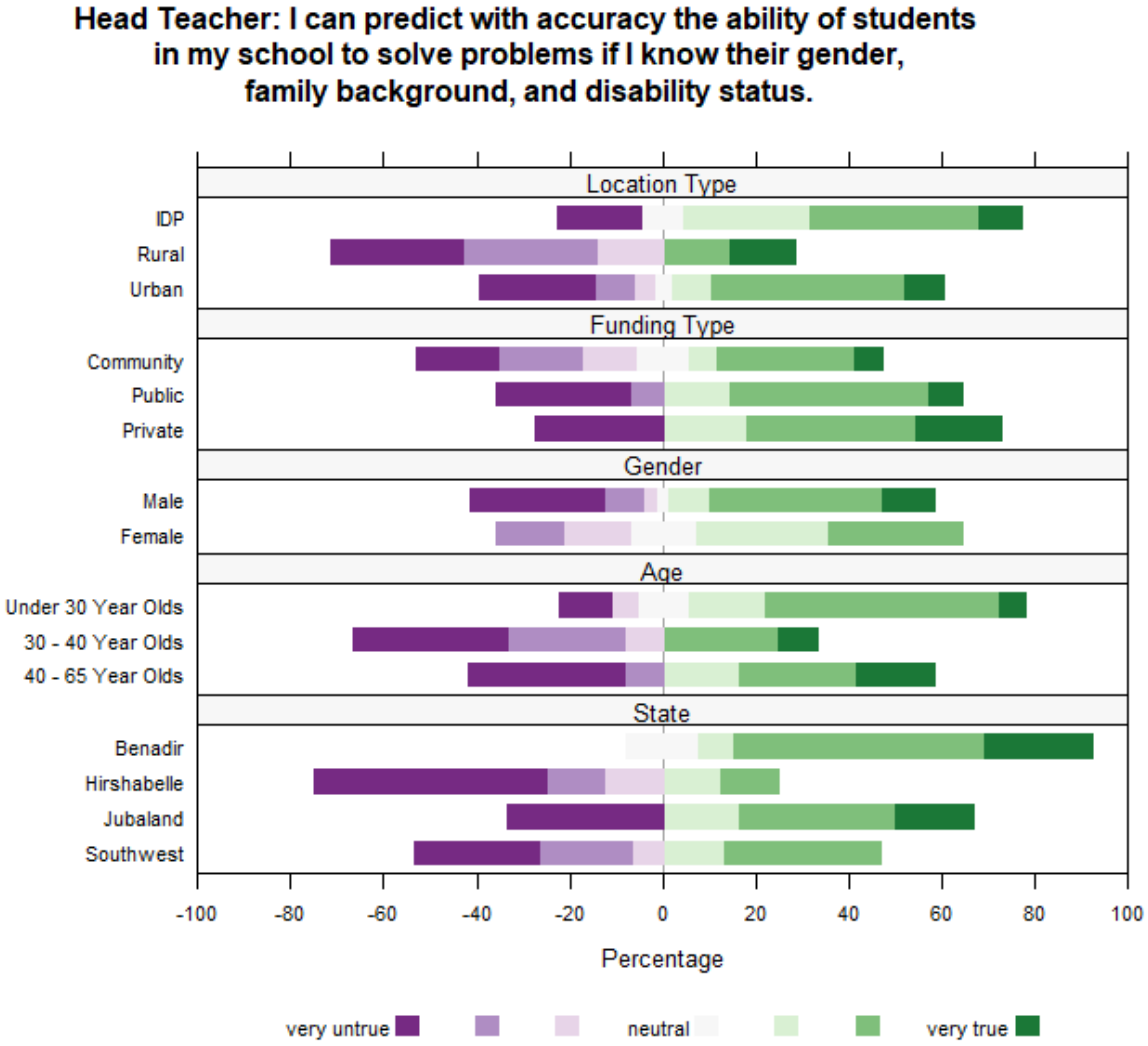
Note: Medians are indicated by solid line

How Head Teacher Handles Teacher Absences

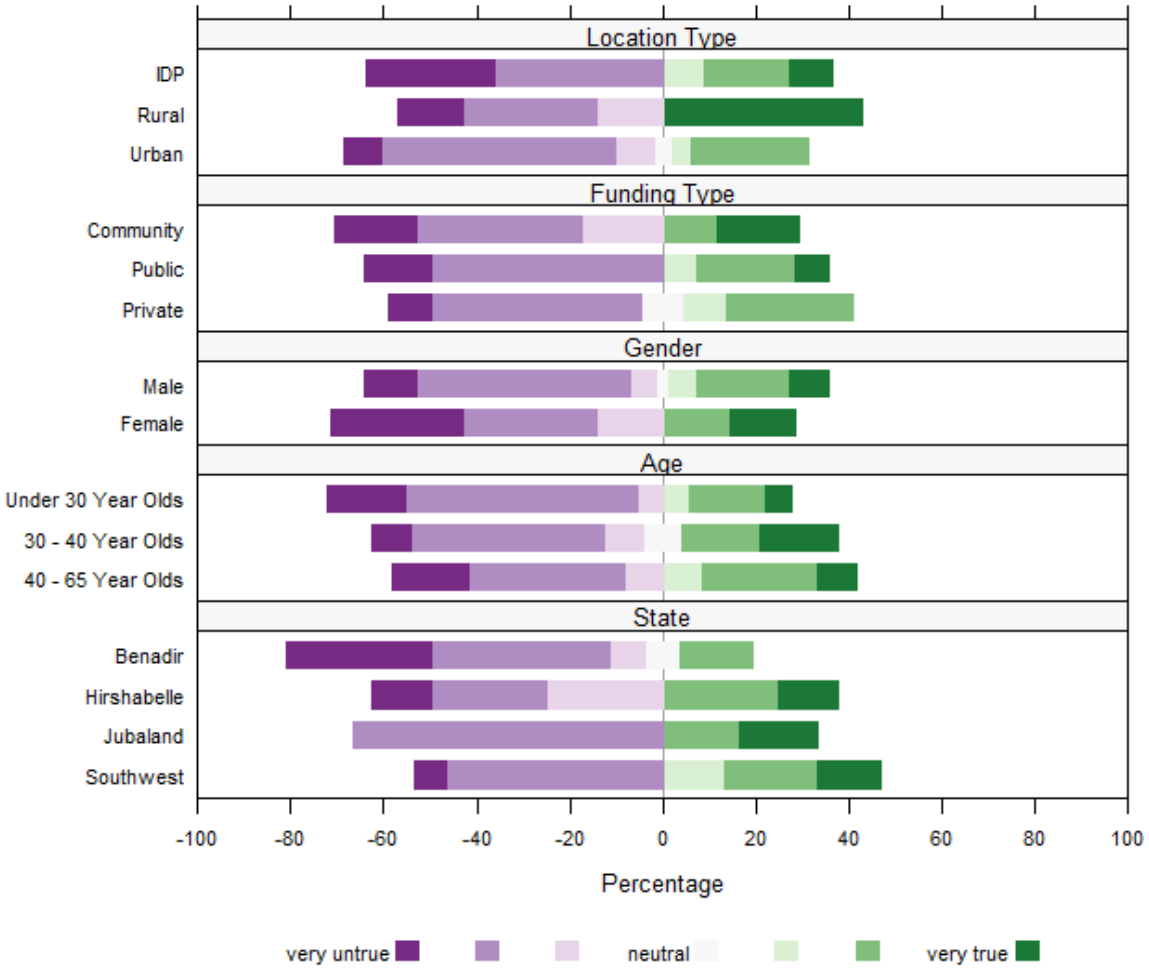




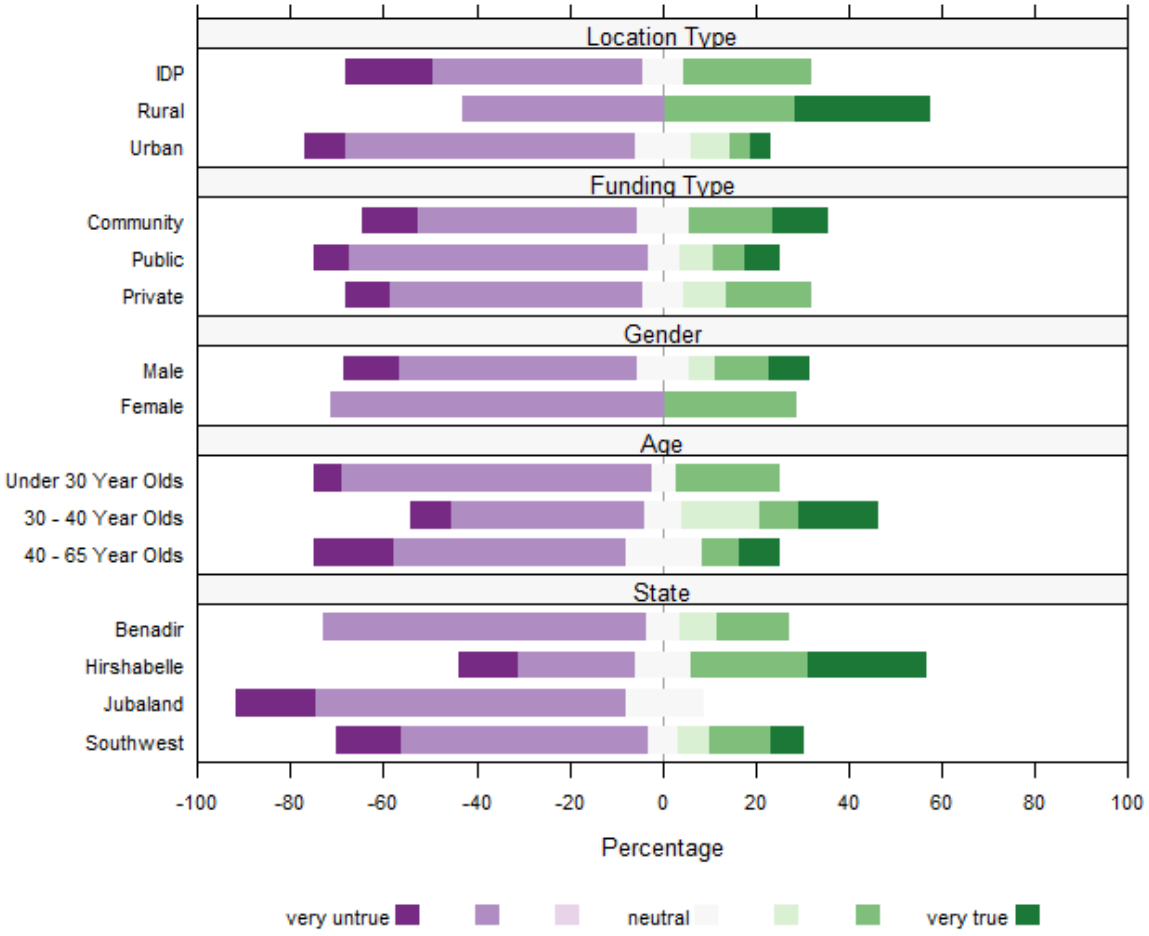
Head Teacher Mindsets and Perceptions of Equity



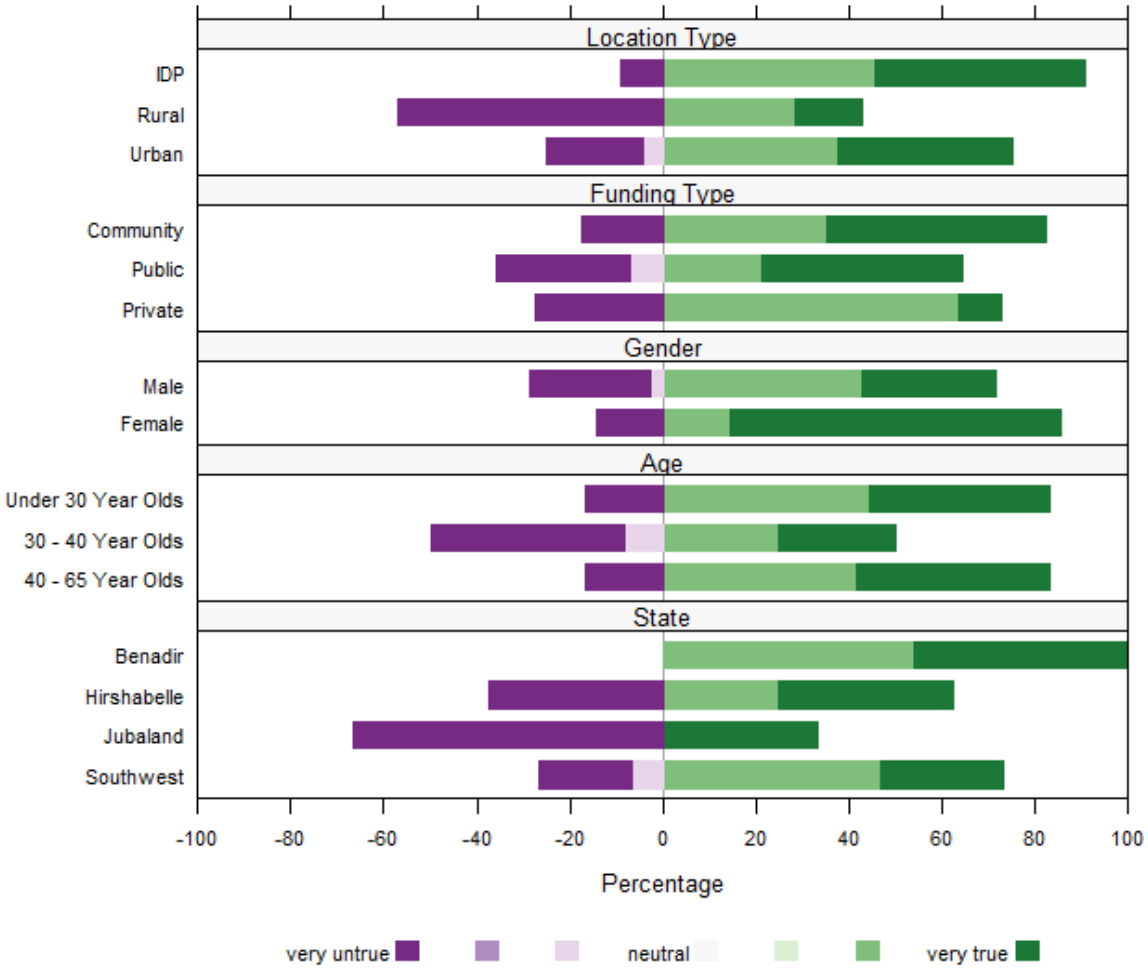
Head Teacher: Boys are just naturally better at school than girls.



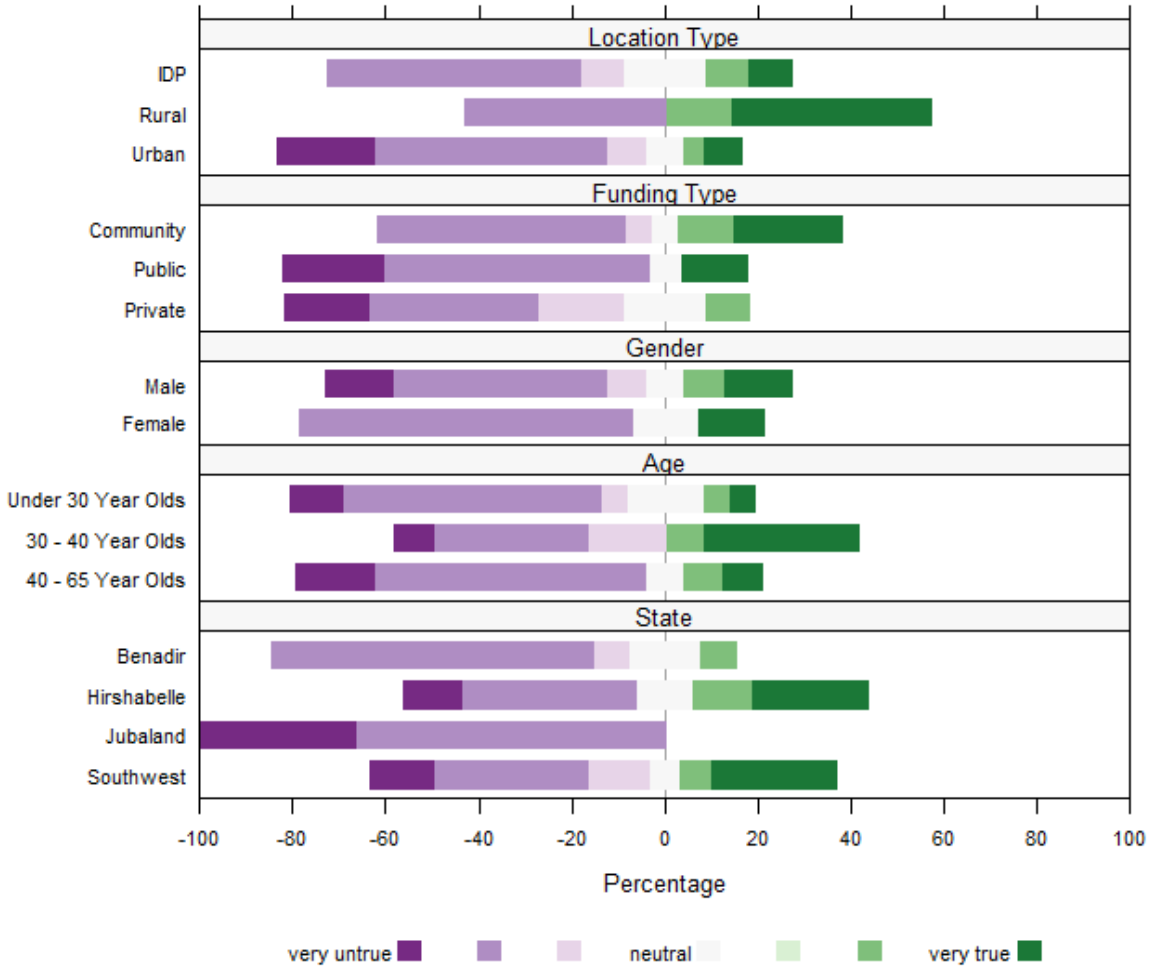
Head Teacher: Students have a certain amount of intelligence and teachers can't really do much to change it.



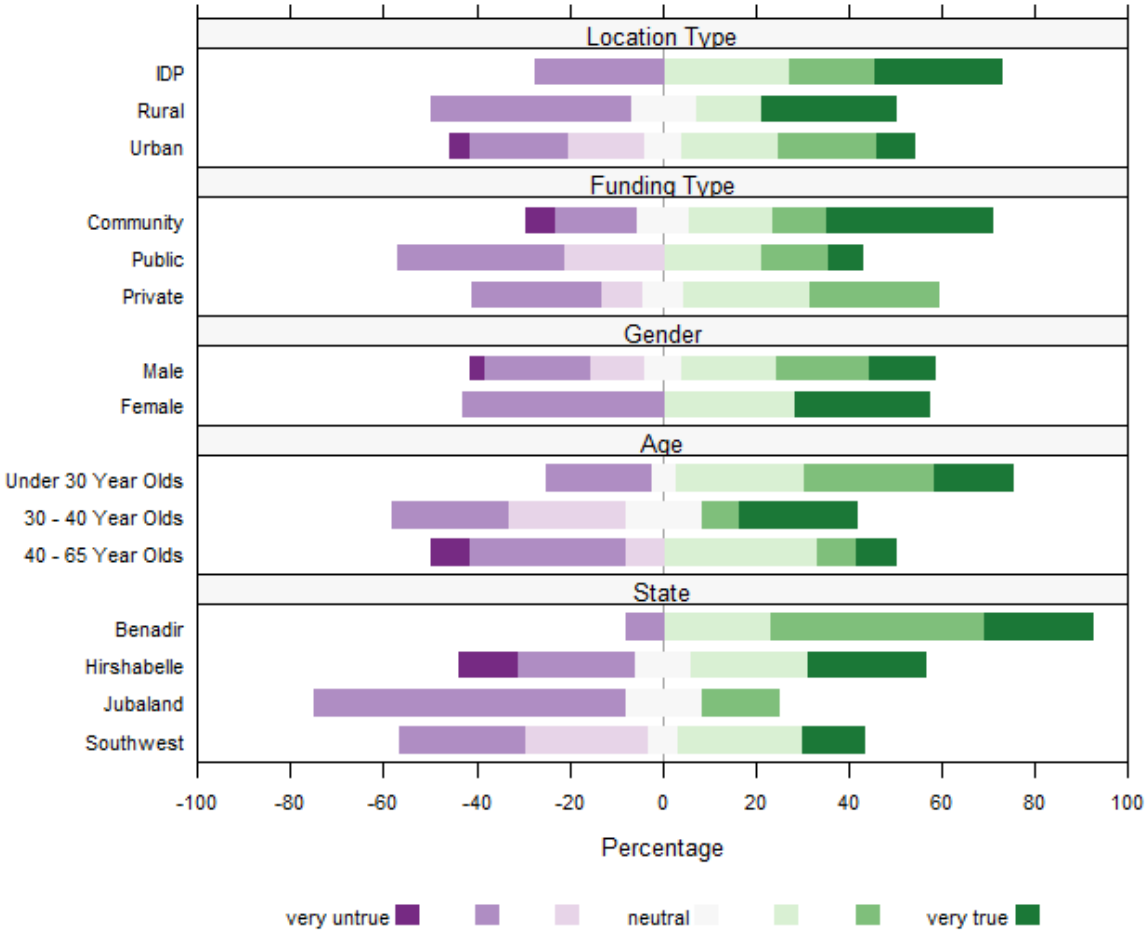
Head Teacher: Educating girls is important for society's development.



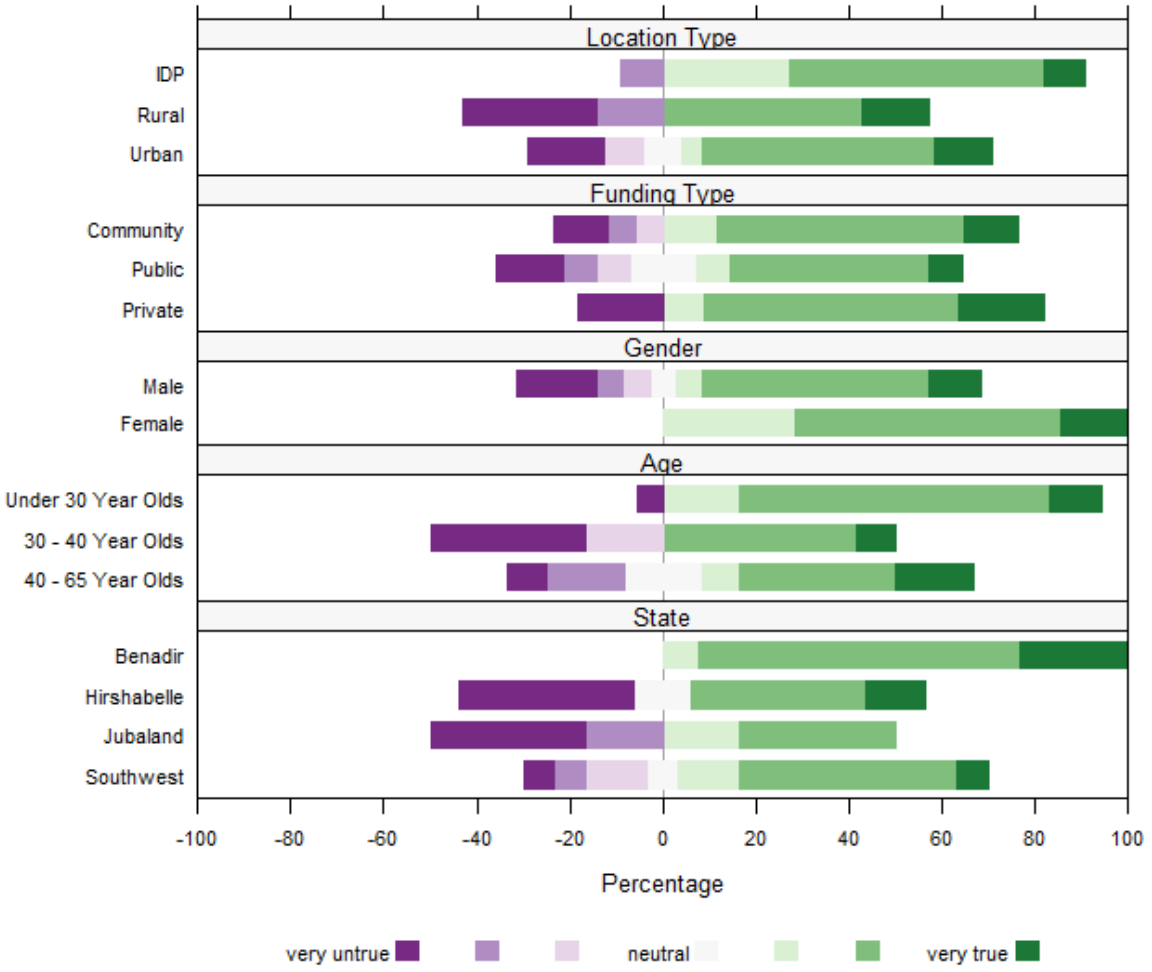
Head Teacher: It's more important to educate boys than girls.



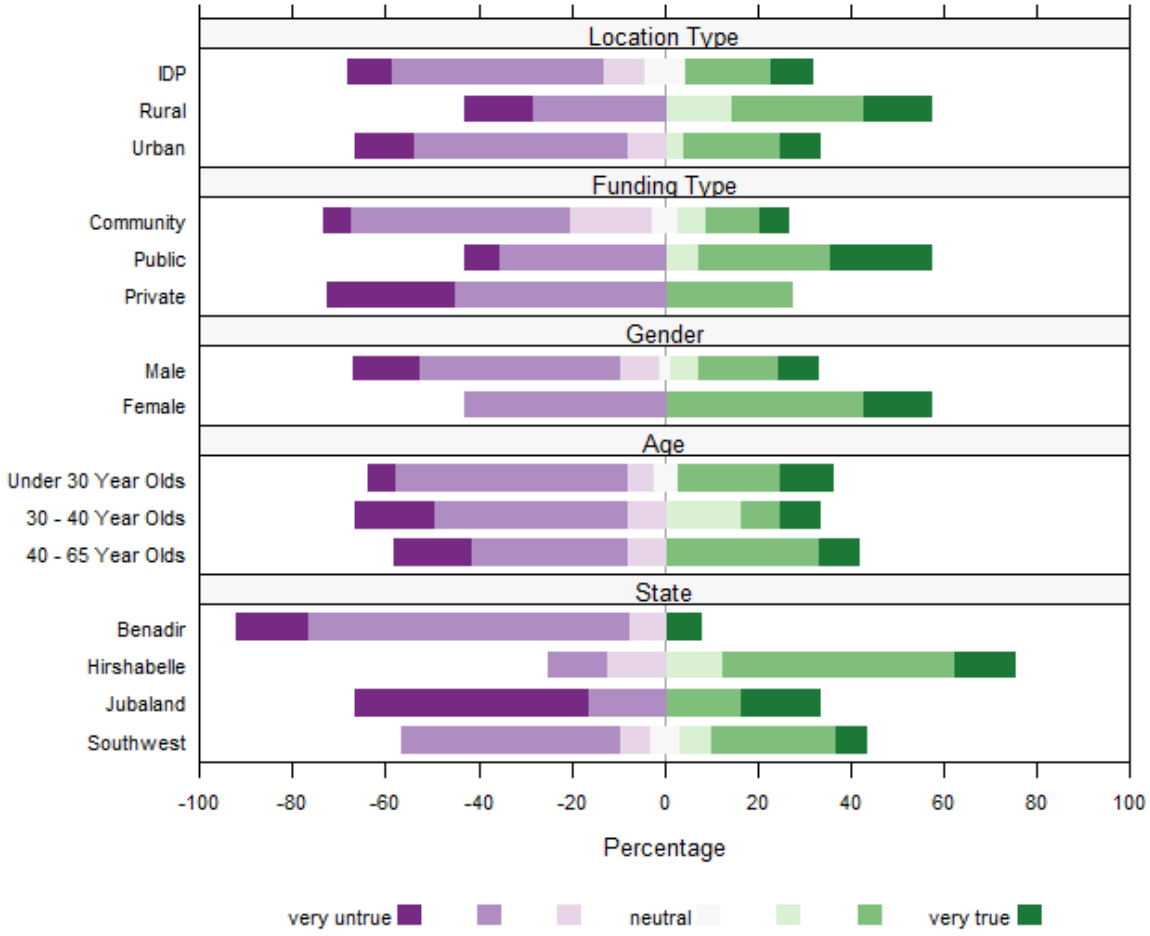
Head Teacher: Girls and children from minoritized populations are less likely to ask the teacher for help



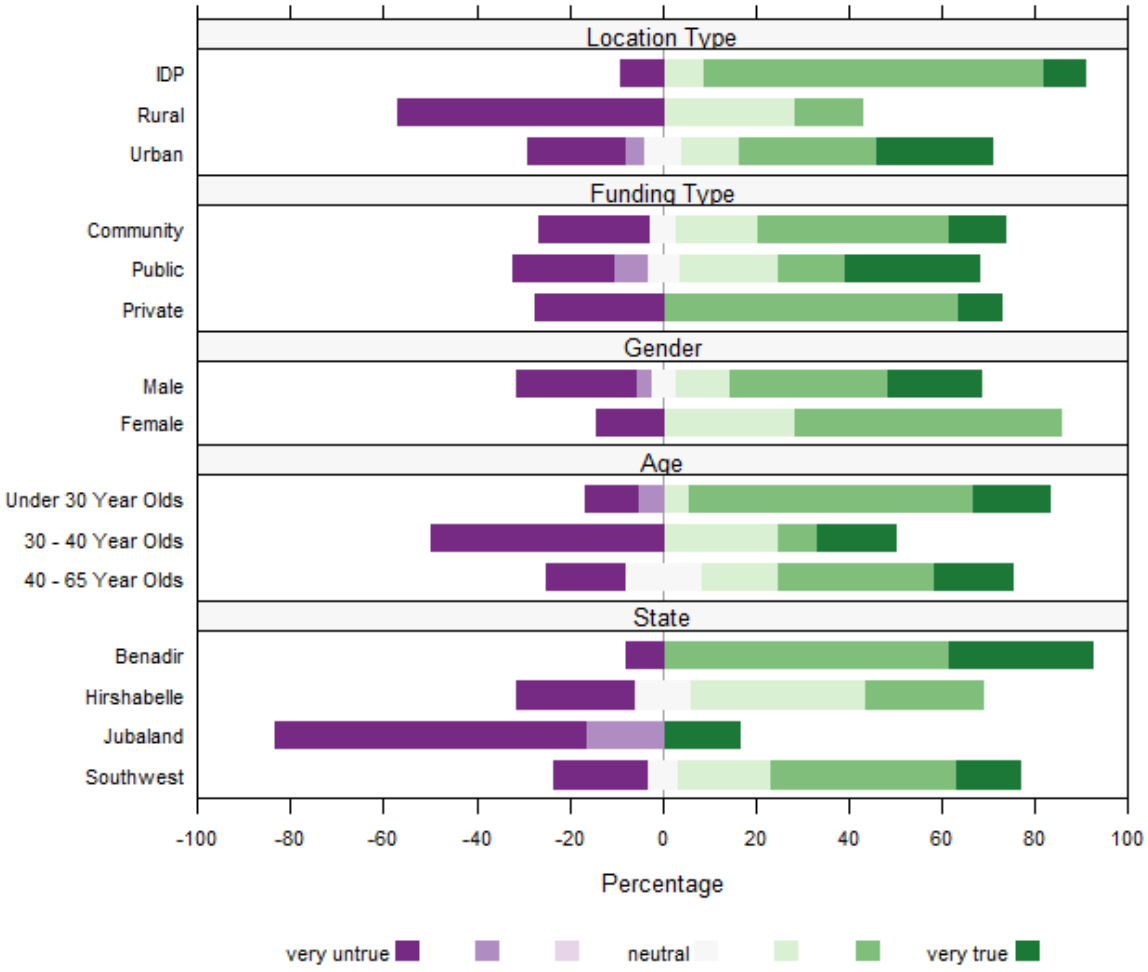
Head Teacher: Teachers in my school assign classroom chores to all students equally.



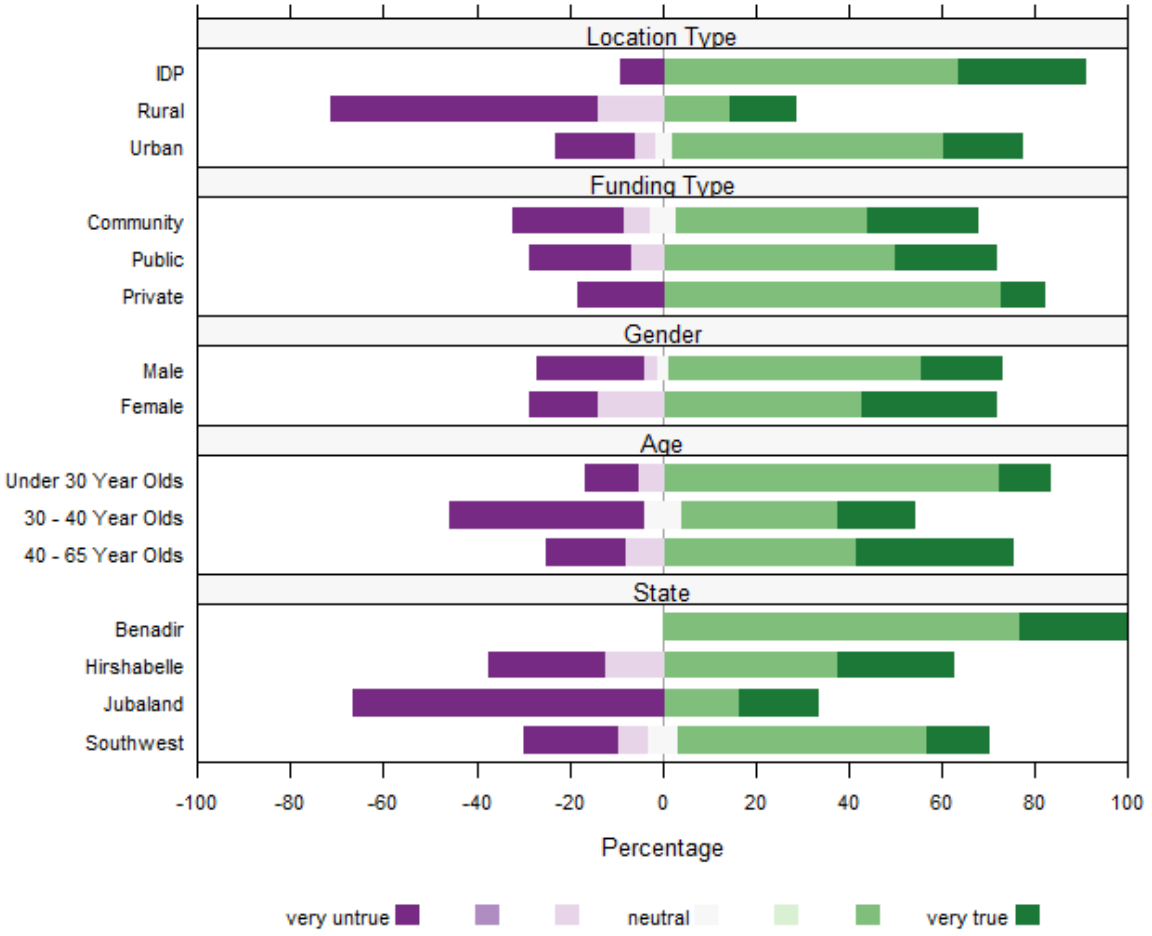
Head Teacher: Teachers in my school use different forms of discipline based on the student's gender, family background, or other characteristics.



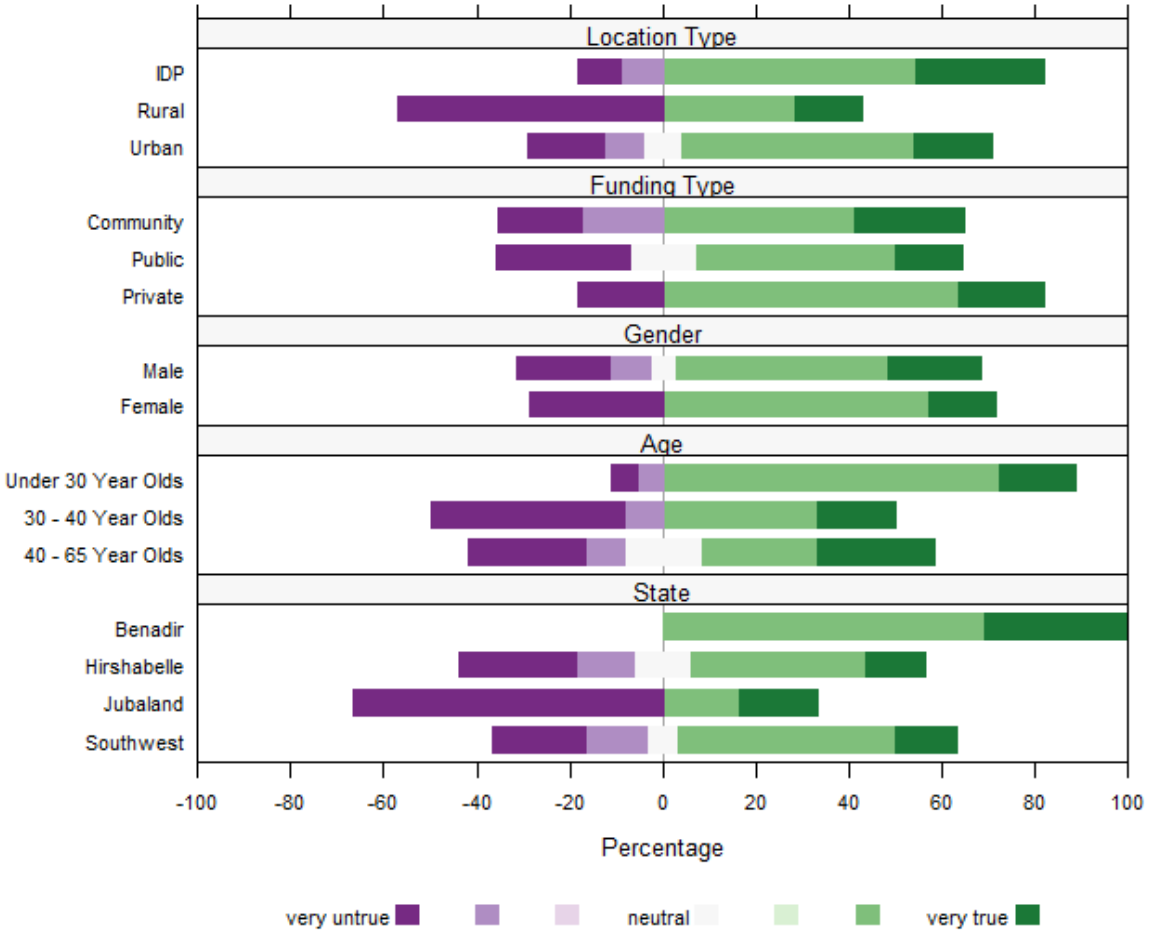
Head Teacher: Teachers in my school reward all children the same way for good work.



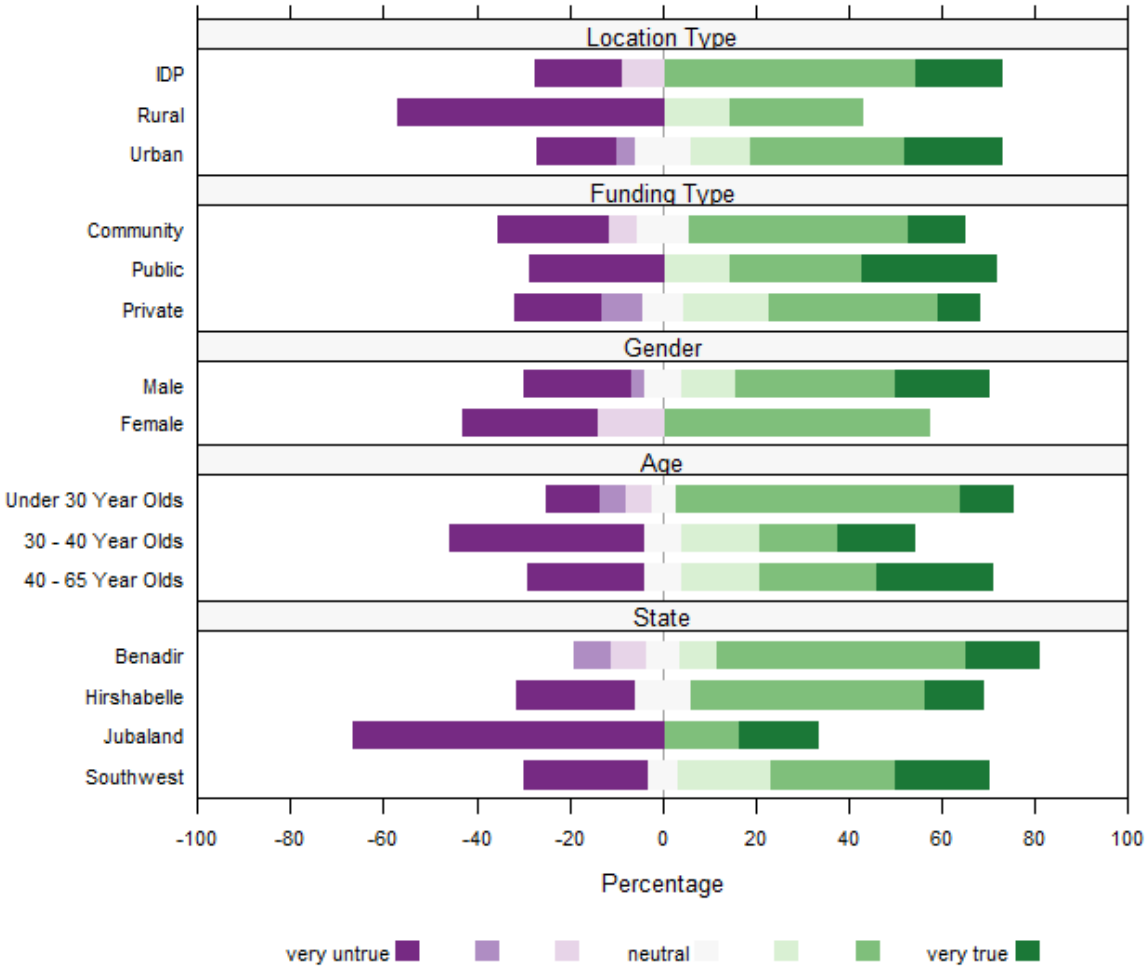
Head Teacher: Completing primary education is equally important for all children, regardless of gender, disability, or family characteristics.



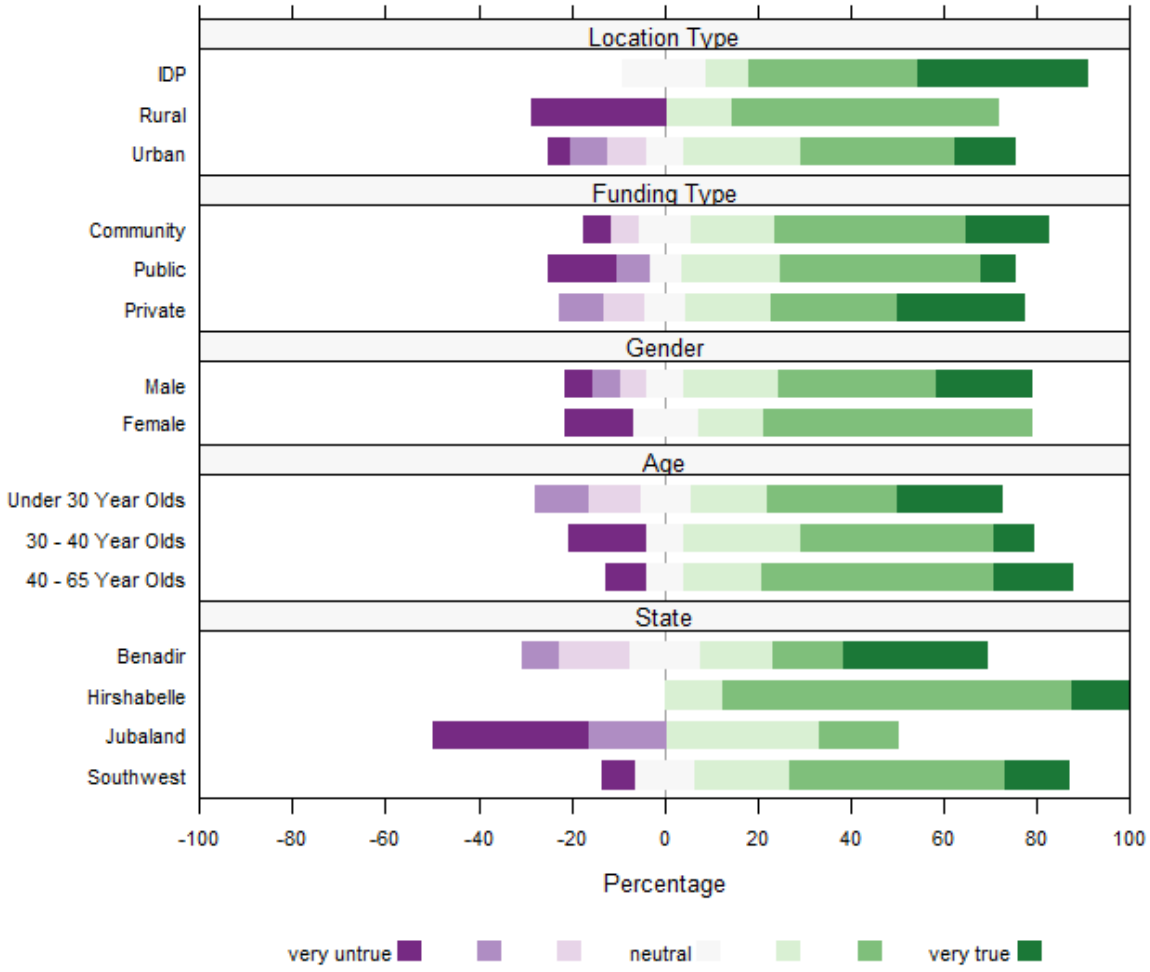
Head Teacher: Completing secondary education is equally important for all children, regardless of gender, disability, or family characteristics.

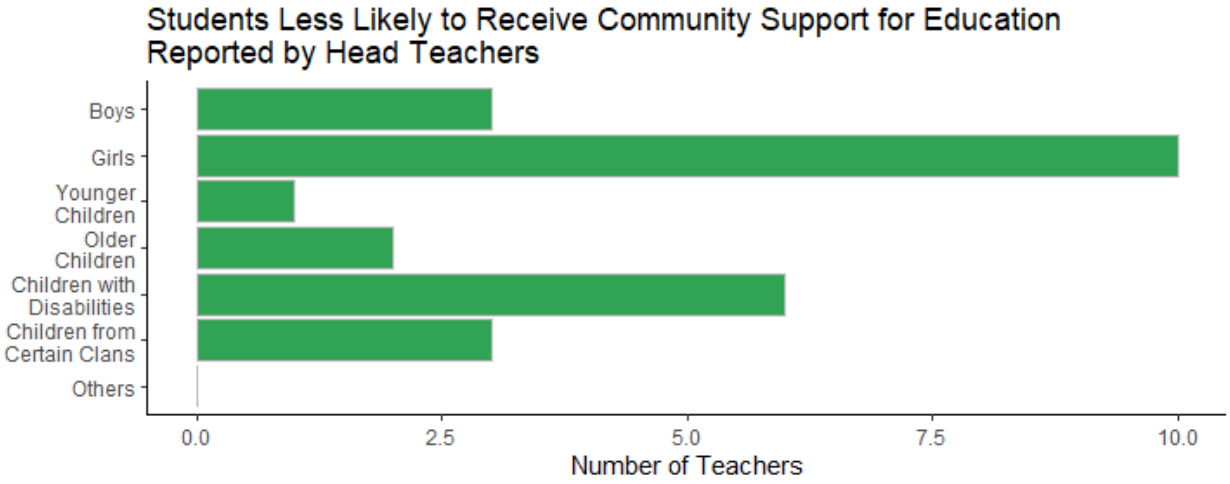


Head Teacher: All students have the capacity to learn.

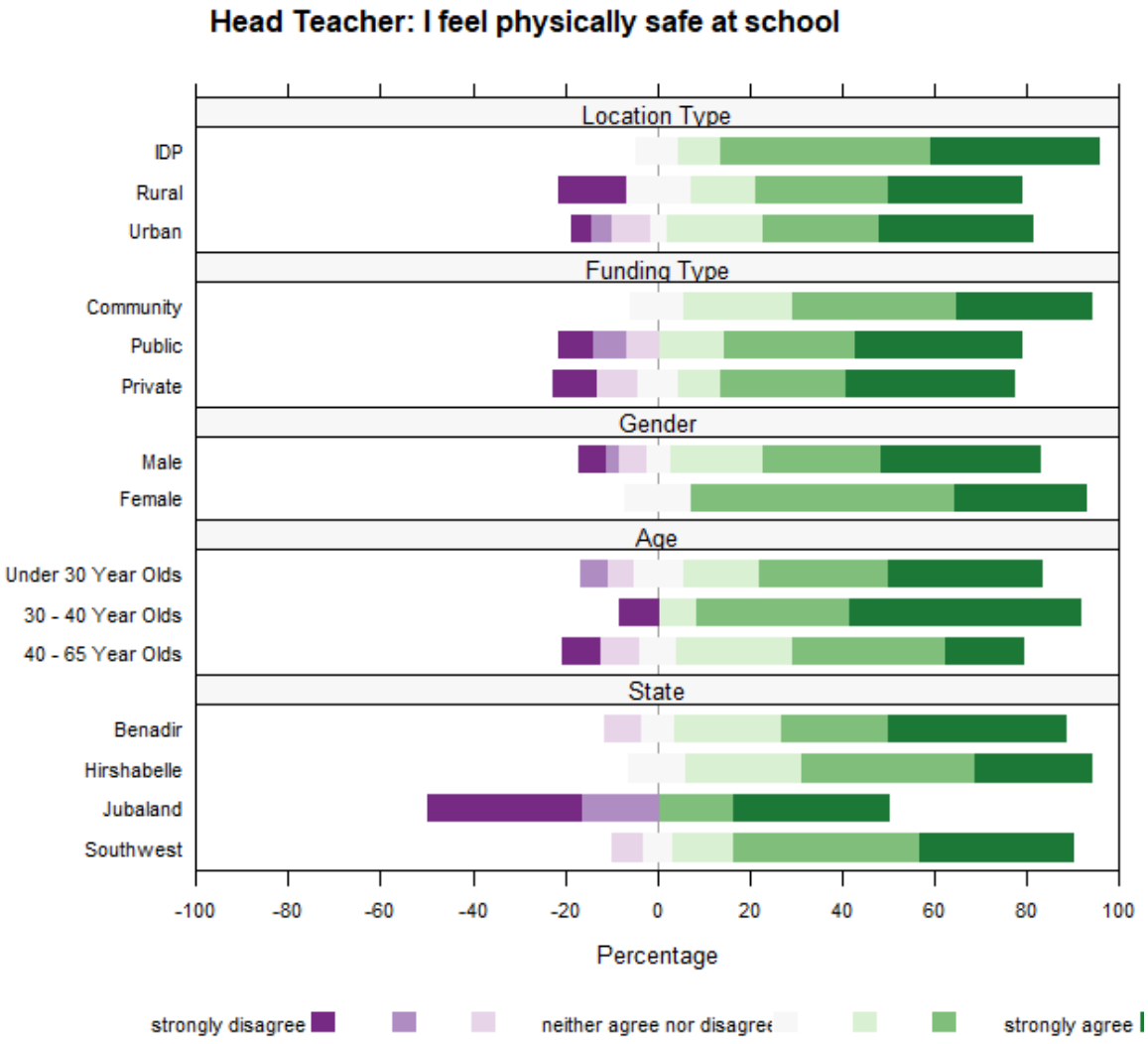


Head Teacher: My community supports the education of all students.

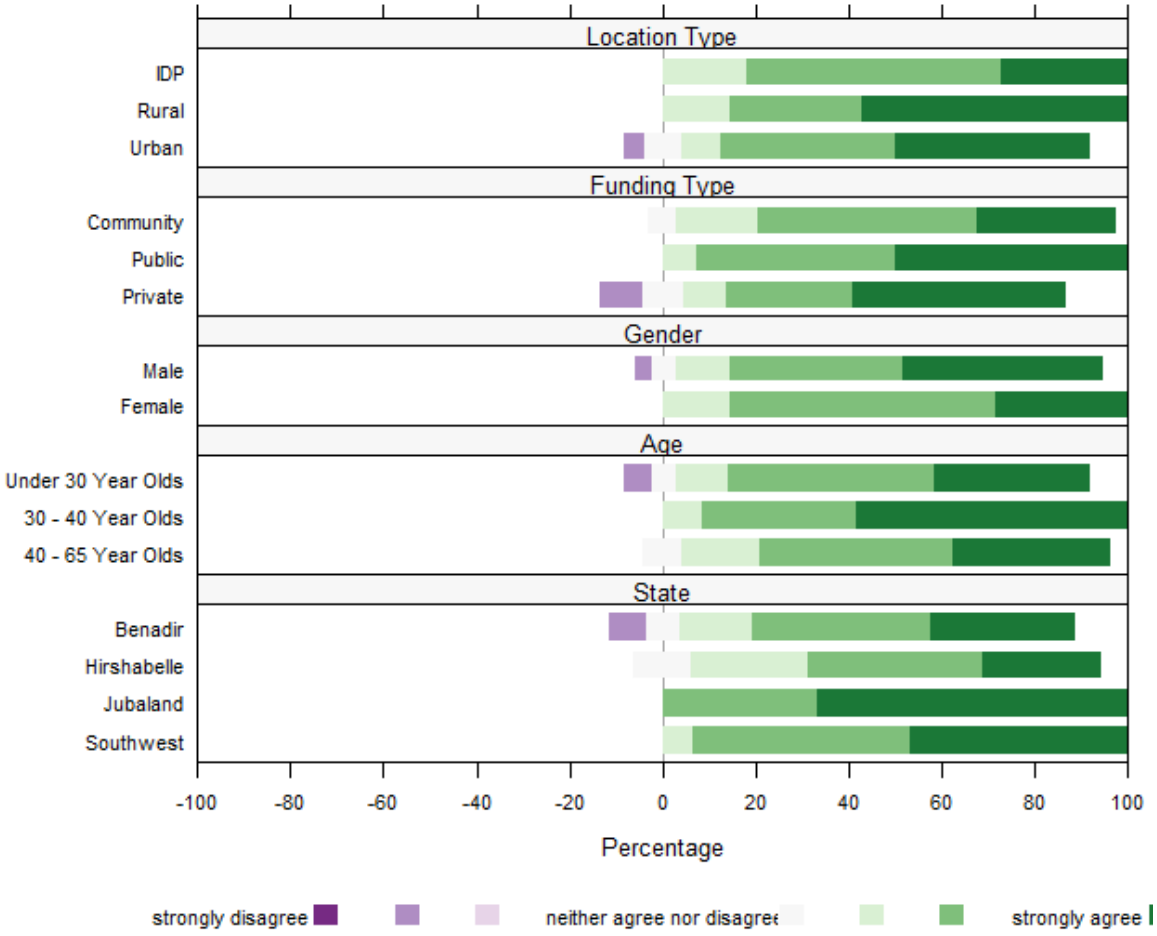


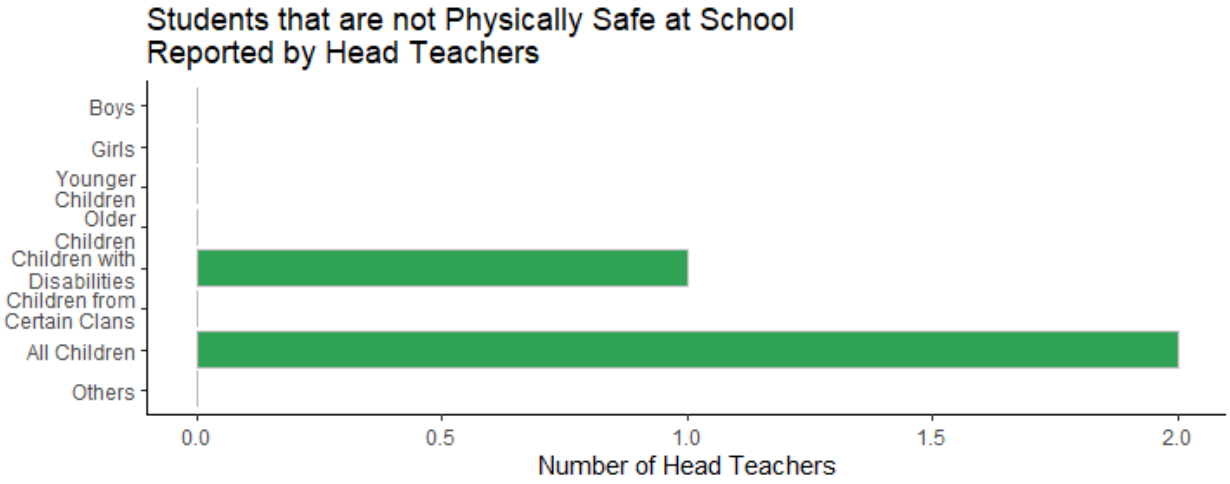


Head Teacher Perceptions of Safety

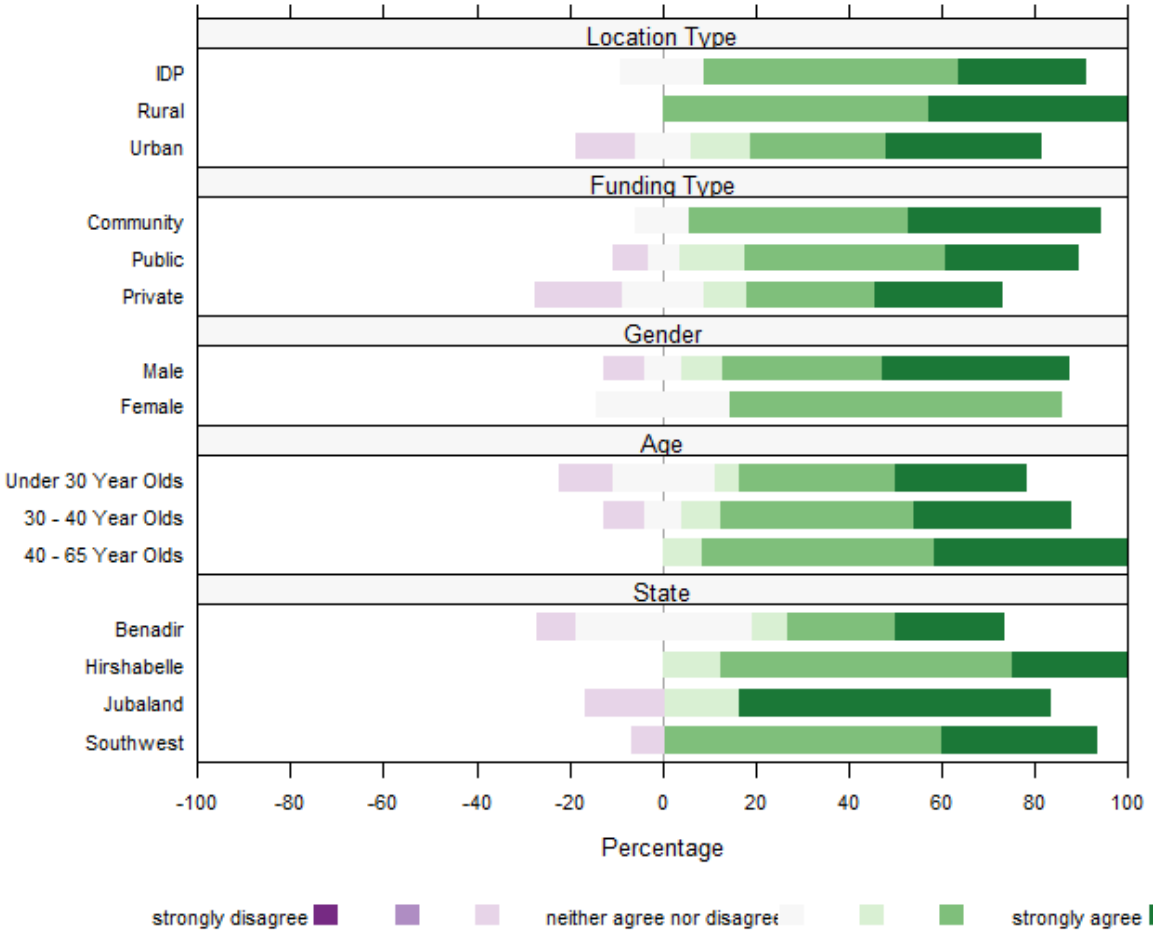


Head Teacher: All students at my school are physically safe, regardless of their gender, age, family background, disability, or other characteristics.

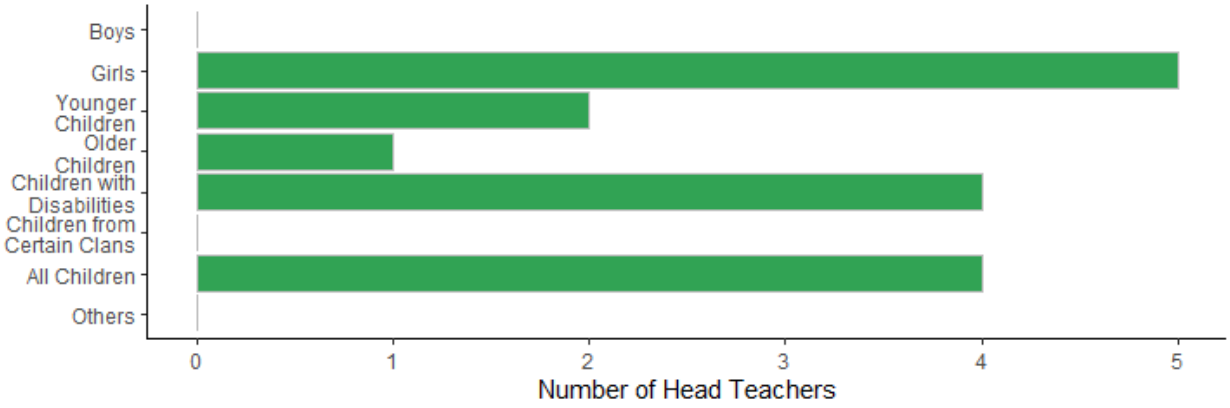




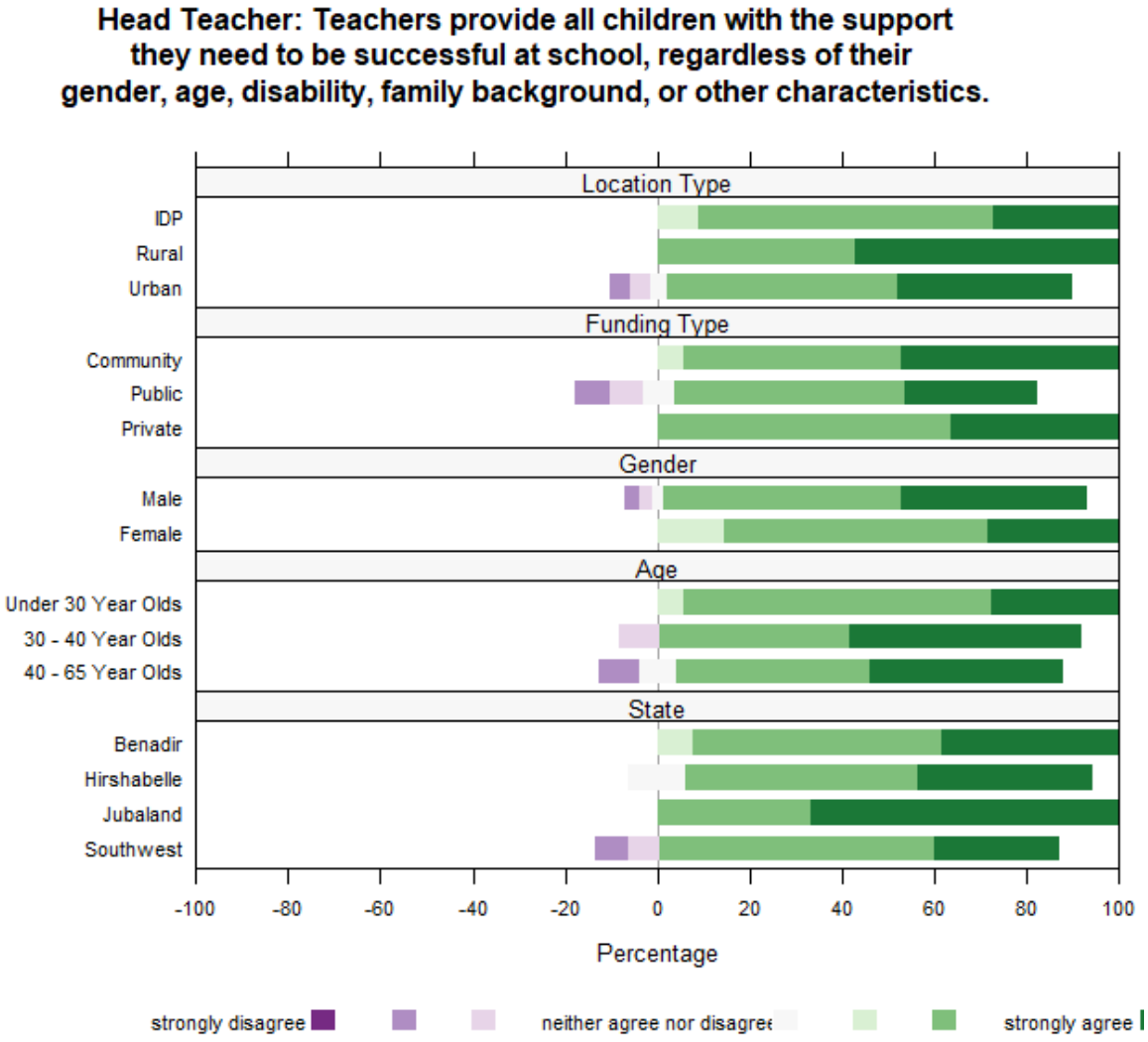
Head Teacher: All my students are safe on their way to school, regardless of gender, age, disability, family background, or other characteristics.

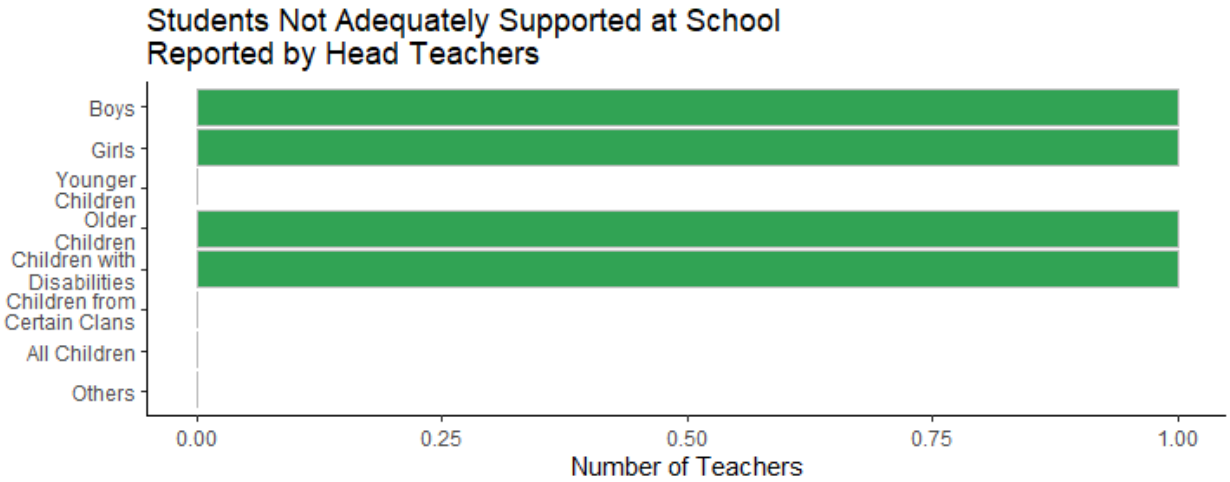


Students that are not Physically Safe on the Way to School Reported by Head Teachers

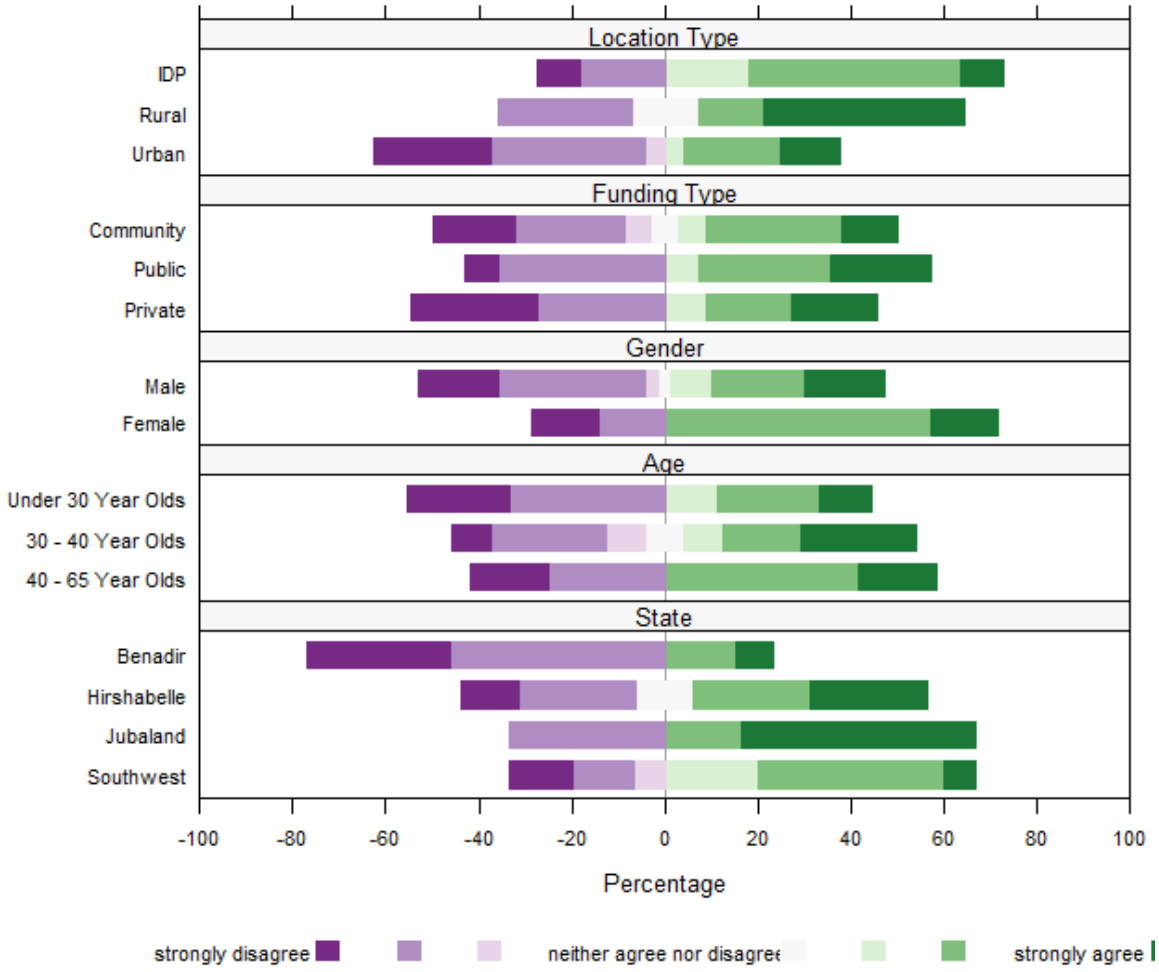


Head Teacher Student Support

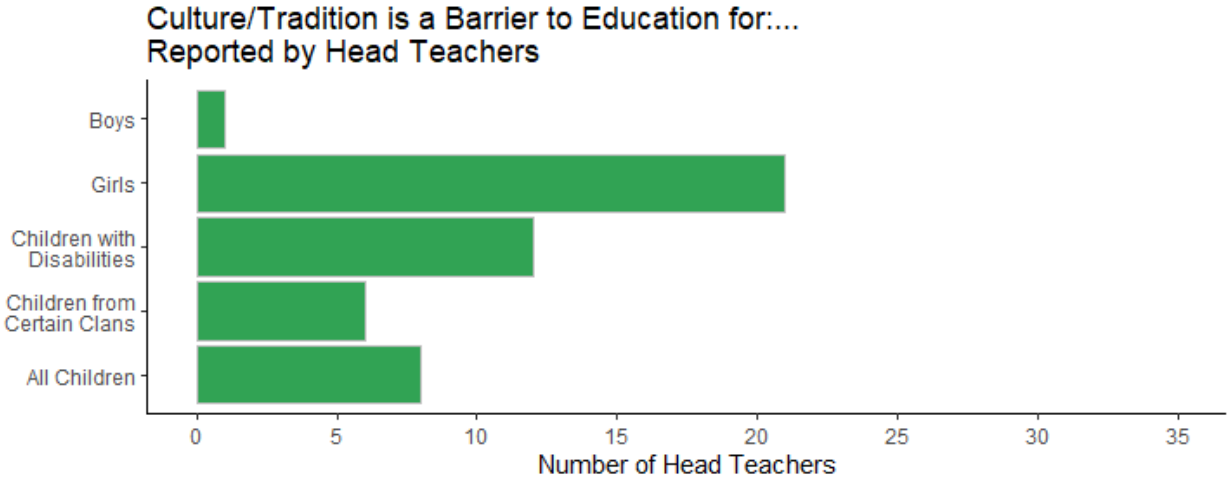


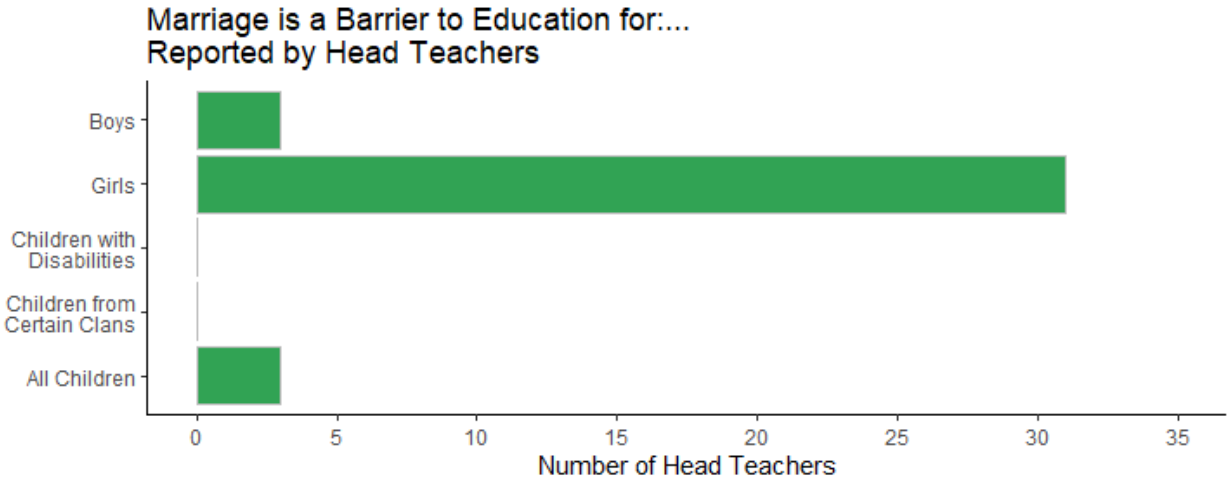


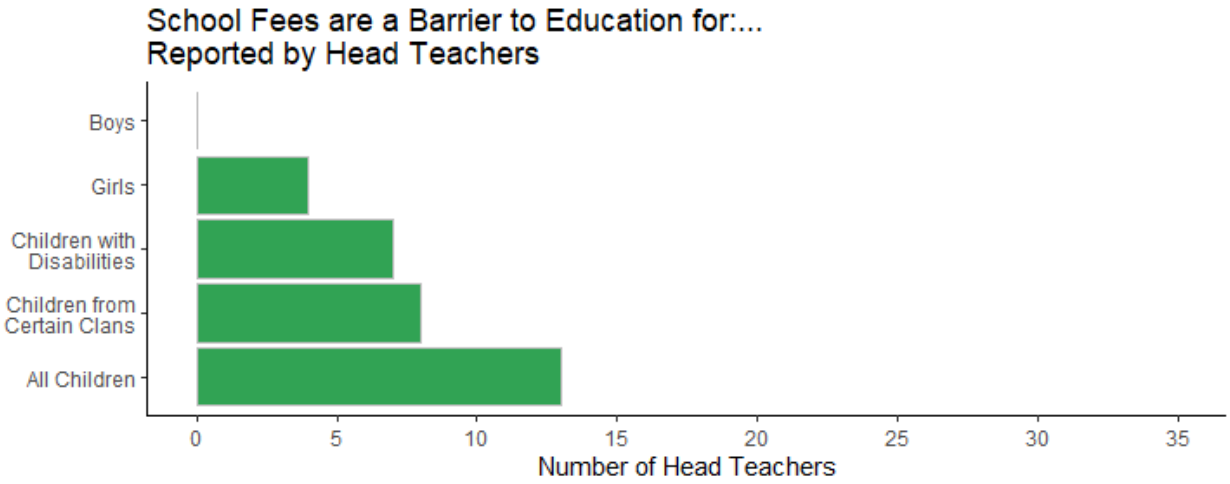
Head Teacher: My school accommodates the needs of girls when they are menstruating.

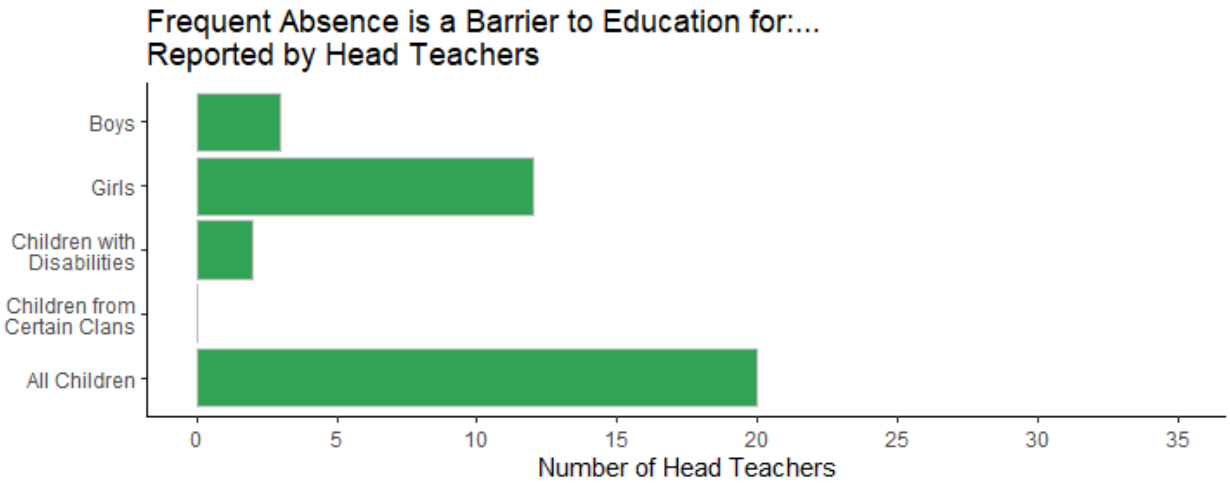


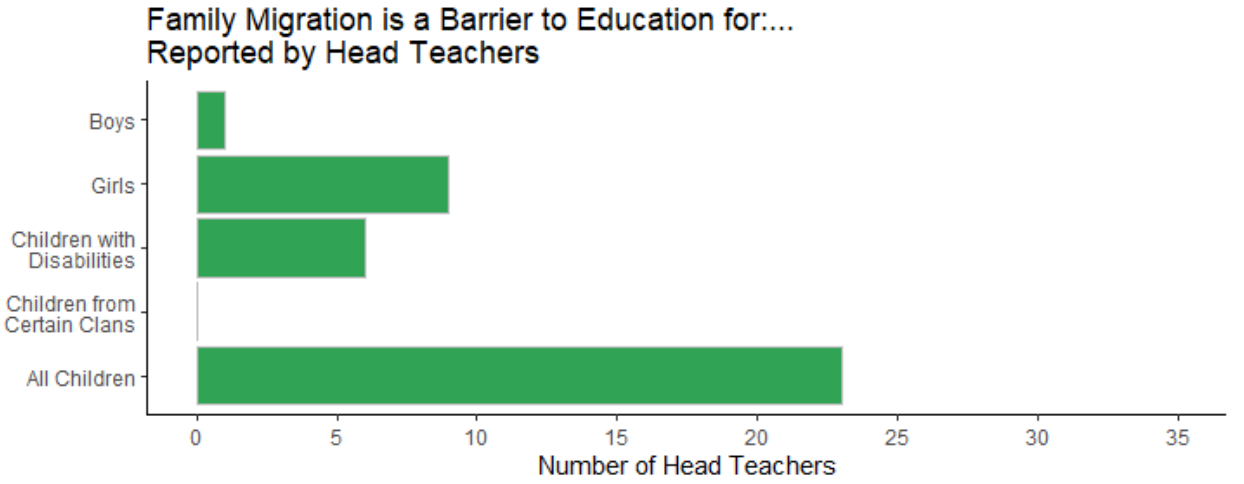
Head Teacher Barriers Limiting Access to Education

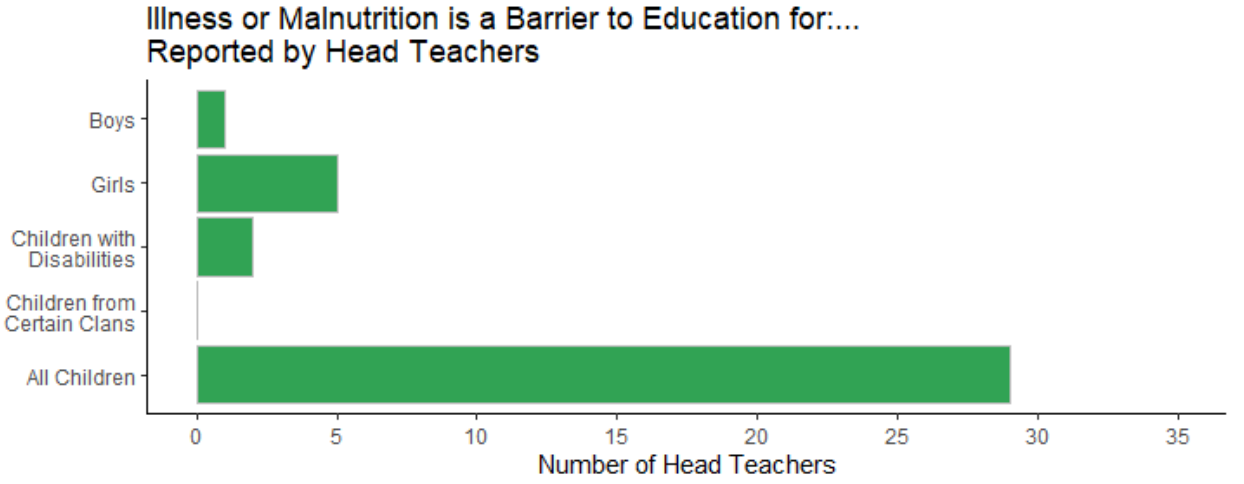


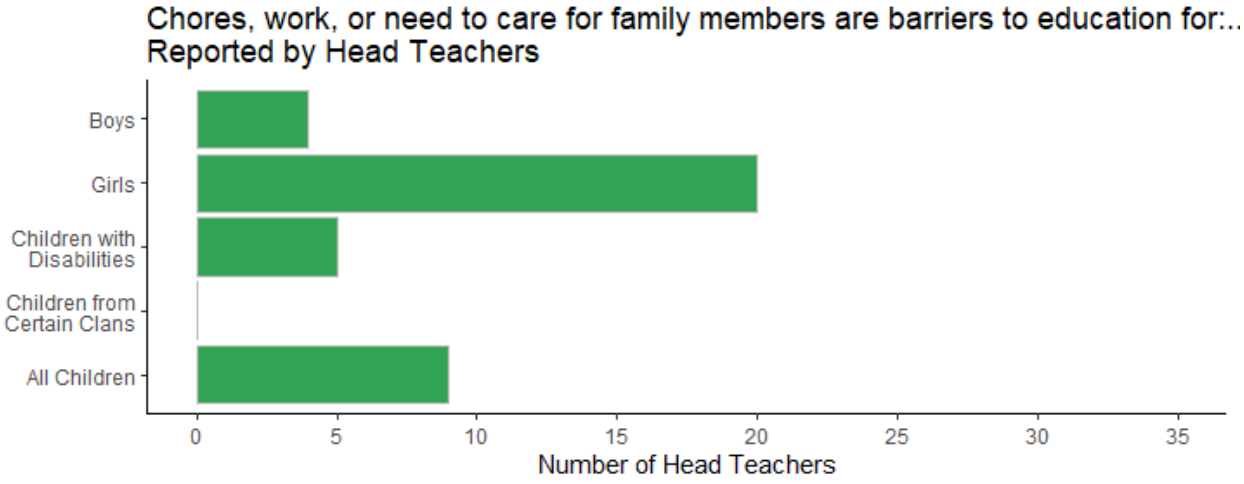

Marriage is a Barrier to Education for:...
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
5
10
15
20
25
30
35
Number of Head Teachers

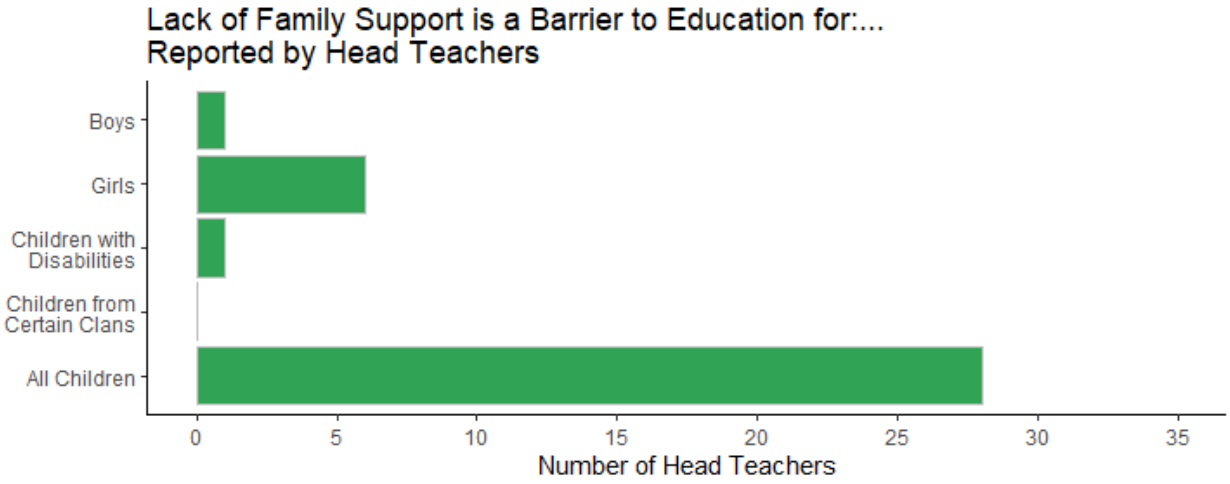

School Fees are a Barrier to Education for:...
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
5
10
15
20
25
30
35
Number of Head Teachers

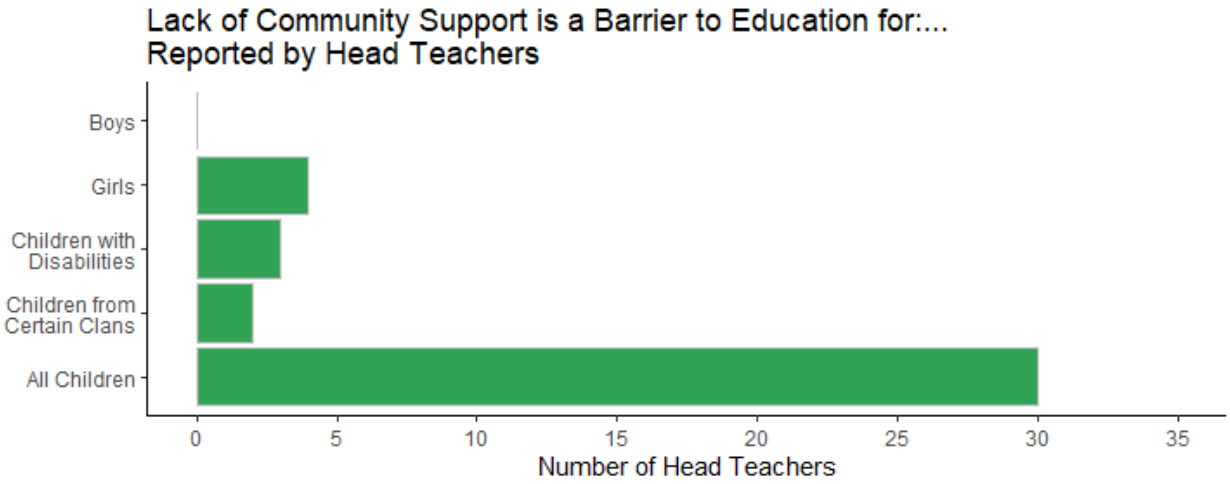

Frequent Absence is a Barrier to Education for:...
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
5
10
15
20
25
30
35
Number of Head Teachers

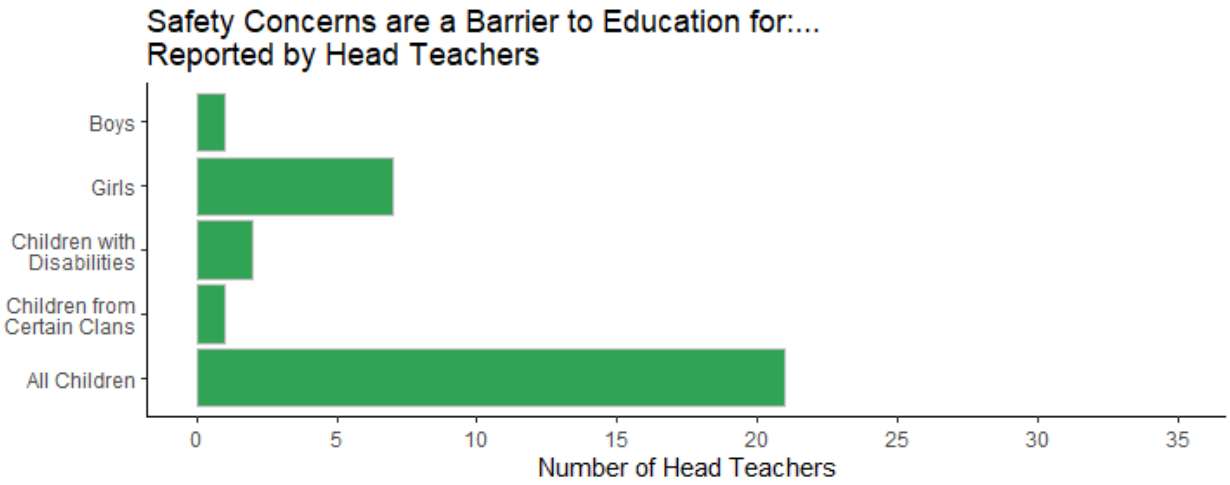

Family Migration is a Barrier to Education for:...
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
5
10
15
20
25
30
35
Number of Head Teachers


Illness or Malnutrition is a Barrier to Education for:...
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
5
10
15
20
25
30
35
Number of Head Teachers


Chores, work, or need to care for family members are barriers to education for:..
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
5
10
15
20
25
30
35
Number of Head Teachers


Lack of Family Support is a Barrier to Education for:...
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
5
10
15
20
25
30
35
Number of Head Teachers


Lack of Community Support is a Barrier to Education for:...
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
5
10
15
20
25
30
35
Number of Head Teachers


Safety Concerns are a Barrier to Education for:...
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
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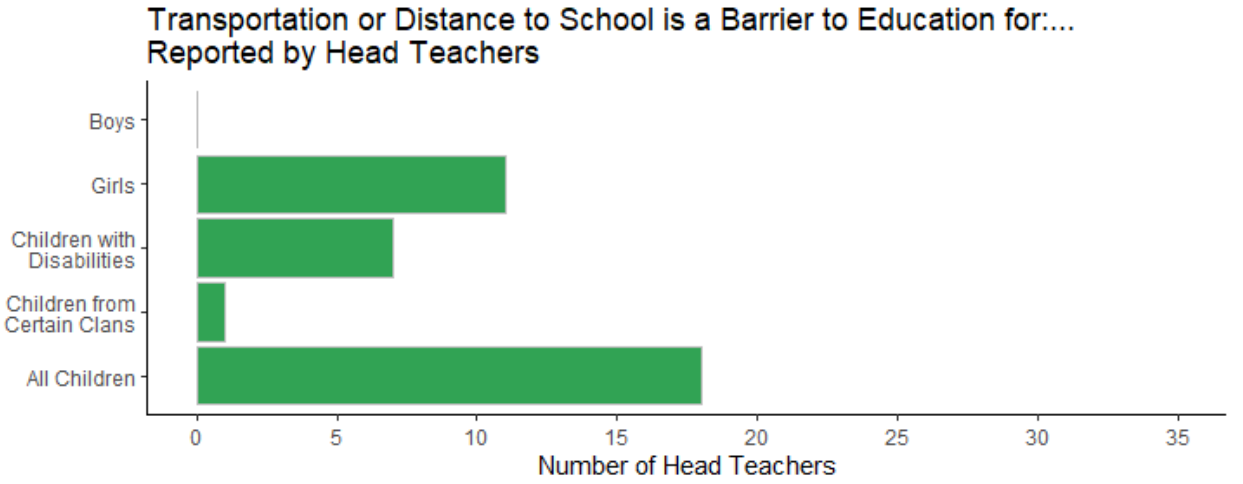
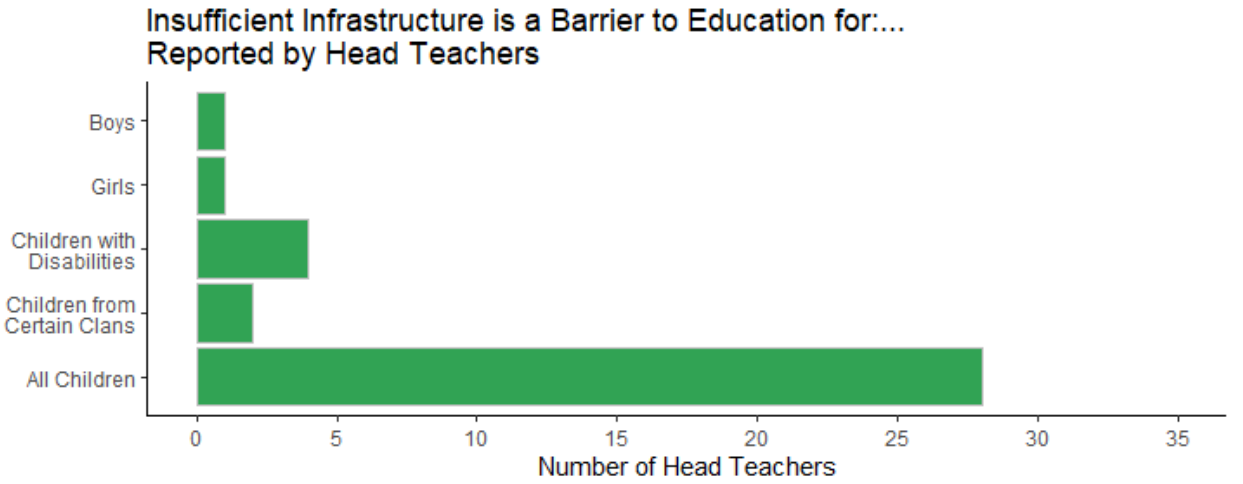
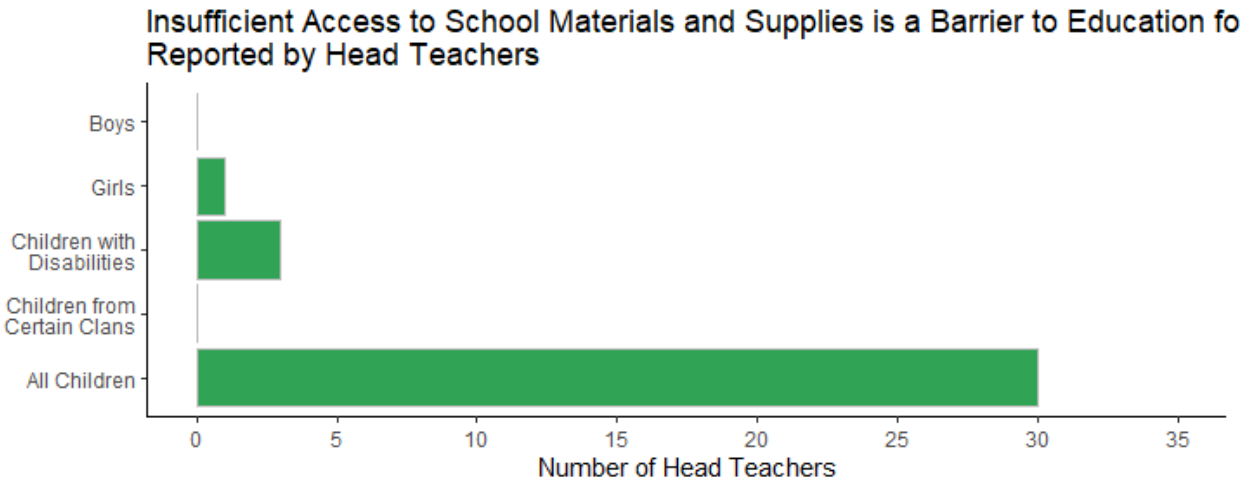
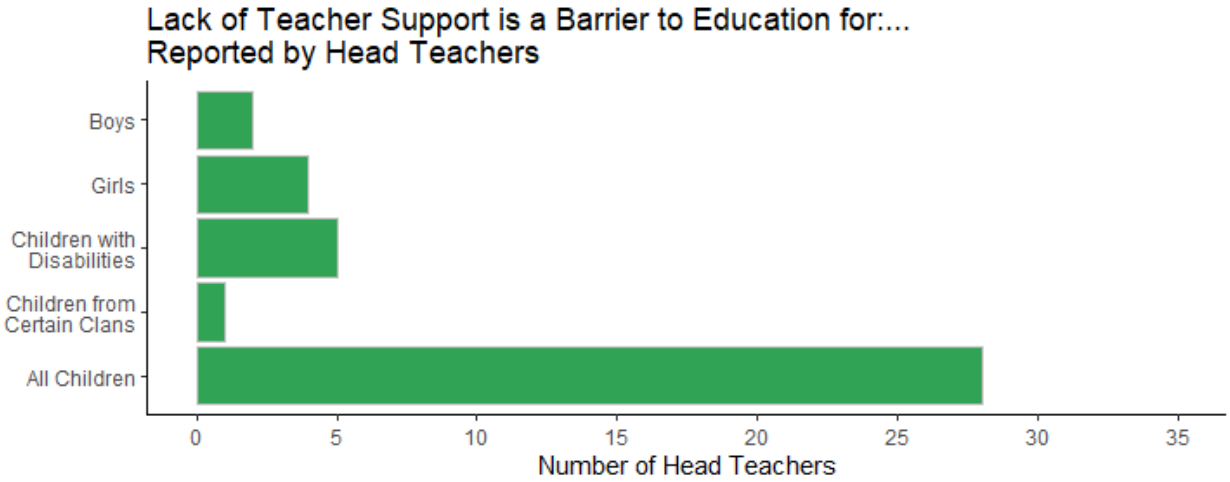
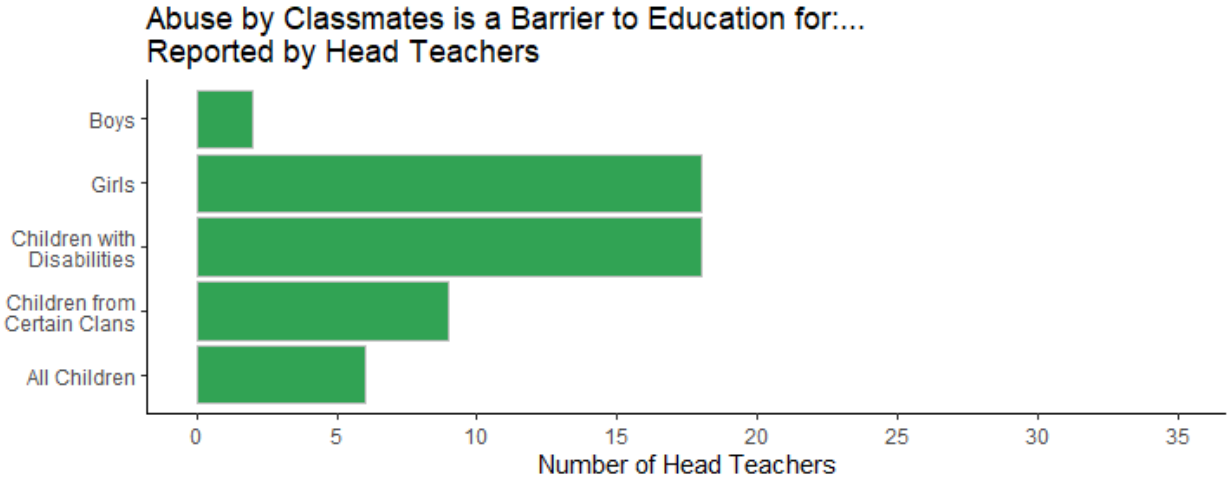
25
30
35
Number of Head Teachers

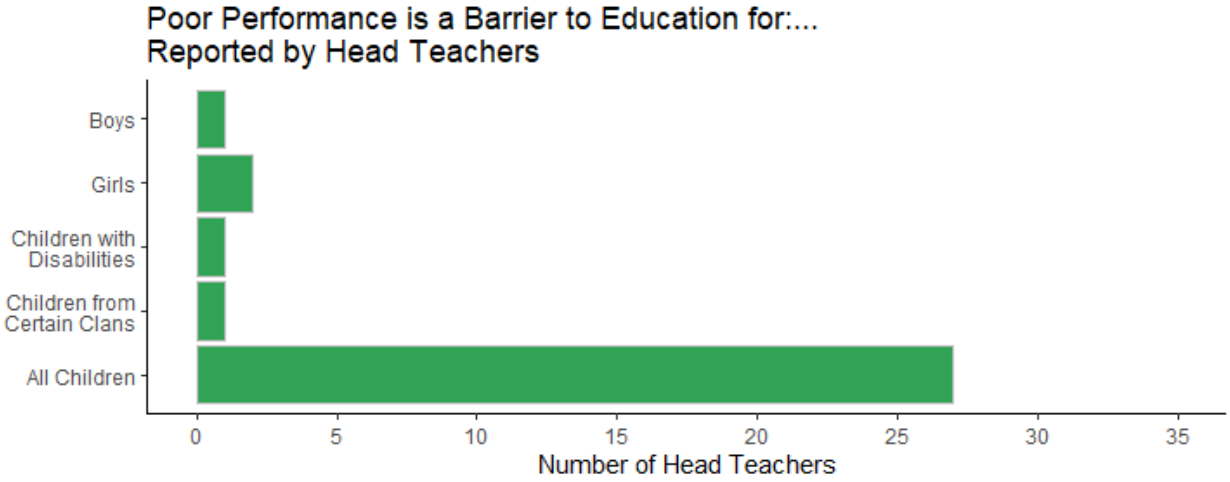

Transportation or Distance to School is a Barrier to Education for:...
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
5
10
15
20
25
30
35
Number of Head Teachers

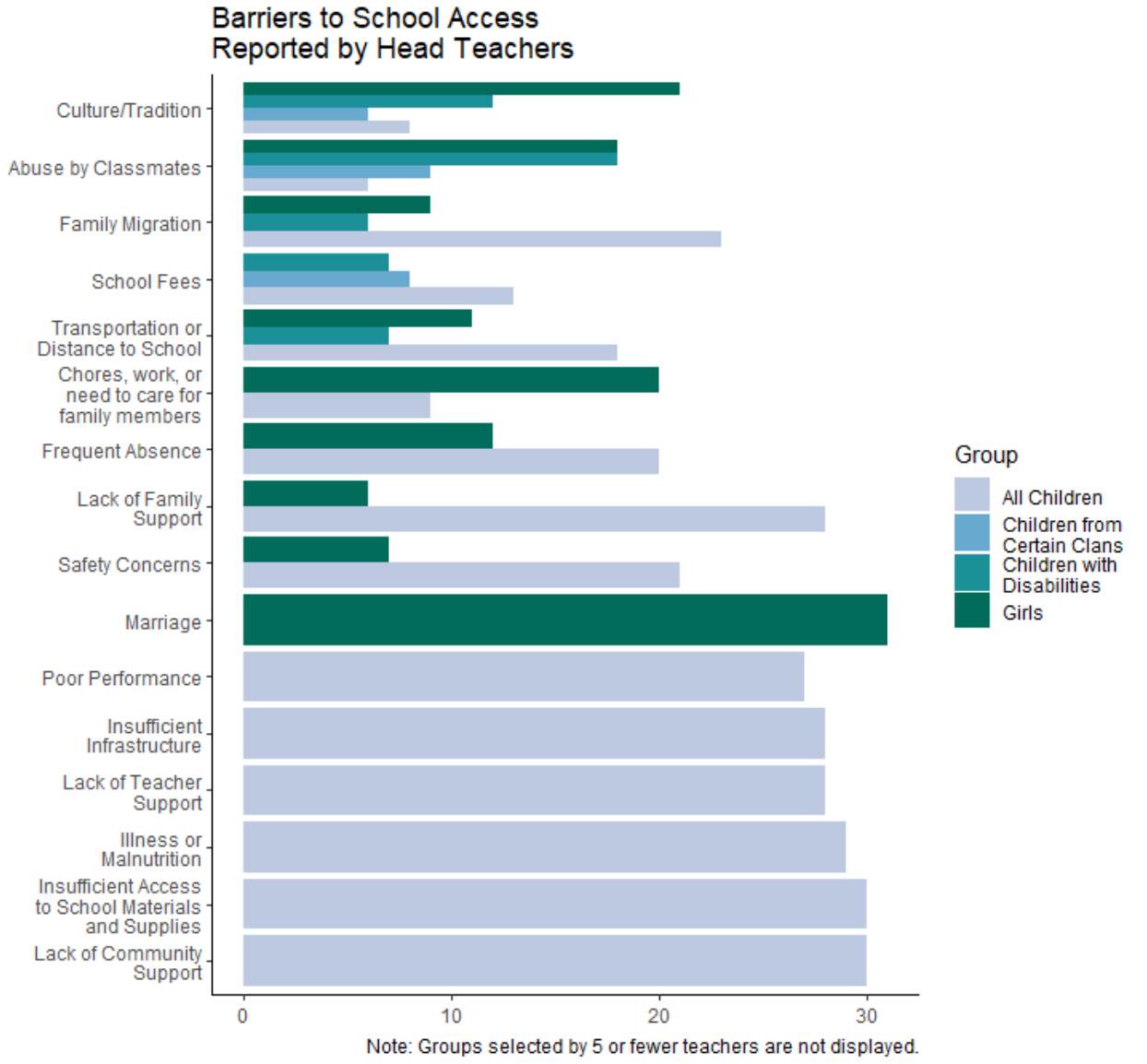

Insufficient Infrastructure is a Barrier to Education for:...
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
5
10
15
20
25
30
35
Number of Head Teachers

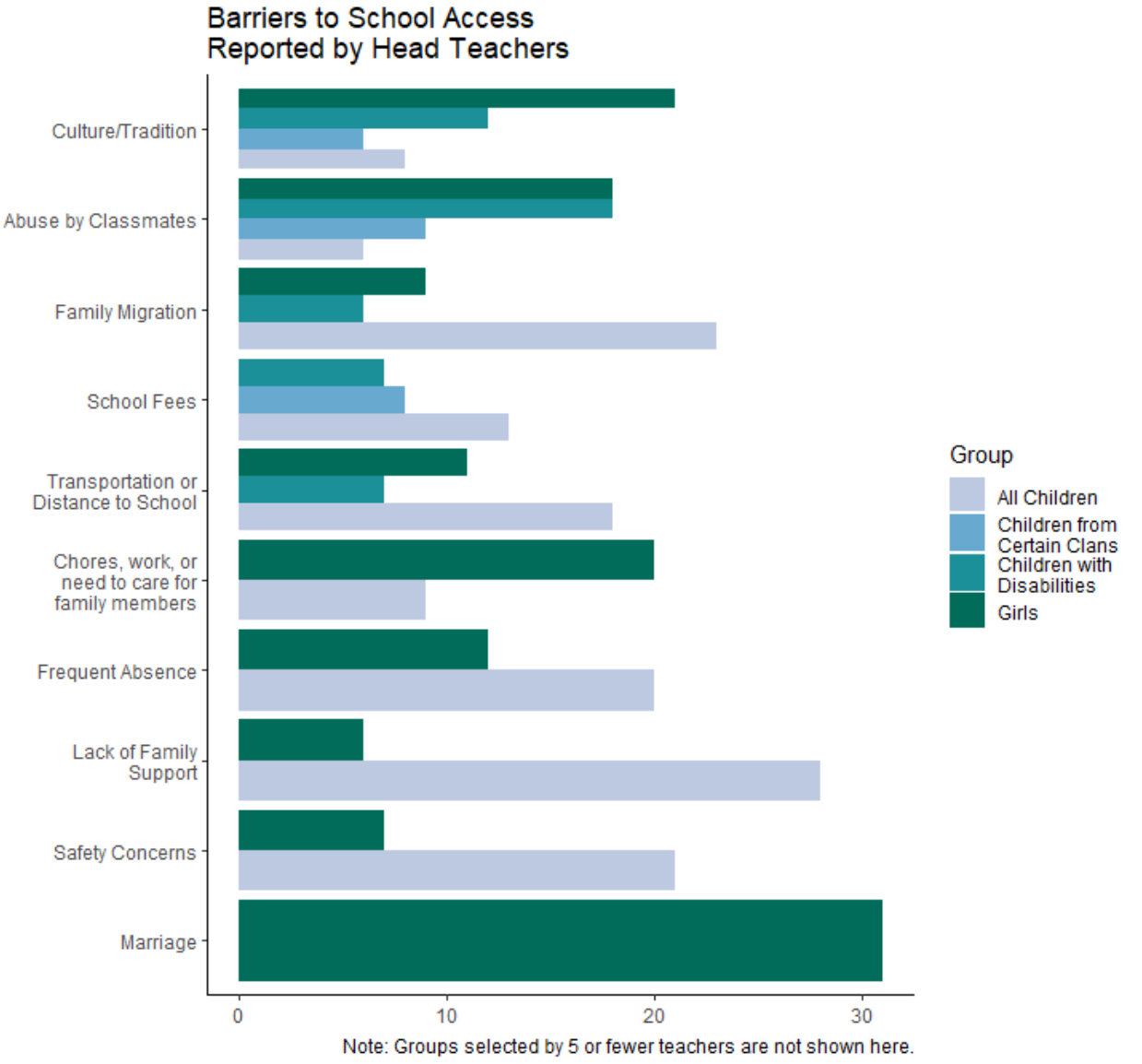

Insufficient Access to School Materials and Supplies is a Barrier to Education fo
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
5
10
15
20
25
30
35
Number of Head Teachers


Lack of Teacher Support is a Barrier to Education for:...
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
5
10
15
20
25
30
35
Number of Head Teachers

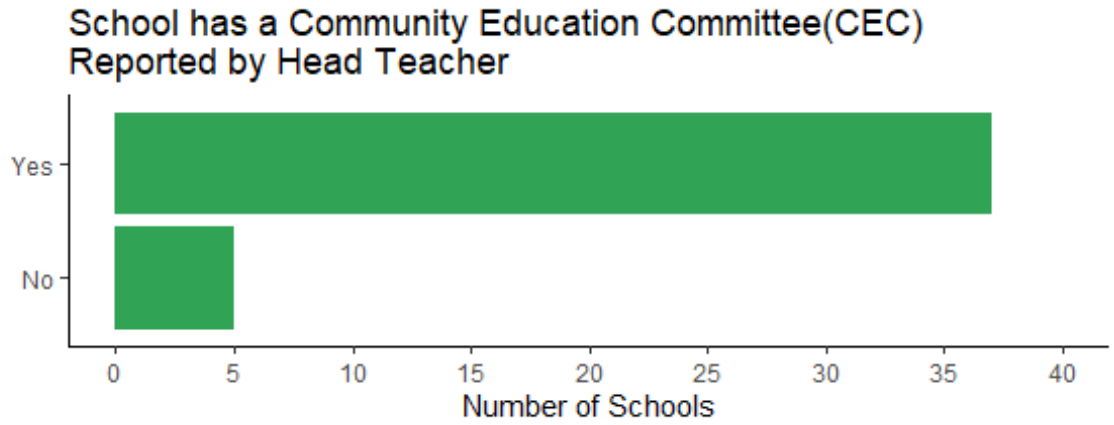

Abuse by Classmates is a Barrier to Education for:...
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
5
10
15
20
25
30
35
Number of Head Teachers

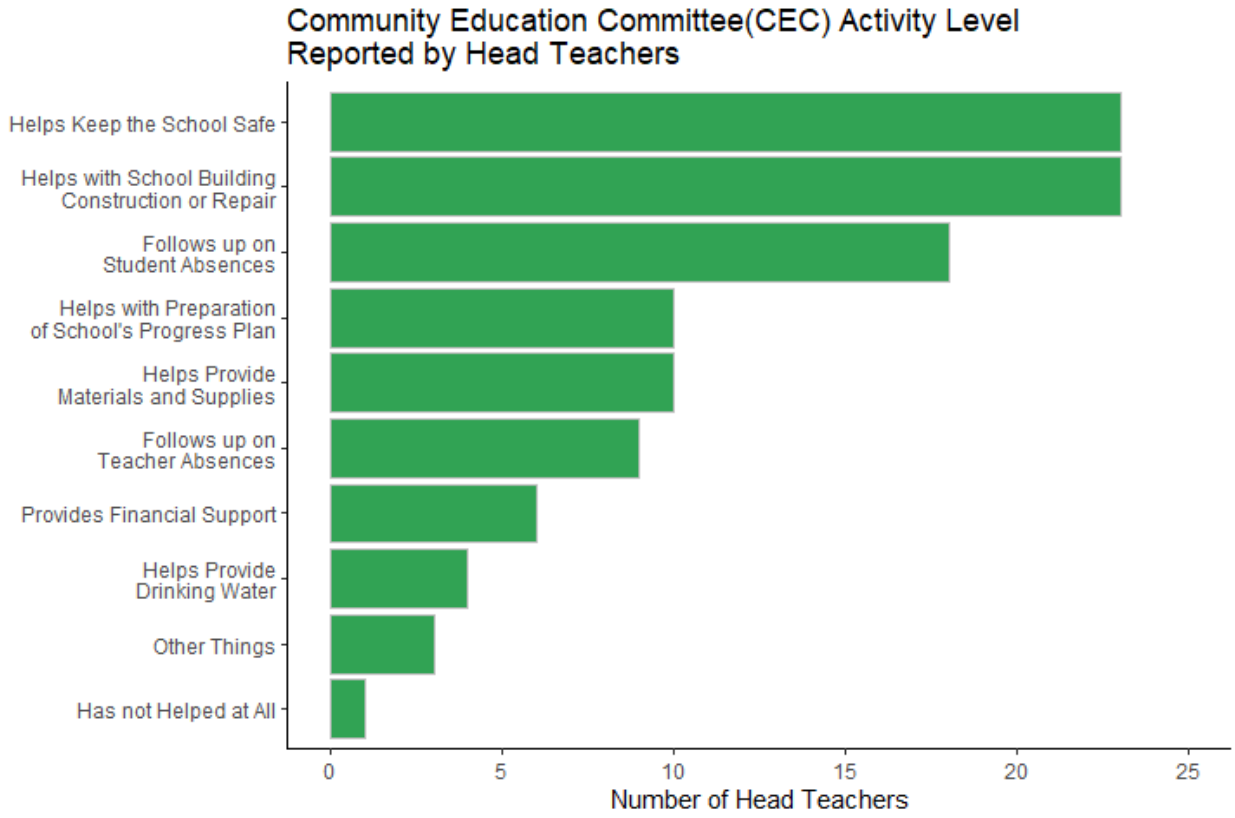

Poor Performance is a Barrier to Education for:...
Reported by Head Teachers
Boys
Girls
Children with Disabilities
Children from Certain Clans
All Children
0
5
10
15
20
25
30
35
Number of Head Teachers


Barriers to School Access
Reported by Head Teachers
Culture/Tradition
Abuse by Classmates
Family Migration
School Fees
Transportation or Distance to School
Chores, work, or need to care for family members
Frequent Absence
Lack of Family Support
Safety Concerns
Marriage
Poor Performance
Insufficient Infrastructure
Lack of Teacher Support
Illness or Malnutrition
Insufficient Access to School Materials and Supplies
Lack of Community Support
0
10
20
30
Note: Groups selected by 5 or fewer teachers are not displayed.
Group
All Children
Children from Certain Clans
Children with Disabilities
Girls


Barriers to School Access
Reported by Head Teachers
Culture/Tradition
Abuse by Classmates
Family Migration
School Fees
Transportation or Distance to School
Chores, work, or need to care for family members
Frequent Absence
Lack of Family Support
Safety Concerns
Marriage
0
10
20
30
Note: Groups selected by 5 or fewer teachers are not shown here.
Group
All Children
Children from Certain Clans
Children with Disabilities
Girls

Head Teacher Community Education Committee

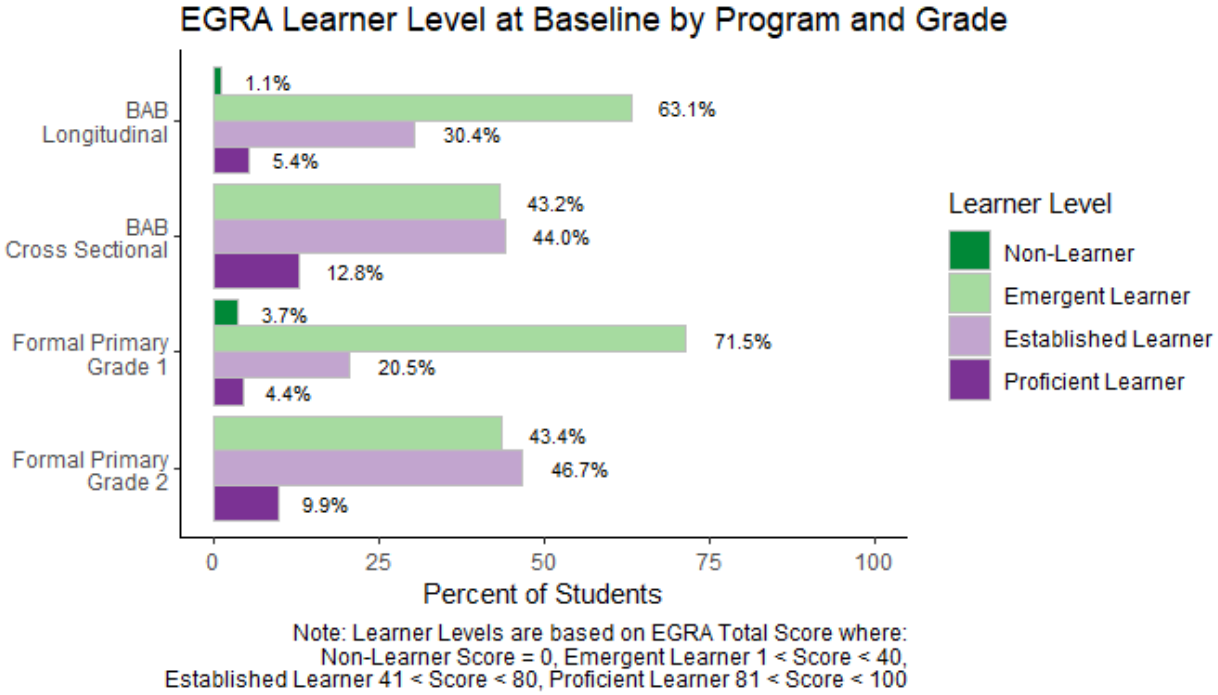




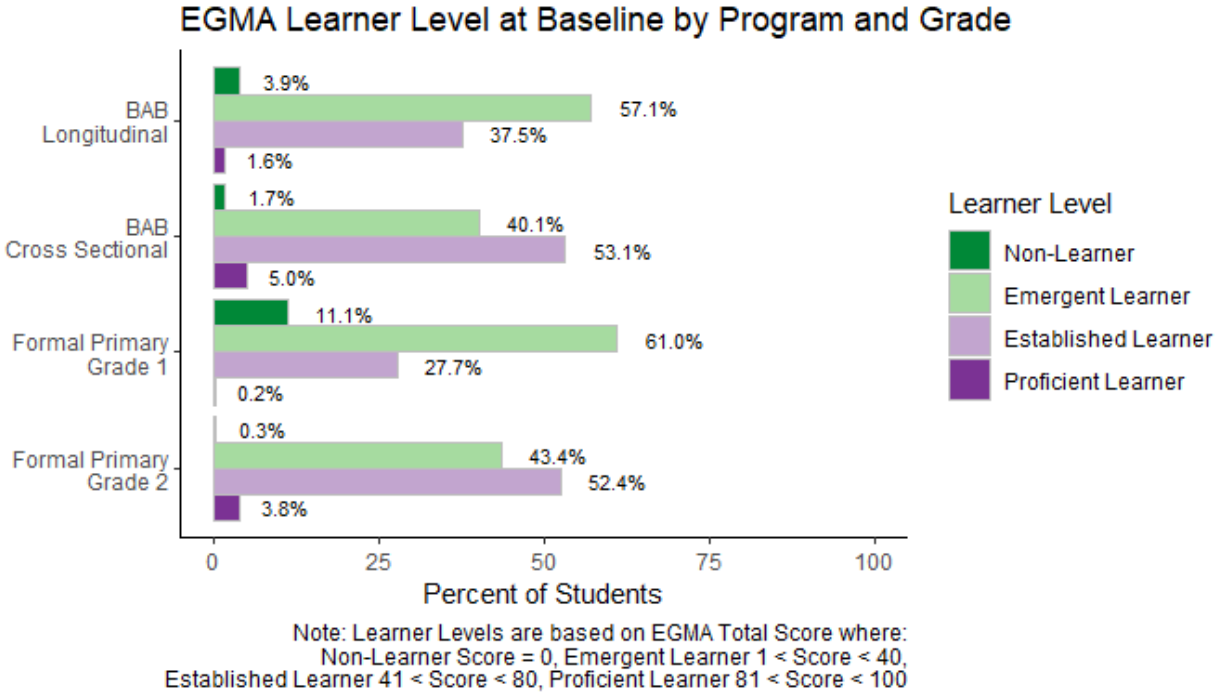
Cross Sectional Study Student Data

Total Cross Sectional Study Schools = 92 Students = 1208

Baseline Learner Definitions for Longitudinal and Cross Sectional Student Data

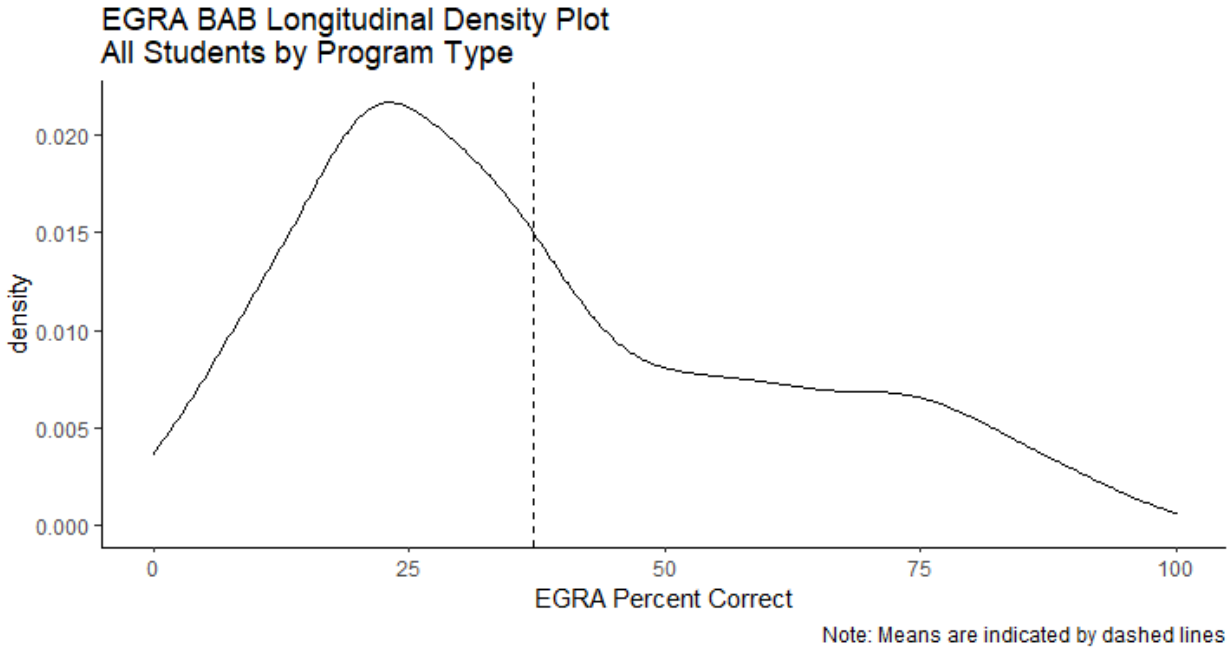


Note: Learner Levels are based on EGRA Total Score where: Non-Learner Score = 0, Emergent Learner 1 < Score < 40, Established Learner 41 < Score < 80, Proficient Learner 81 < Score < 100

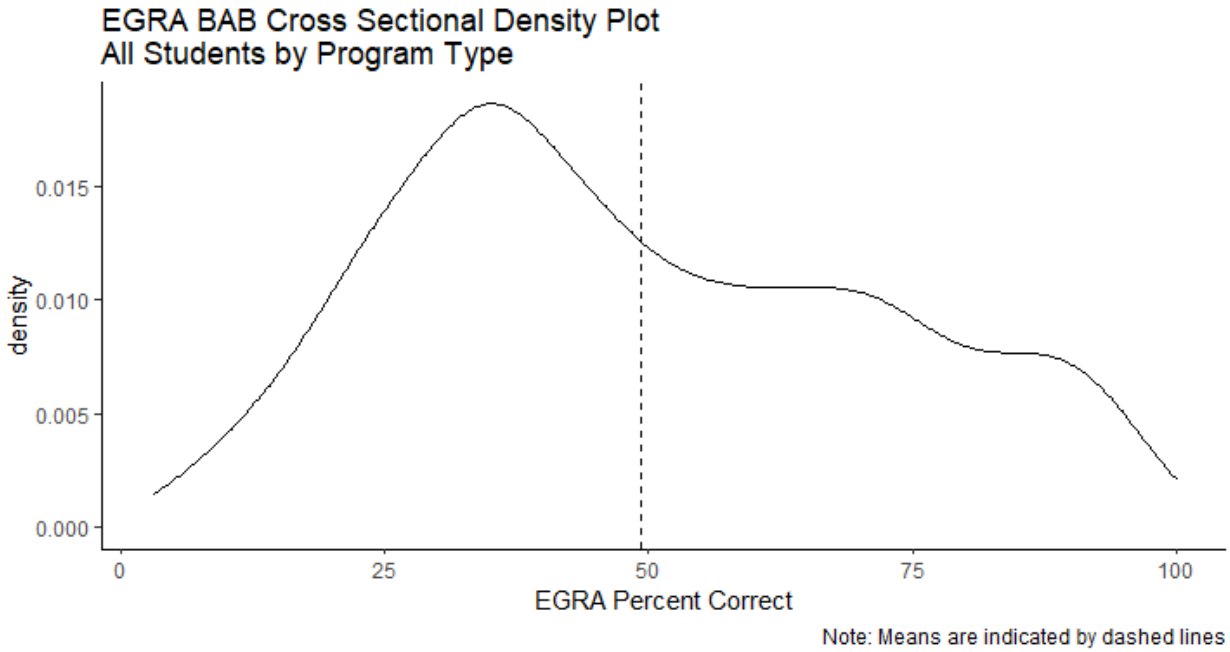


Note: Learner Levels are based on EGMA Total Score where: Non-Learner Score = 0, Emergent Learner 1 < Score < 40, Established Learner 41 < Score < 80, Proficient Learner 81 < Score < 100

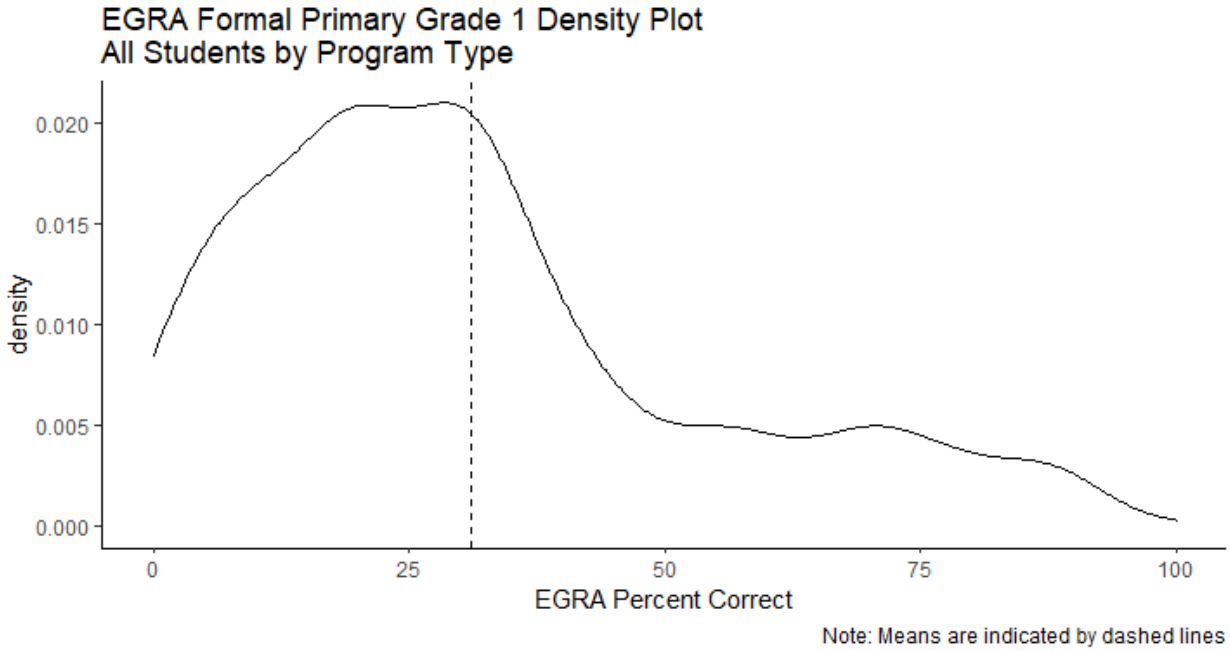
Baseline EGRA Overall Density Plot Longitudinal and Cross Sectional Student Data



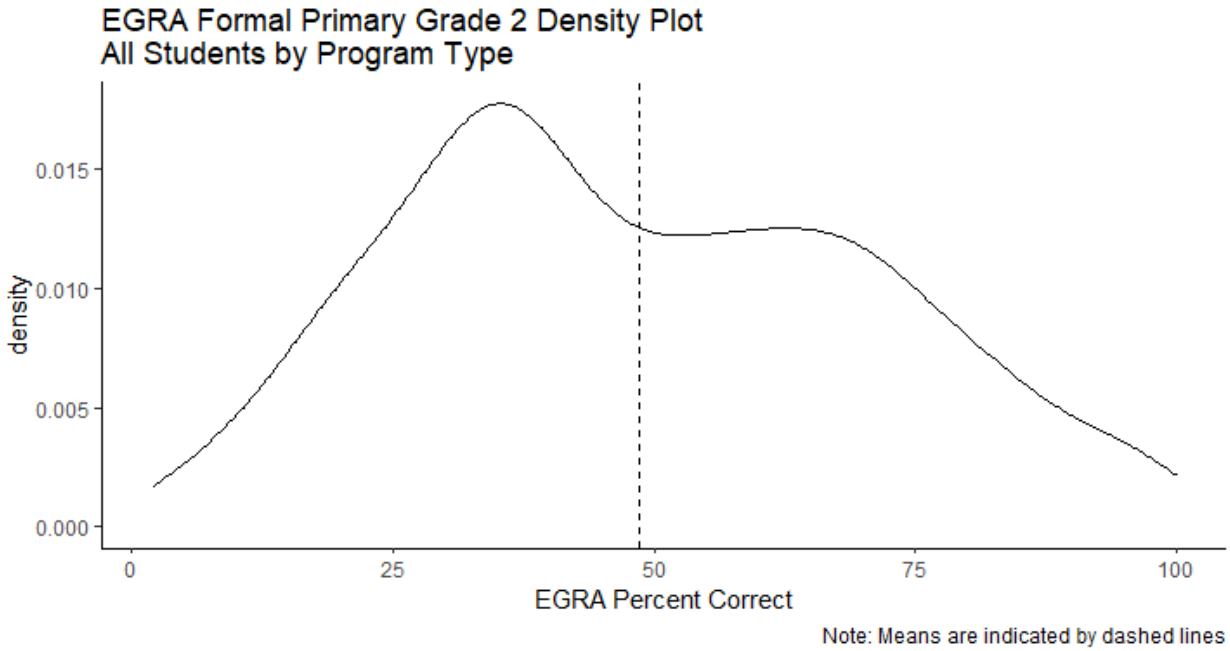
Note: Means are indicated by dashed lines



Note: Means are indicated by dashed lines

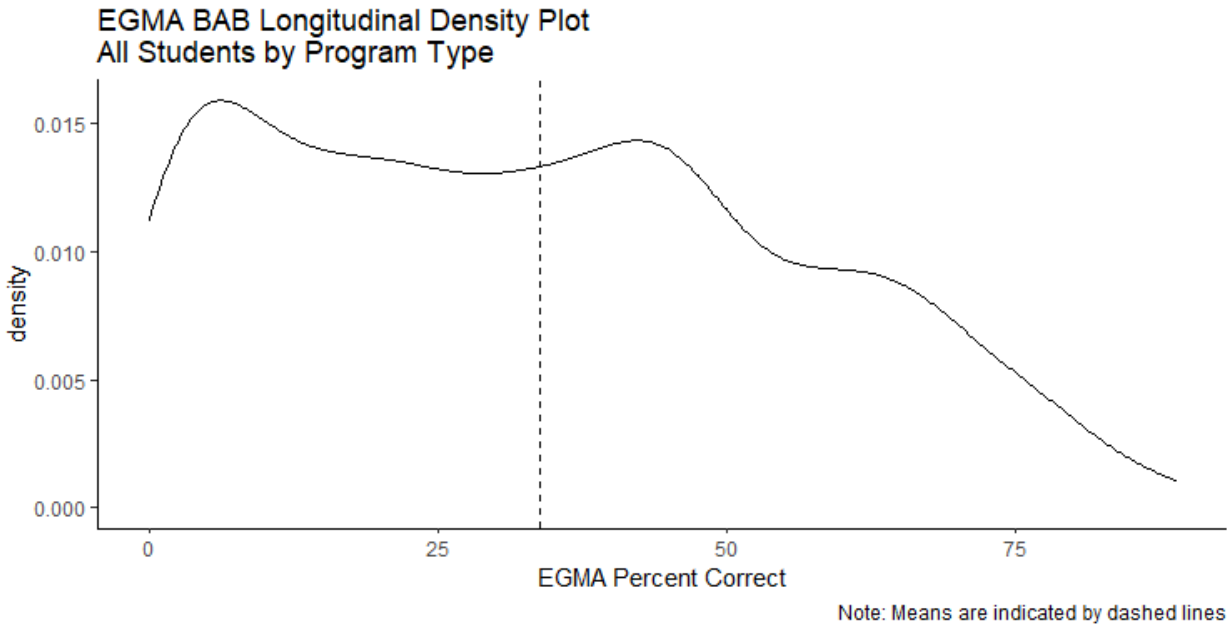


Note: Means are indicated by dashed lines

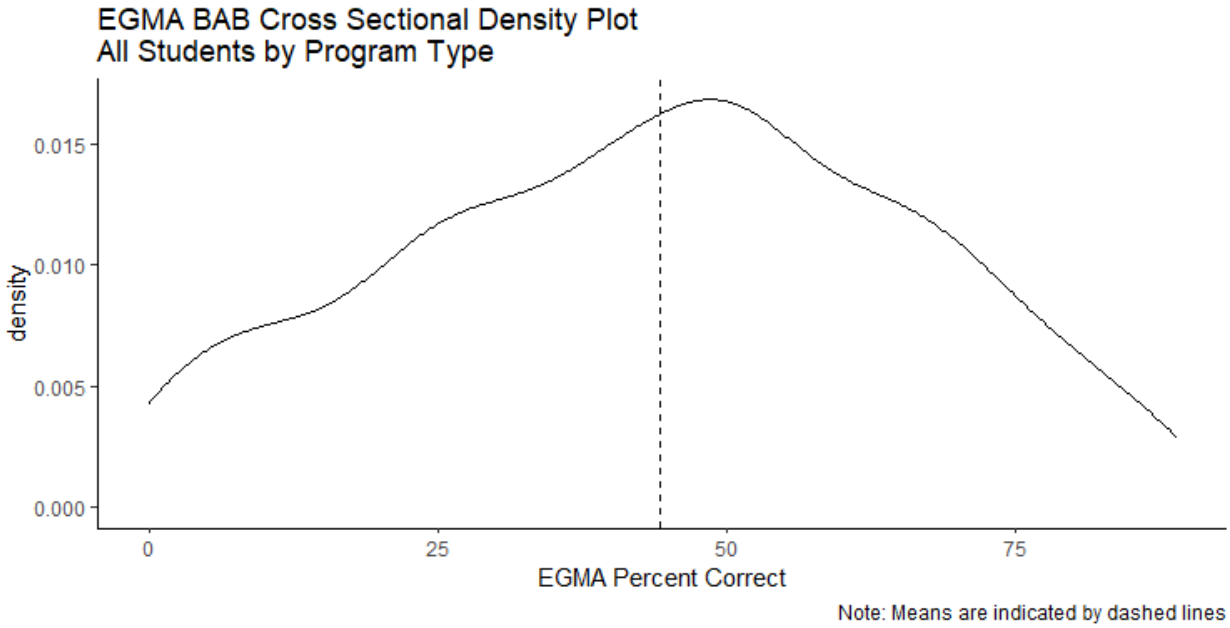


Note: Means are indicated by dashed lines

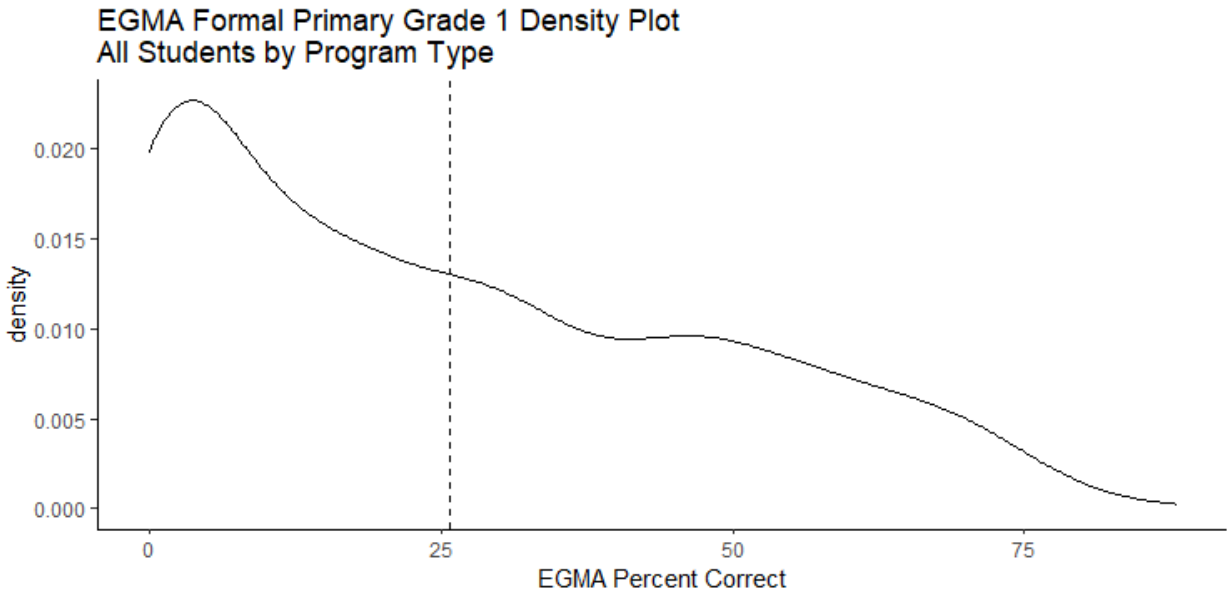
Baseline EGMA Overall Density Plot Longitudinal and Cross Sectional Student Data



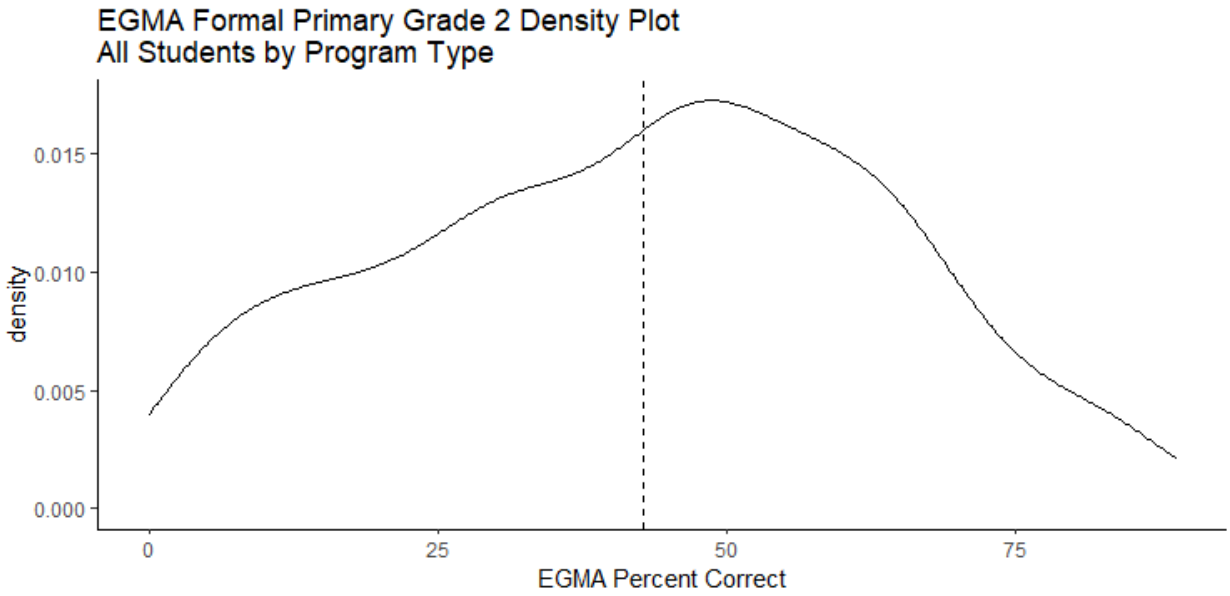
Note: Means are indicated by dashed lines



Note: Means are indicated by dashed lines

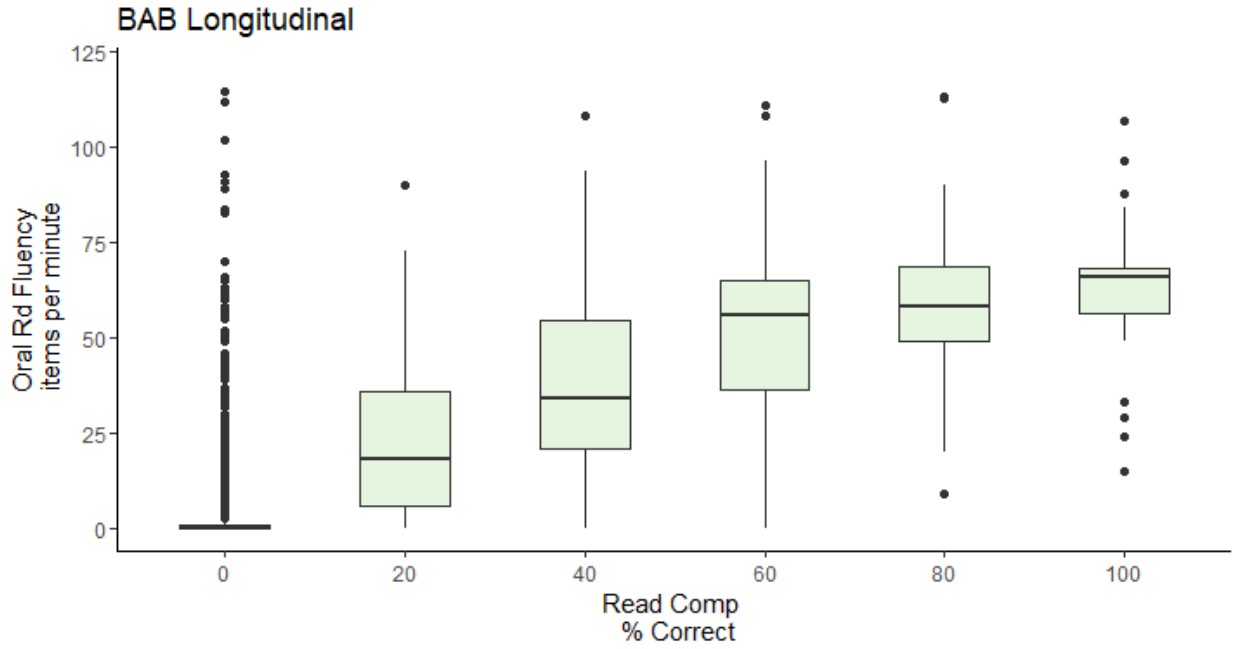


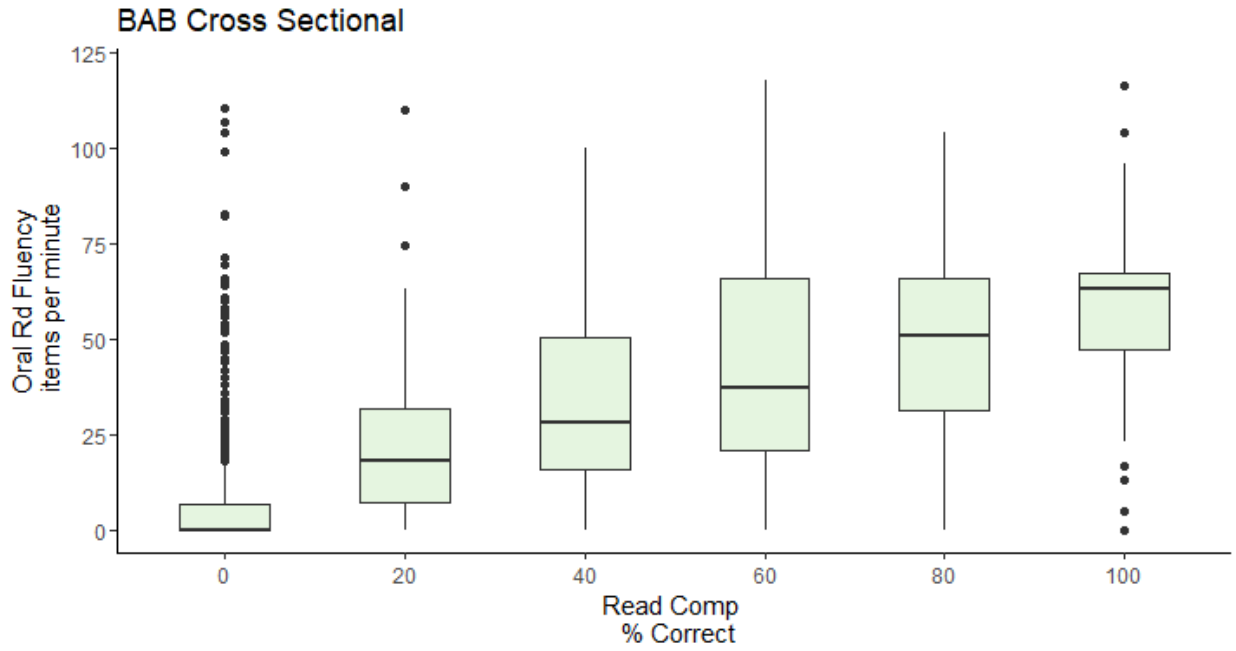
Note: Means are indicated by dashed lines

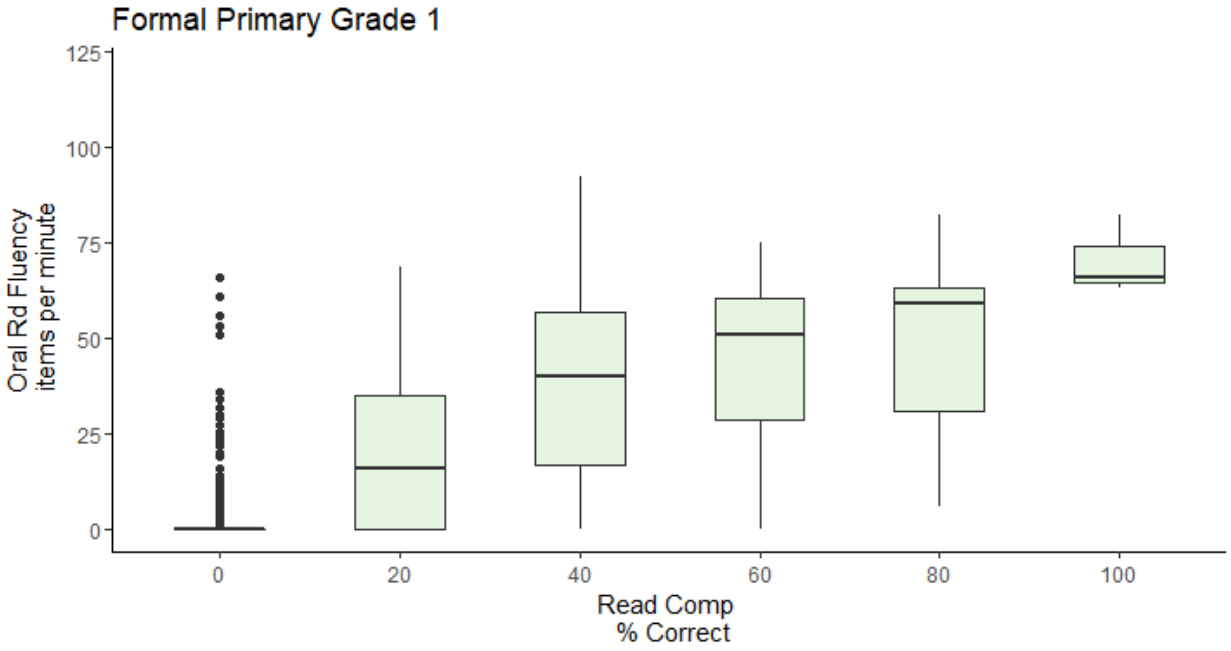


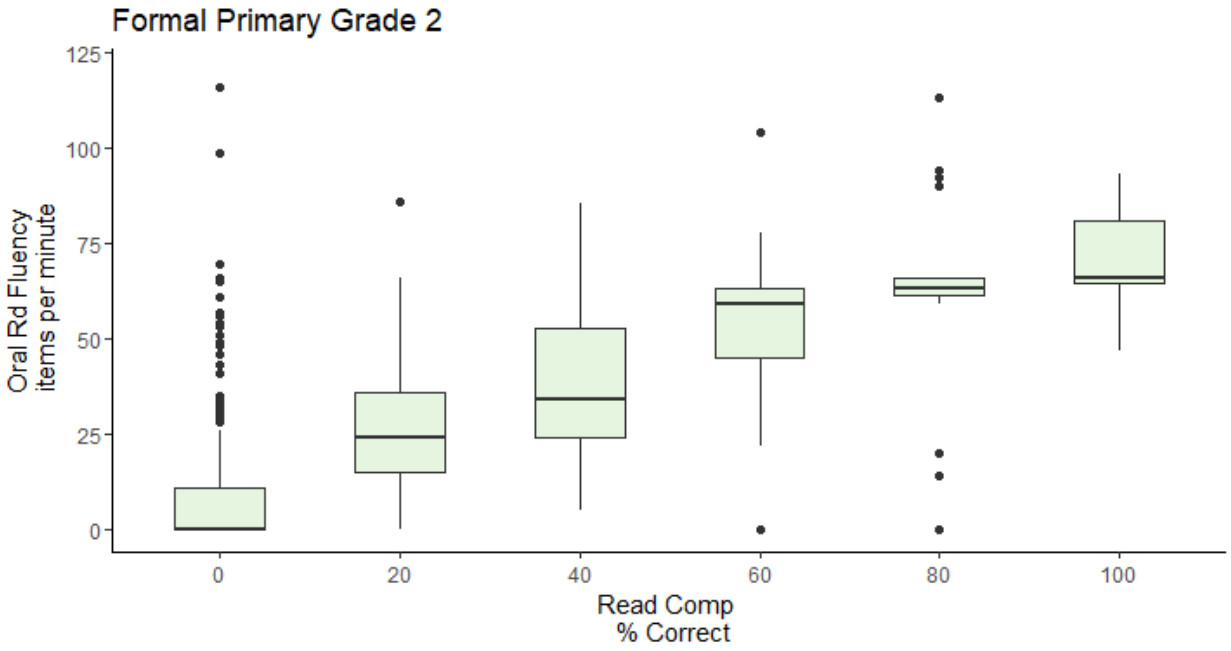
Note: Means are indicated by dashed lines

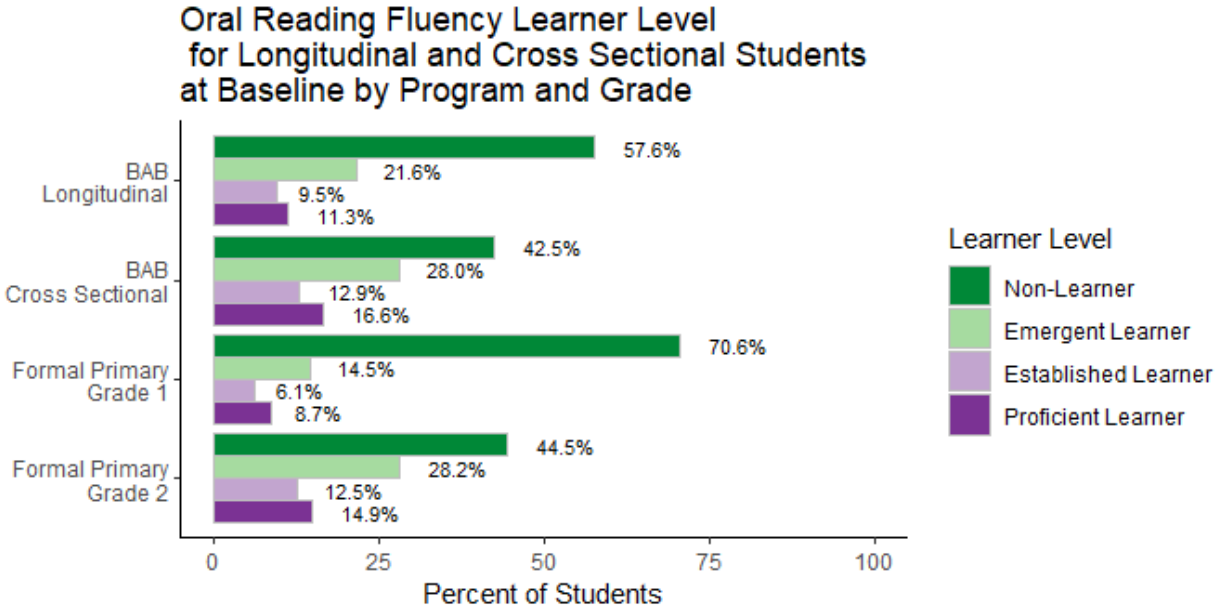
Baseline Longitudinal and Cross Sectional Oral Reading Fluency vs. Reading Comprehension on EGRA





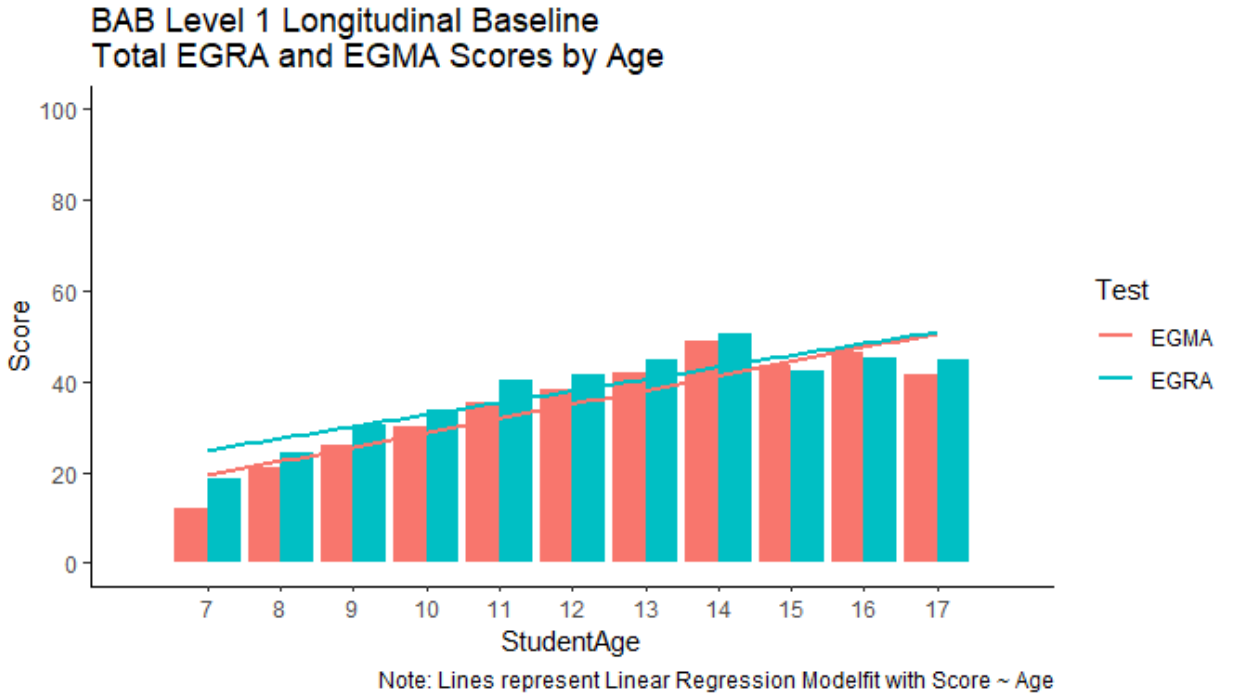

Formal Primary Grade 1
Oral Rd Fluency
items per minute
125
100
75
50
25
0
0
20
40
60
80
100
Read Comp
% Correct

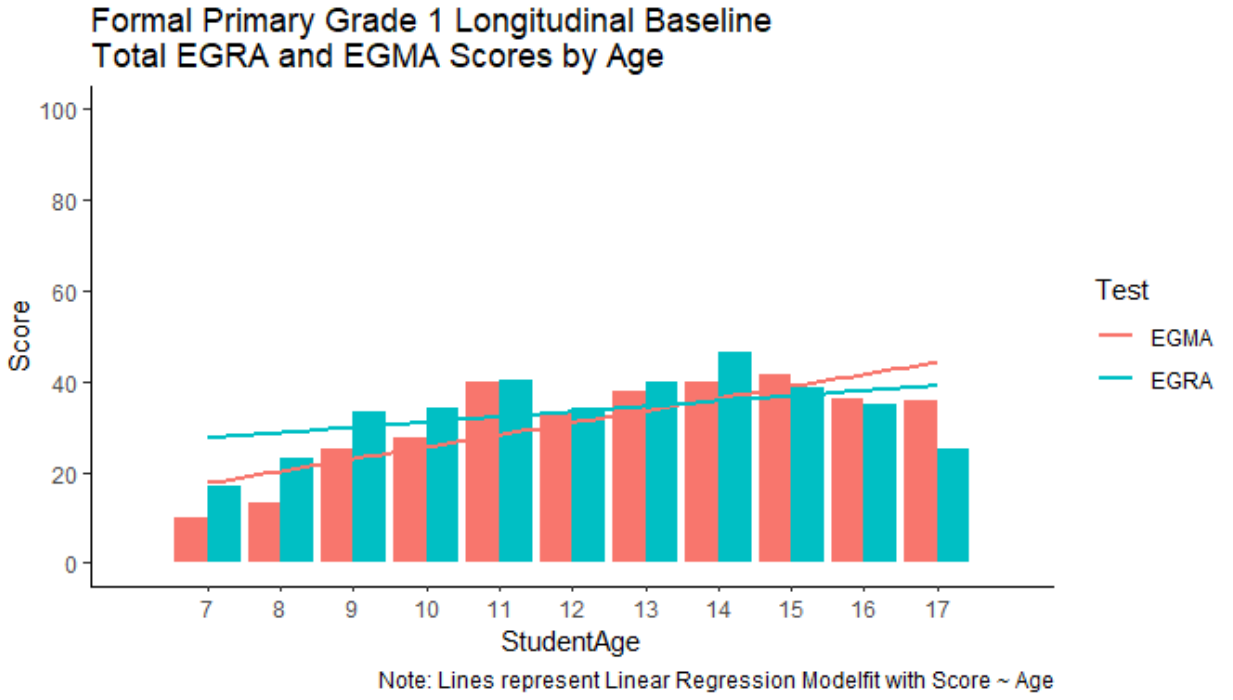

Formal Primary Grade 2
Oral Rd Fluency
items per minute
125
100
75
50
25
0
0
20
40
60
80
100
Read Comp
% Correct

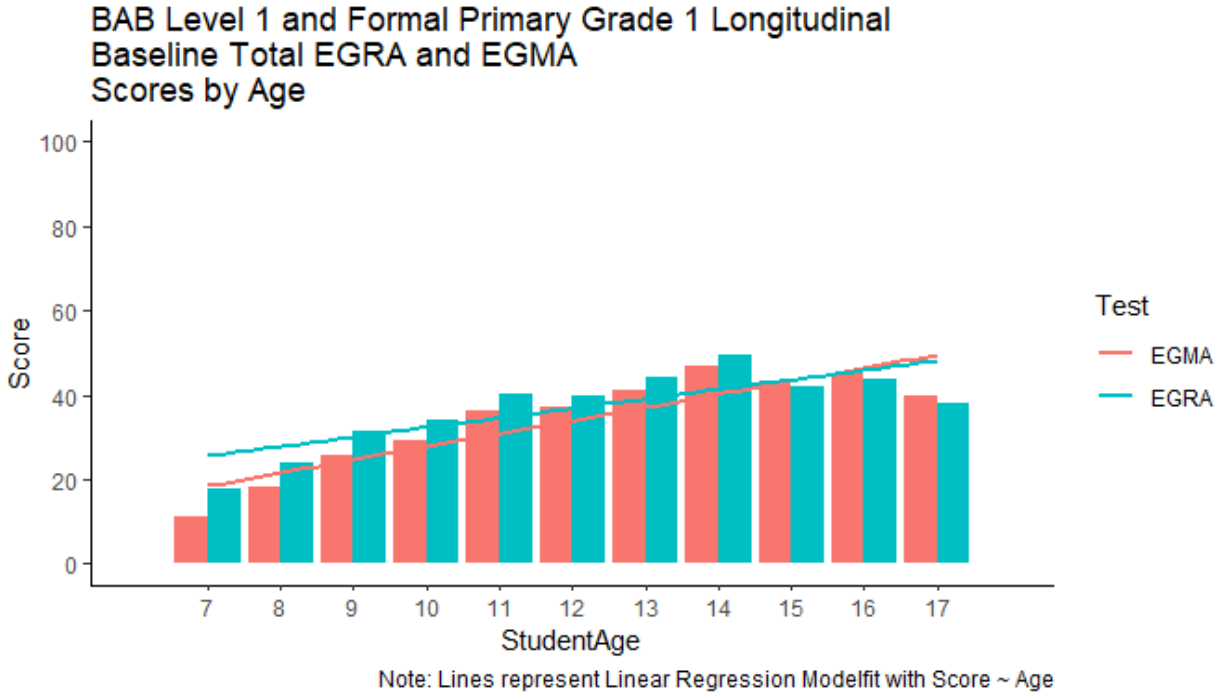


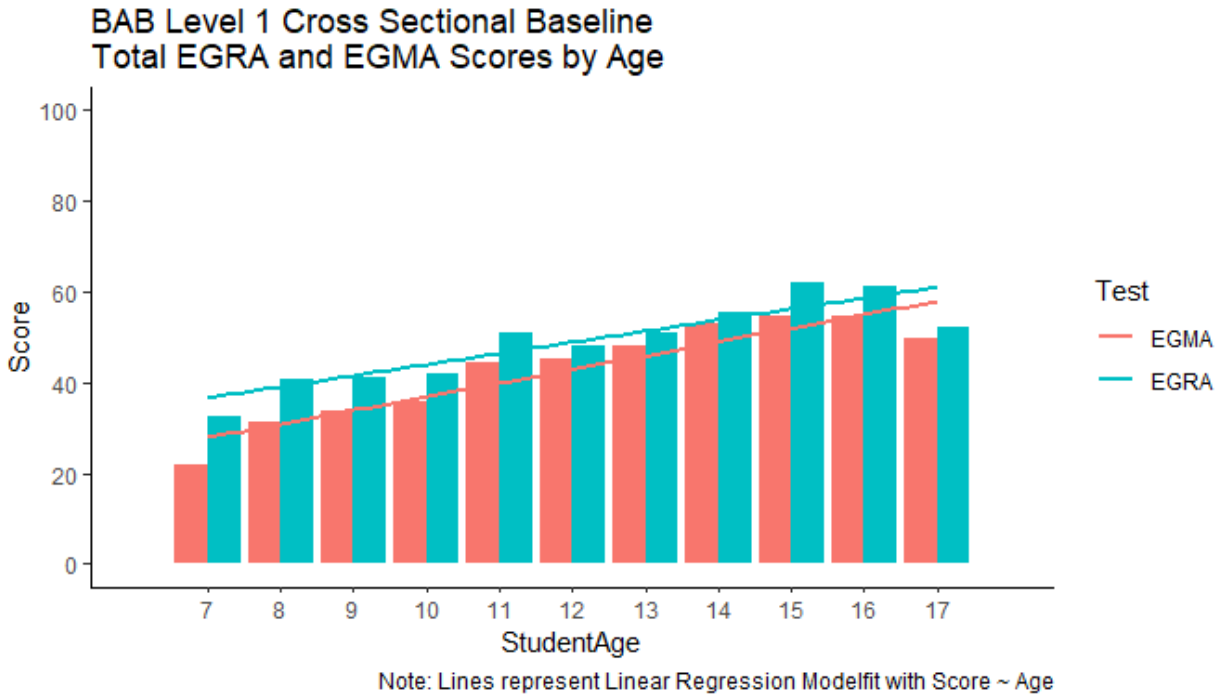
Note: Learner Level is based on the Oral Reading Fluency Items Correct Percent where:
Non-Learner Score = 0, Emergent Learner 1 < Score < 40,
Established Learner 41 < Score < 80, Proficient Learner 81 < Score < 100

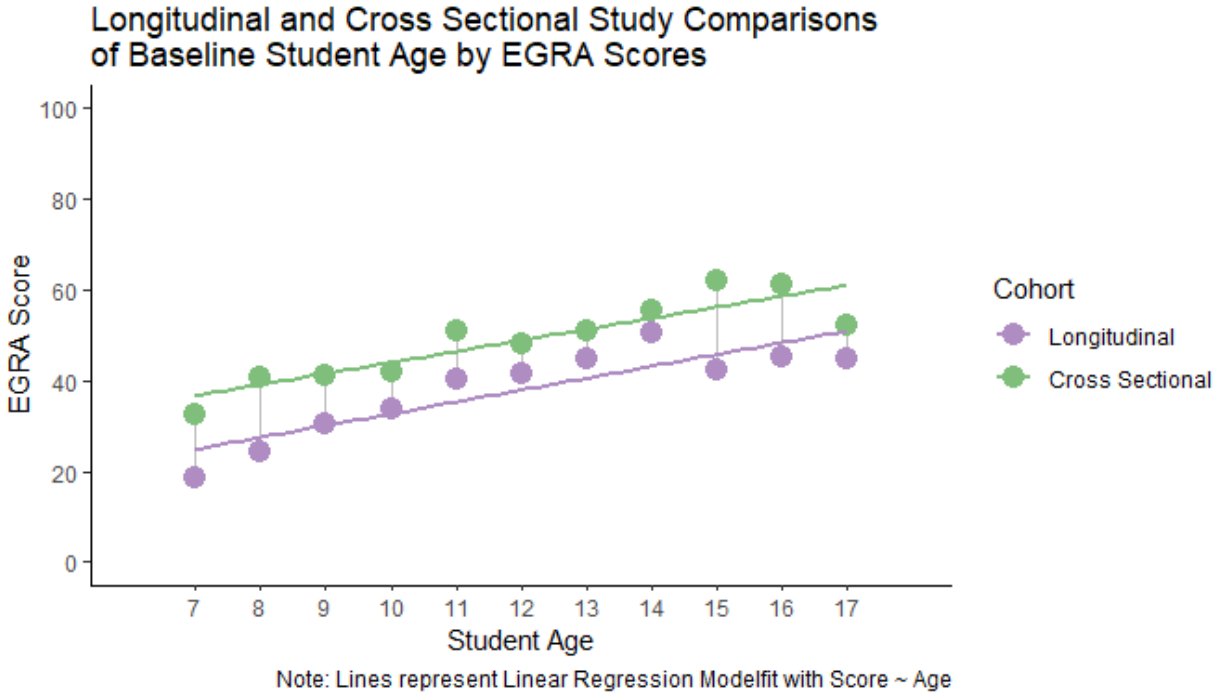
Baseline Longitudinal and Cross Sectional Age Comparisons

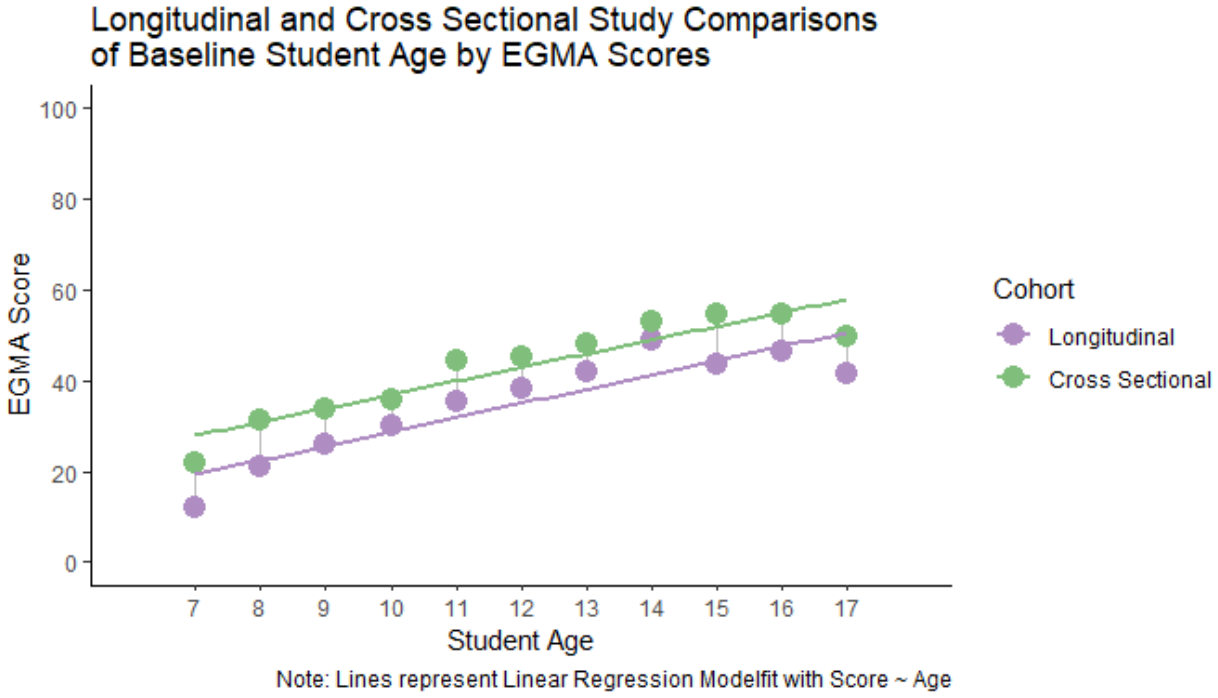


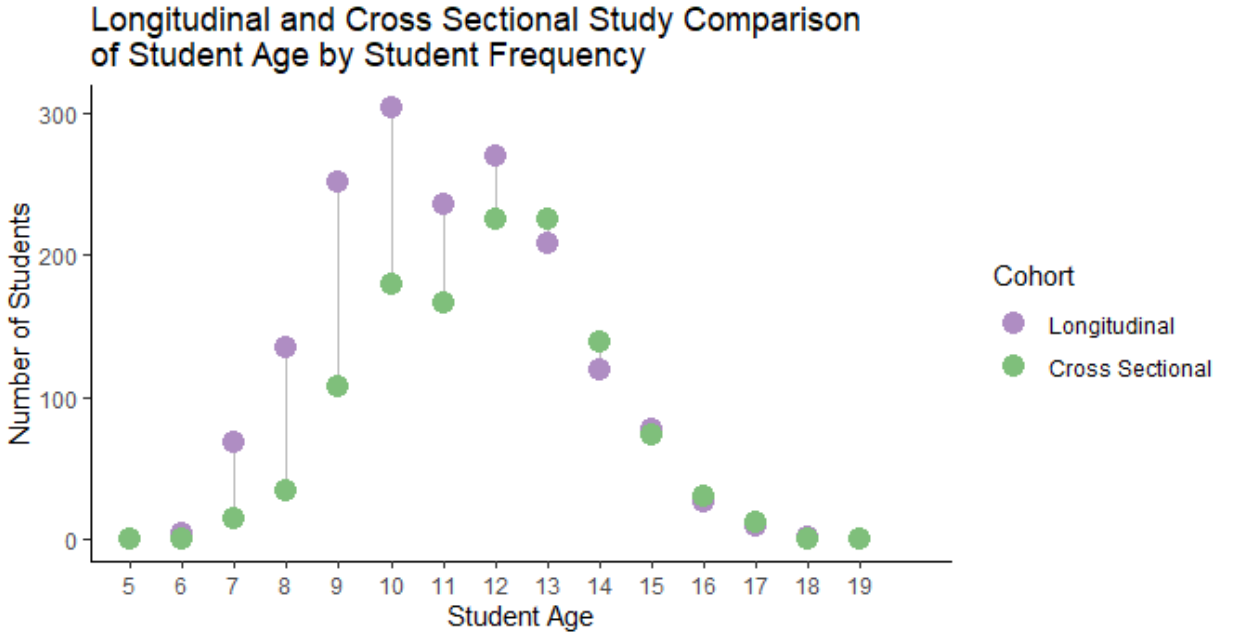



BAB Level 1 and Formal Primary Grade 1 Longitudinal
Baseline Total EGRA and EGMA
Scores by Age
Score
100
80
60
40
20
0
7
8
9
10
11
12
13
14
15
16
17
StudentAge
Test
EGMA
EGRA
Note: Lines represent Linear Regression Modelfit with Score ~ Age


BAB Level 1 Cross Sectional Baseline
Total EGRA and EGMA Scores by Age
Score
100
80
60
40
20
0
7
8
9
10
11
12
13
14
15
16
17
StudentAge
Test
EGMA
EGRA
Note: Lines represent Linear Regression Modelfit with Score ~ Age


Longitudinal and Cross Sectional Study Comparisons of Baseline Student Age by EGRA Scores
EGRA Score
100
80
60
40
20
0
7
8
9
10
11
12
13
14
15
16
17
Student Age
Cohort
Longitudinal
Cross Sectional
Note: Lines represent Linear Regression Modelfit with Score ~ Age


Longitudinal and Cross Sectional Study Comparisons of Baseline Student Age by EGMA Scores
EGMA Score
100
80
60
40
20
0
7
8
9
10
11
12
13
14
15
16
17
Student Age
Cohort
Longitudinal
Cross Sectional
Note: Lines represent Linear Regression Modelfit with Score ~ Age



Group	EGRA Slope	EGMA Slope
BAB Level 1 Longitudinal	2.612182	3.135727
Formal Primary Grade 1 Longitudinal	1.158909	2.667000
BAB Level 1 and Formal Primary Grade 1 Longitudinal Combined	2.257364	3.107182
BAB Level 1 Cross Sectional	2.444091	3.012636

Acknowledgements

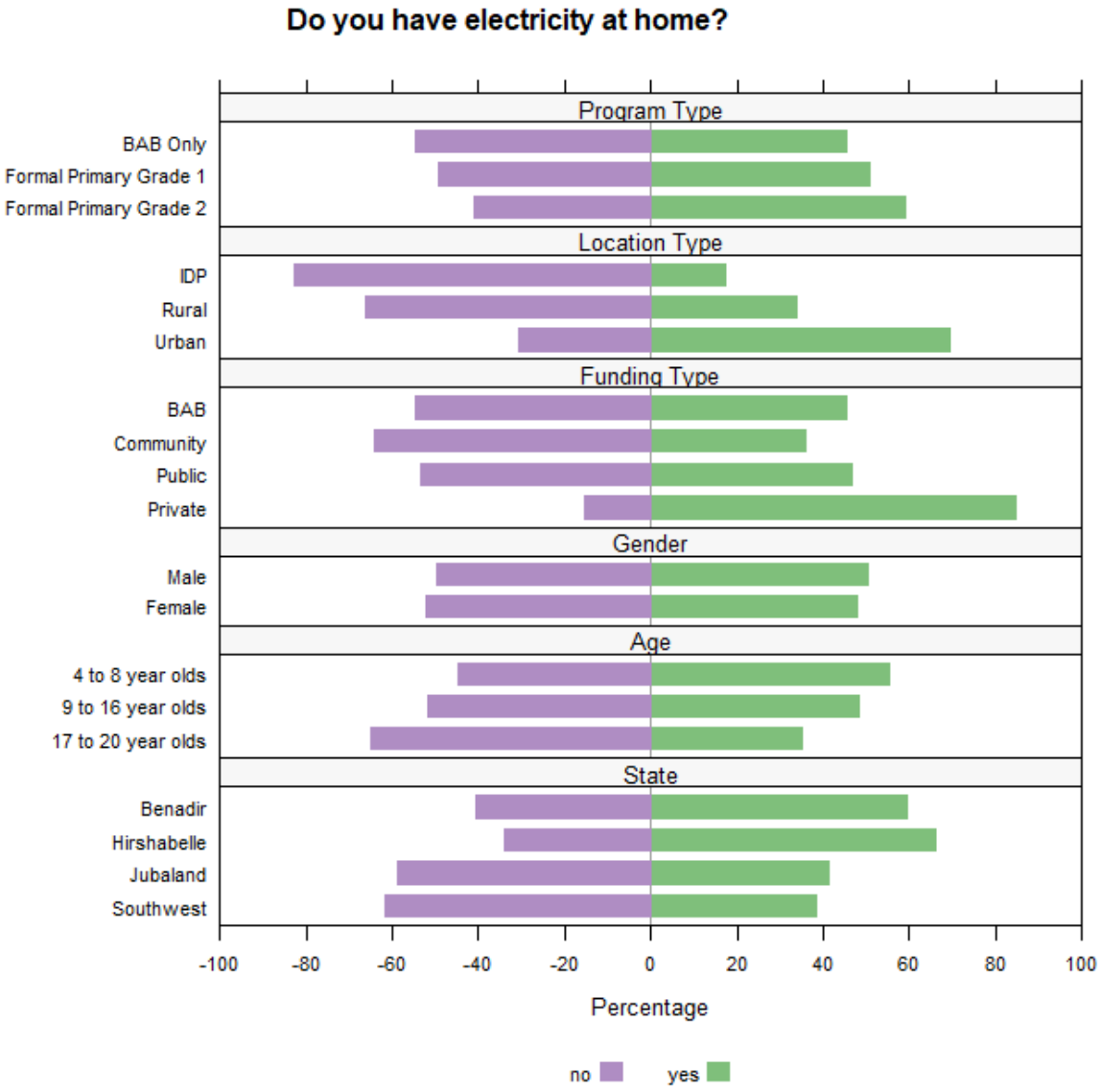
About LASER PULSE
LASER (Long-term Assistance and SErvices for Research) PULSE (Partners for University-Led Solutions Engine) is a five-year, $70M program funded through USAID's Innovation, Technology, and Research Hub, that delivers research-driven solutions to field-sourced development challenges in USAID interest countries.
A consortium led by Purdue University, with core partners Catholic Relief Services, Indiana University, Makerere University, and the University of Notre Dame, implements the LASER PULSE program through a growing network of 2,500+ researchers and development practitioners in 61 countries.
LASER PULSE collaborates with USAID missions, bureaus, and independent offices and other local stakeholders to identify research needs for critical development challenges, and funds and strengthens capacity of researcher-practitioner teams to co-design solutions that translate into policy and practice.

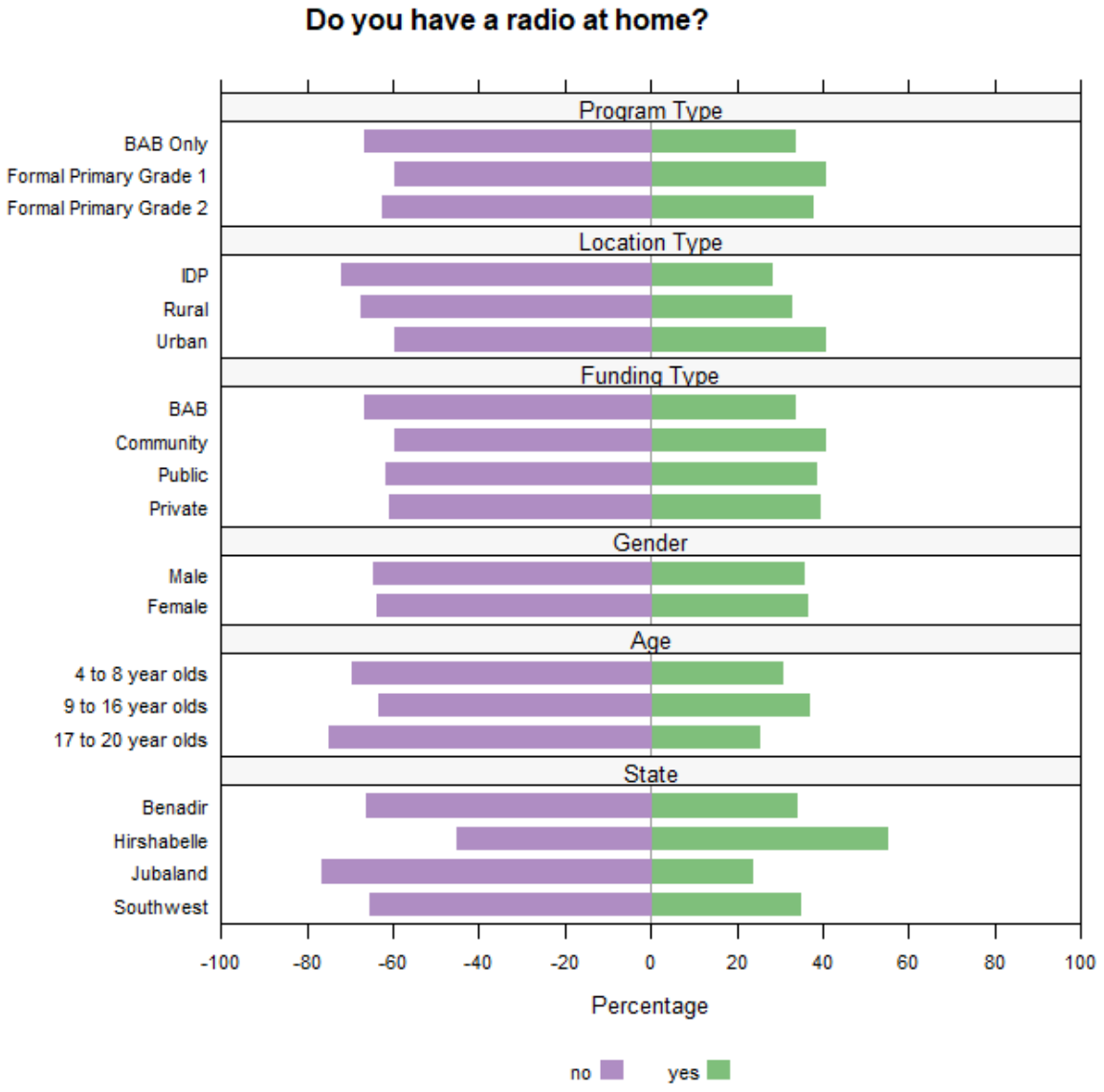
Appendix A

Individual Data Items

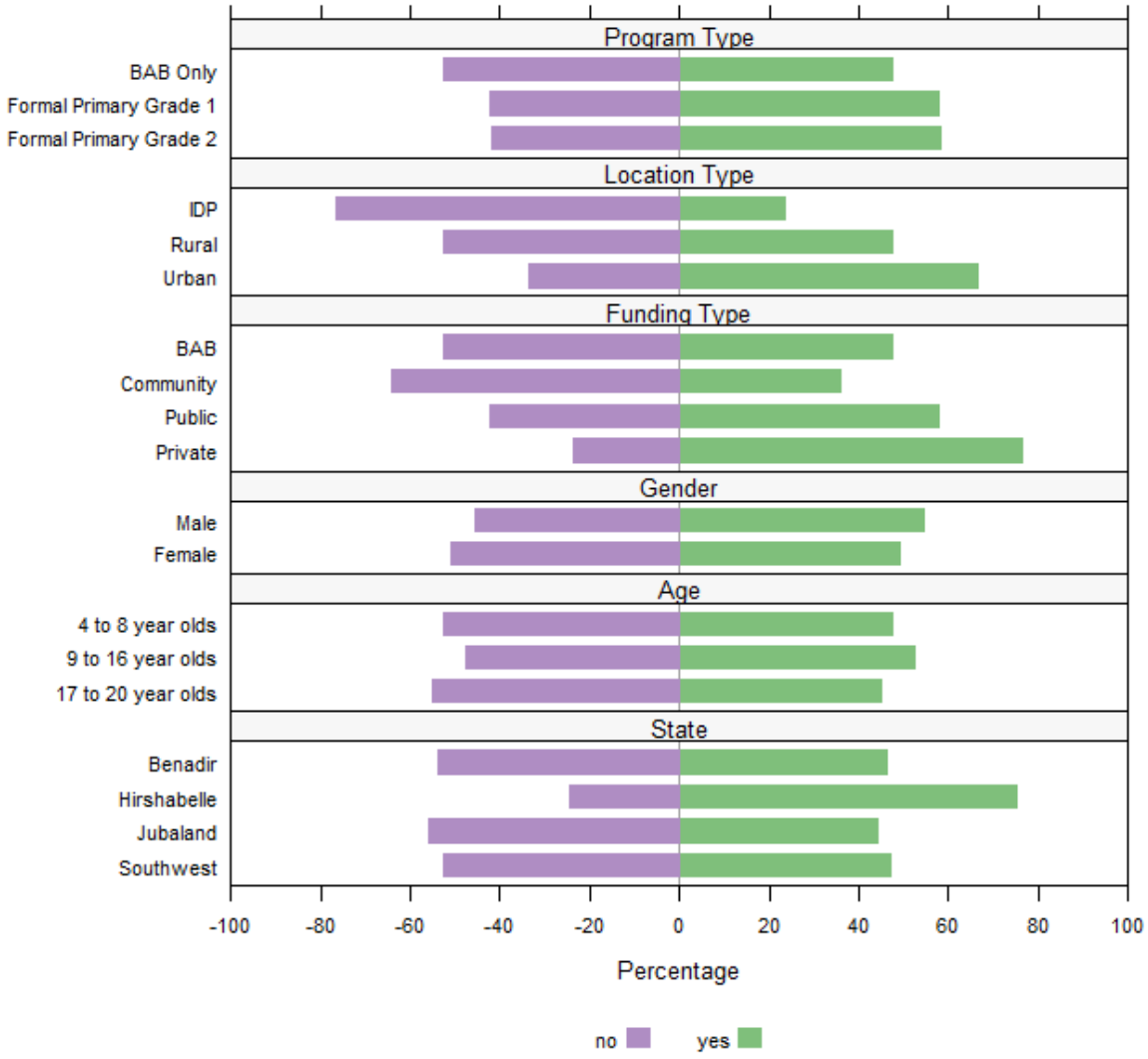
Student Perceptions of Social Economic Status (SES)

The SES scale items were used to assess student's perception of social economic status. Each item was a no=0 and yes=1 question.

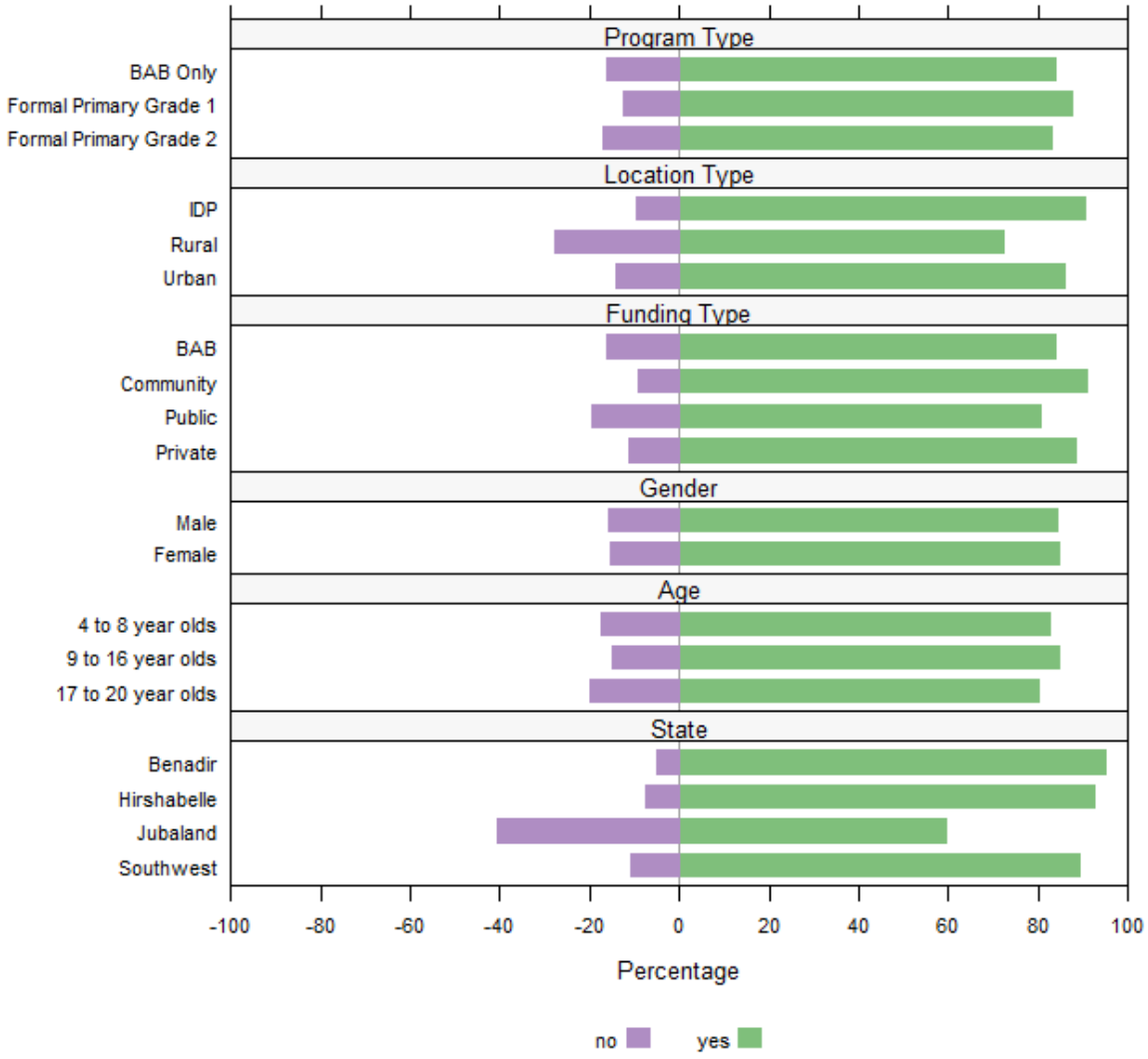



Do you have a radio at home?
Program Type
BAB Only
Formal Primary Grade 1
Formal Primary Grade 2
Location Type
IDP
Rural
Urban
Funding Type
BAB
Community
Public
Private
Gender
Male
Female
Age
4 to 8 year olds
9 to 16 year olds
17 to 20 year olds
State
Benadir
Hirshabelle
Jubaland
Southwest
-100
-80
-60
-40
-20
0
20
40
60
80
100
Percentage
no
yes

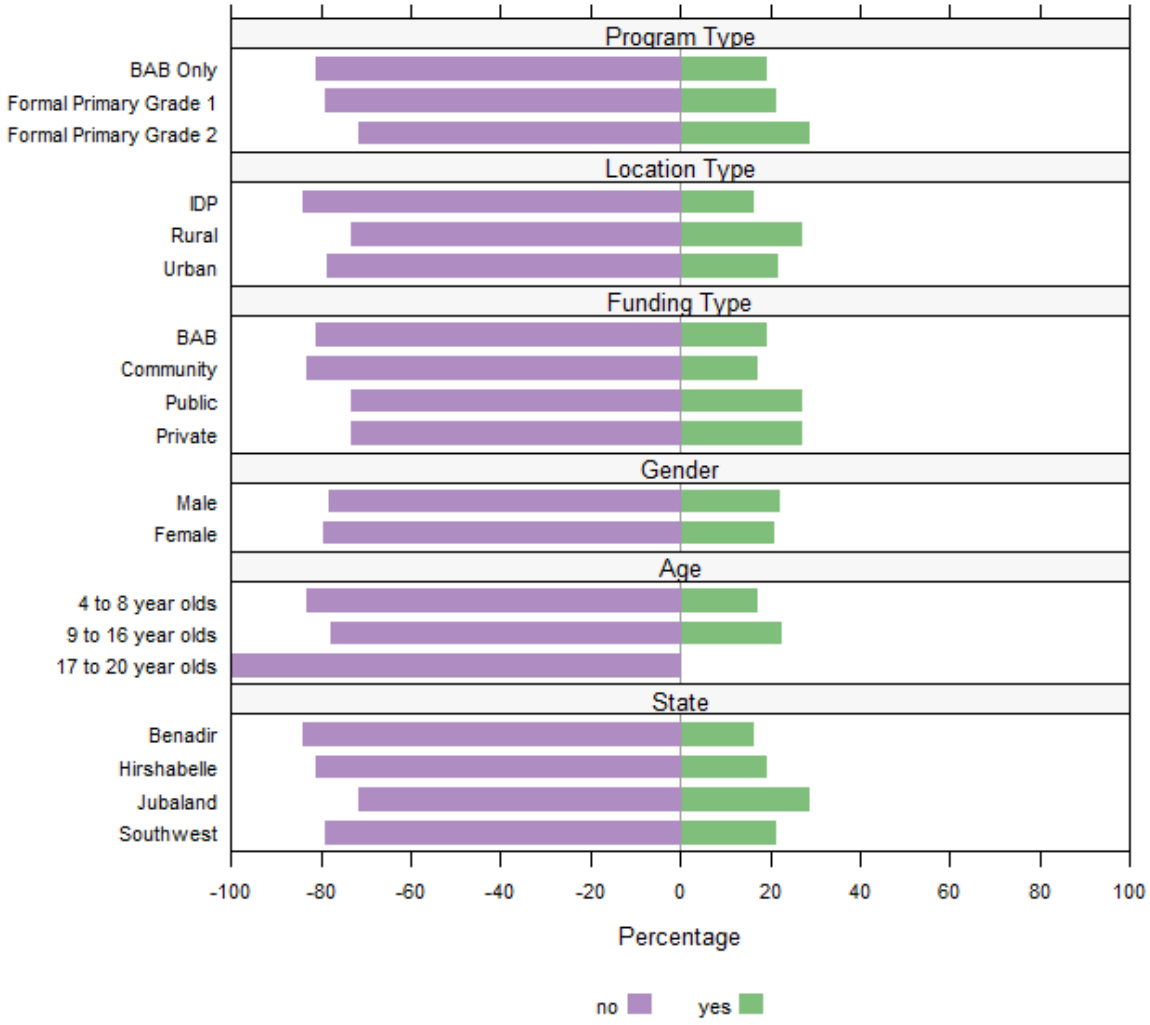
Does your house have an indoor bathroom/toilet?



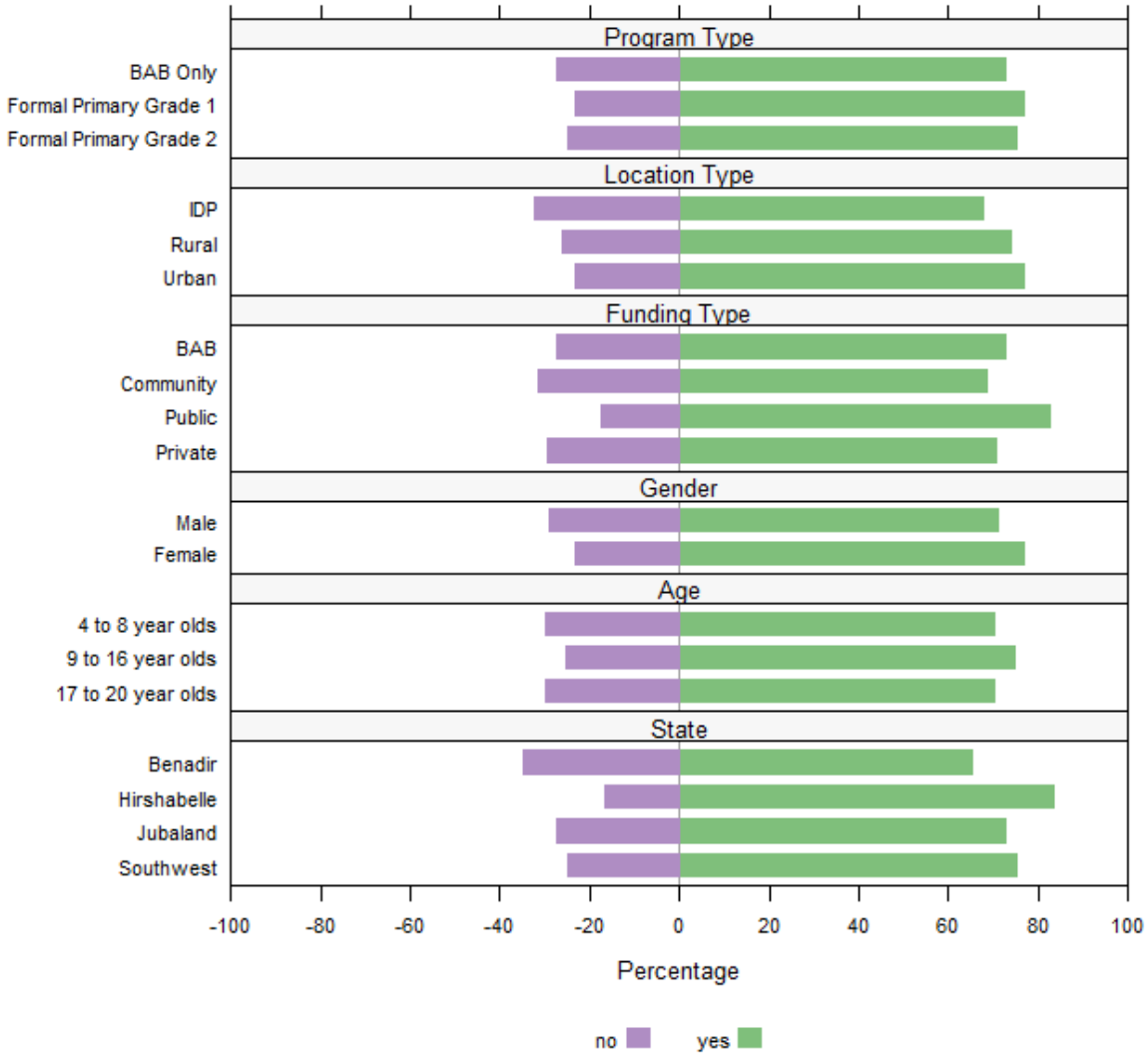
Does your house have a telephone or mobile phone?

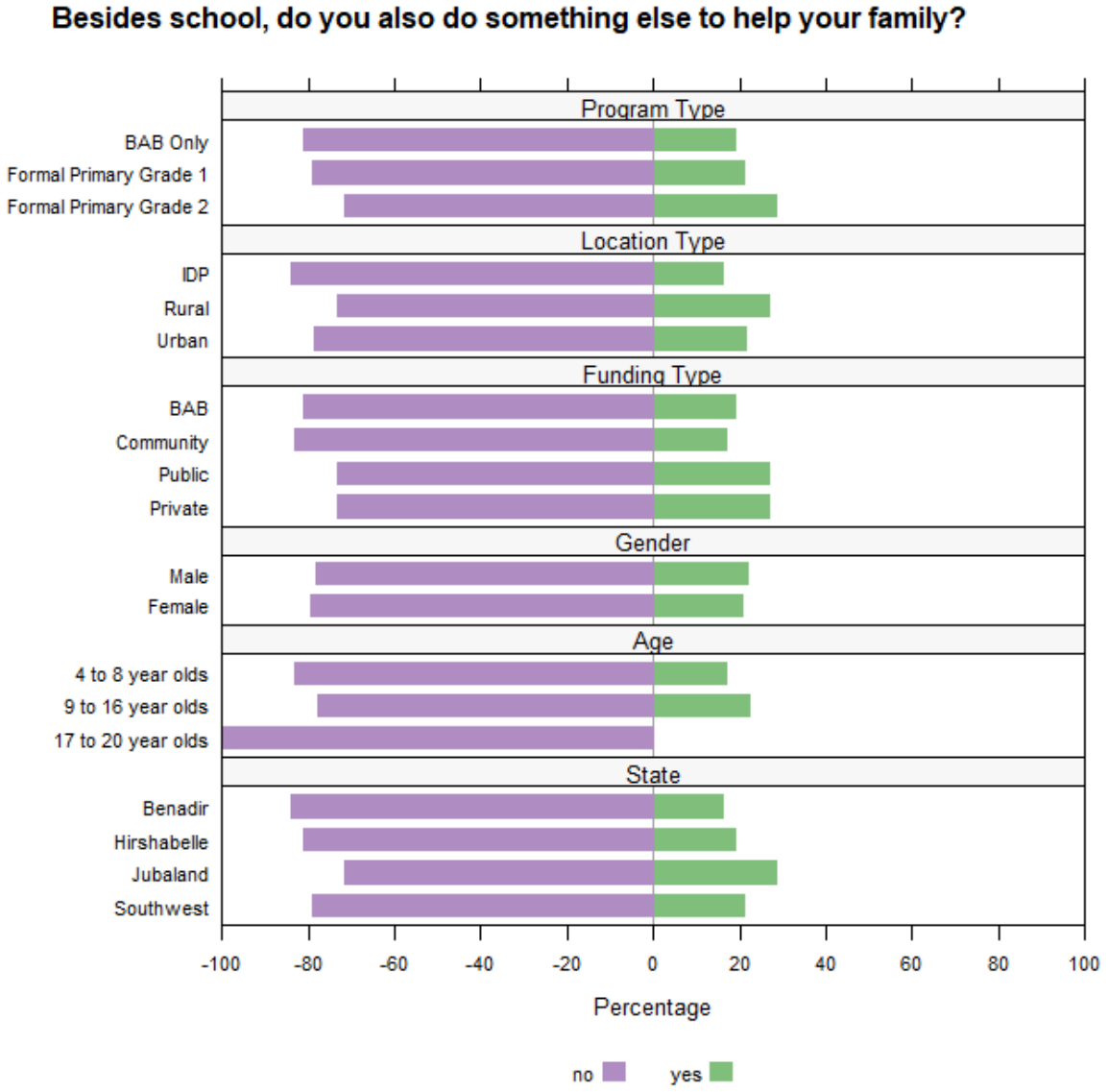


Besides your schoolbooks, do you have other books at home for reading (story books, magazines, newspaper, etc)?



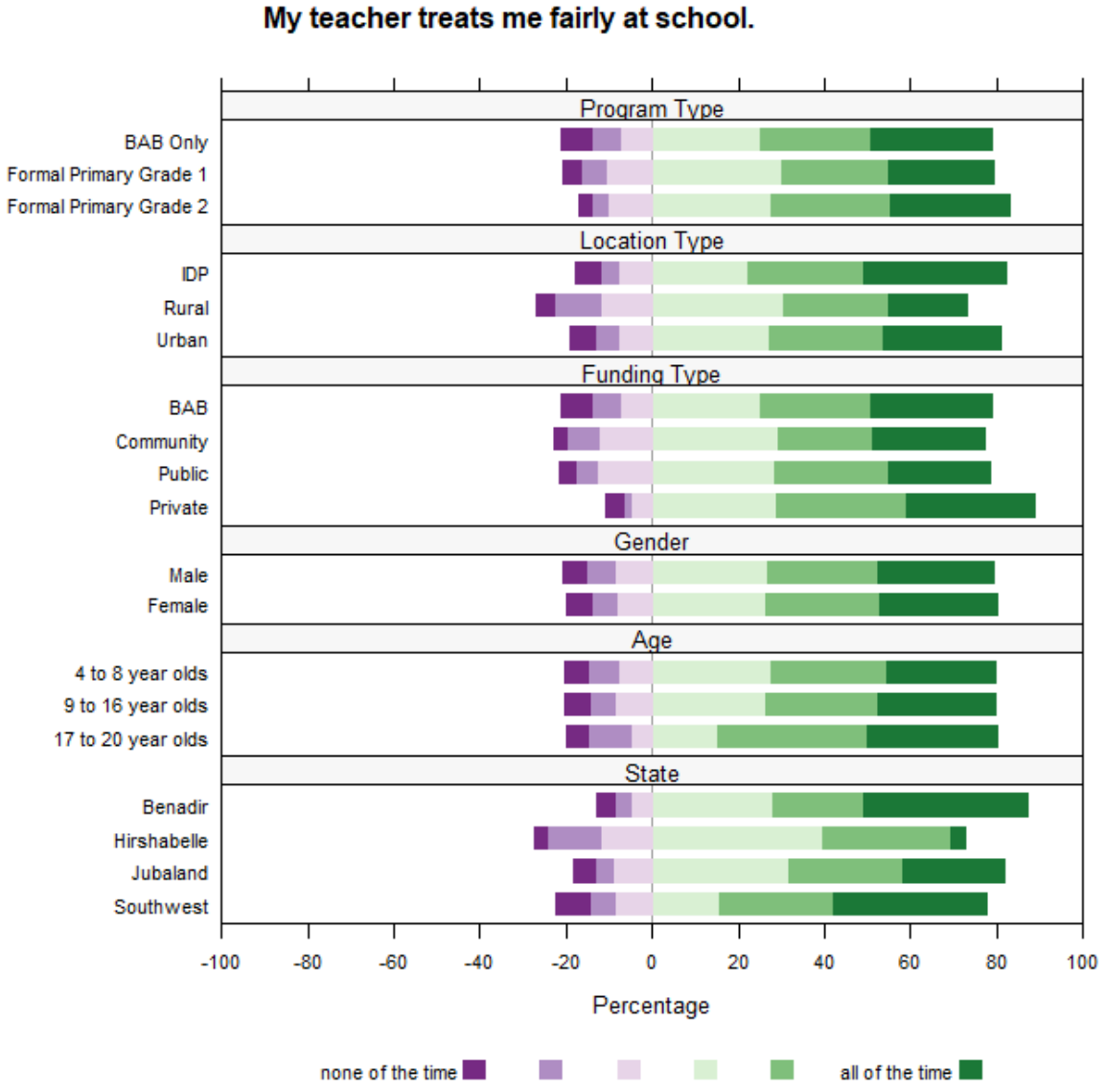
Did you eat something before coming to school today?

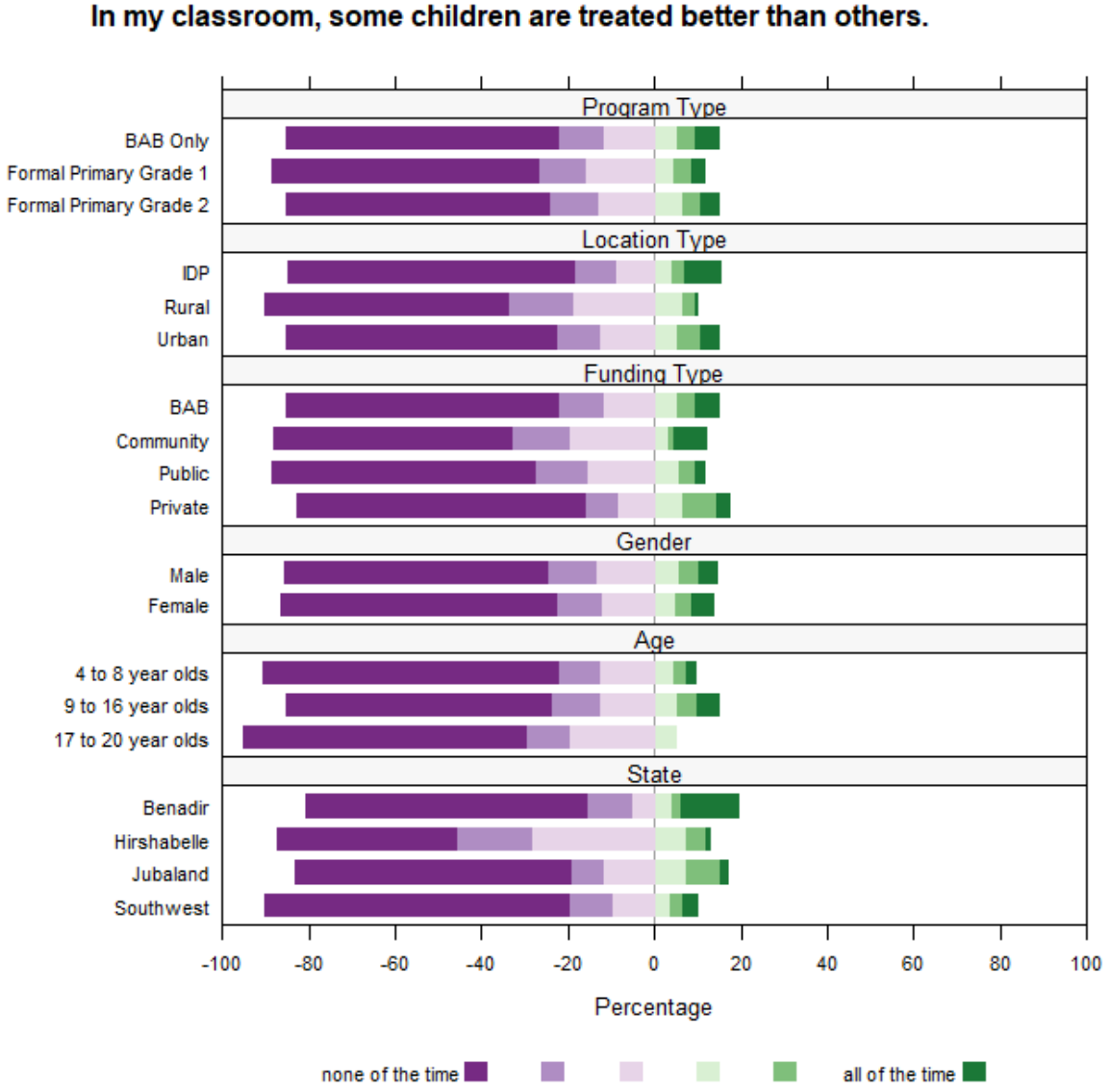




Student Equity Perceptions

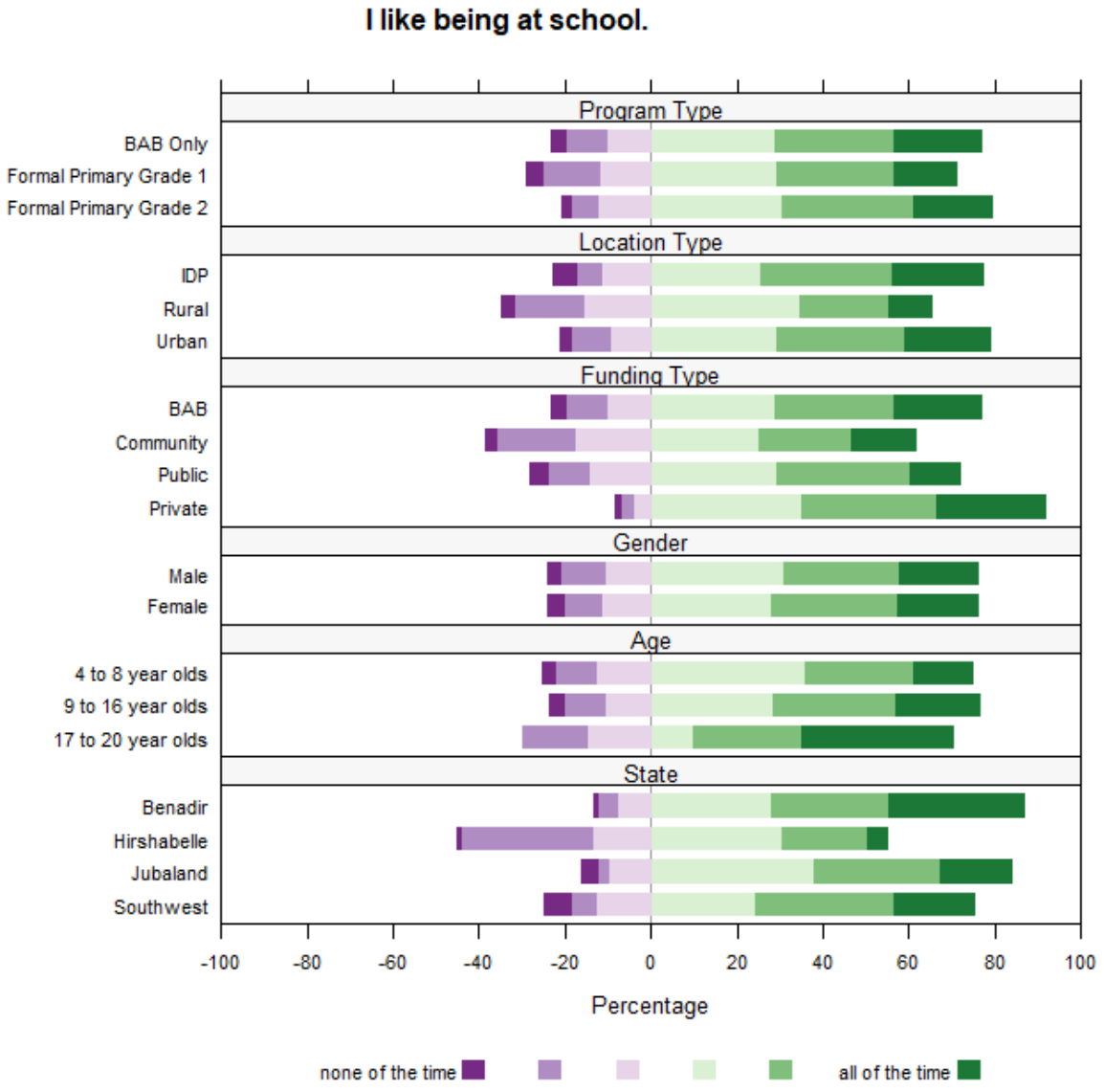
The Equity items were used to assess student perception of equity in the classroom. All items were measured on 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated the frequency of perceived equity with each statement.

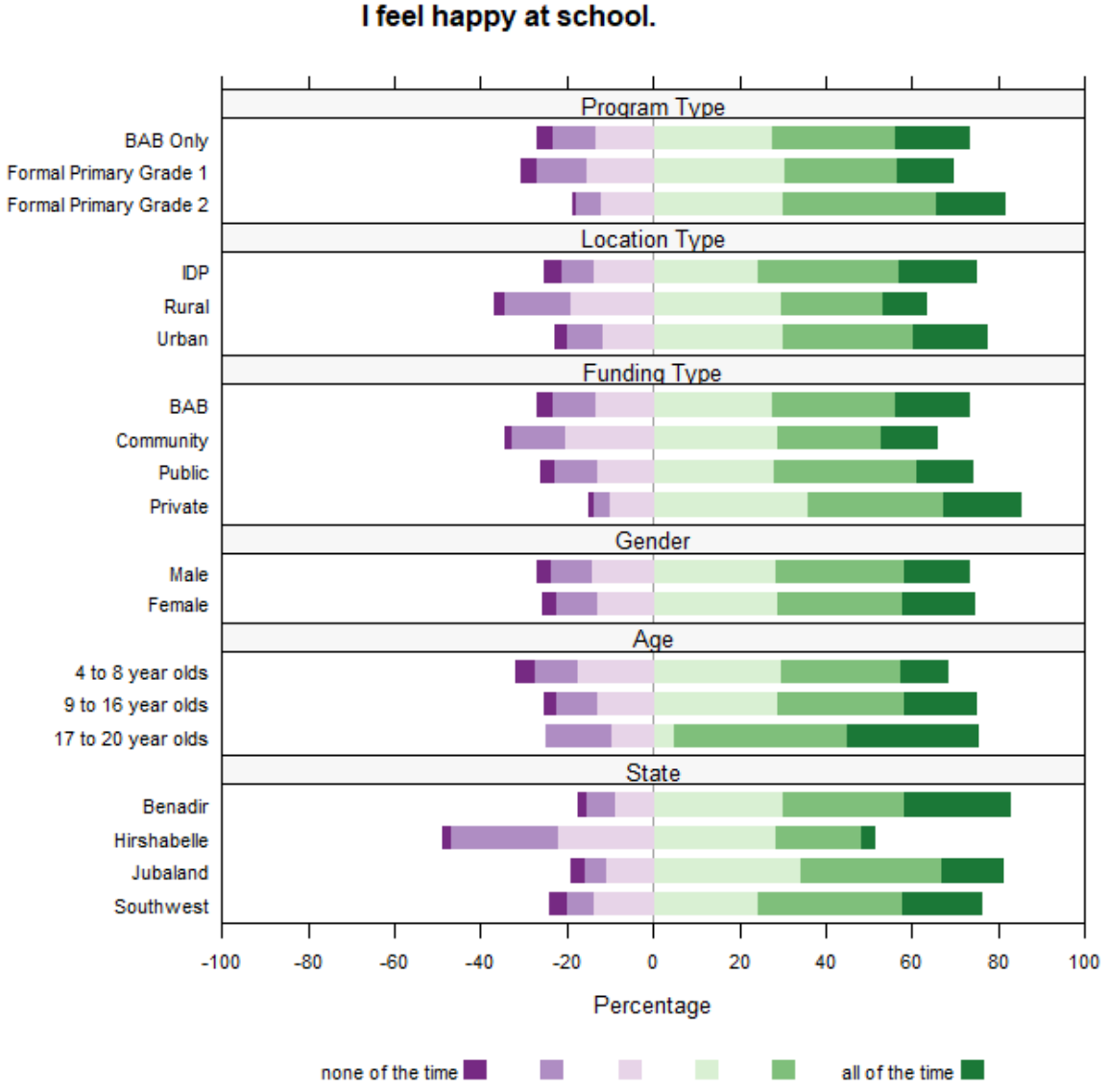

My teacher treats me fairly at school.
Program Type
BAB Only
Formal Primary Grade 1
Formal Primary Grade 2
Location Type
IDP
Rural
Urban
Funding Type
BAB
Community
Public
Private
Gender
Male
Female
Age
4 to 8 year olds
9 to 16 year olds
17 to 20 year olds
State
Benadir
Hirshabelle
Jubaland
Southwest
-100
-80
-60
-40
-20
0
20
40
60
80
100
Percentage
none of the time
all of the time

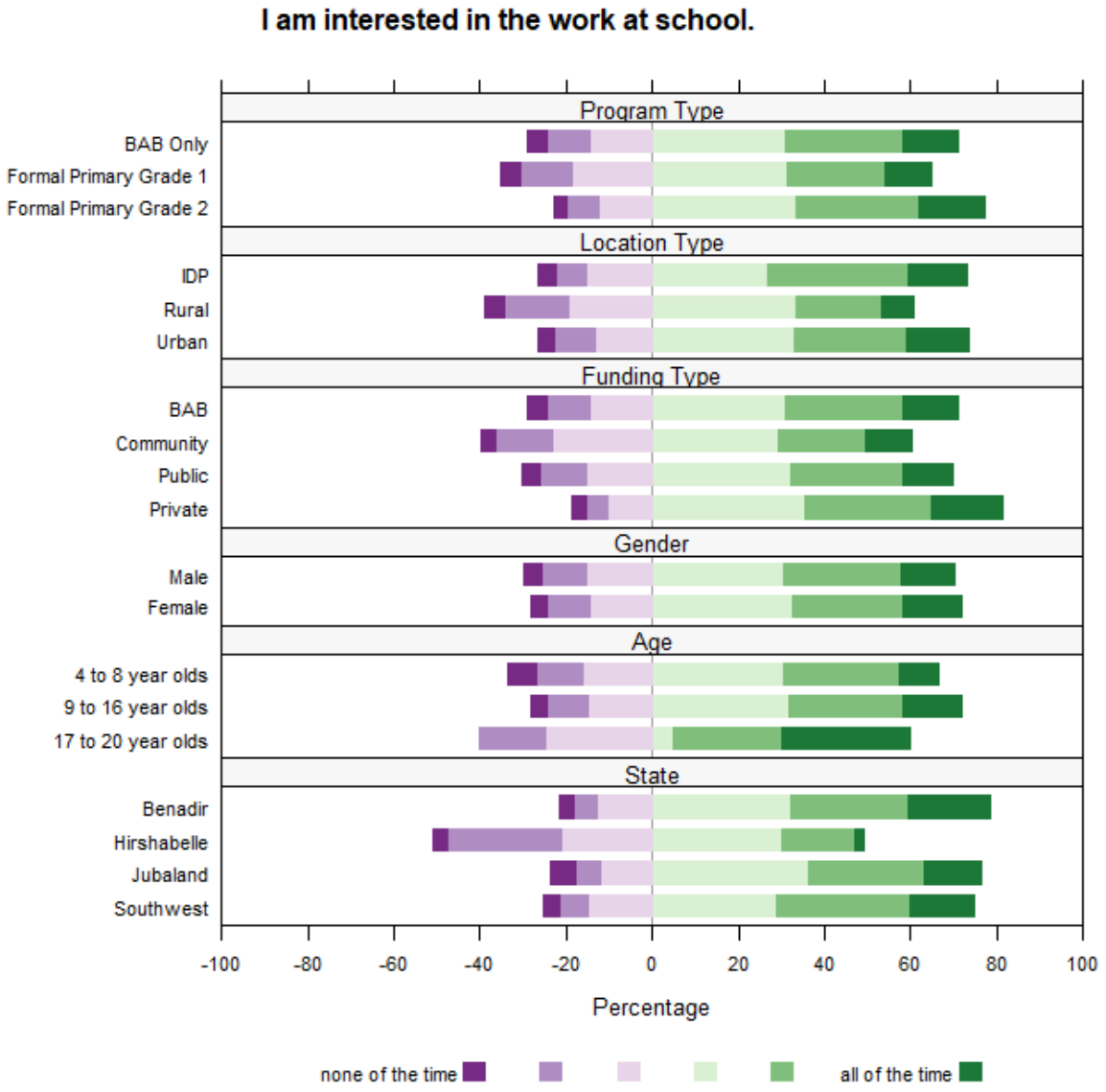


Student School Engagement Perceptions

The Engagement scale items were used to assess student emotional engagement while being at school. The items derive from the School Engagement Scale (Fredericks, et.al., 2005). All items were measured on a 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated the frequency of engagement at school with each statement.

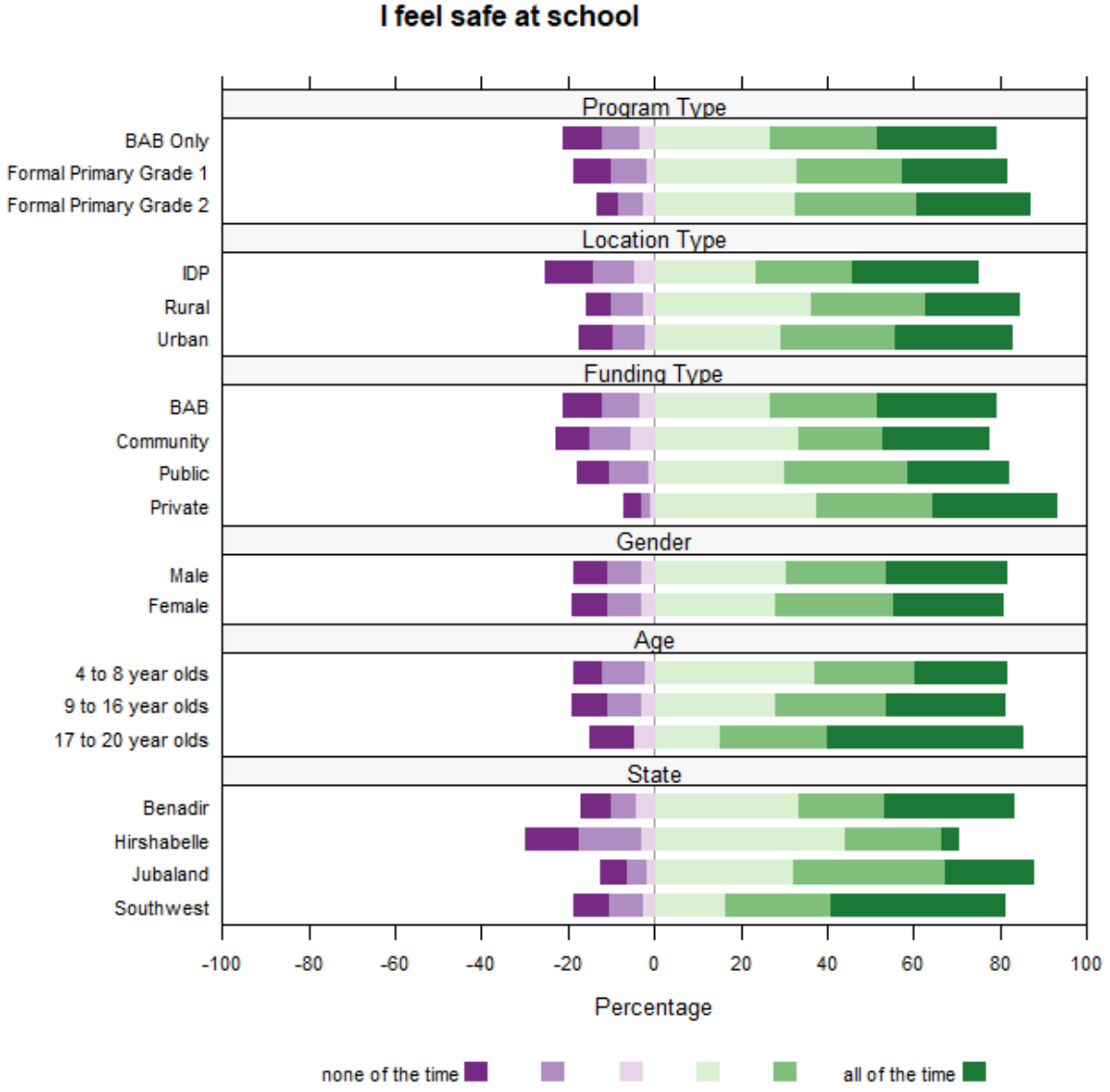

I like being at school.
Program Type
BAB Only
Formal Primary Grade 1
Formal Primary Grade 2
Location Type
IDP
Rural
Urban
Funding Type
BAB
Community
Public
Private
Gender
Male
Female
Age
4 to 8 year olds
9 to 16 year olds
17 to 20 year olds
State
Benadir
Hirshabelle
Jubaland
Southwest
-100
-80
-60
-40
-20
0
20
40
60
80
100
Percentage
none of the time
all of the time

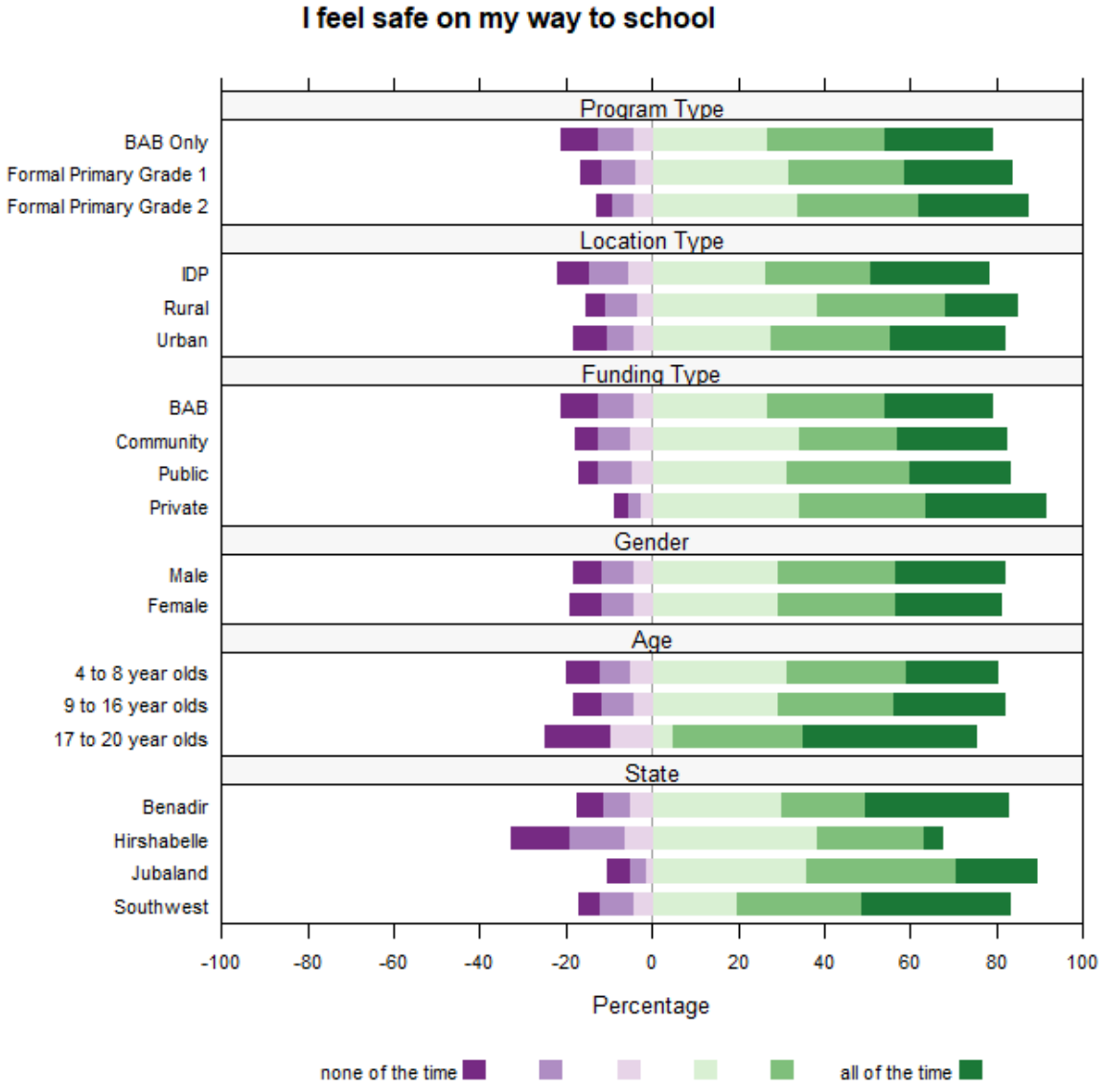

I feel happy at school.
Program Type
BAB Only
Formal Primary Grade 1
Formal Primary Grade 2
Location Type
IDP
Rural
Urban
Funding Type
BAB
Community
Public
Private
Gender
Male
Female
Age
4 to 8 year olds
9 to 16 year olds
17 to 20 year olds
State
Benadir
Hirshabelle
Jubaland
Southwest
-100
-80
-60
-40
-20
0
20
40
60
80
100
Percentage
none of the time
all of the time

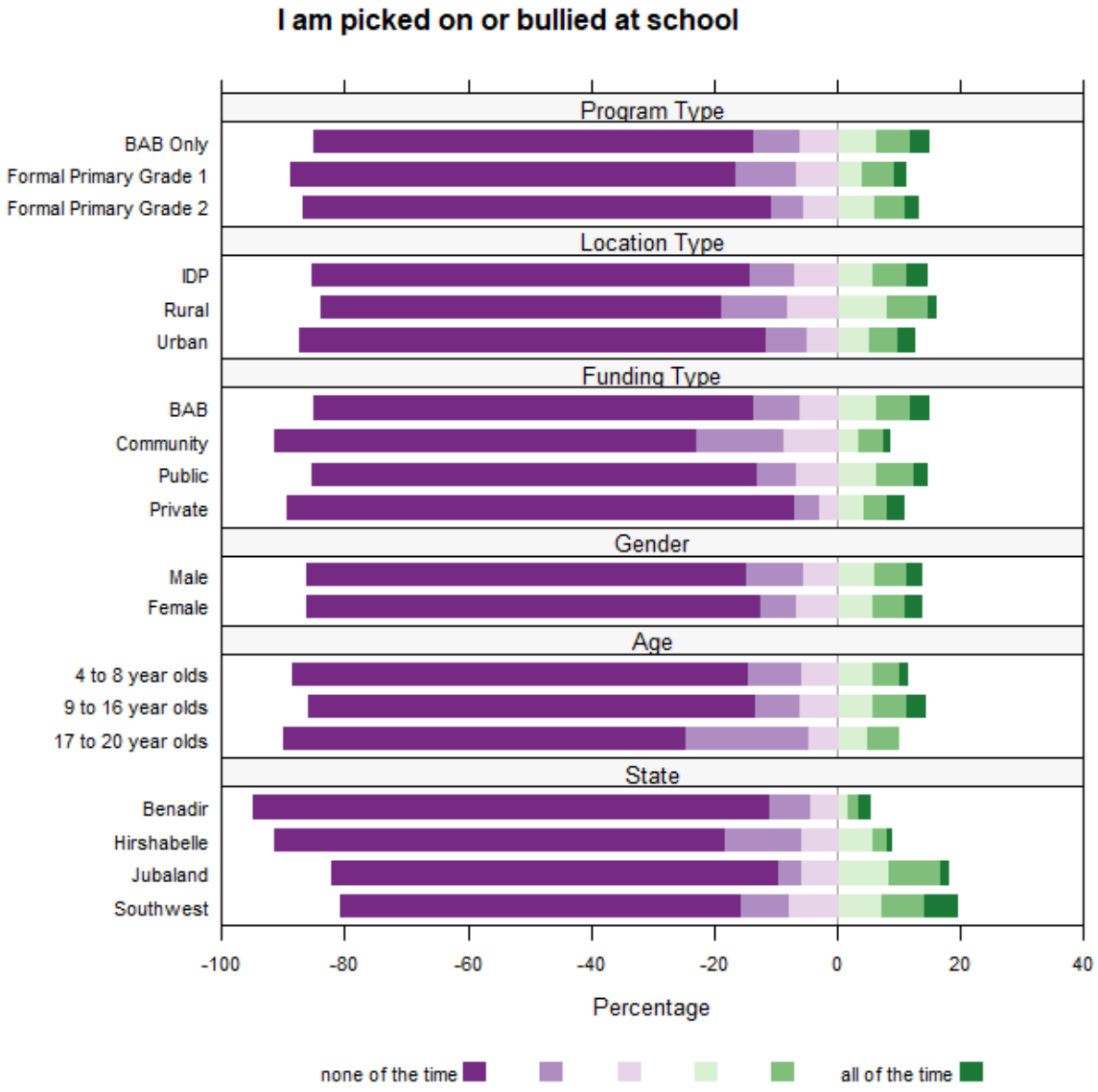


Safety Questions

The Safety scale items were used to assess student's perception of safety in the school environment. All items were measured on a 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated their perceived safety with each statement.


I feel safe at school
Program Type
BAB Only
Formal Primary Grade 1
Formal Primary Grade 2
Location Type
IDP
Rural
Urban
Funding Type
BAB
Community
Public
Private
Gender
Male
Female
Age
4 to 8 year olds
9 to 16 year olds
17 to 20 year olds
State
Benadir
Hirshabelle
Jubaland
Southwest
-100
-80
-60
-40
-20
0
20
40
60
80
100
Percentage
none of the time
all of the time

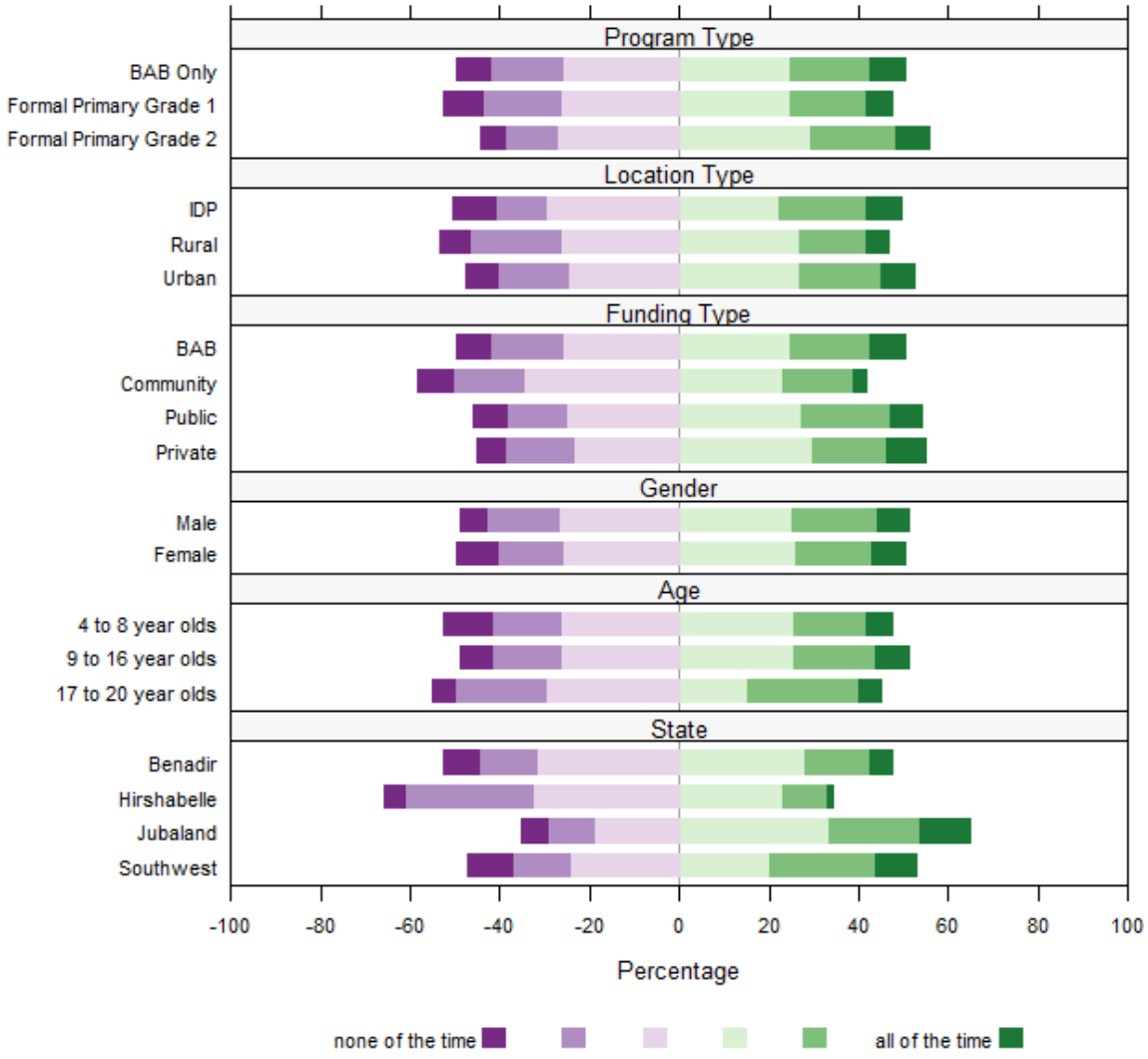

I feel safe on my way to school
Program Type
BAB Only
Formal Primary Grade 1
Formal Primary Grade 2
Location Type
IDP
Rural
Urban
Funding Type
BAB
Community
Public
Private
Gender
Male
Female
Age
4 to 8 year olds
9 to 16 year olds
17 to 20 year olds
State
Benadir
Hirshabelle
Jubaland
Southwest
-100
-80
-60
-40
-20
0
20
40
60
80
100
Percentage
none of the time
all of the time



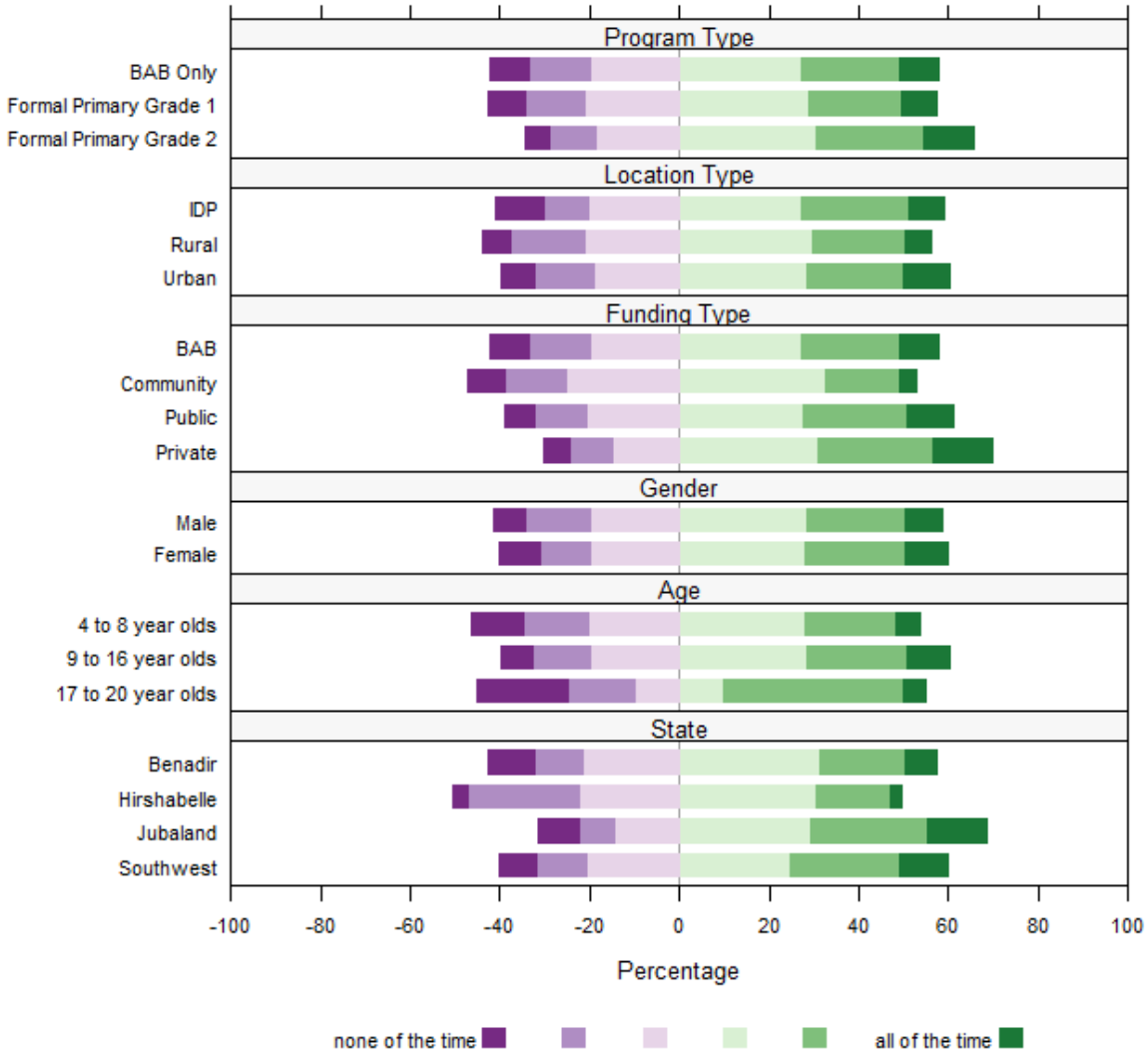
Student Quality of Life Friendship Perceptions

The Friend scale items from the KINDL Quality of Life Survey (Ravens-Sieberer, U. & Bullinger, M. (1998b). were used to assess student's perception of friendship as it contributes to overall perceptions of quality of life. All items were measured on a 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated the status of friendships over the past week with each statement.

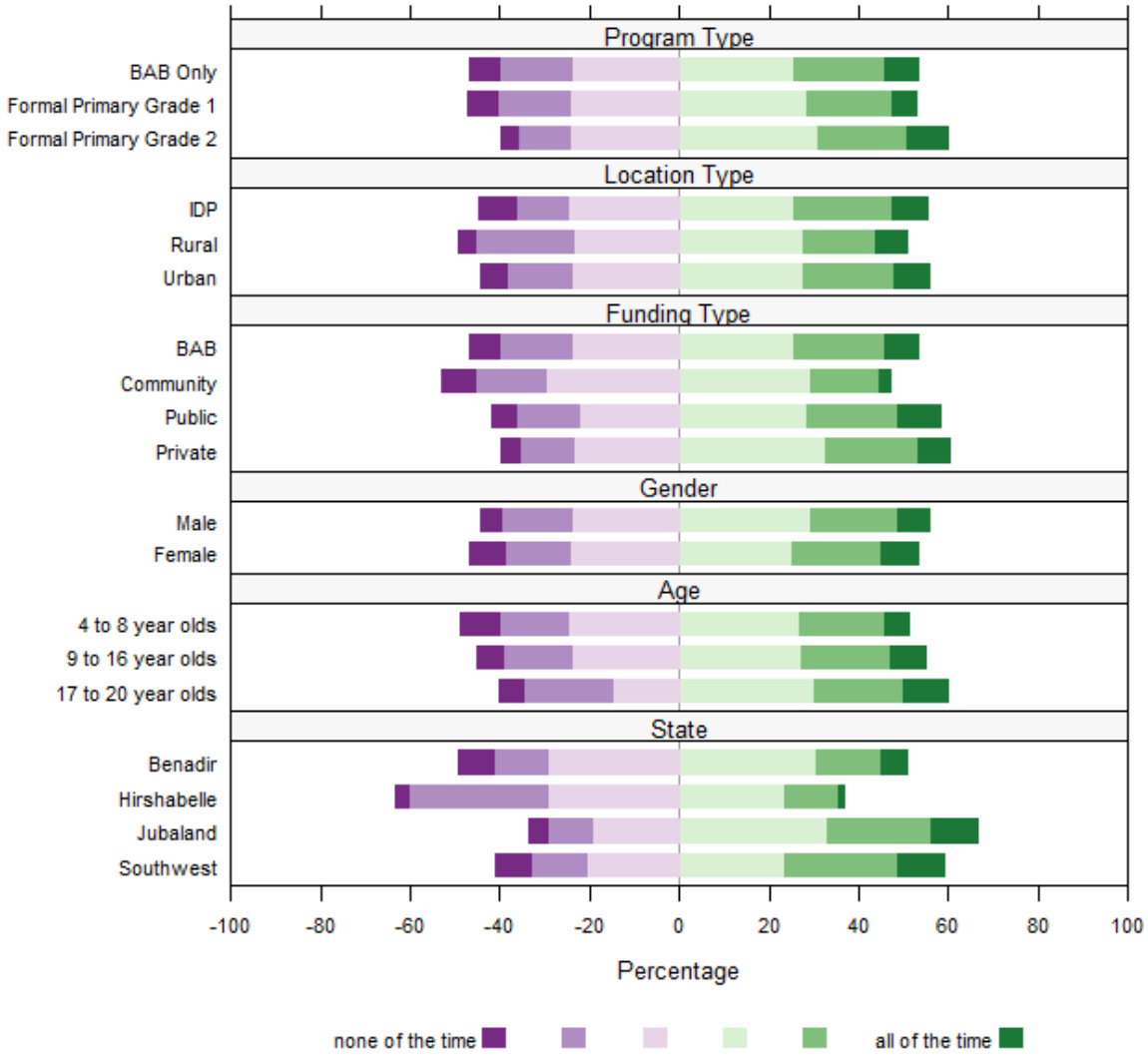
During the past week, how often did you play or do things together with your friends.

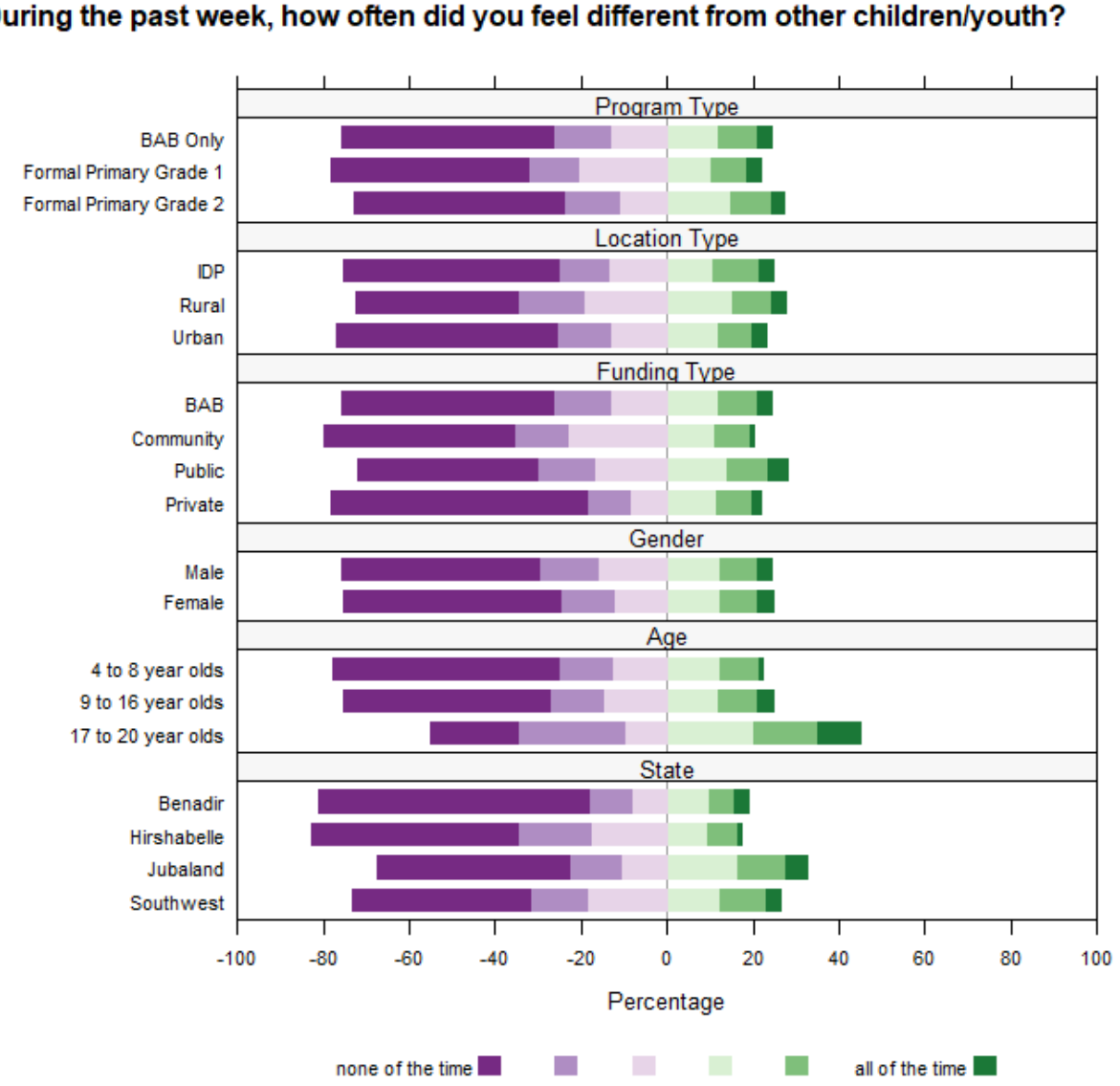


During the past week, how often did you feel that other kids liked you?



During the past week, how often did you get along with your friends?

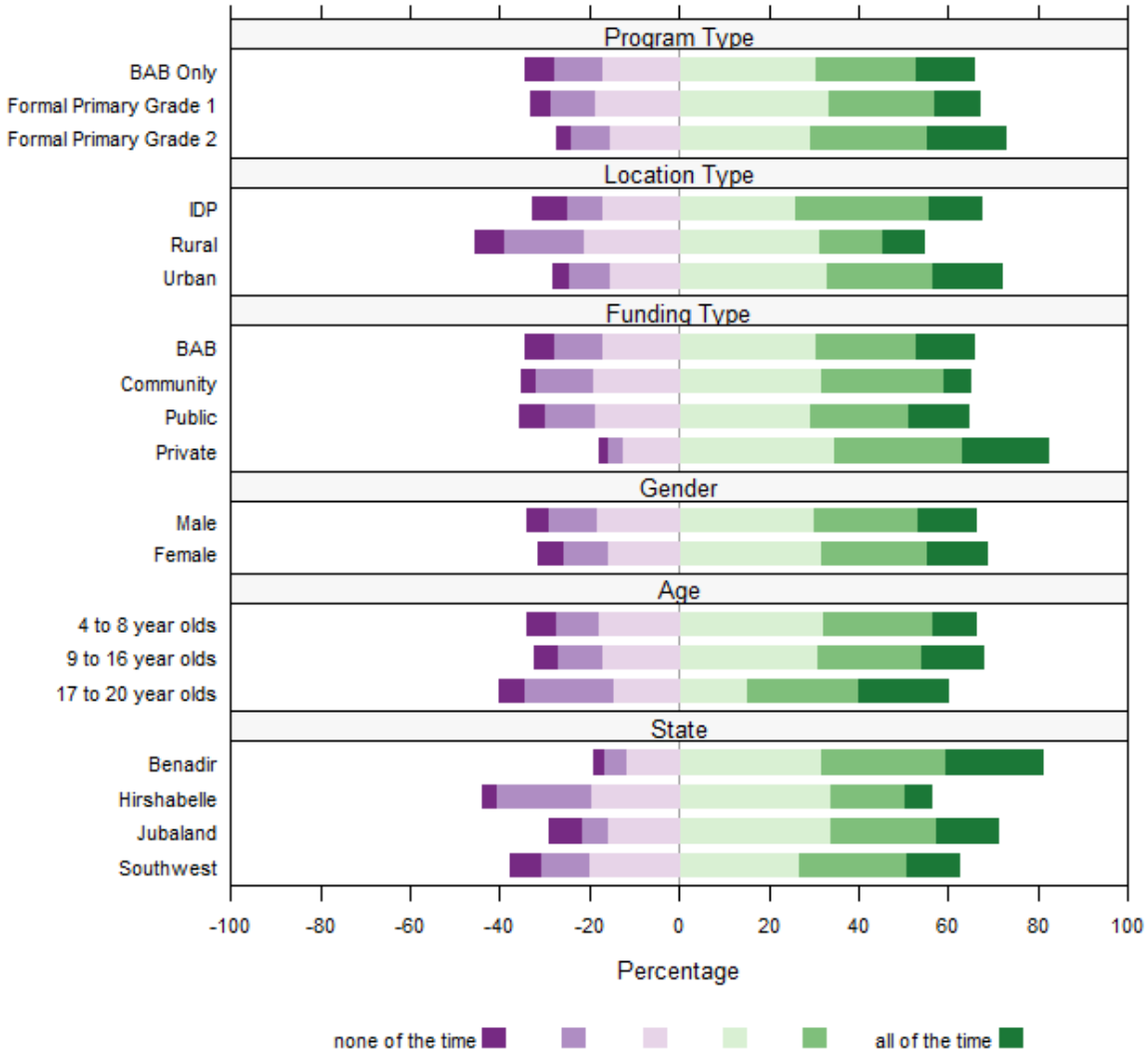




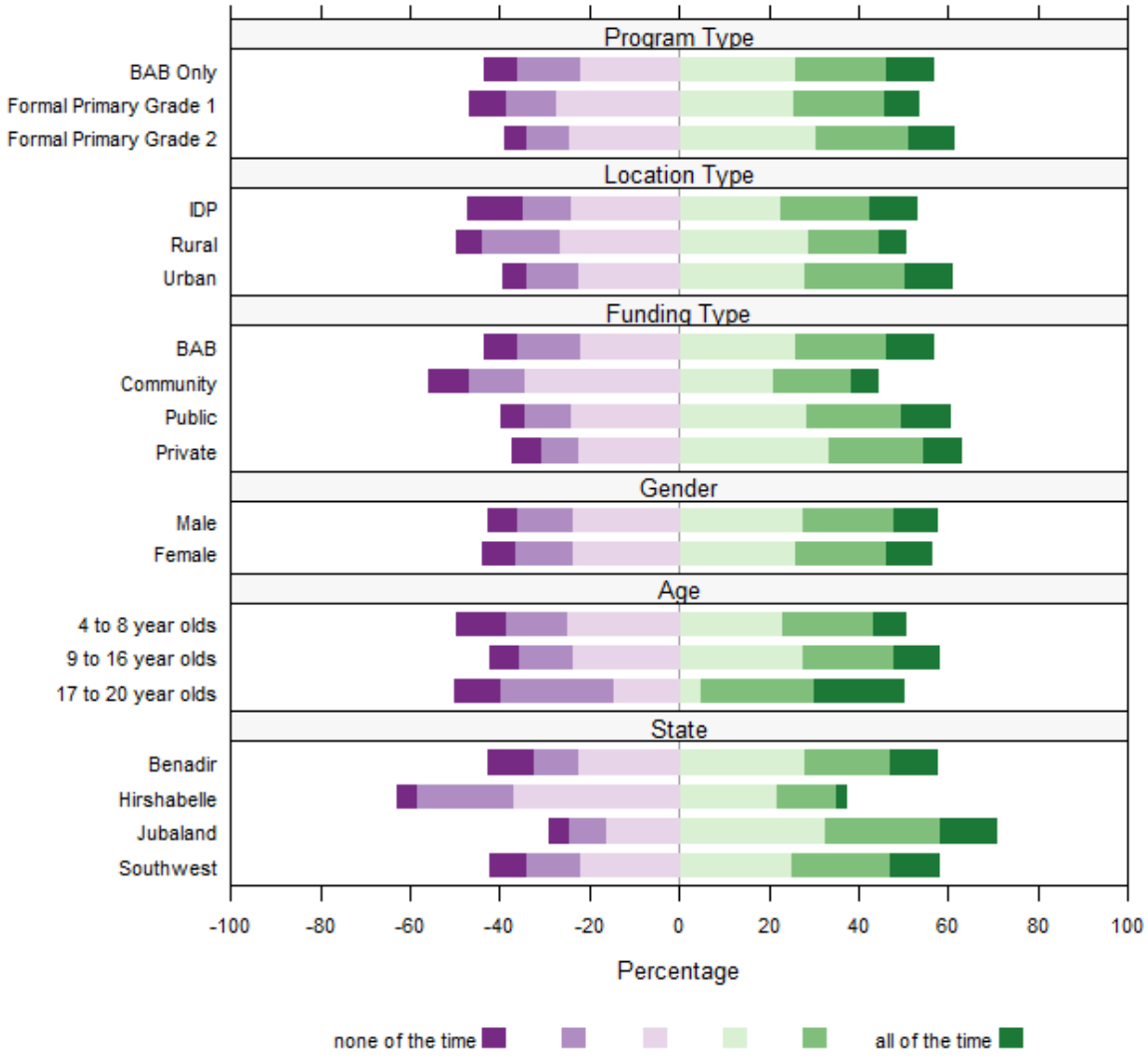
Student Quality of Life Self-Esteem Perceptions

The Self-Esteem scale items from the KINDL Quality of Life Survey (Ravens-Sieberer, U. & Bullinger, M. (1998b) were used to assess student's perception of their self-esteem during the prior week as component of quality of life. All items were measured on a 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated their self-esteem during the past week with each statement.

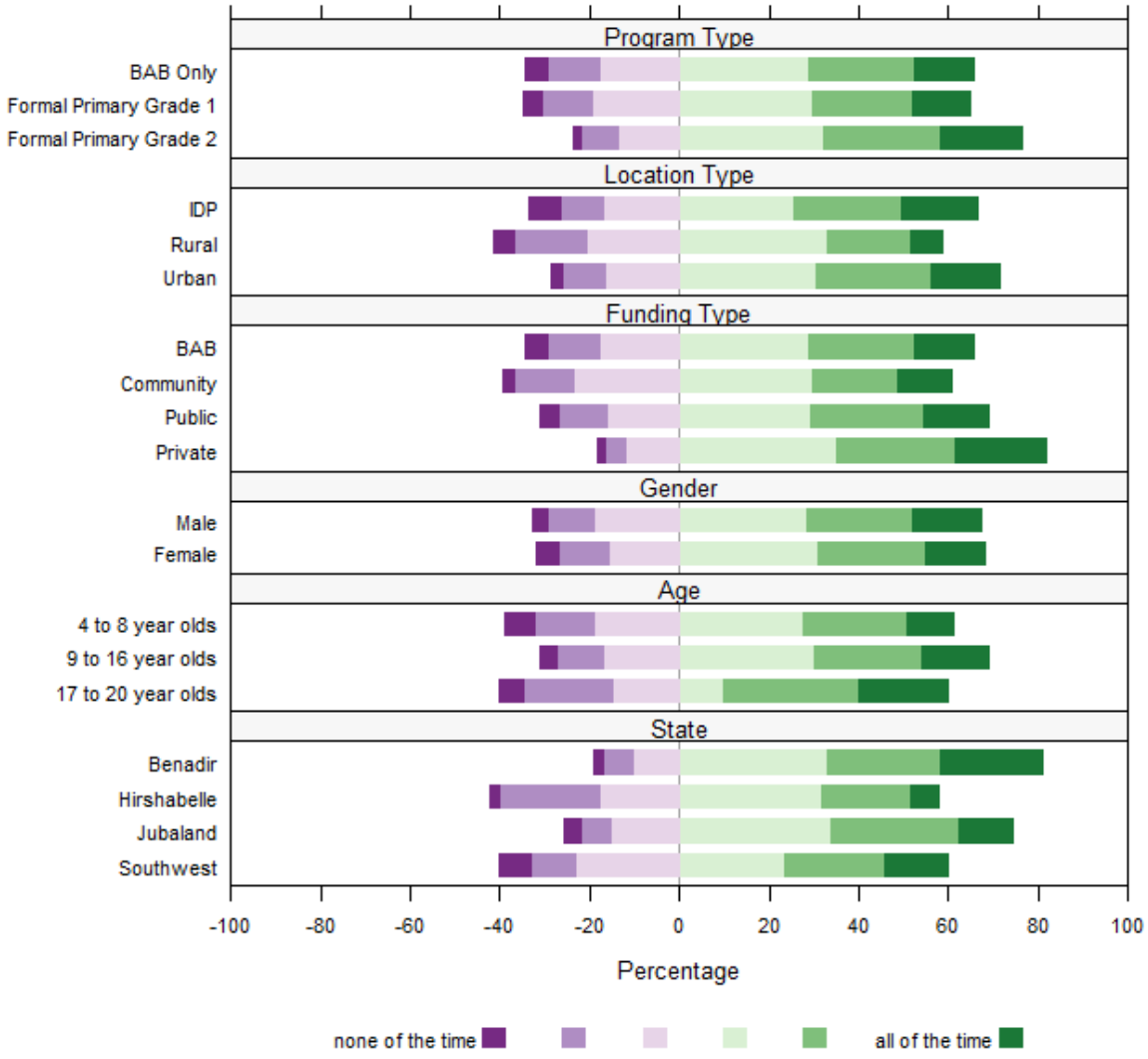
During the past week, how often were you proud of yourself?

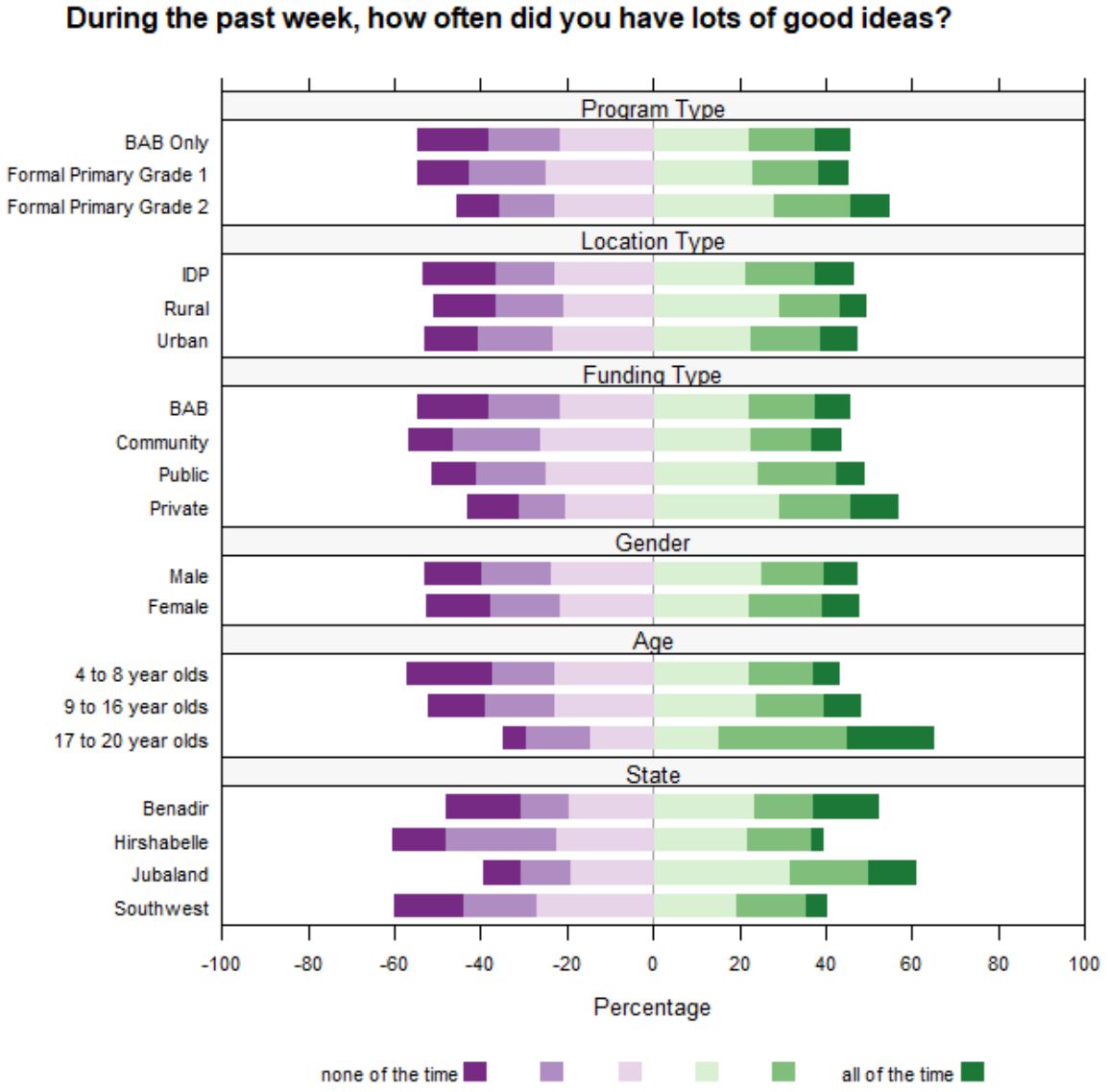


During the past, how often did you feel happy?



During the past week, how often did you feel pleased with yourself?

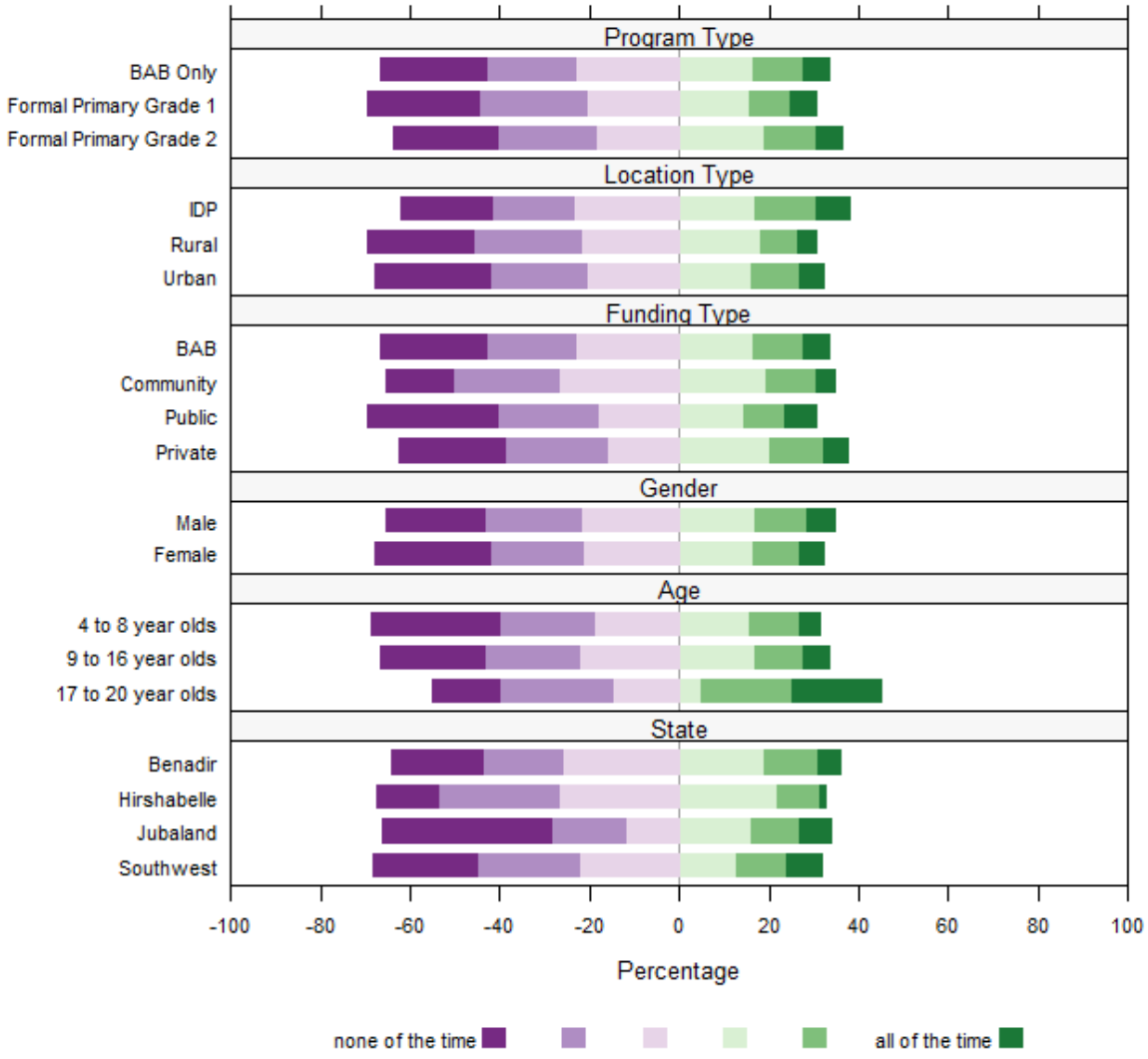




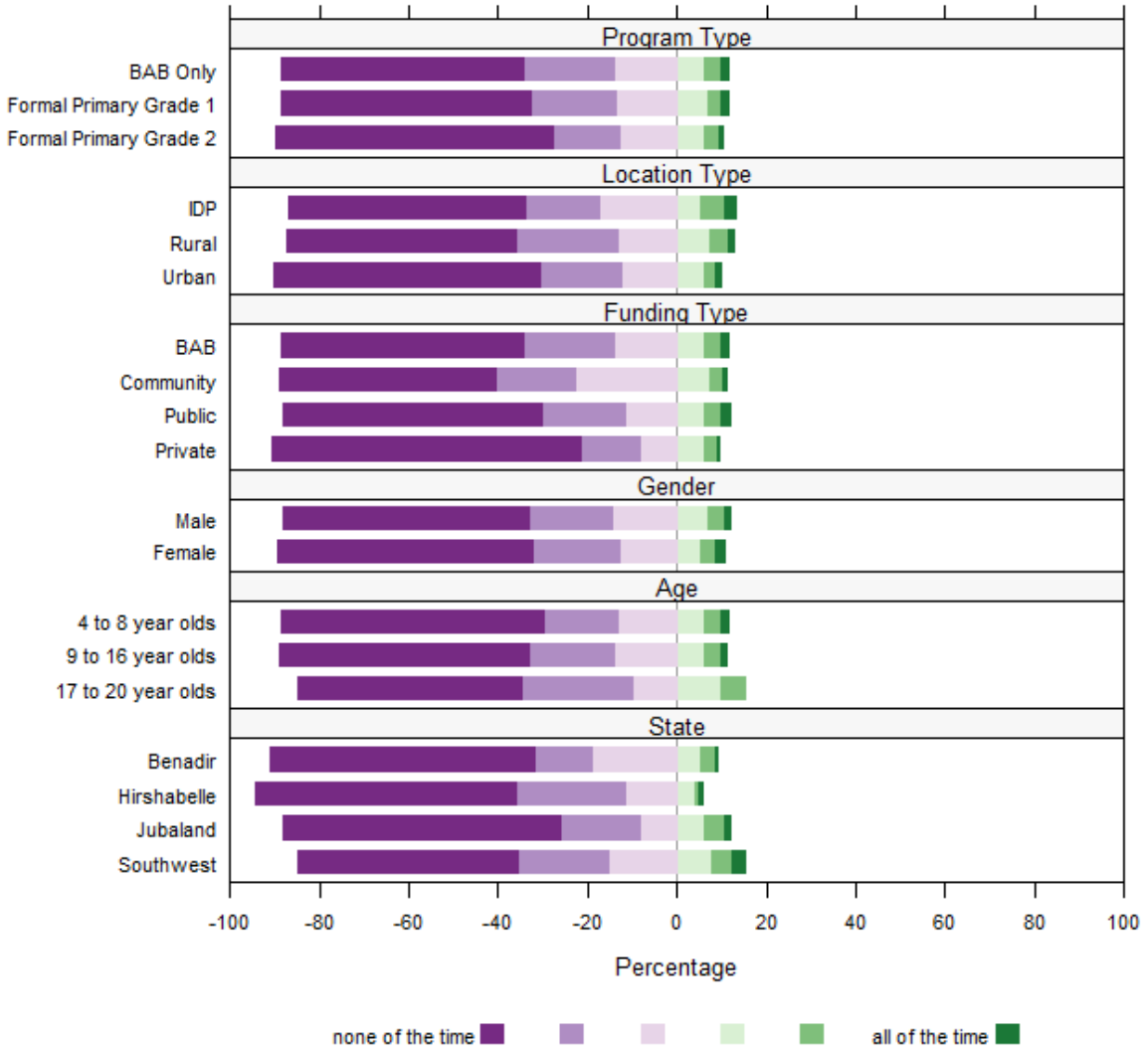
Student Quality of Life Emotional Well-Being

The Emotional Well-Being scale items from the KINDL Quality of Life Survey (Ravens-Sieberer, U. & Bullinger, M. (1998b) were used to assess student's perception of their emotional well-being during the past week as it plays part in their quality of life. All items were measured on a 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated their emotional well-being during the past week with each statement.

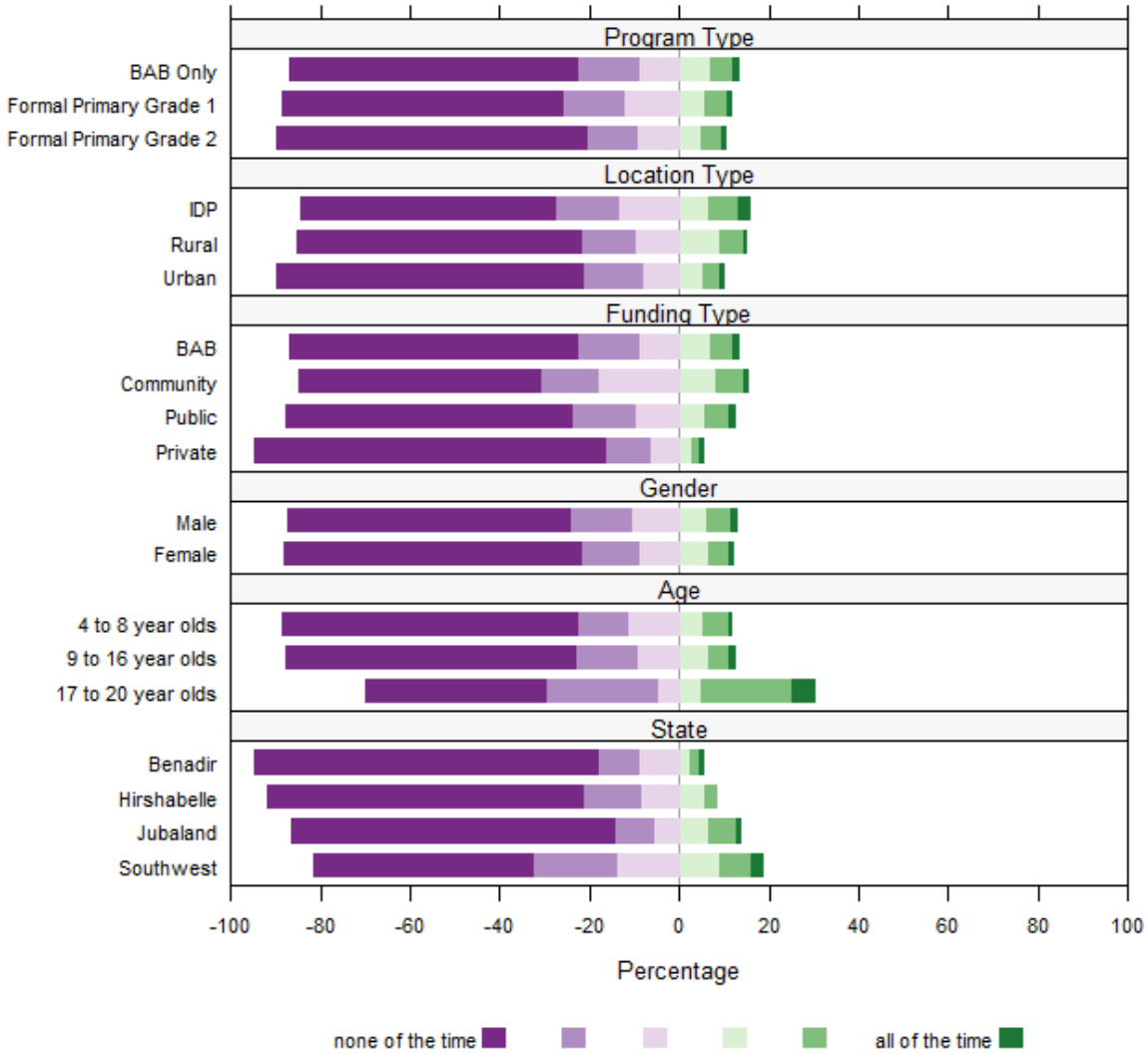
During the past week, how often did you have fun and laugh a lot?



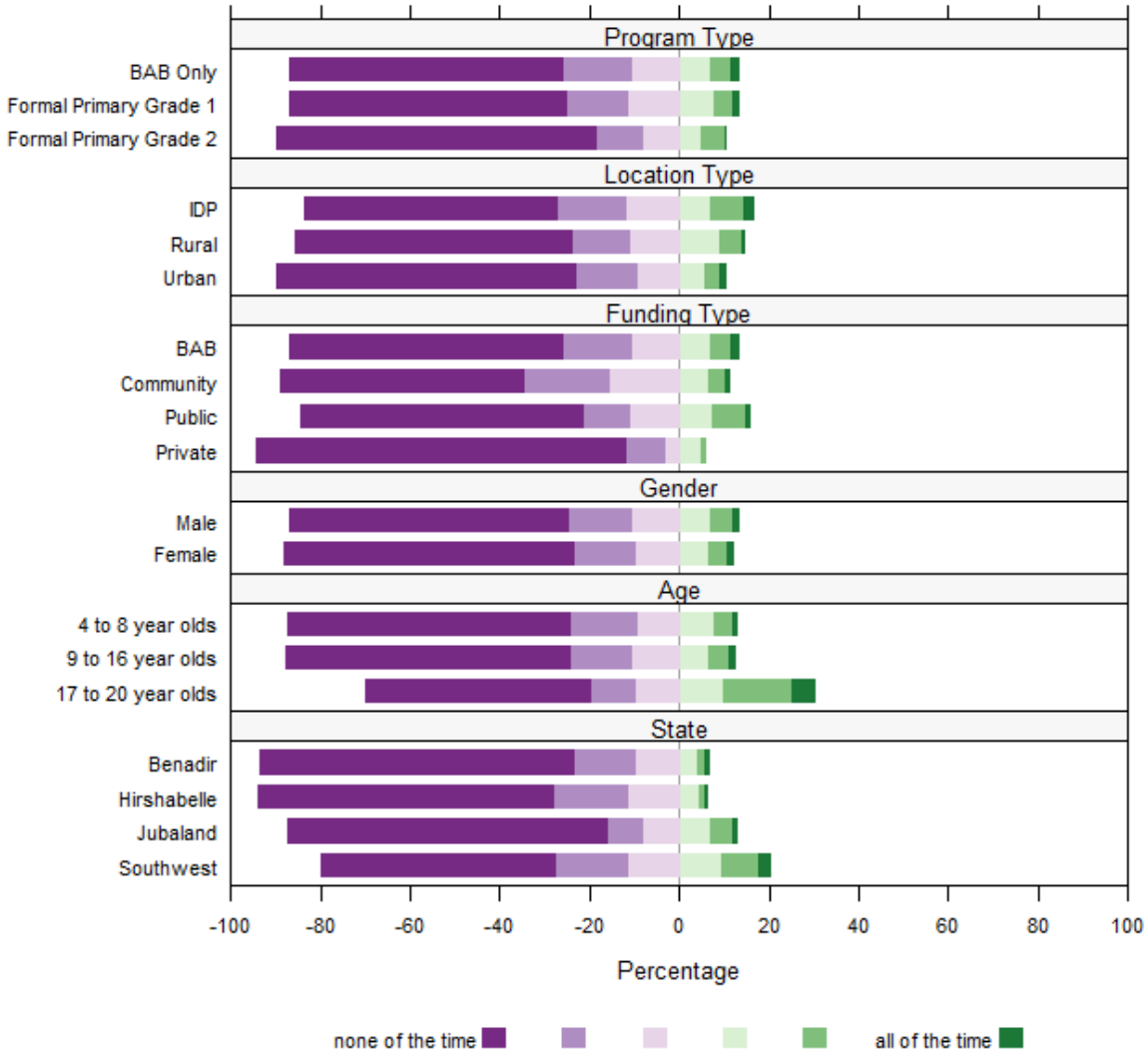
During the past week, how often were you bored?



During the past week, how often did you feel alone?

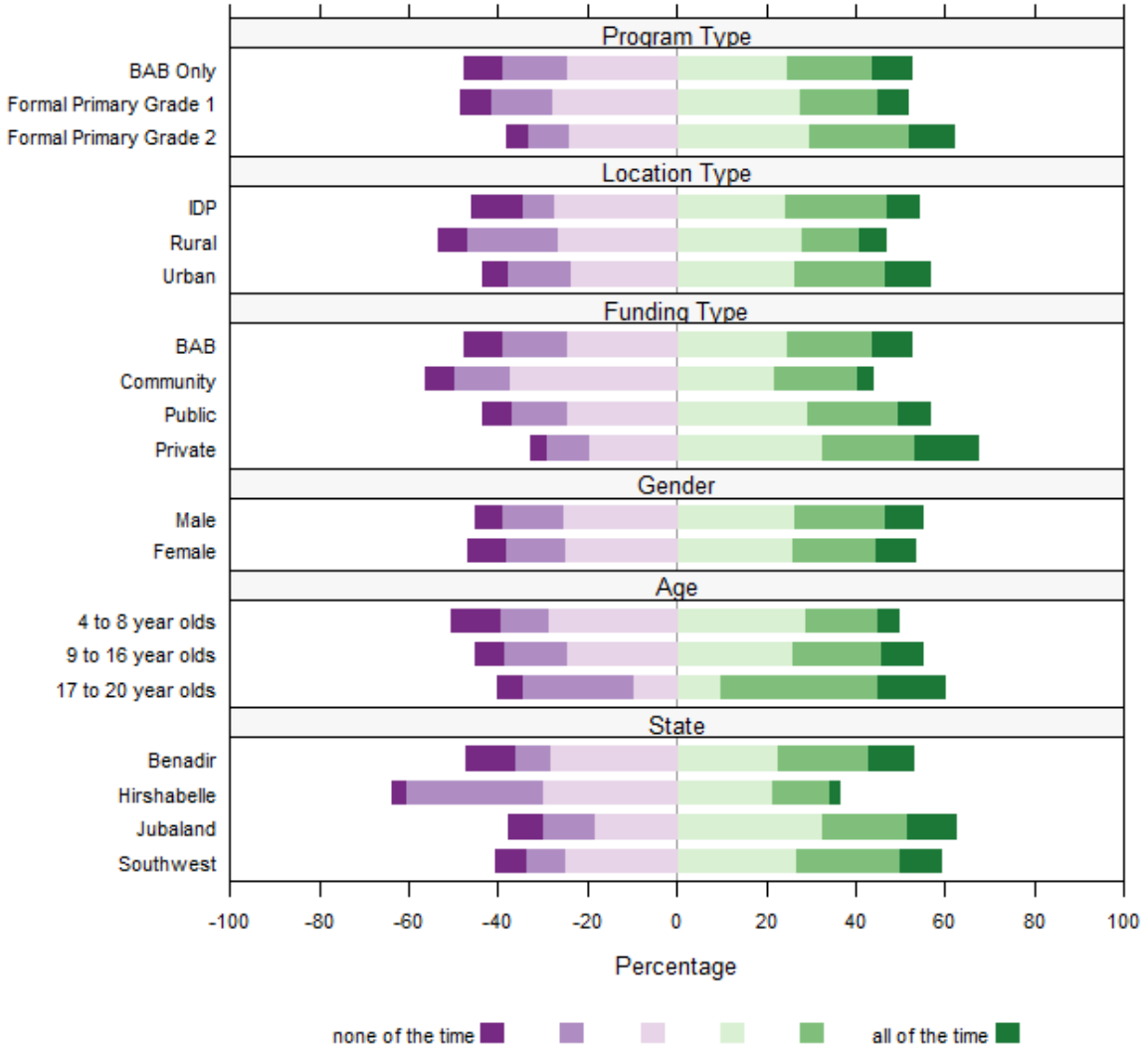


During the past week, how often were you scared or unsure of yourself?

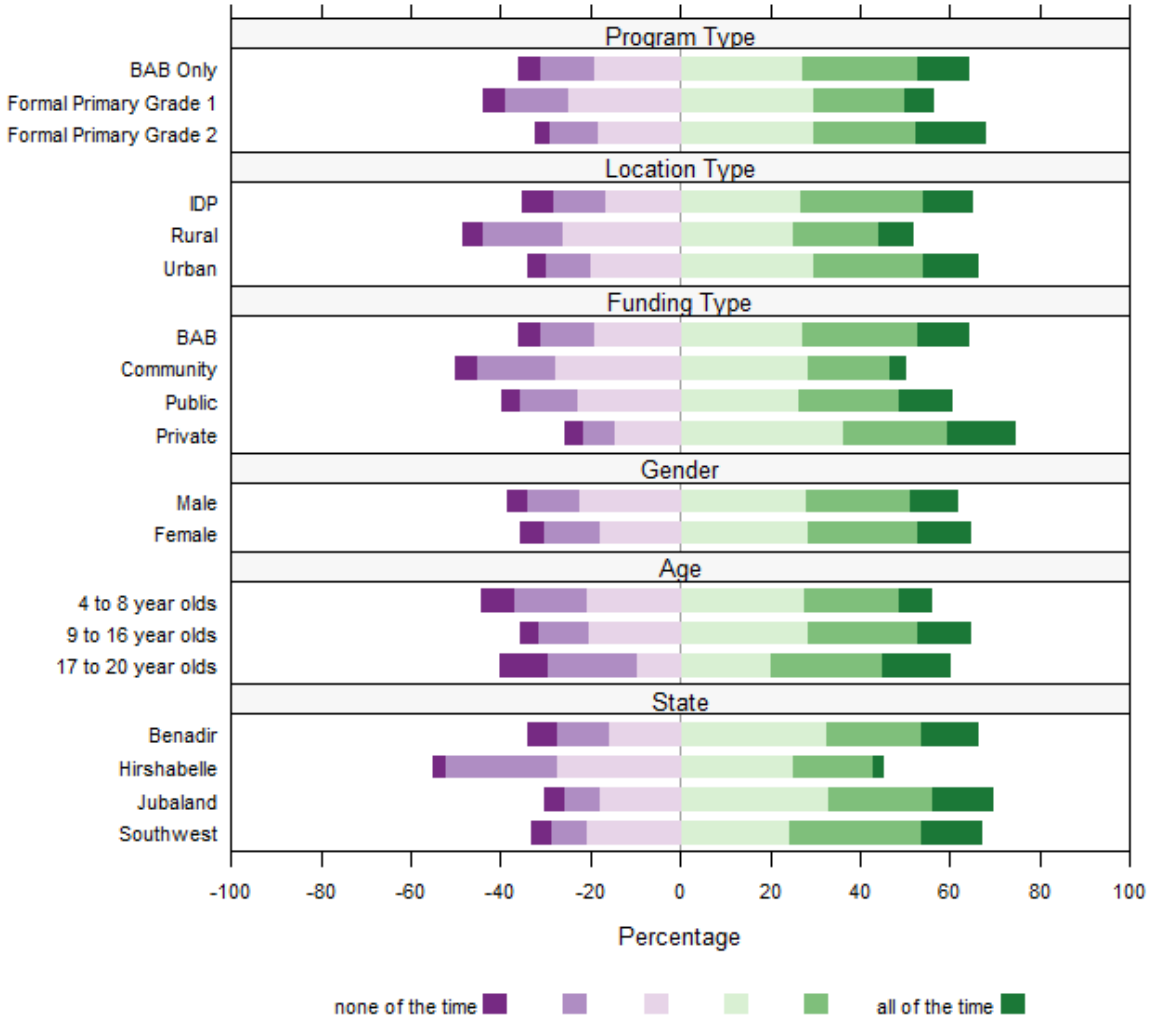


Student Quality of Life in School

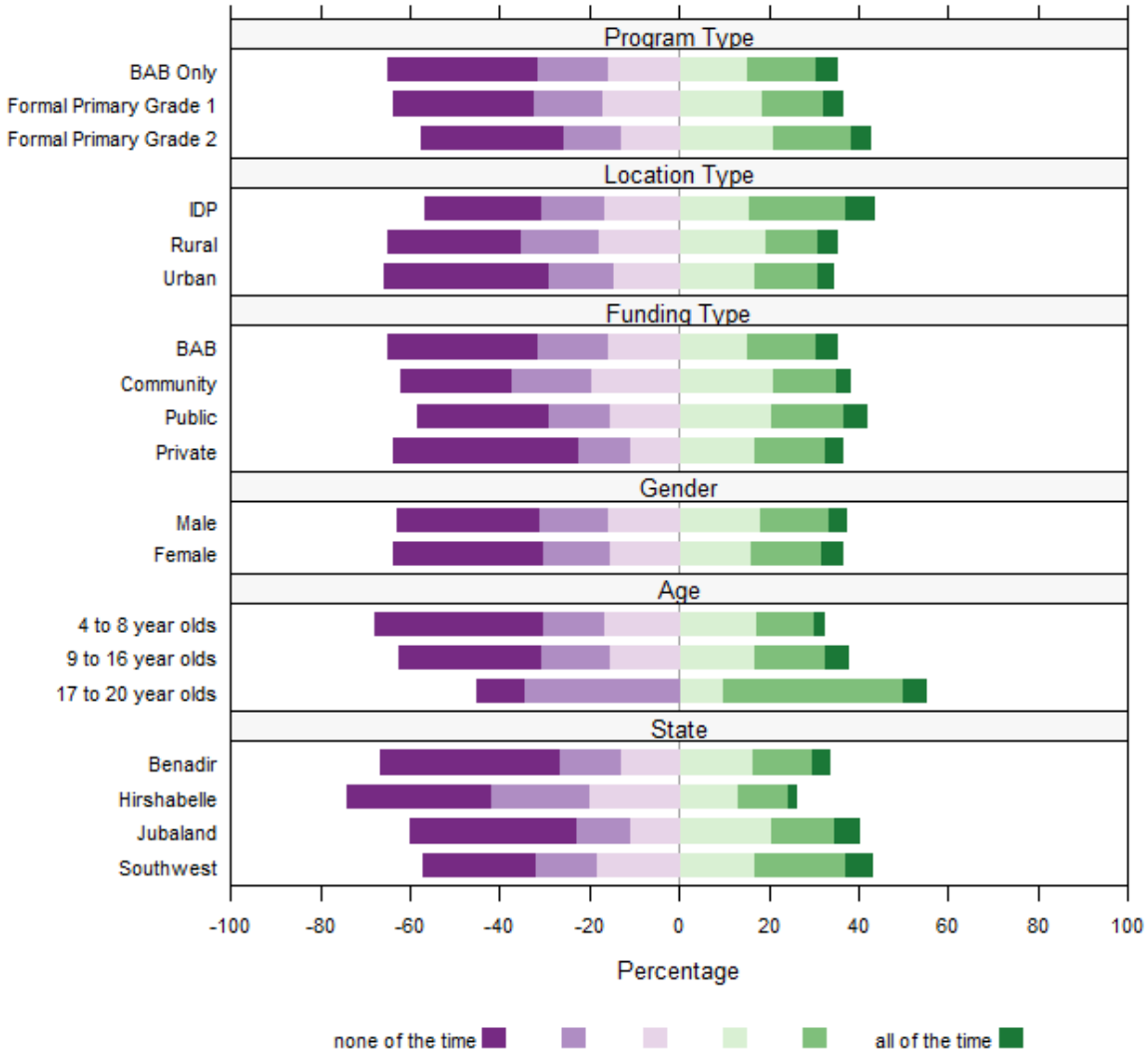
During the past week, how often did you find doing your schoolwork was easy?



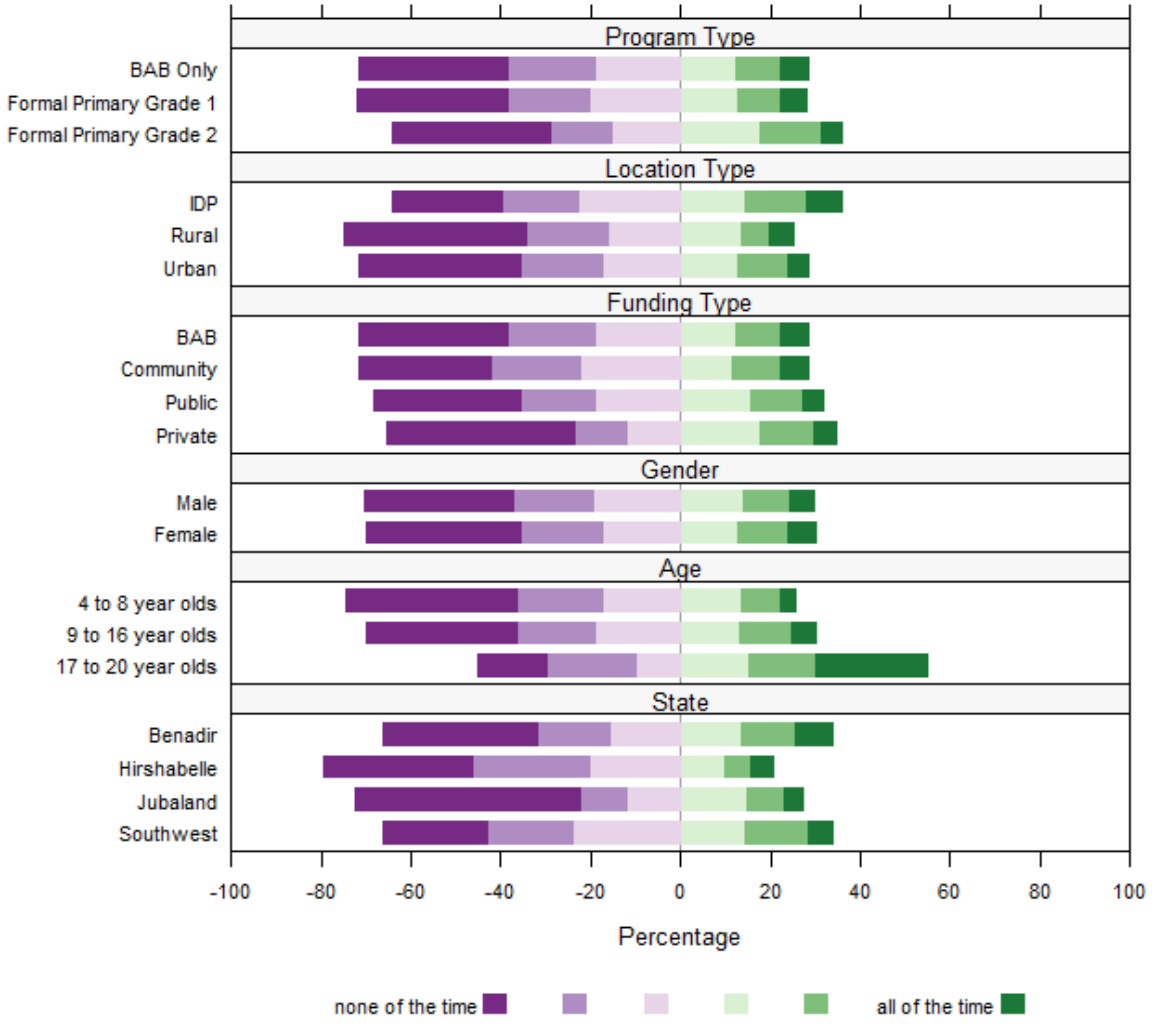
During the past week, how often did you enjoy your lessons/ how often did you find school interesting?



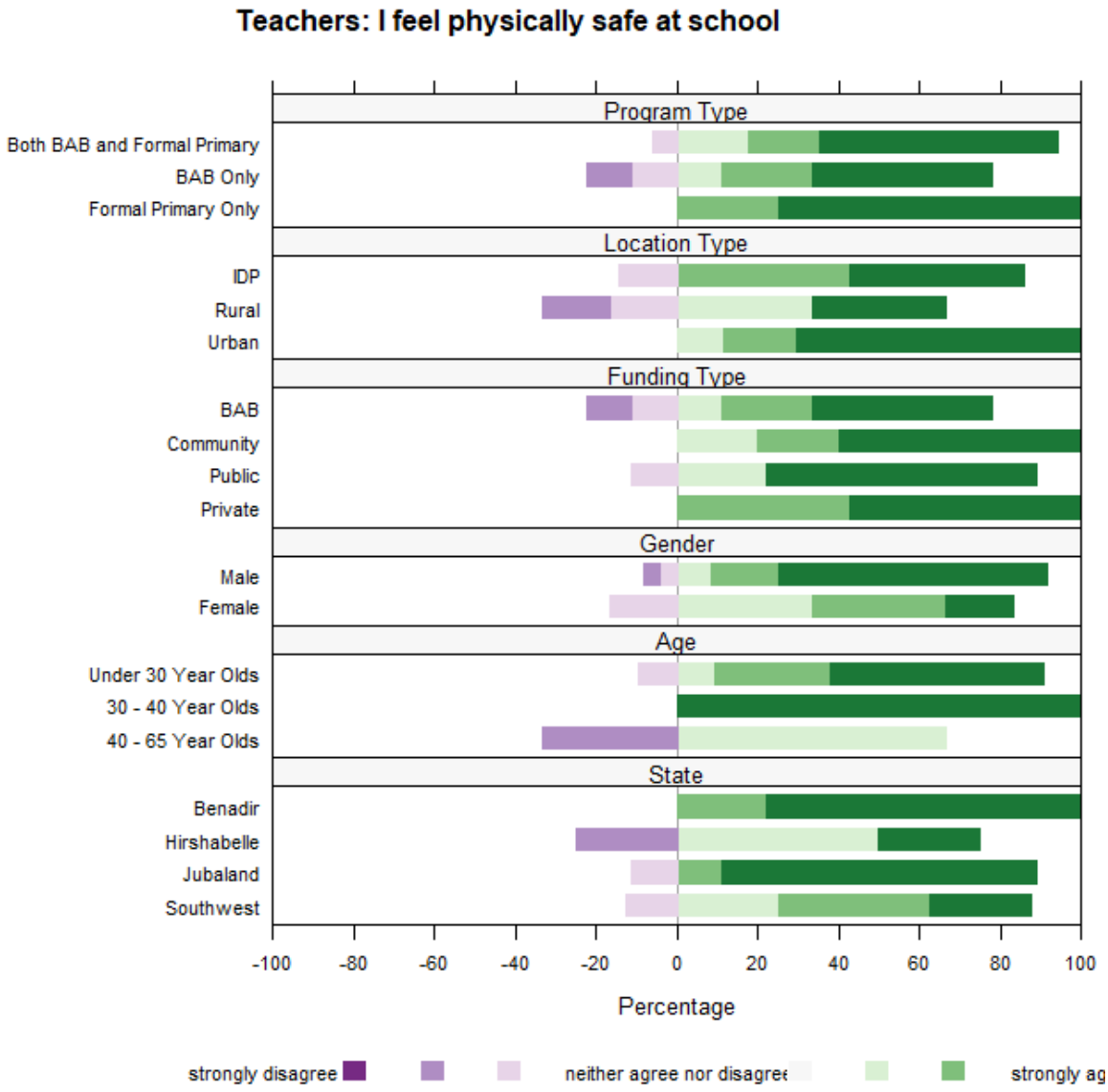
During the past week how often did you worry about your future?



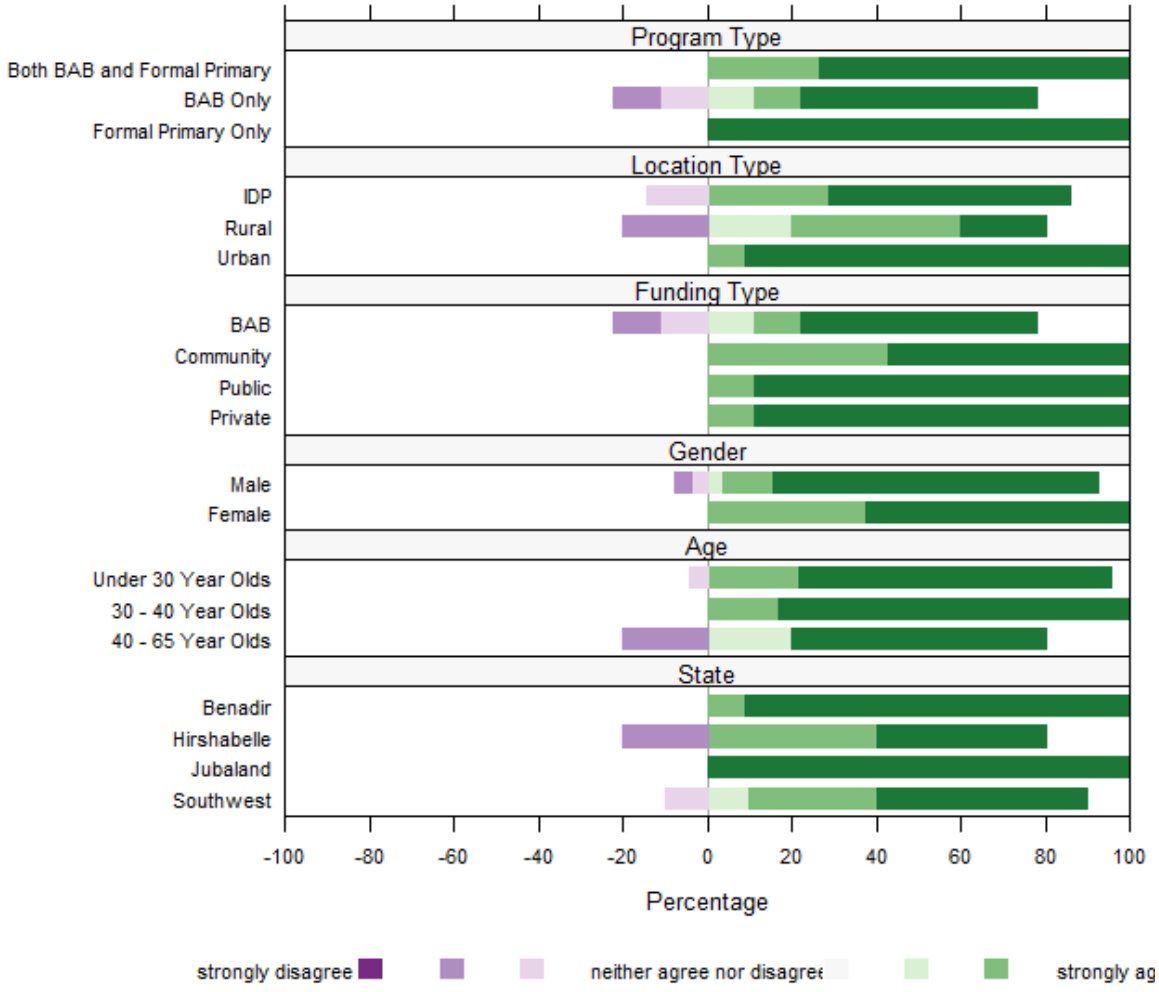
During the past week how often did you worry about bad marks or grades/How often did you worry about getting bad marks or grades?

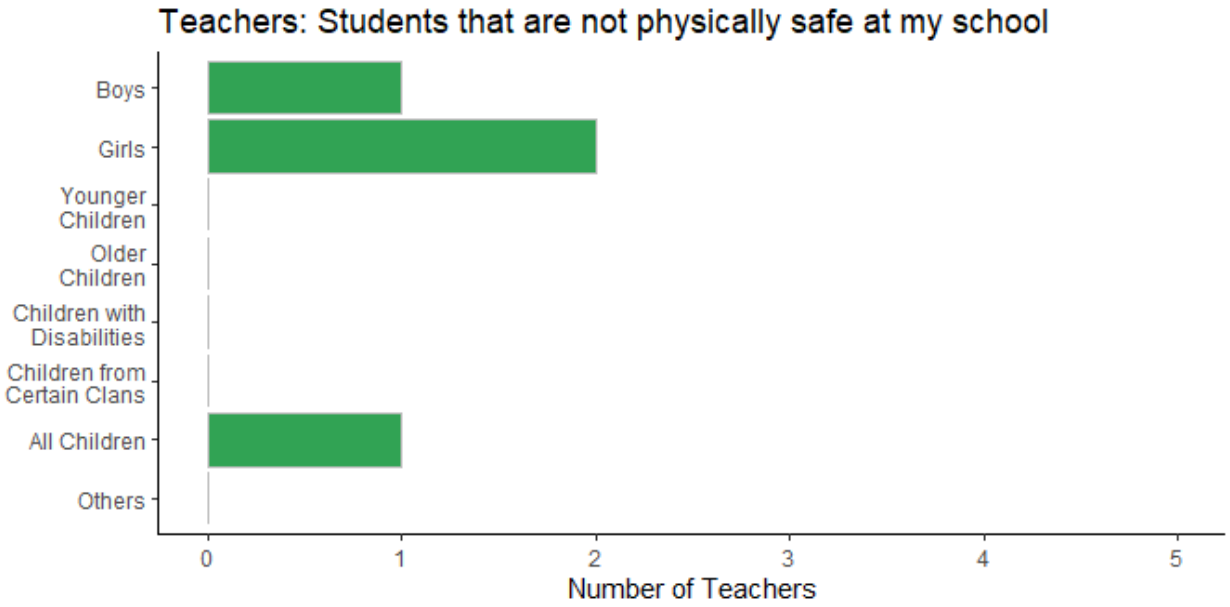


Teacher Safety Items

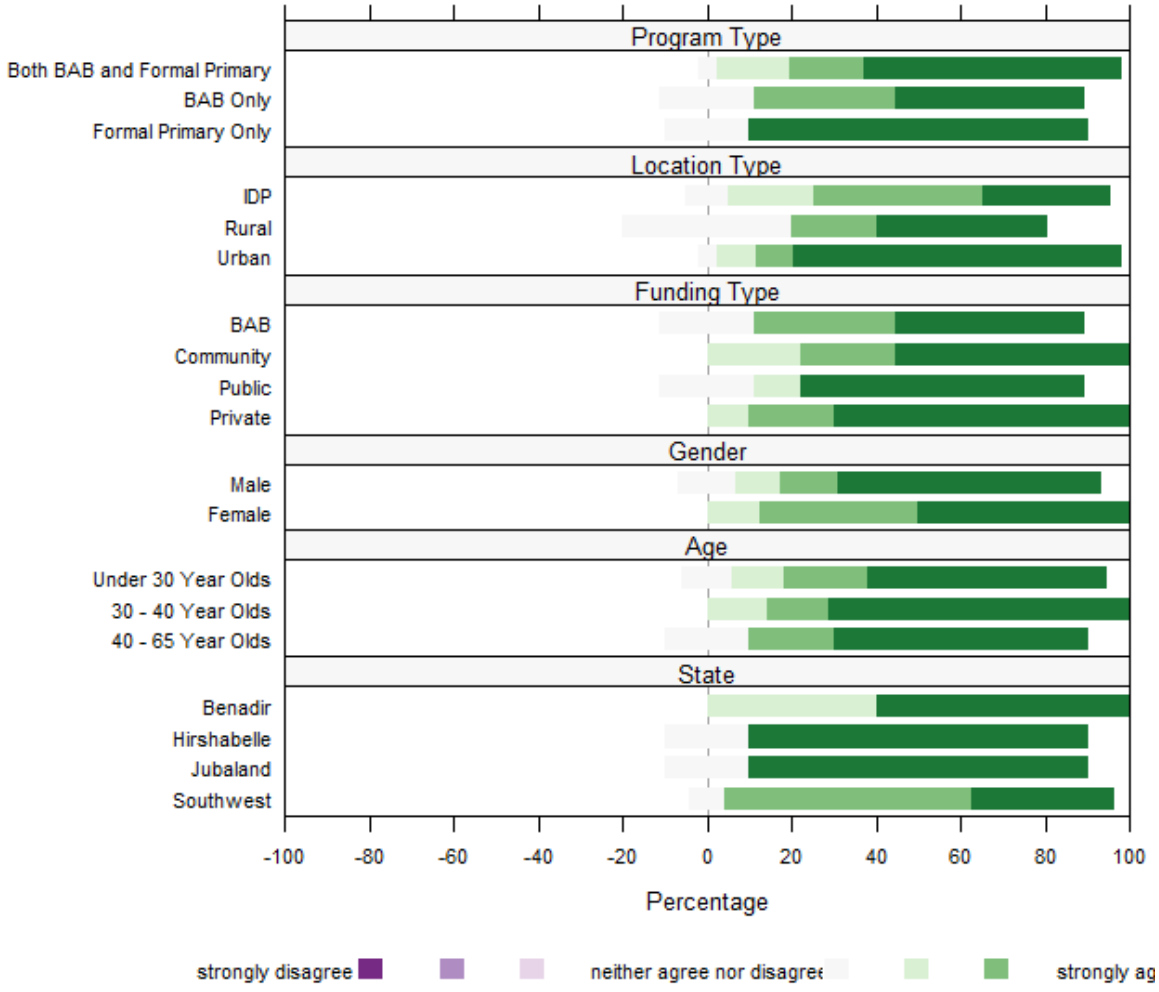


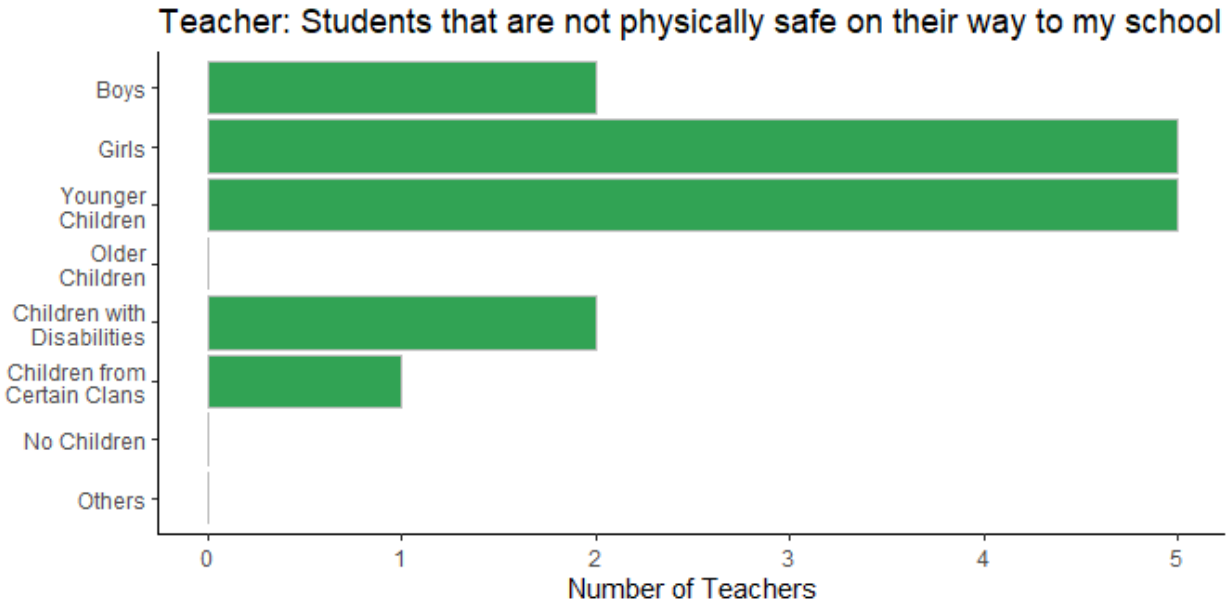
Teachers: All my students are physically safe at school, regardless of their gender, age, family background, disability, or other characteristics.



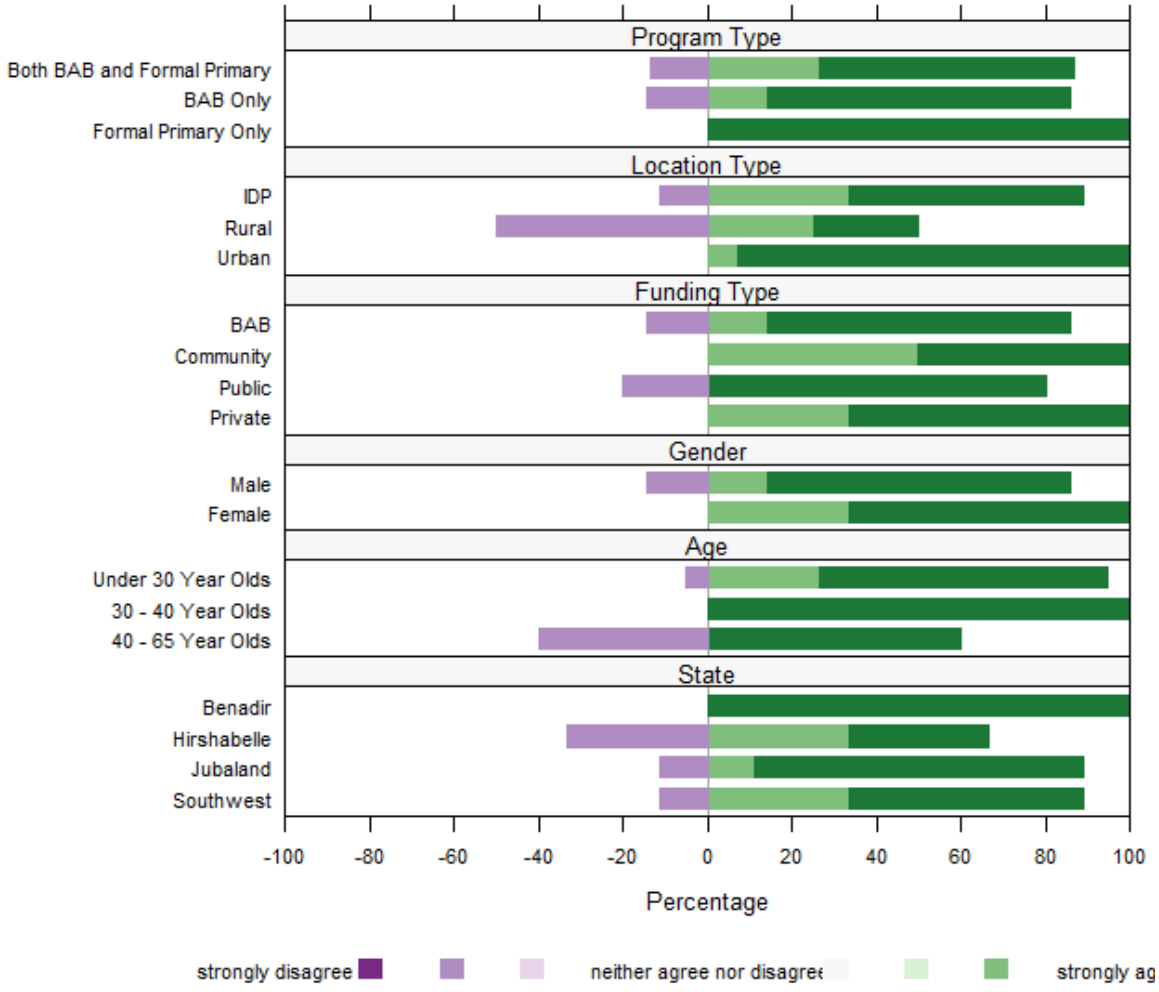

Teachers: Students that are not physically safe at my school
Boys
Girls
Younger Children
Older Children
Children with Disabilities
Children from Certain Clans
All Children
Others
0
1
2
3
4
5
Number of Teachers

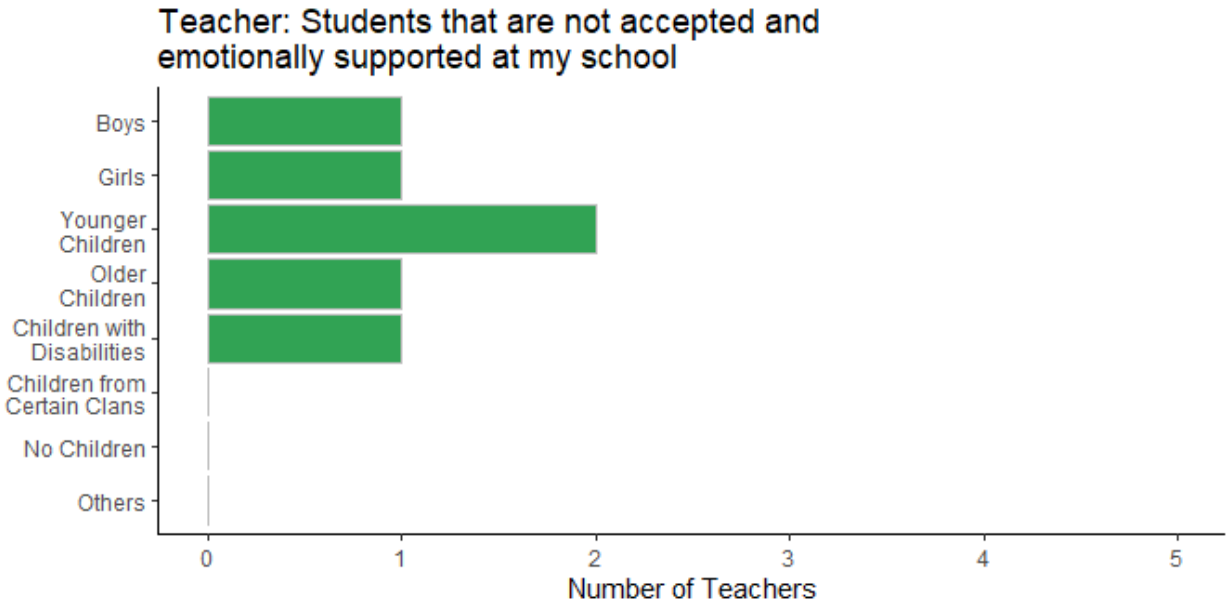
Teachers: All my students, regardless of gender, age, disability, family background, or other characteristics are safe on their way to school.




Teacher: Students that are not physically safe on their way to my school
Boys
Girls
Younger Children
Older Children
Children with Disabilities
Children from Certain Clans
No Children
Others
0
1
2
3
4
5
Number of Teachers

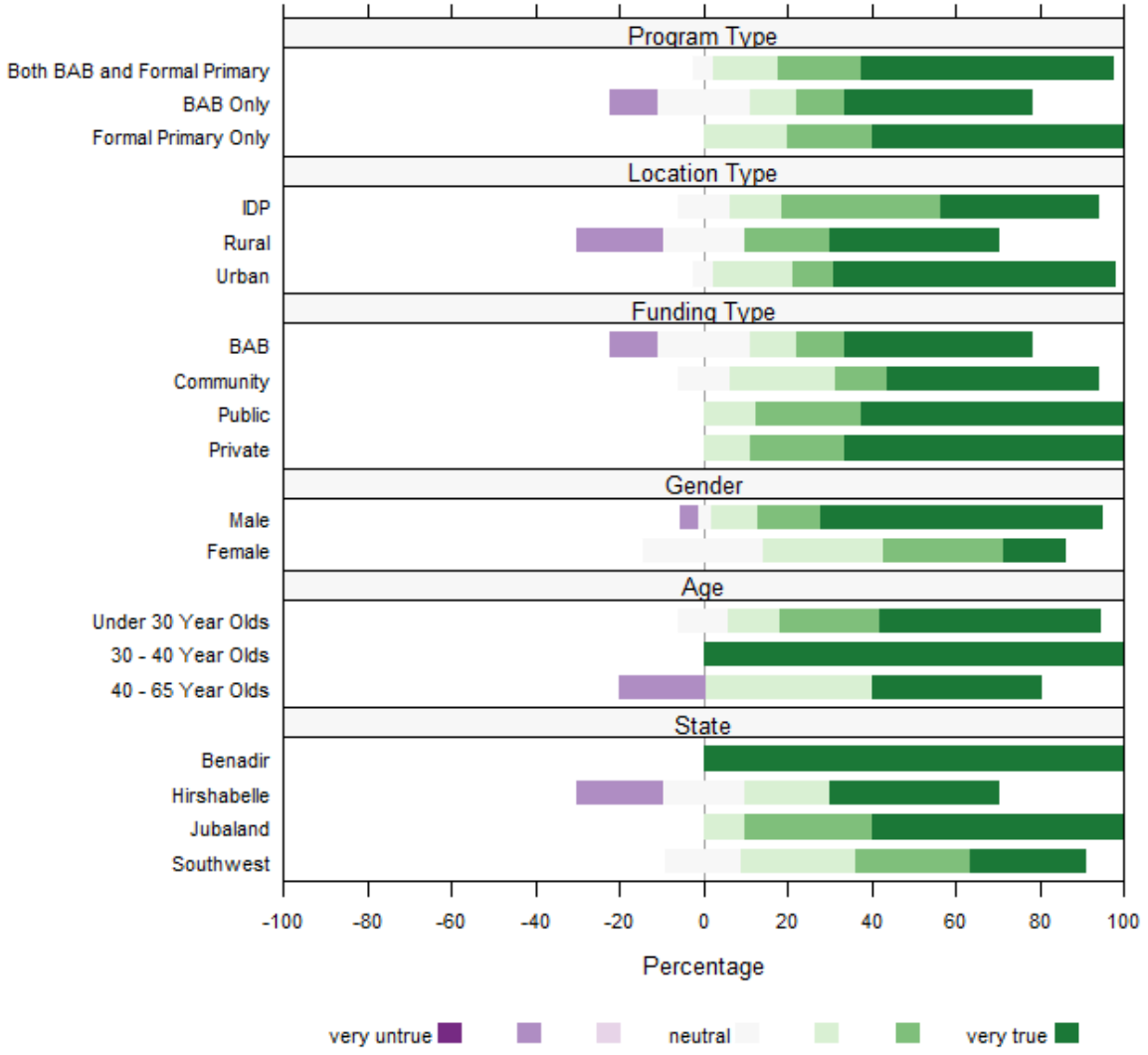
Teachers: All my students, regardless of gender, age, disability, family background, or other characteristics are accepted and emotionally supported in my school.



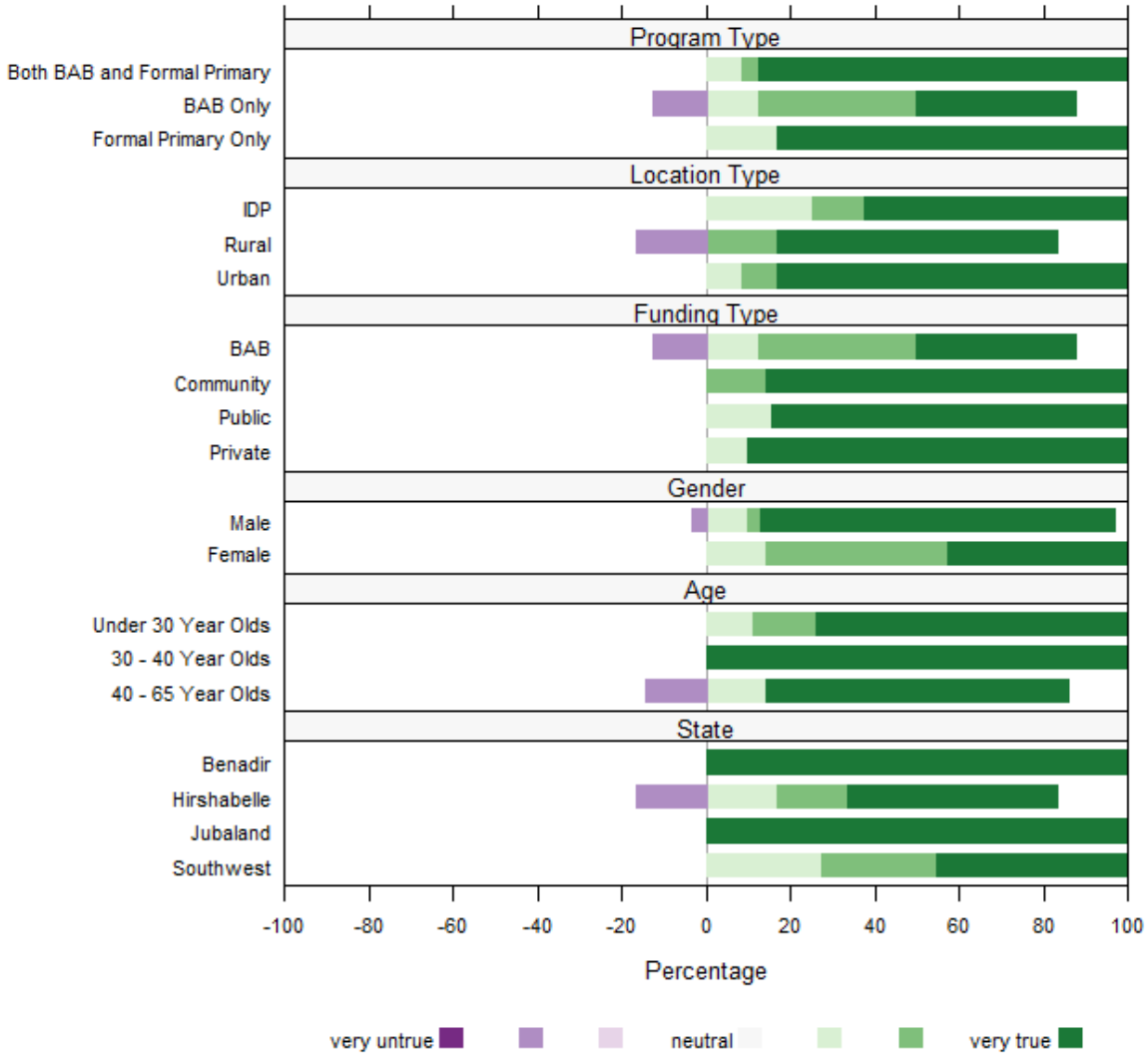

Teacher: Students that are not accepted and emotionally supported at my school
Boys
Girls
Younger Children
Older Children
Children with Disabilities
Children from Certain Clans
No Children
Others
0
1
2
3
4
5
Number of Teachers

Teacher Support Items

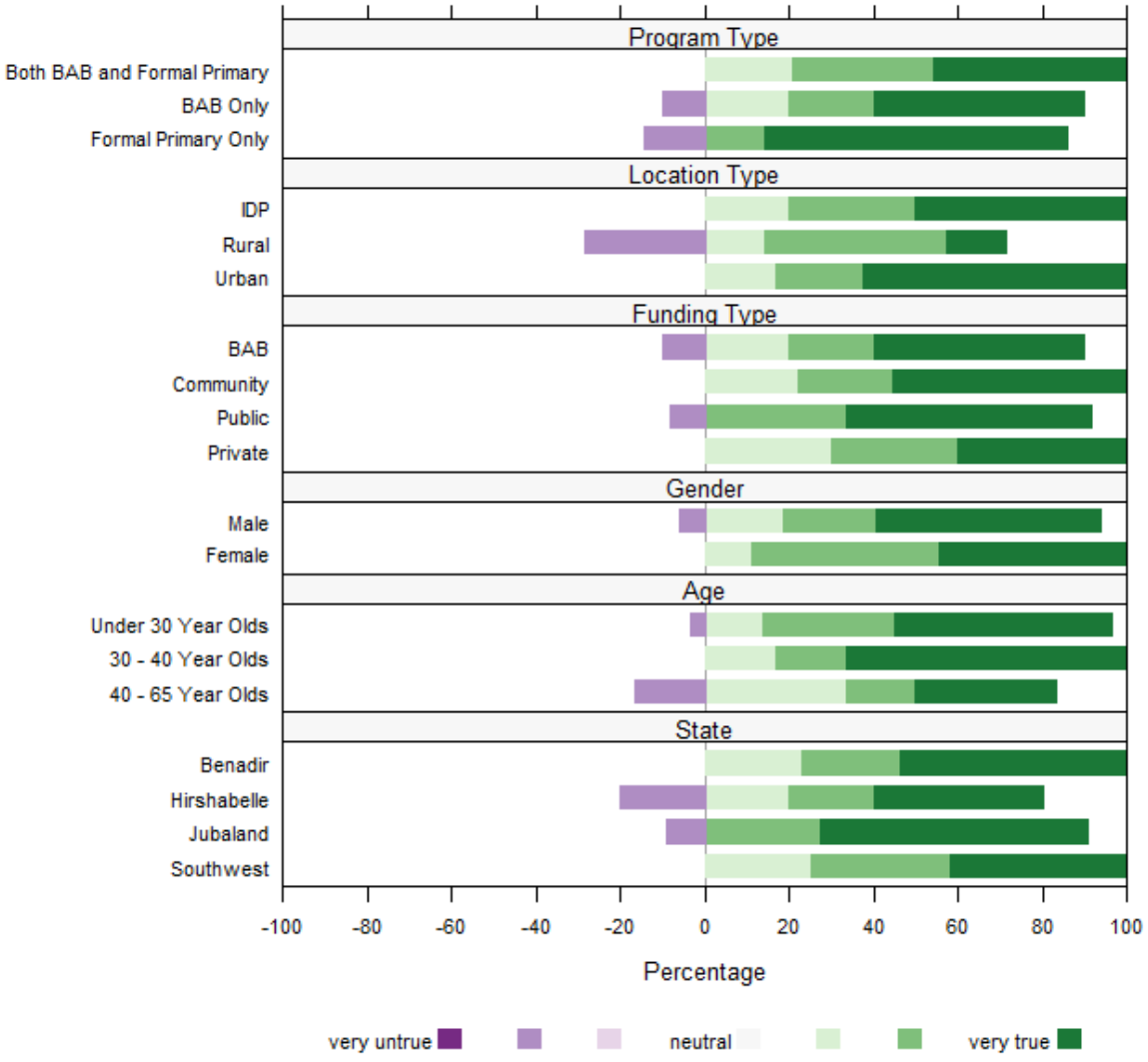
Teachers: I have the content knowledge I need to effectively teach my class.



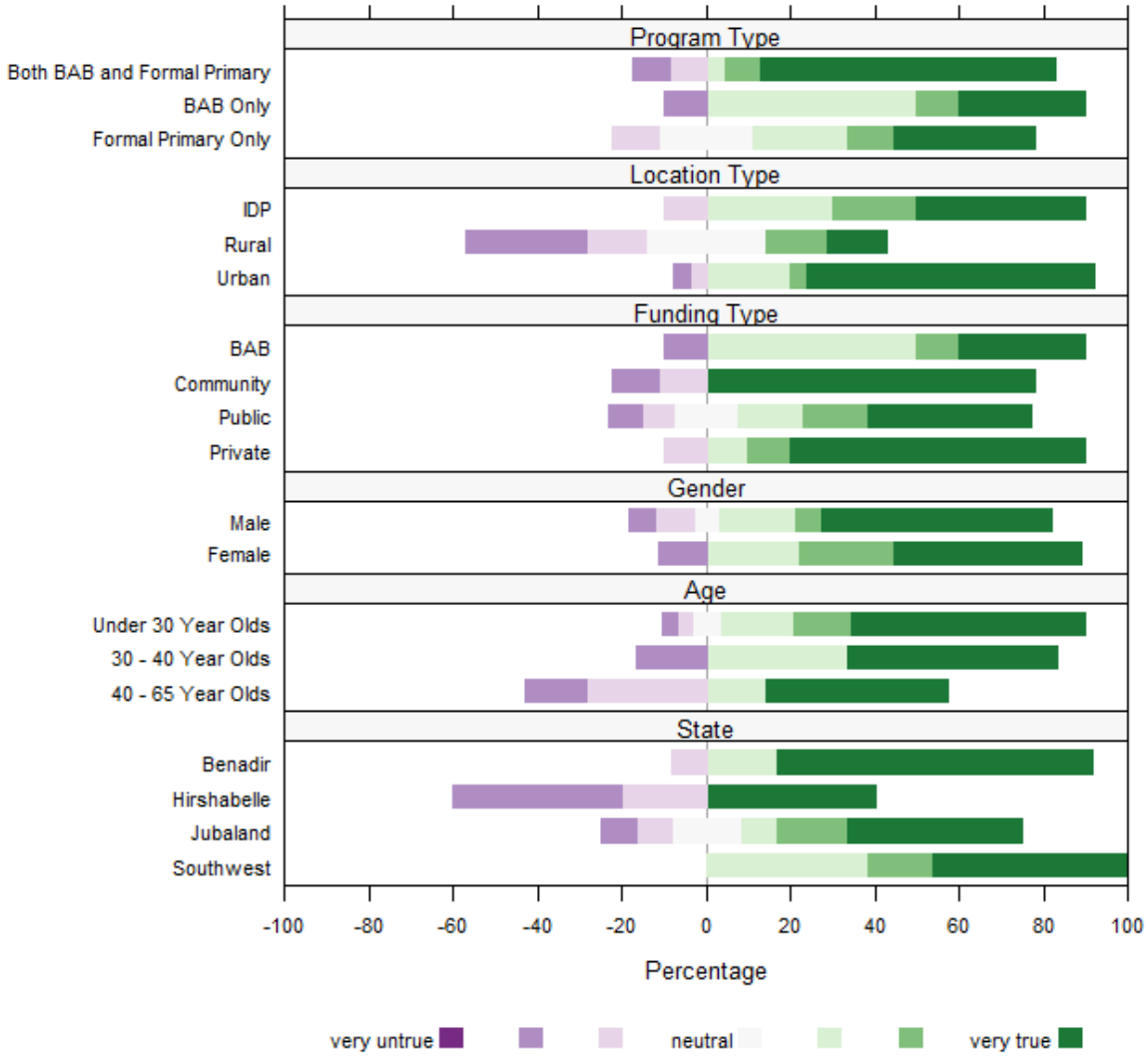
Teachers: I have a range of techniques to effectively teach all students in my class.



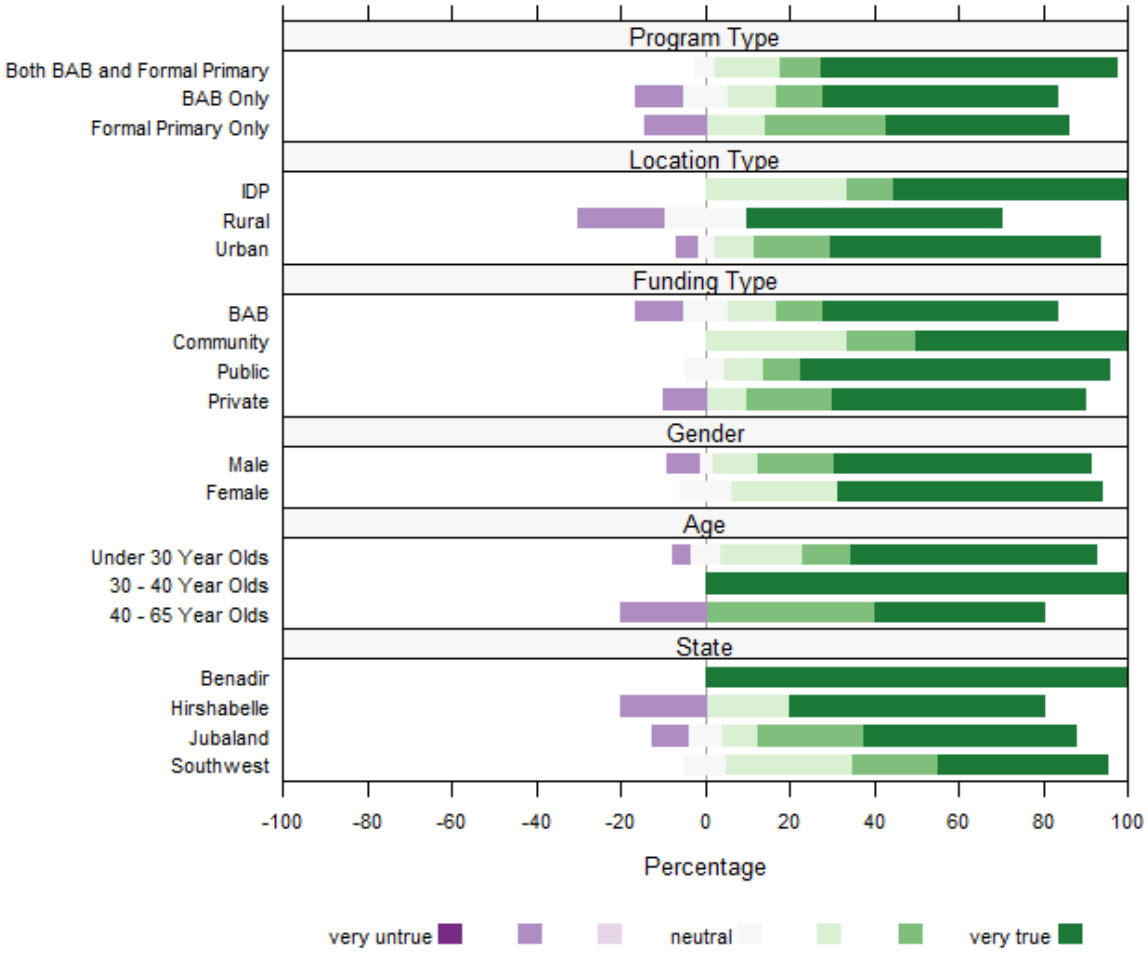
Teachers: I have the support I need to effectively teach my class.



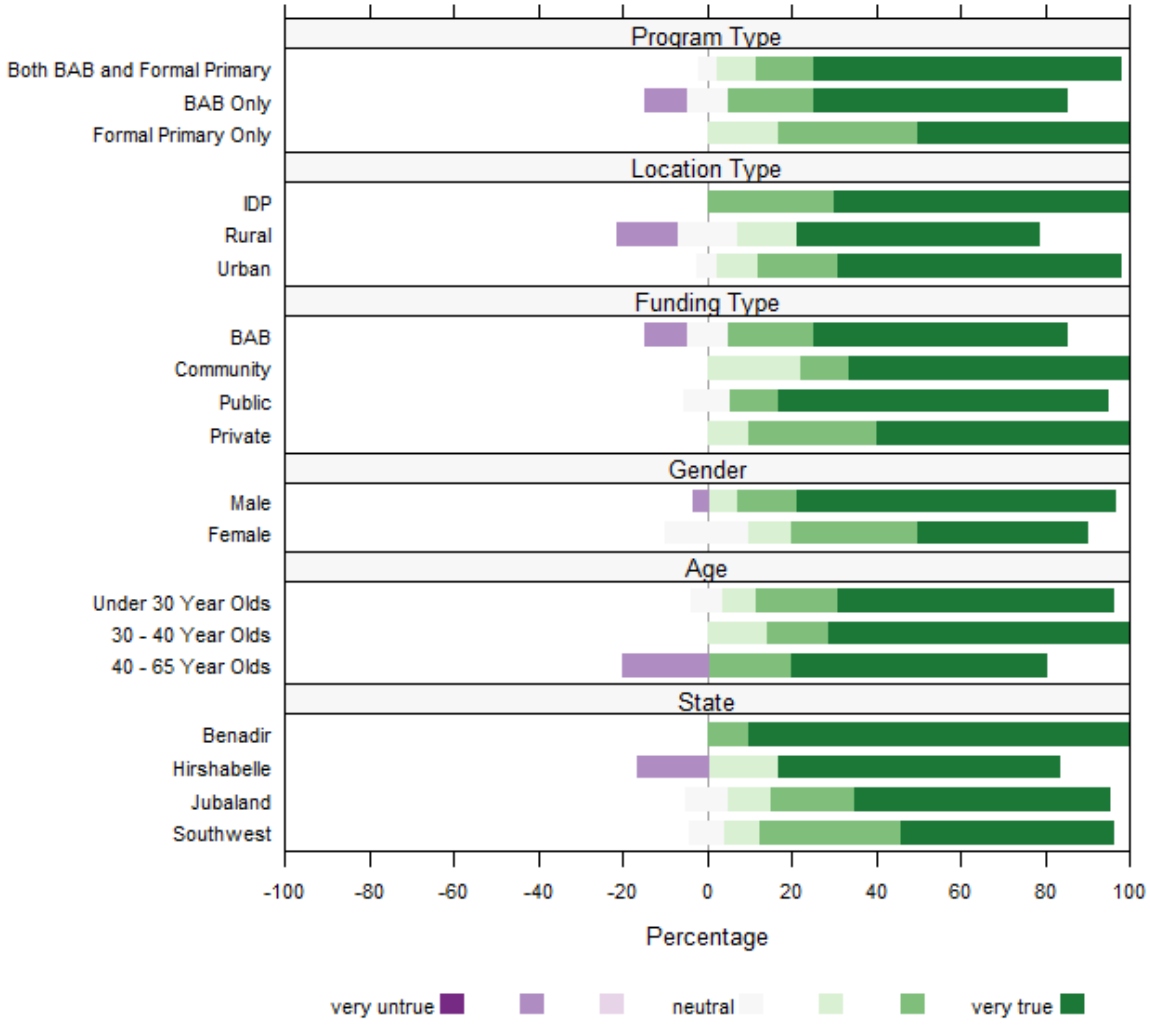
Teachers: I have the materials I need to effectively teach my class.



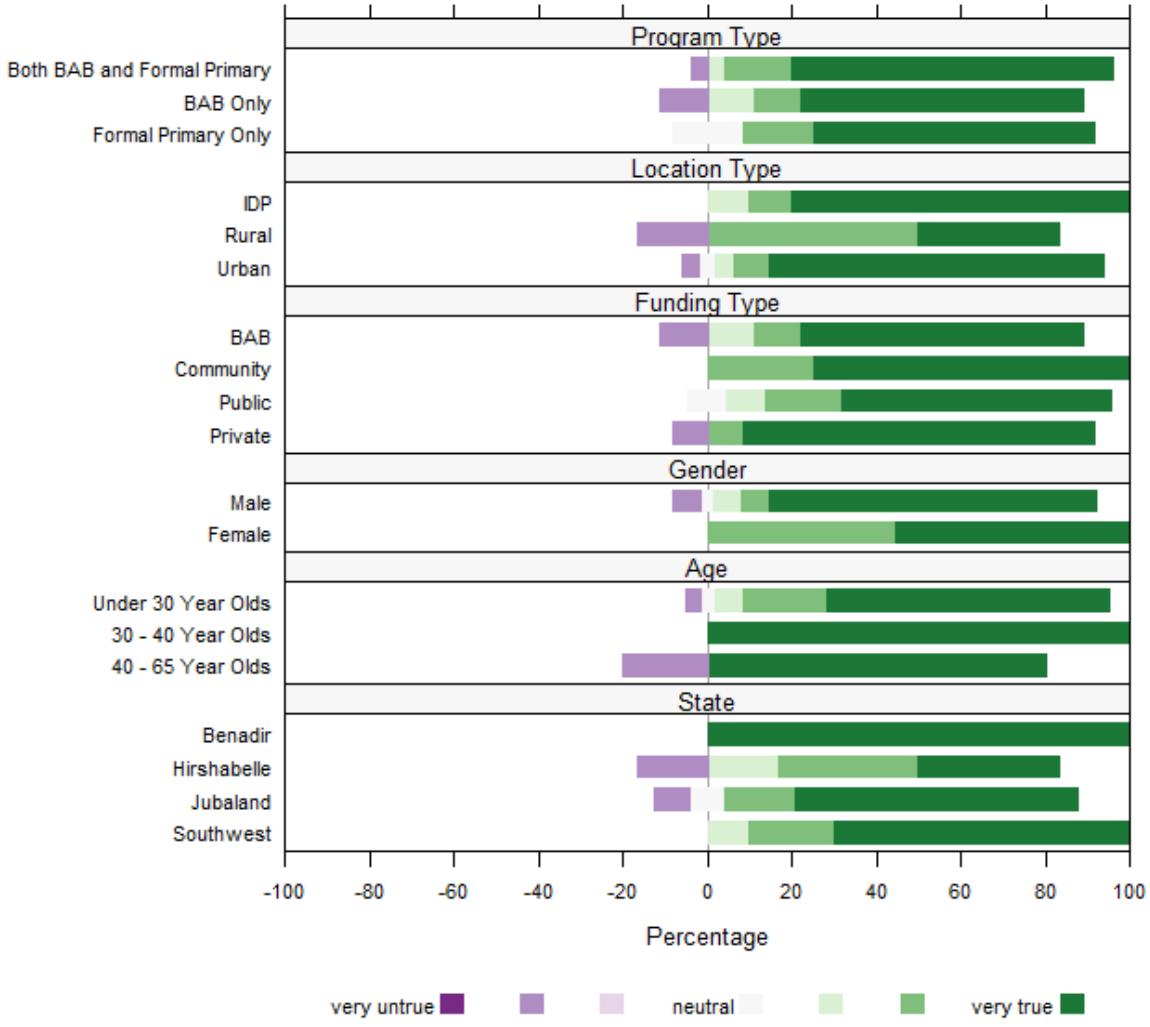
Teachers: I have the knowledge and skills I need to effectively teach all children in my class, regardless of their gender, age, or family background, disability, or other characteristics.



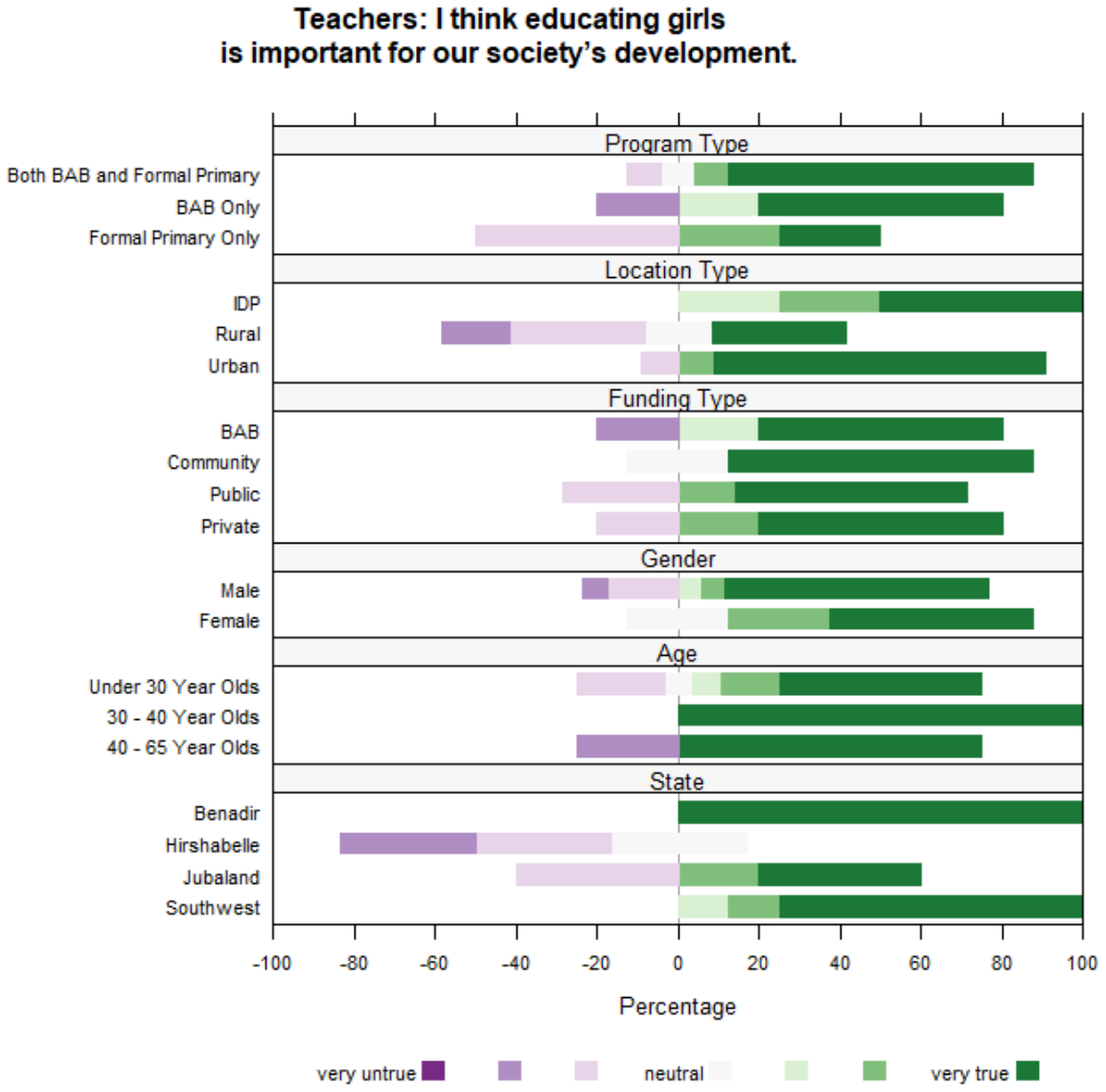
Teachers: I have people and resources I can draw on when I have challenges in my classroom.



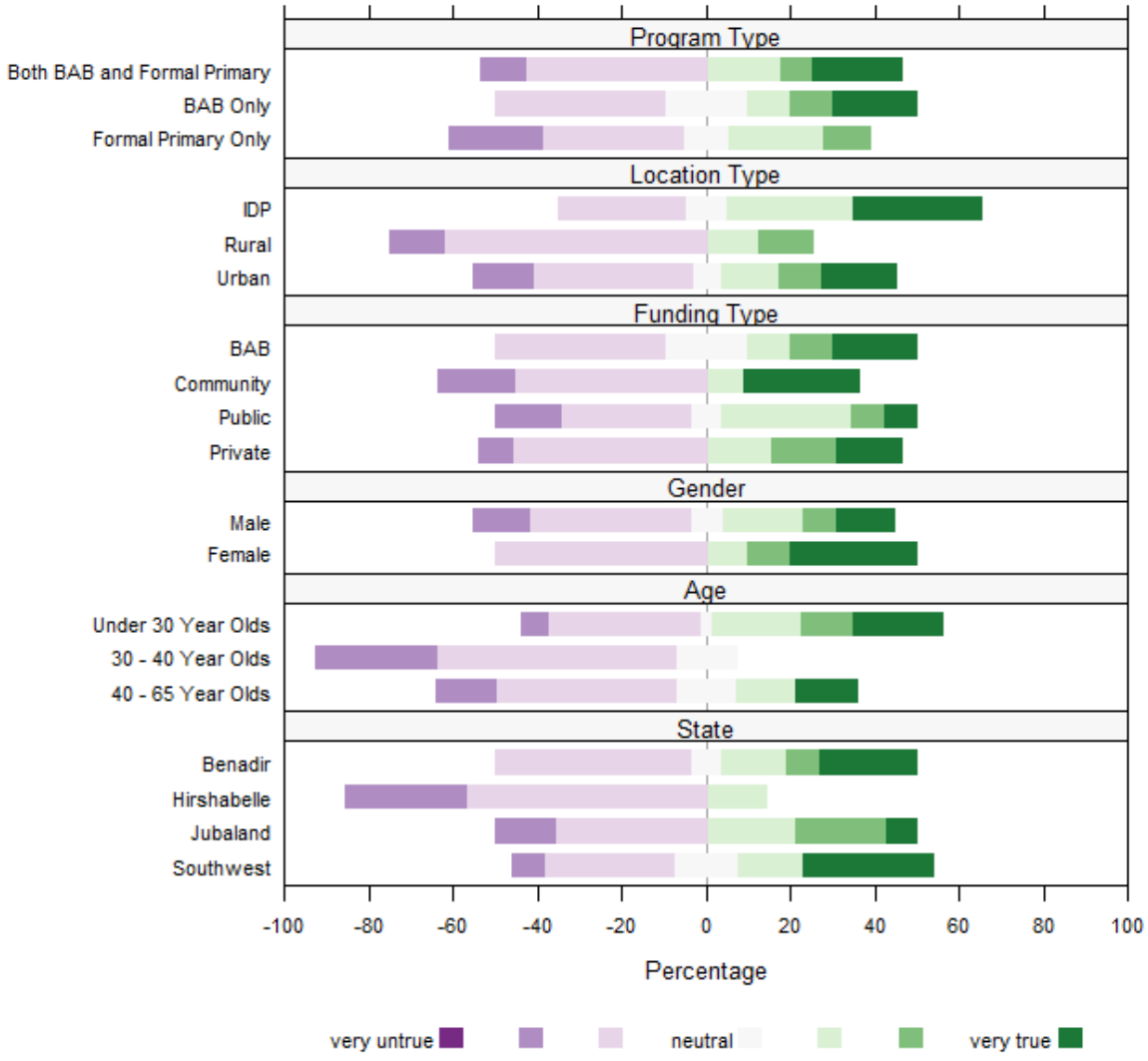
Teachers: I have various strategies to effectively manage my classroom.

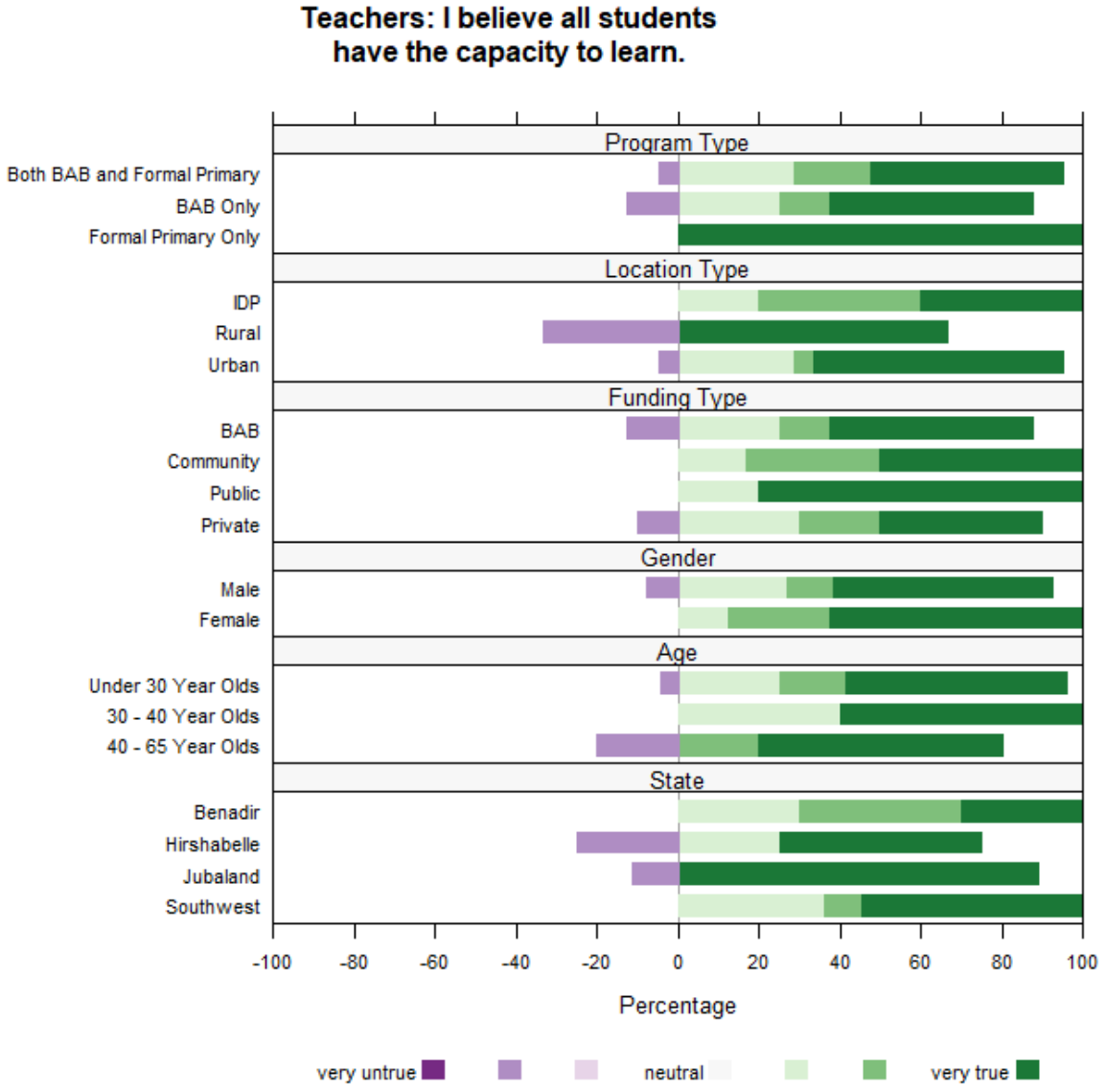


Teacher Personal Beliefs

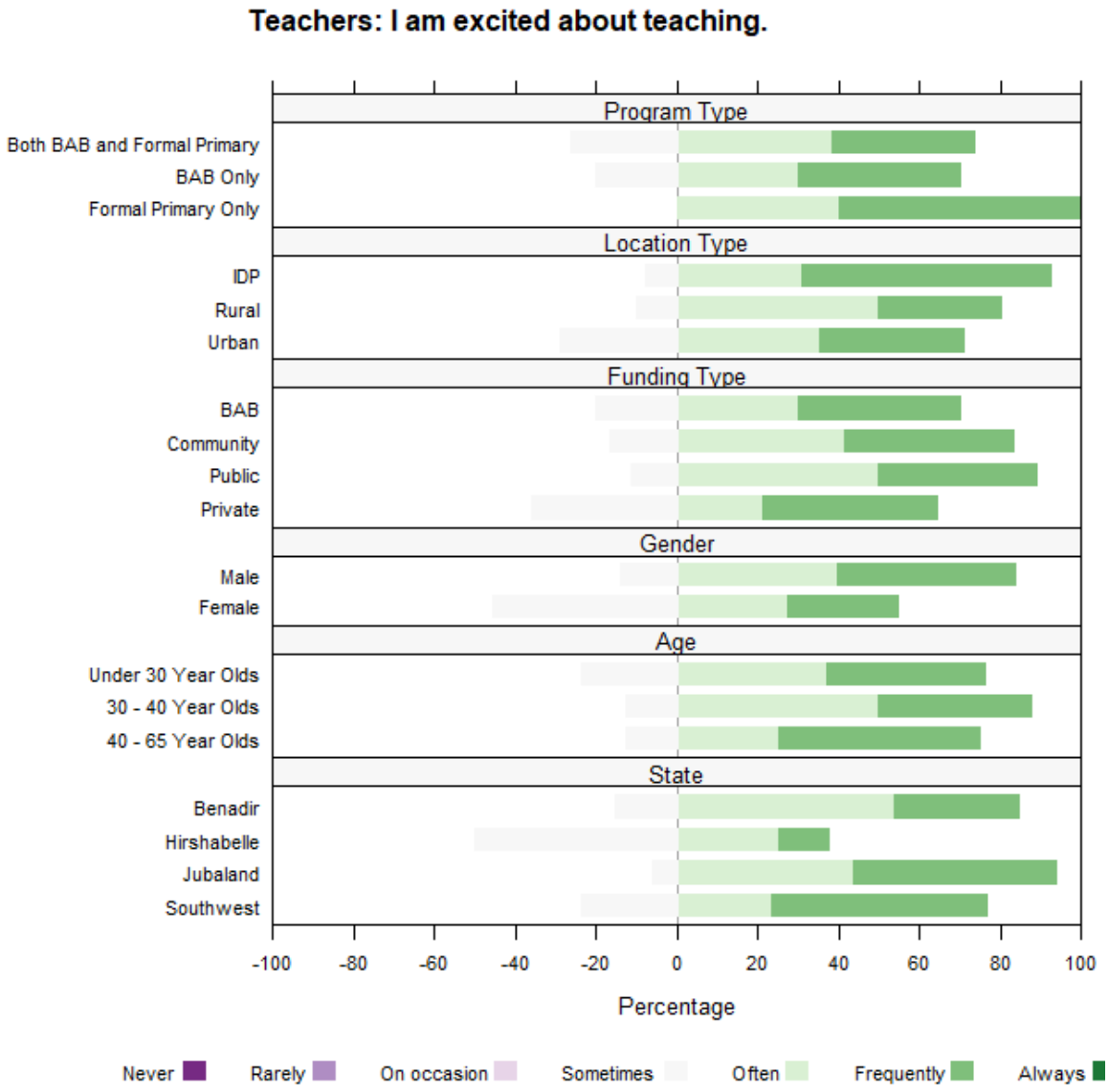


Teachers: I believe it's more important to educate boys than girls.

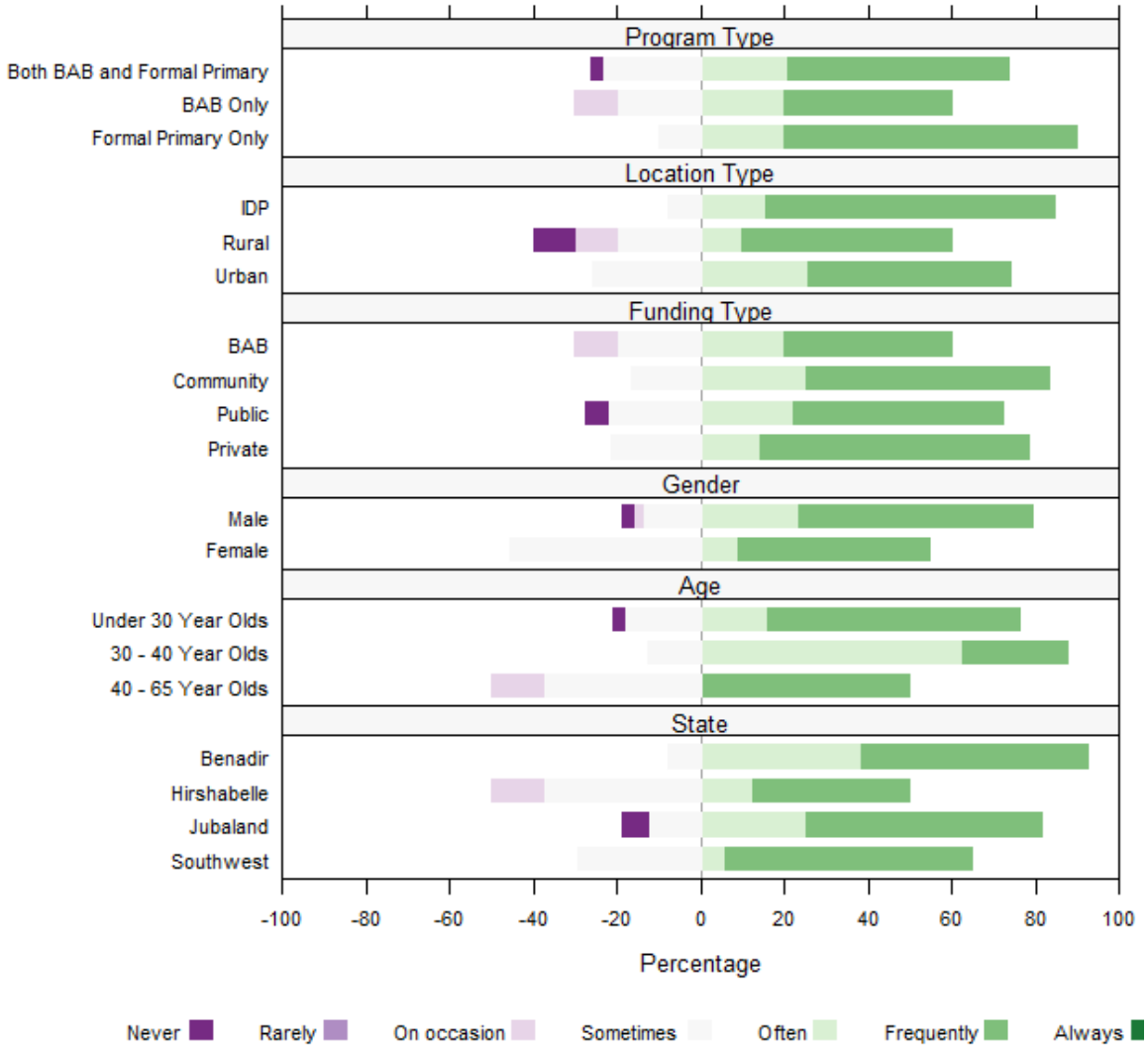


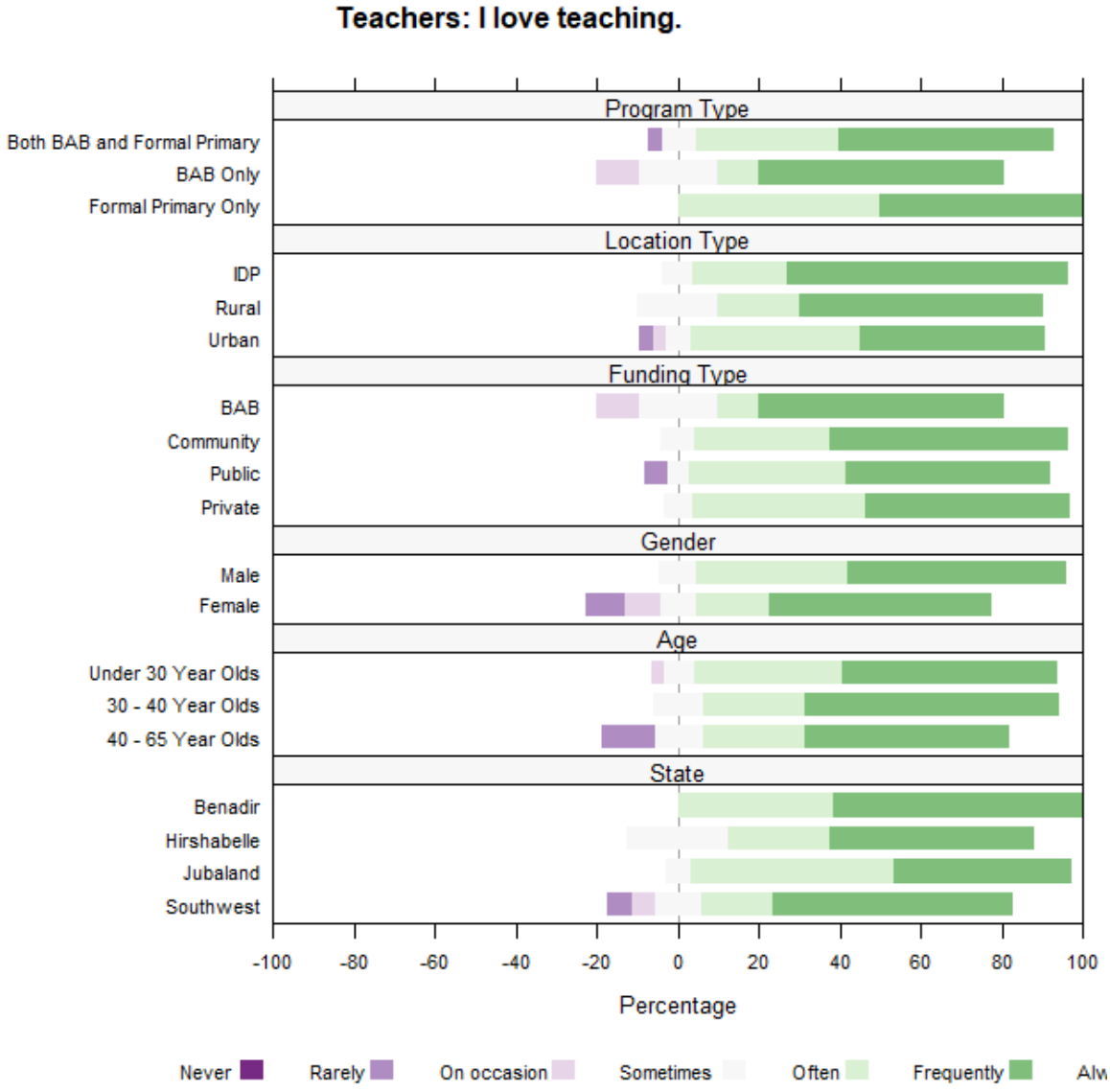

Teachers: I believe all students have the capacity to learn.
Program Type
Both BAB and Formal Primary
BAB Only
Formal Primary Only
Location Type
IDP
Rural
Urban
Funding Type
BAB
Community
Public
Private
Gender
Male
Female
Age
Under 30 Year Olds
30 - 40 Year Olds
40 - 65 Year Olds
State
Benadir
Hirshabelle
Jubaland
Southwest
-100
-80
-60
-40
-20
0
20
40
60
80
100
Percentage
very untrue
neutral
very true

Teacher Emotional Engagement Items

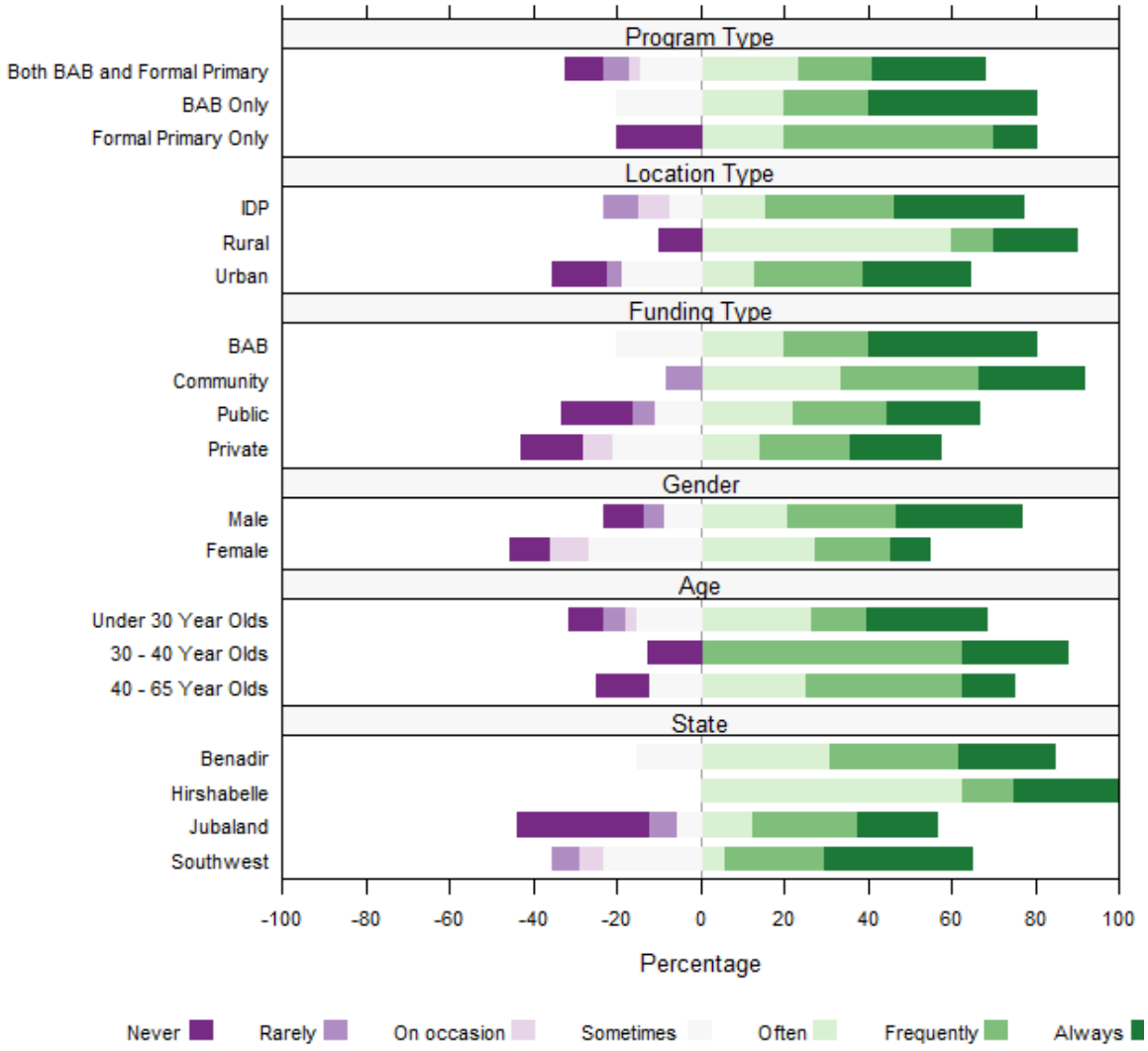


Teachers: I feel happy while teaching.

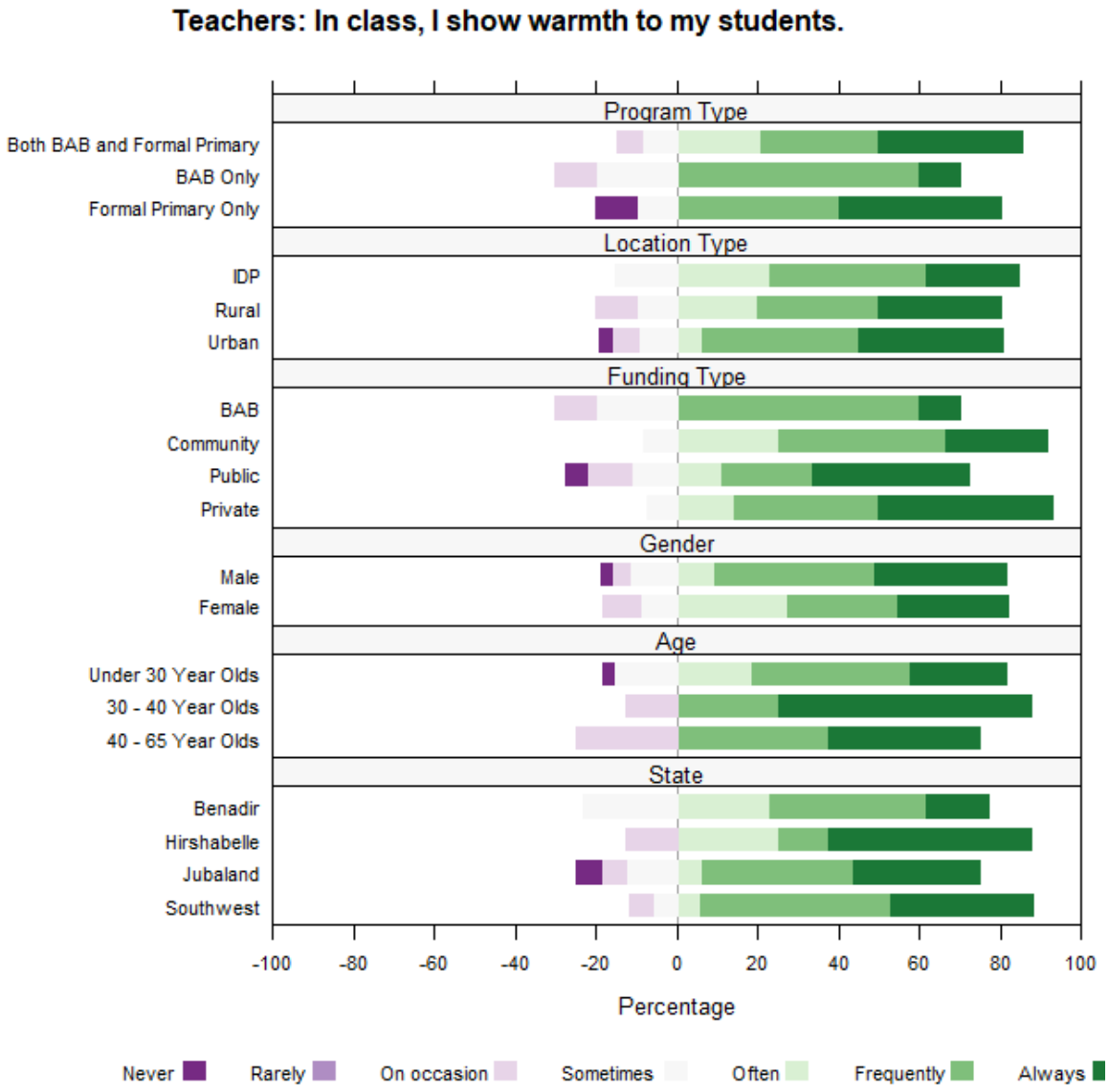



Teachers: I love teaching.
Program Type
Both BAB and Formal Primary
BAB Only
Formal Primary Only
Location Type
IDP
Rural
Urban
Funding Type
BAB
Community
Public
Private
Gender
Male
Female
Age
Under 30 Year Olds
30 - 40 Year Olds
40 - 65 Year Olds
State
Benadir
Hirshabelle
Jubaland
Southwest
-100
-80
-60
-40
-20
0
20
40
60
80
100
Percentage
Never
Rarely
On occasion
Sometimes
Often
Frequently
Alw

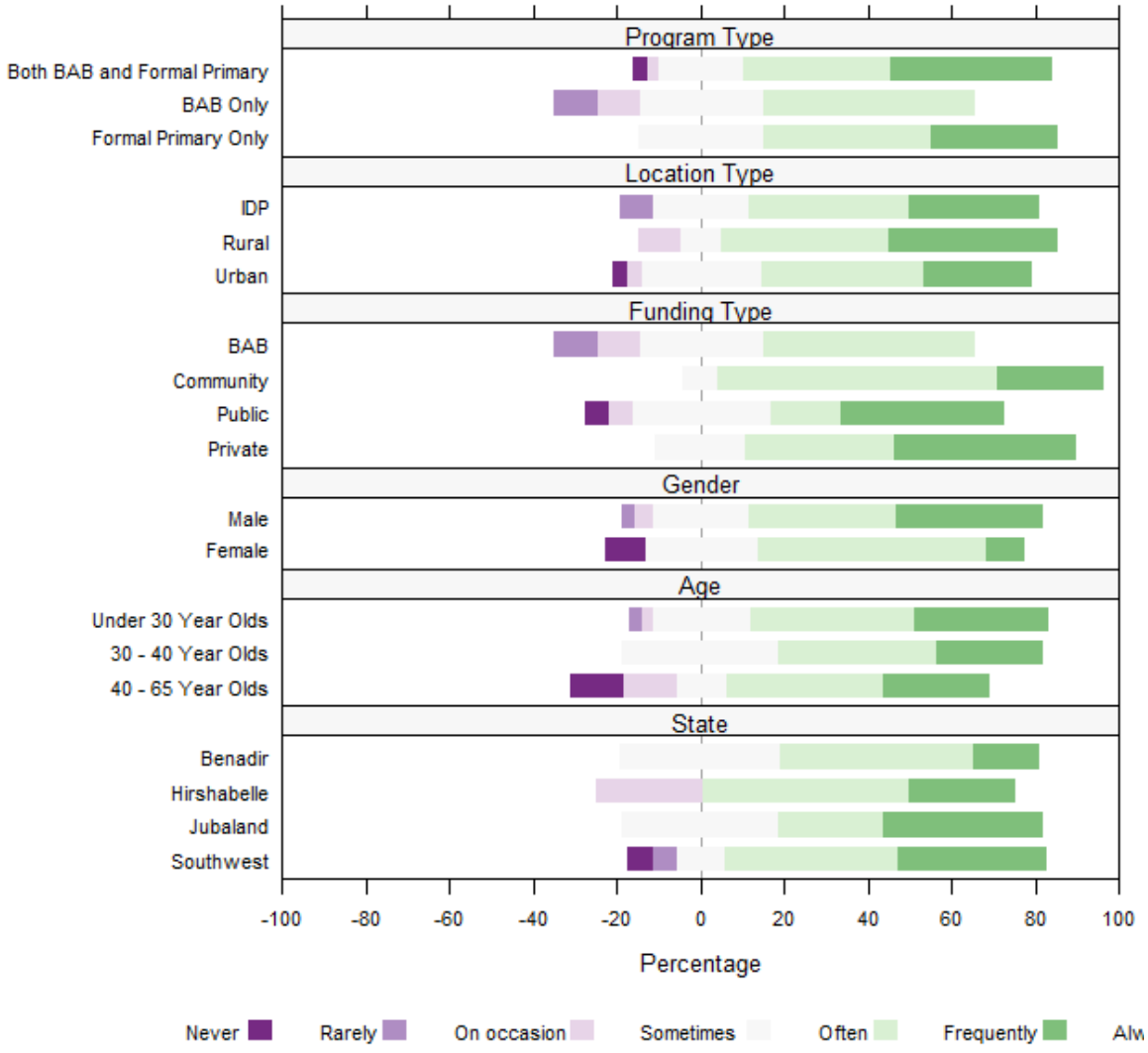
Teachers: I find teaching fun.



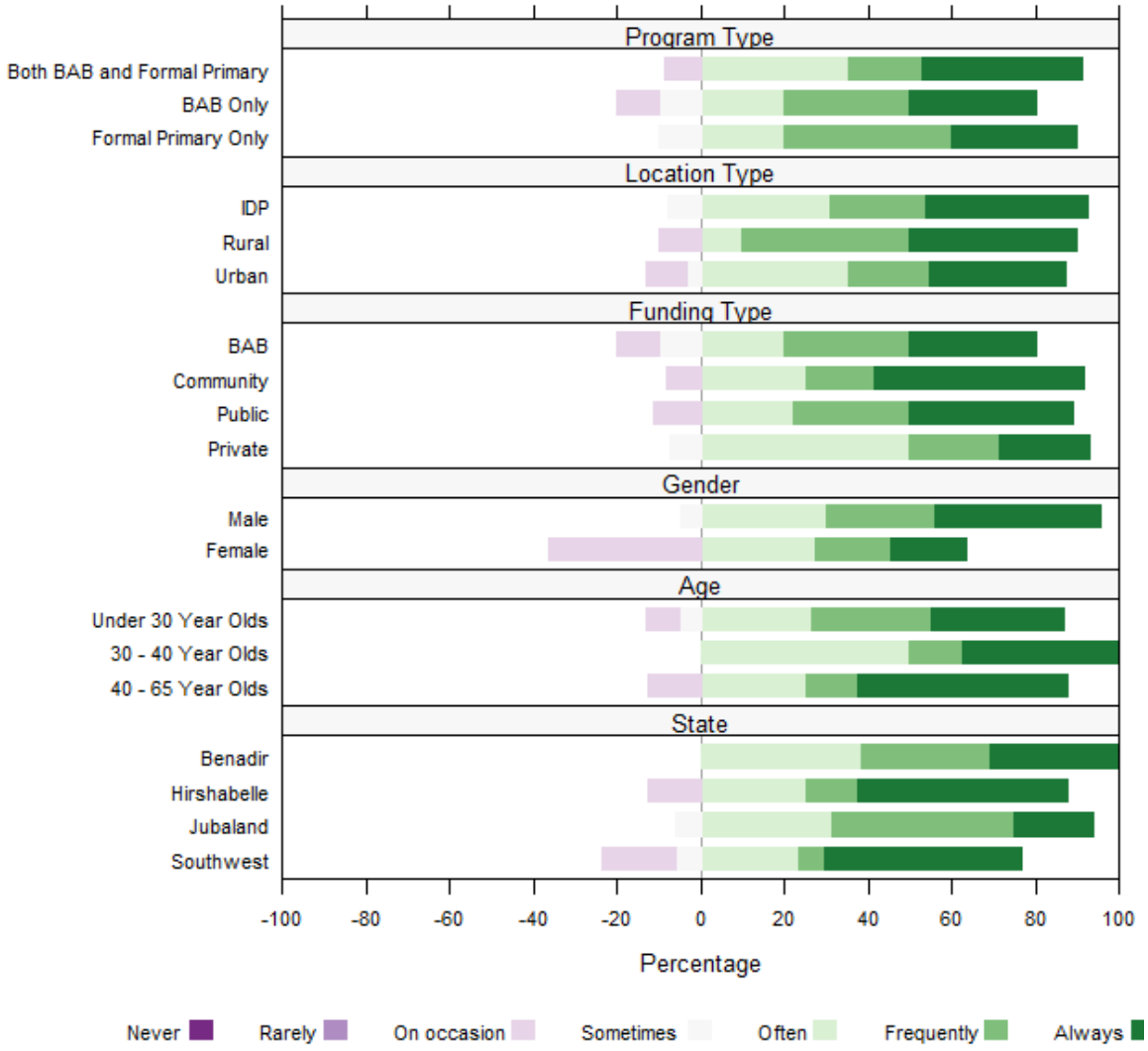
Teacher Social Engagement Items



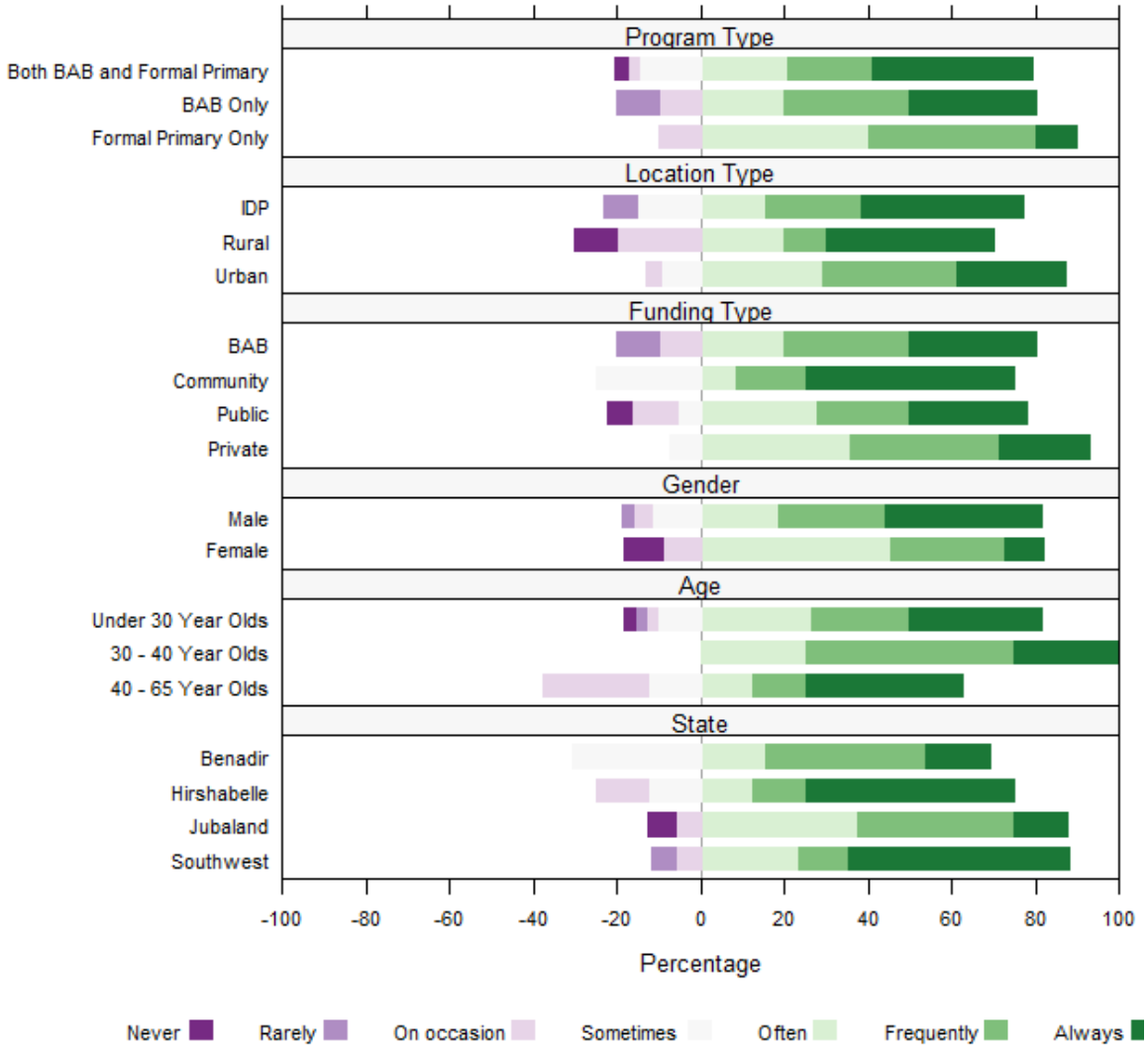
Teachers: In class, I am aware of my students' feelings.



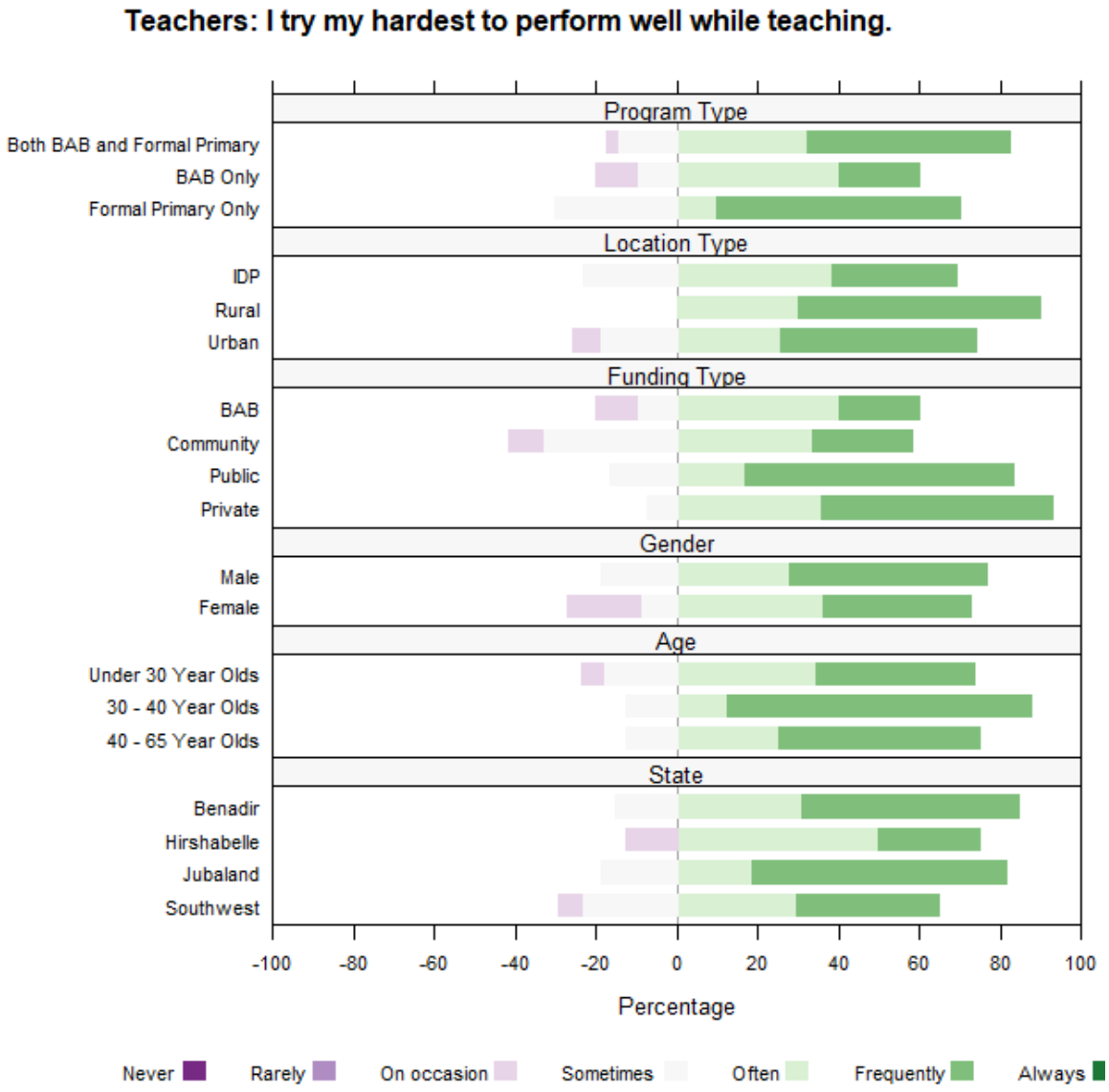
Teachers: In class, I care about the problems of my students.



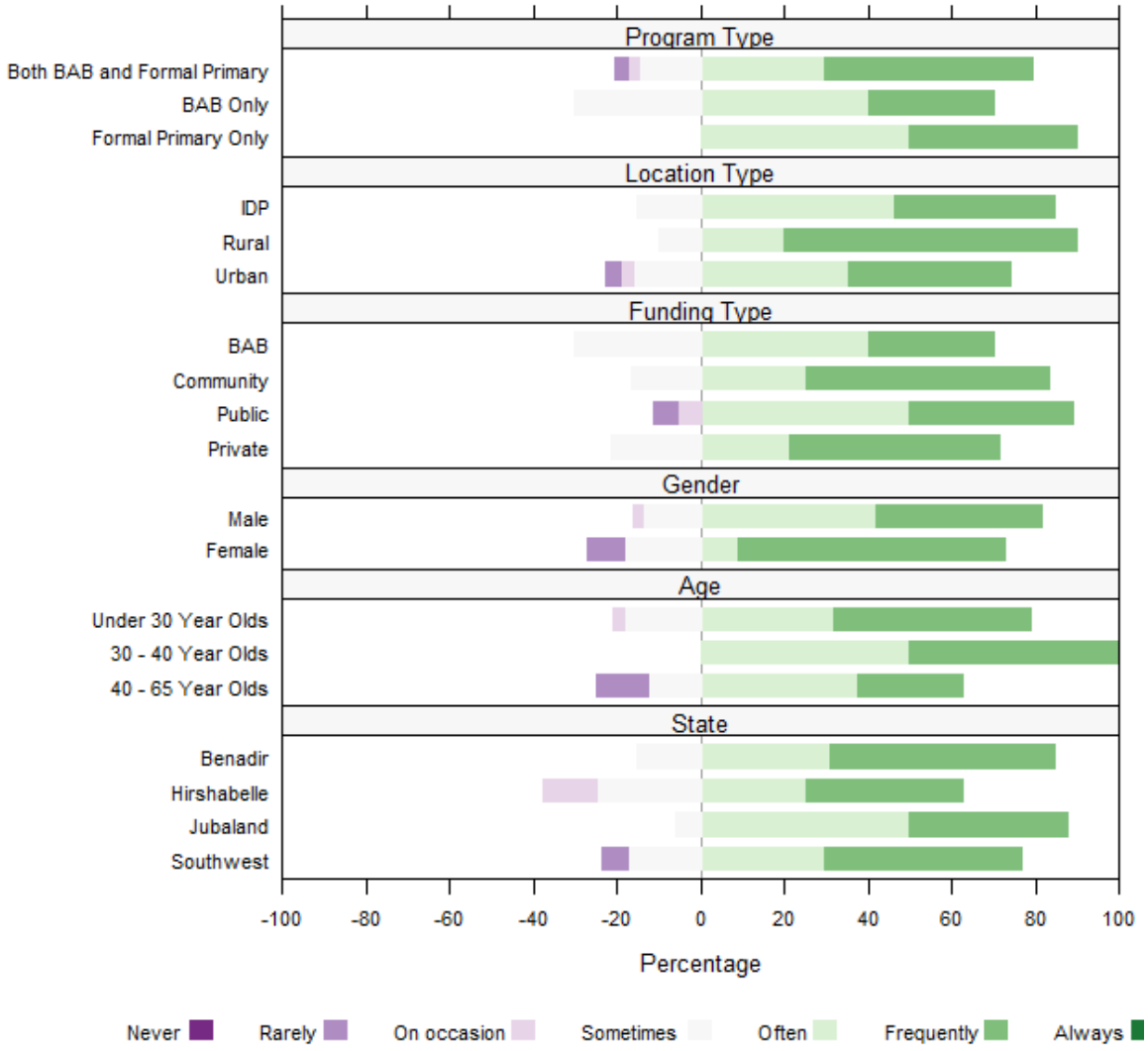
Teachers: In class, I am empathetic towards my students.



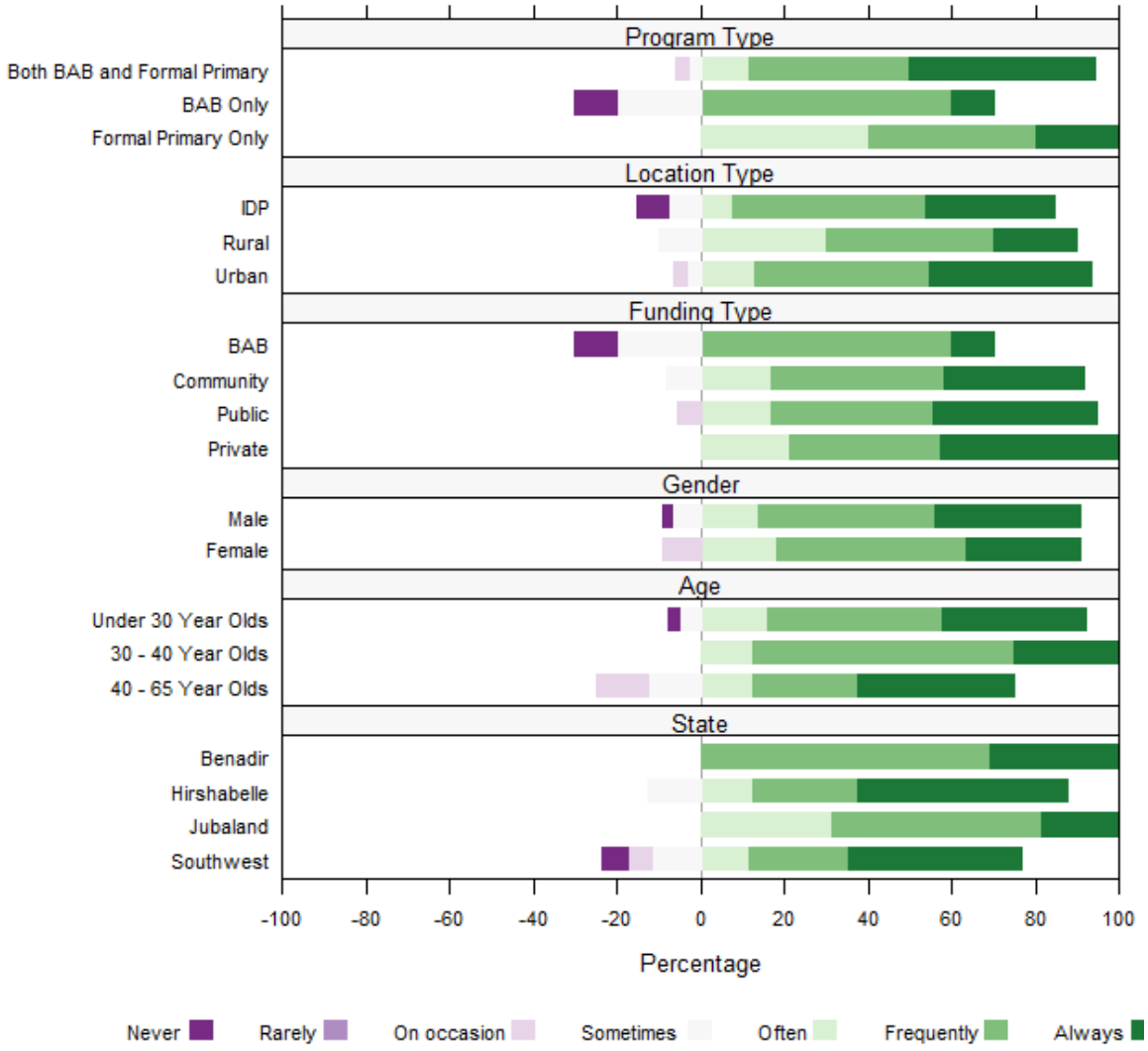
Teacher Cognitive Engagement Items



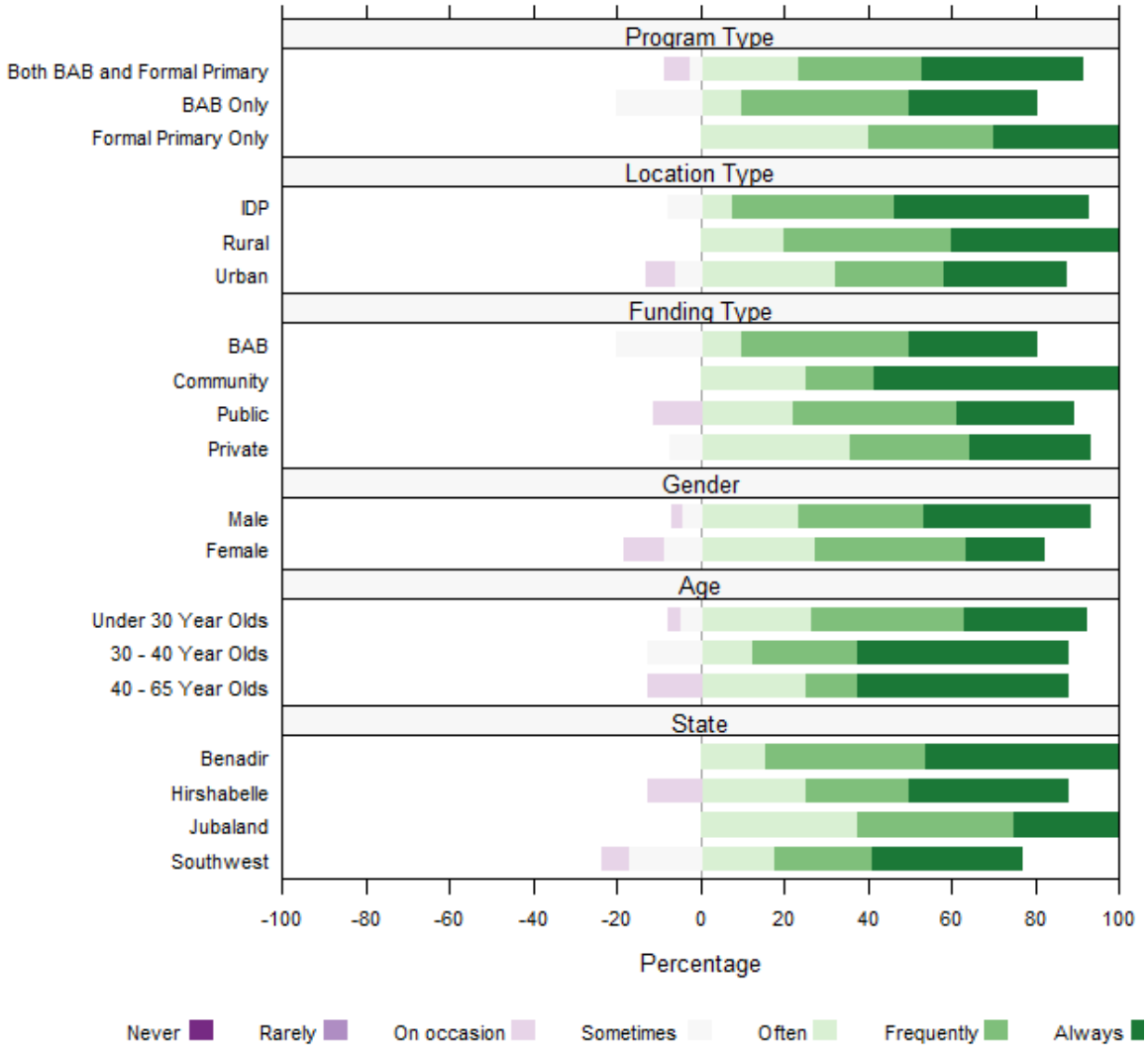
Teachers: While teaching, I really –"throw" myself into my work.



Teachers: While teaching I pay a lot of attention to my work.

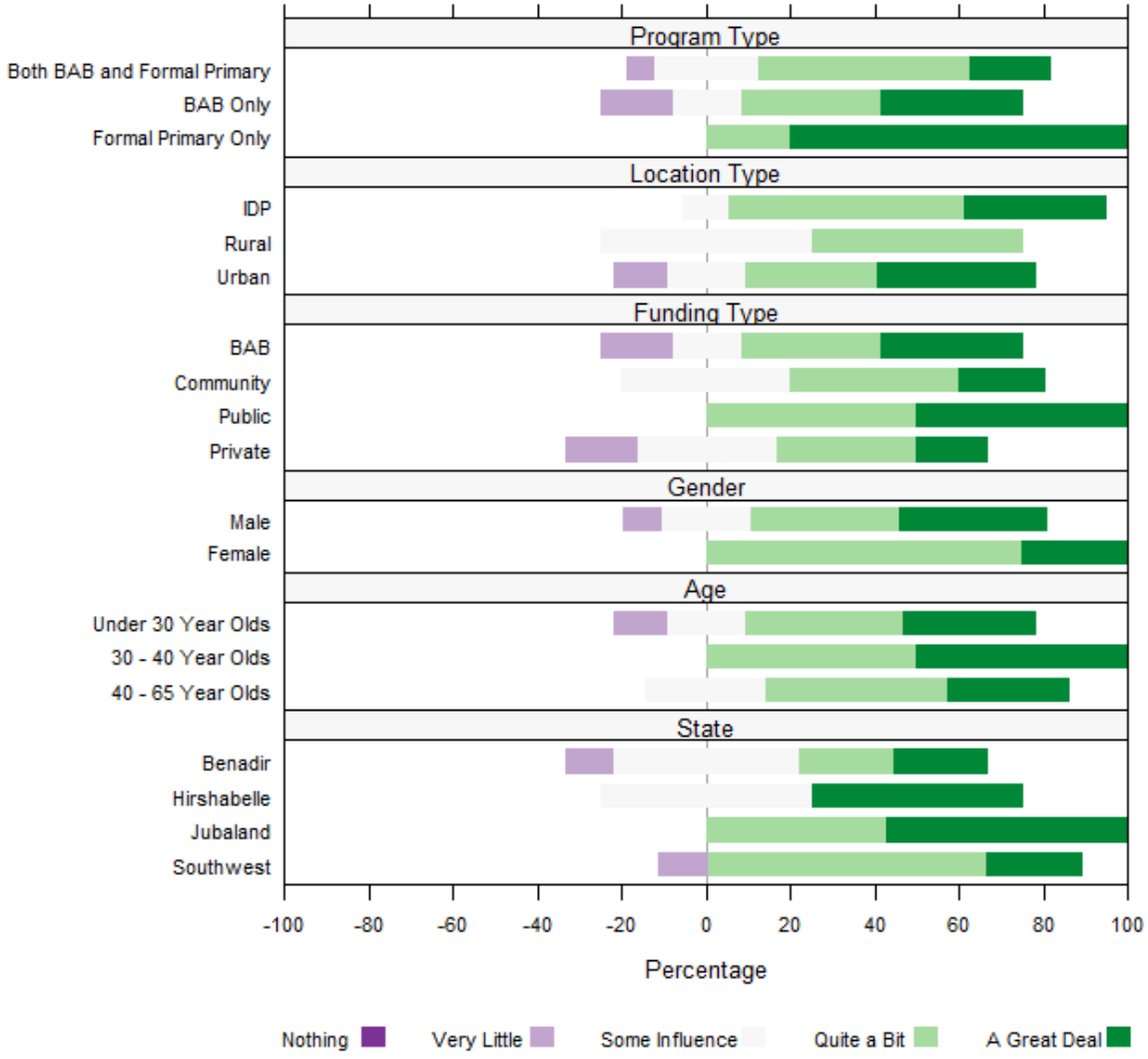


Teachers: While teaching, I work with intensity.

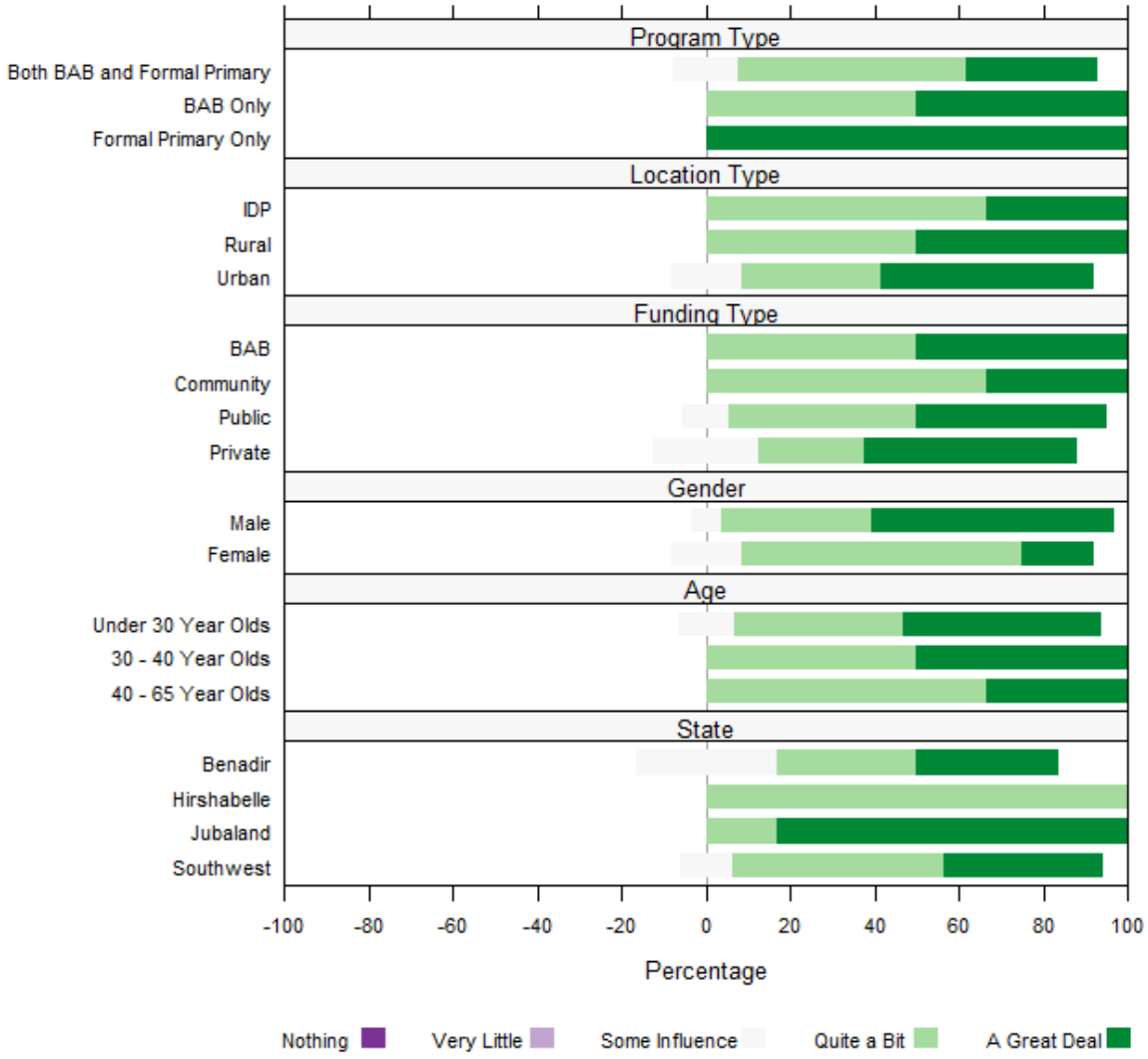


Teacher Instructional Self-Efficacy Items

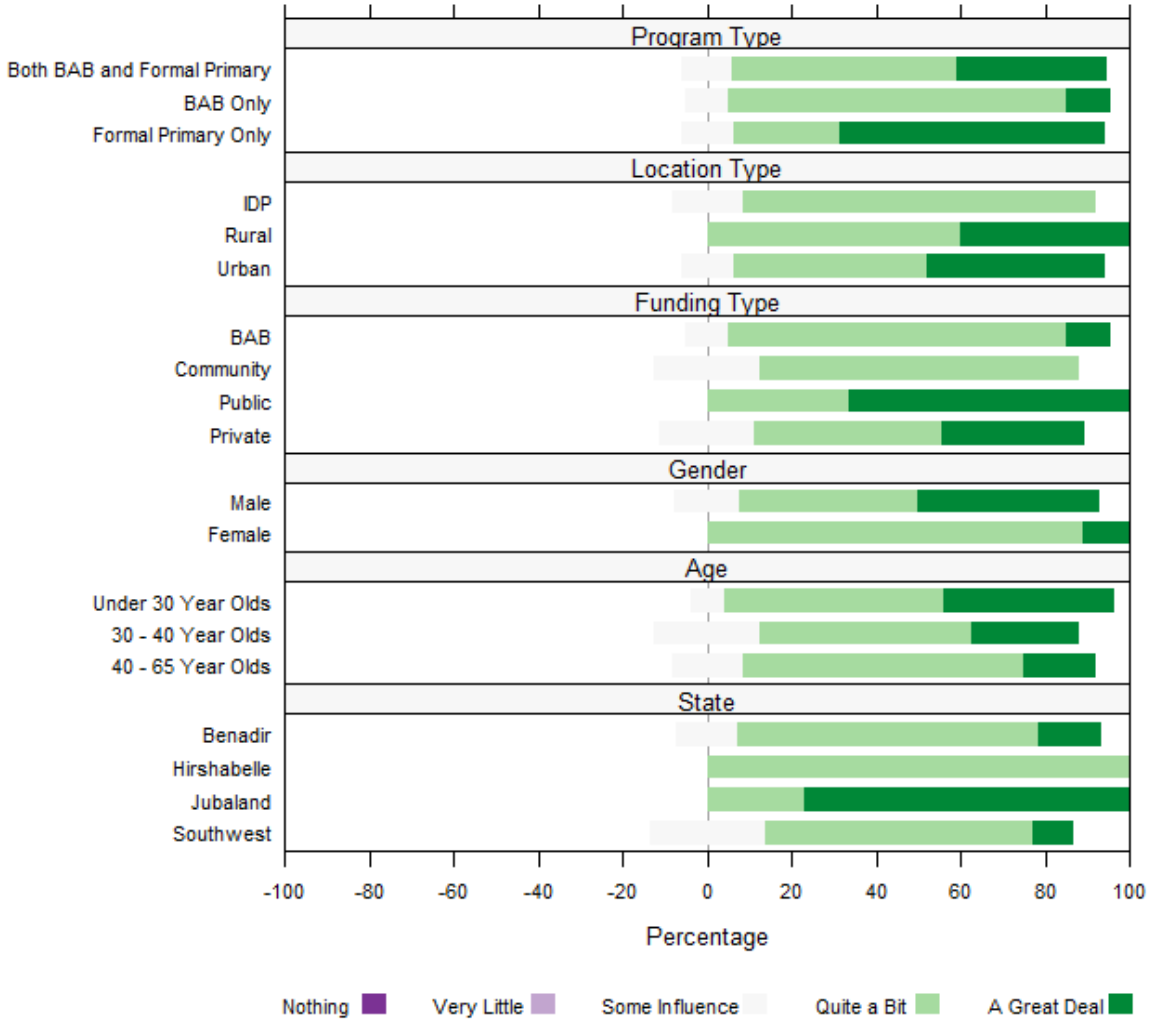
Teachers: How much can you do to influence the class sizes in your school?



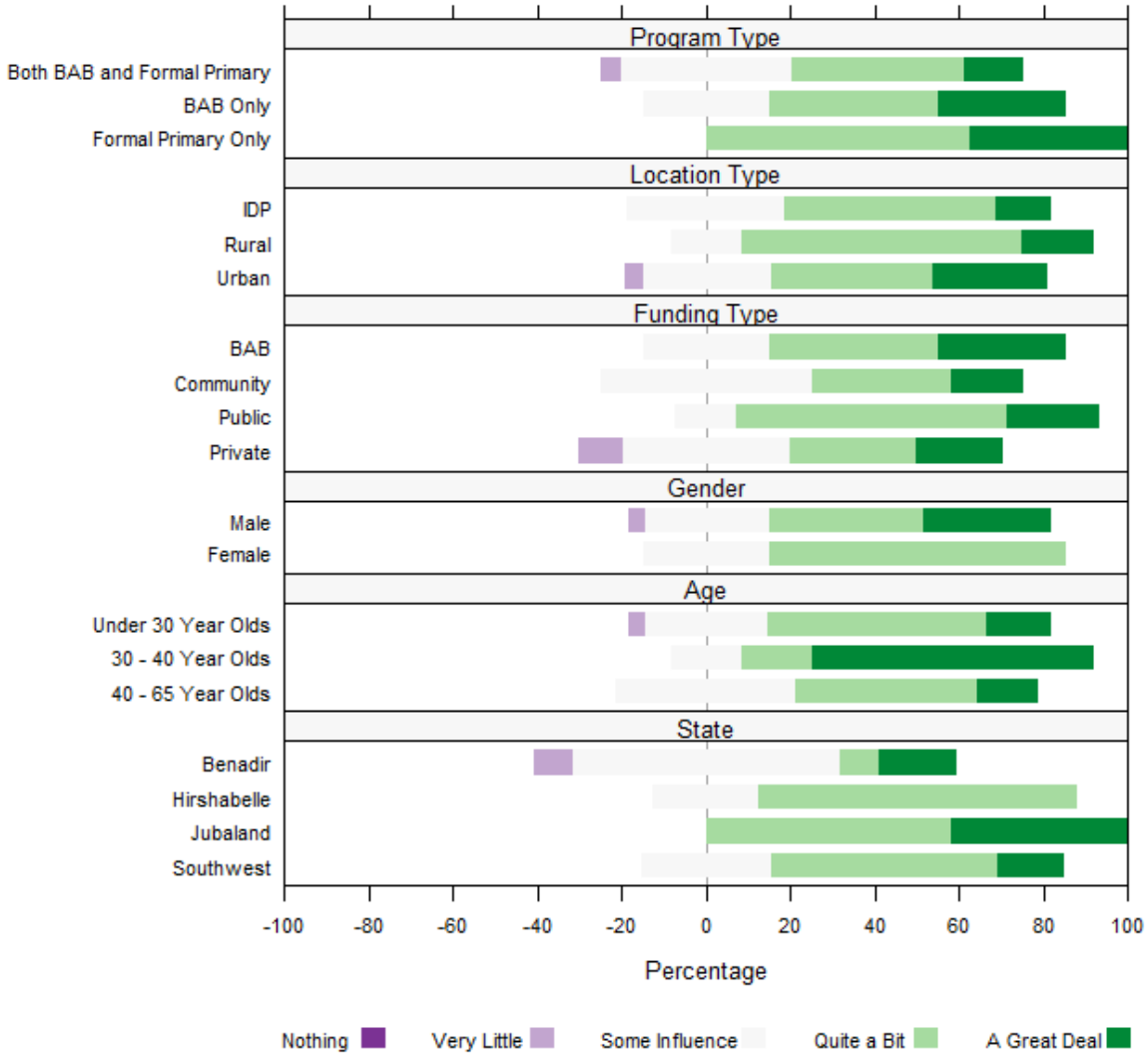
Teachers: How much can you do to get through to the most difficult students?



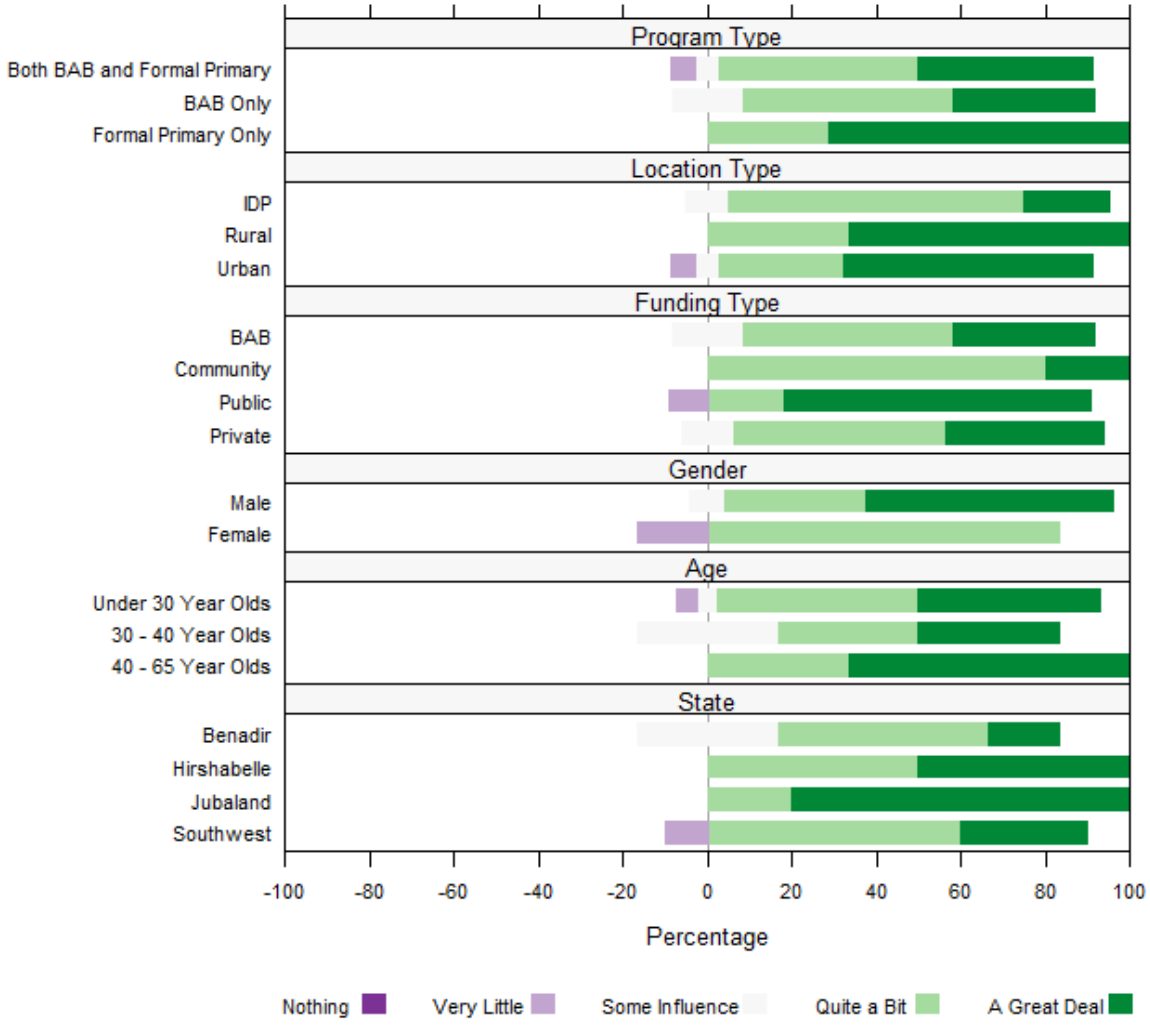
Teachers: How much can you do to promote learning when there is lack of support from the home?



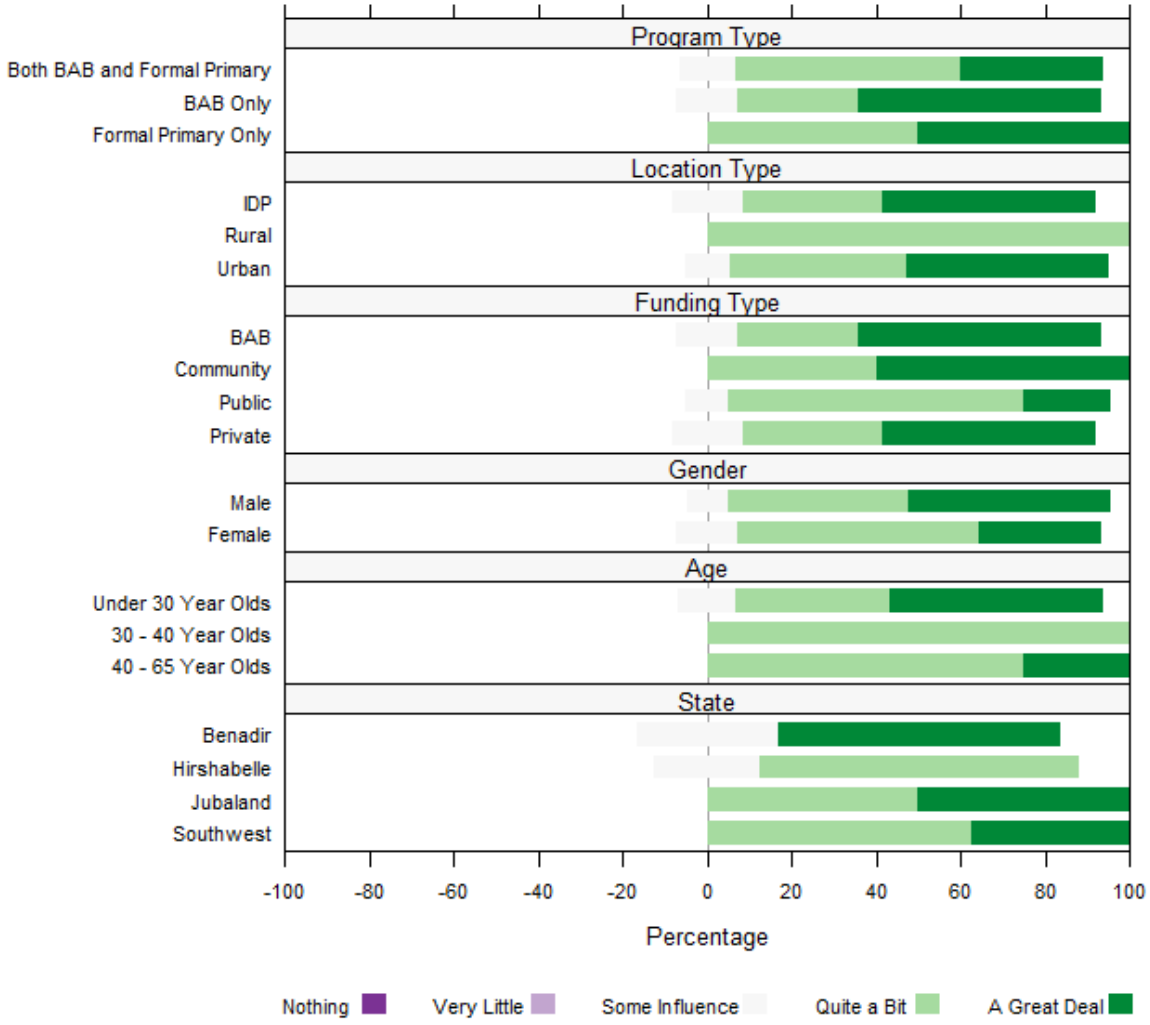
Teachers: How much can you do to keep students on task on difficult assignments?



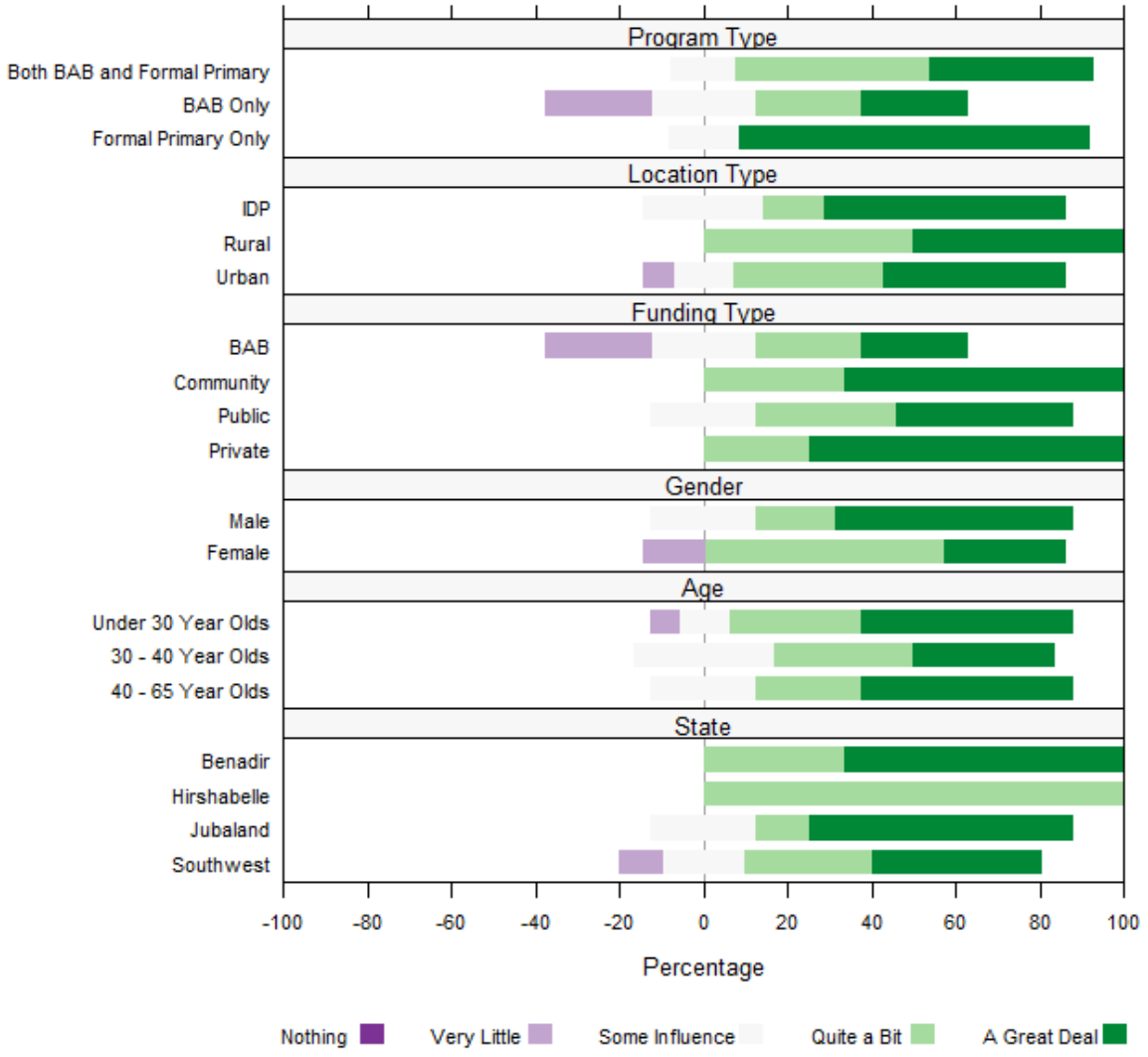
Teachers: How much can you do to increase students' memory of what they have been taught in previous lessons?



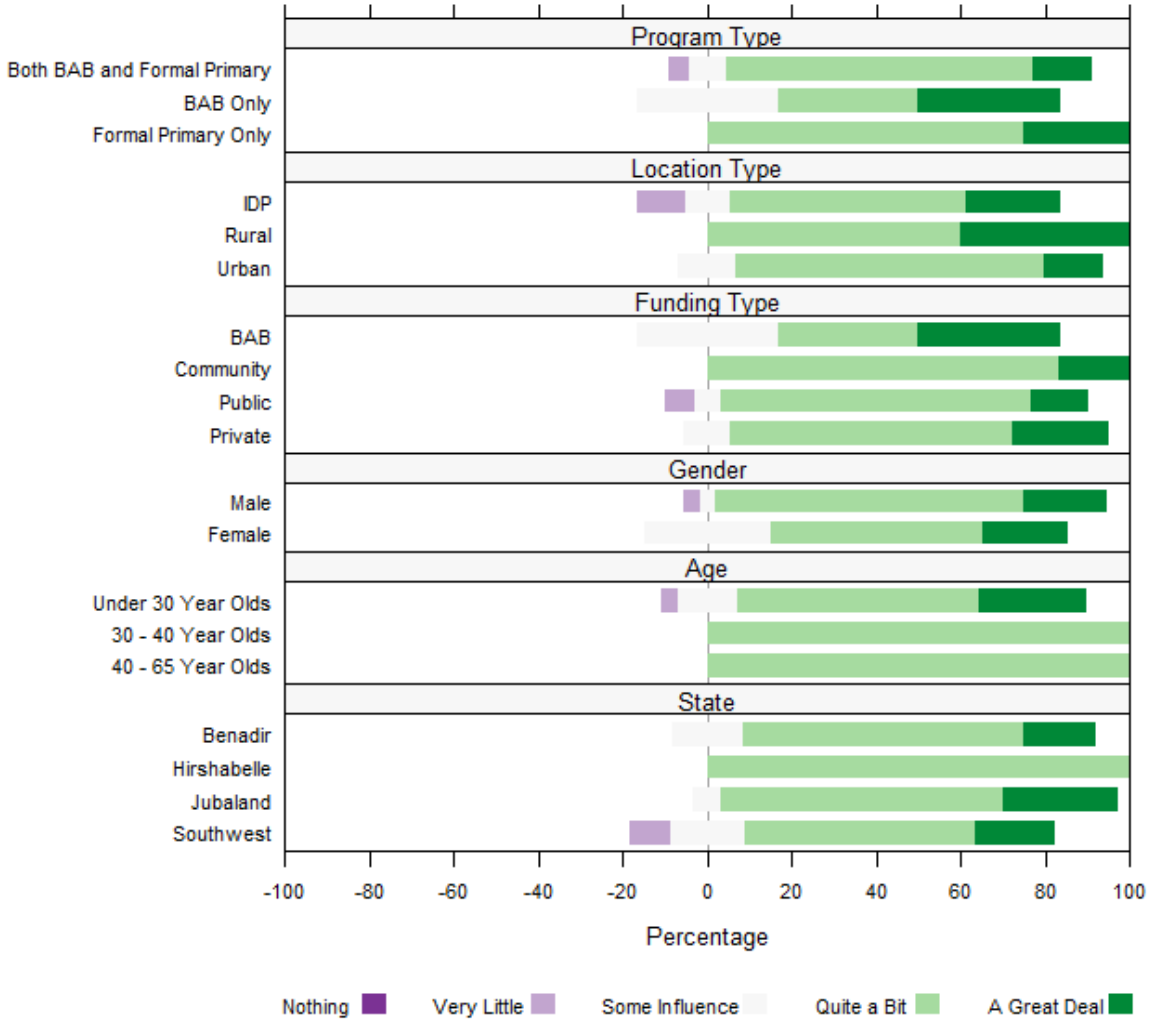
Teachers: How much can you do to motivate students who show low interest in schoolwork?



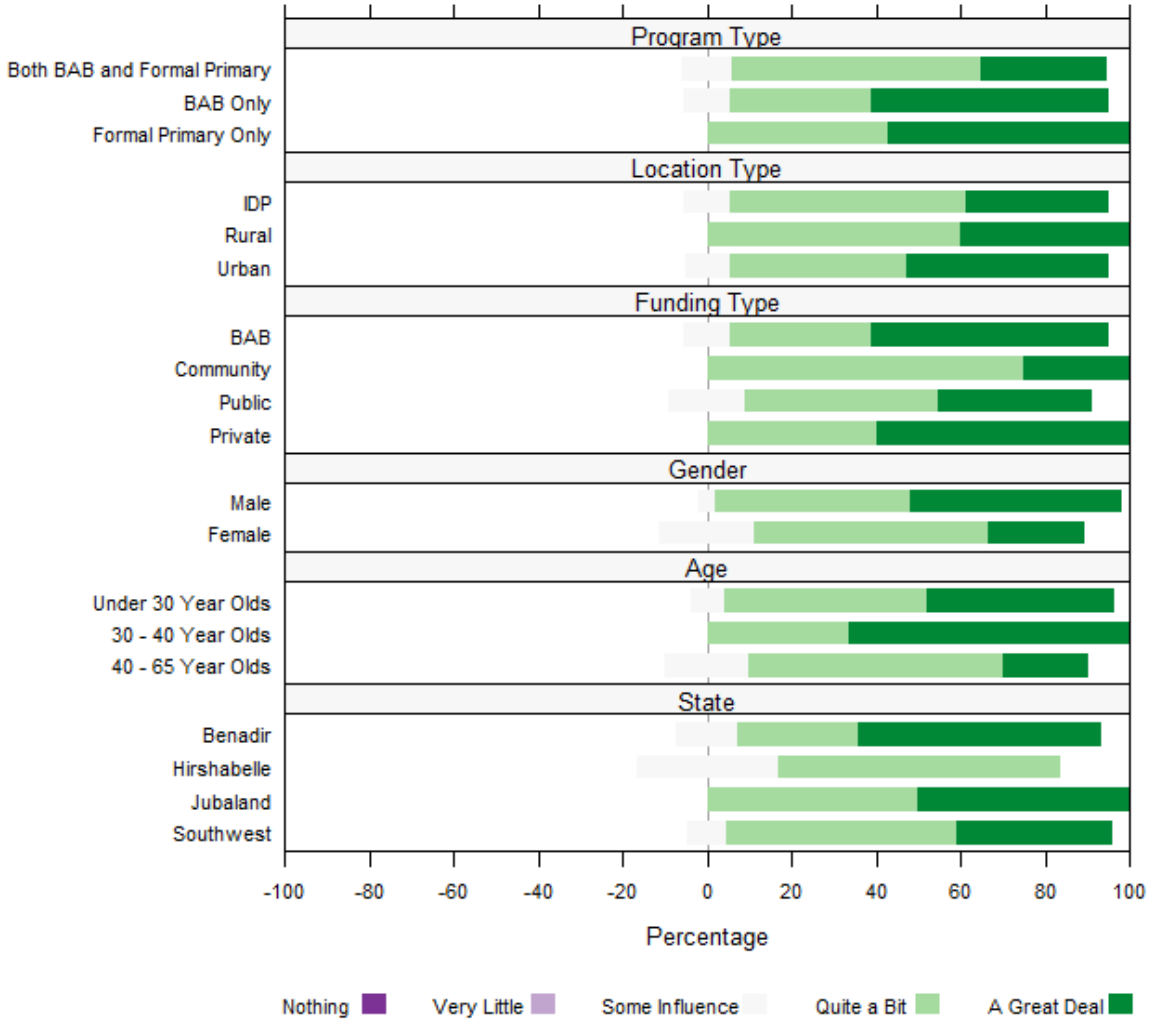
Teachers: How much can you do to get students to work together?



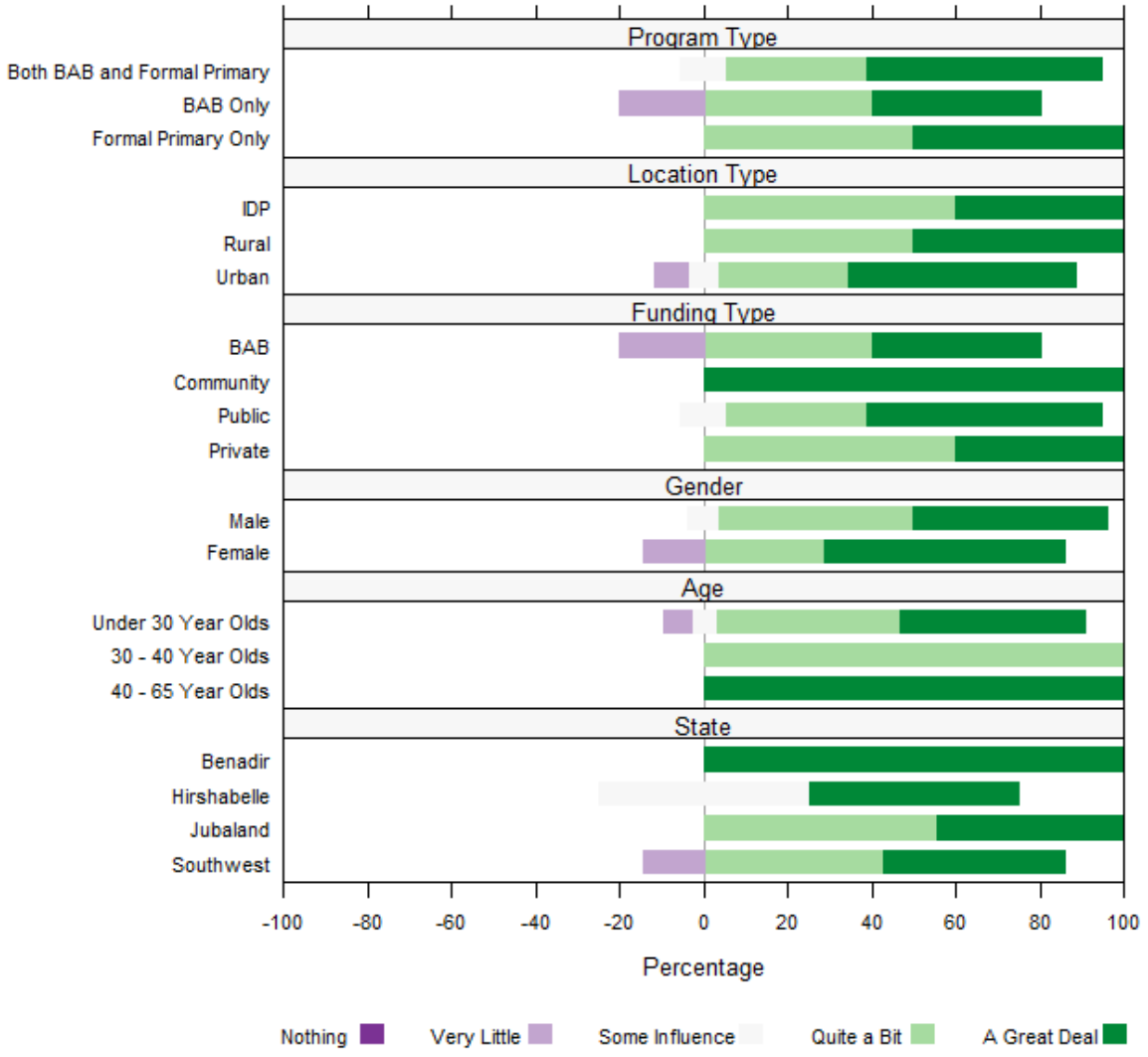
Teachers: How much can you do to get students from different backgrounds to work together?



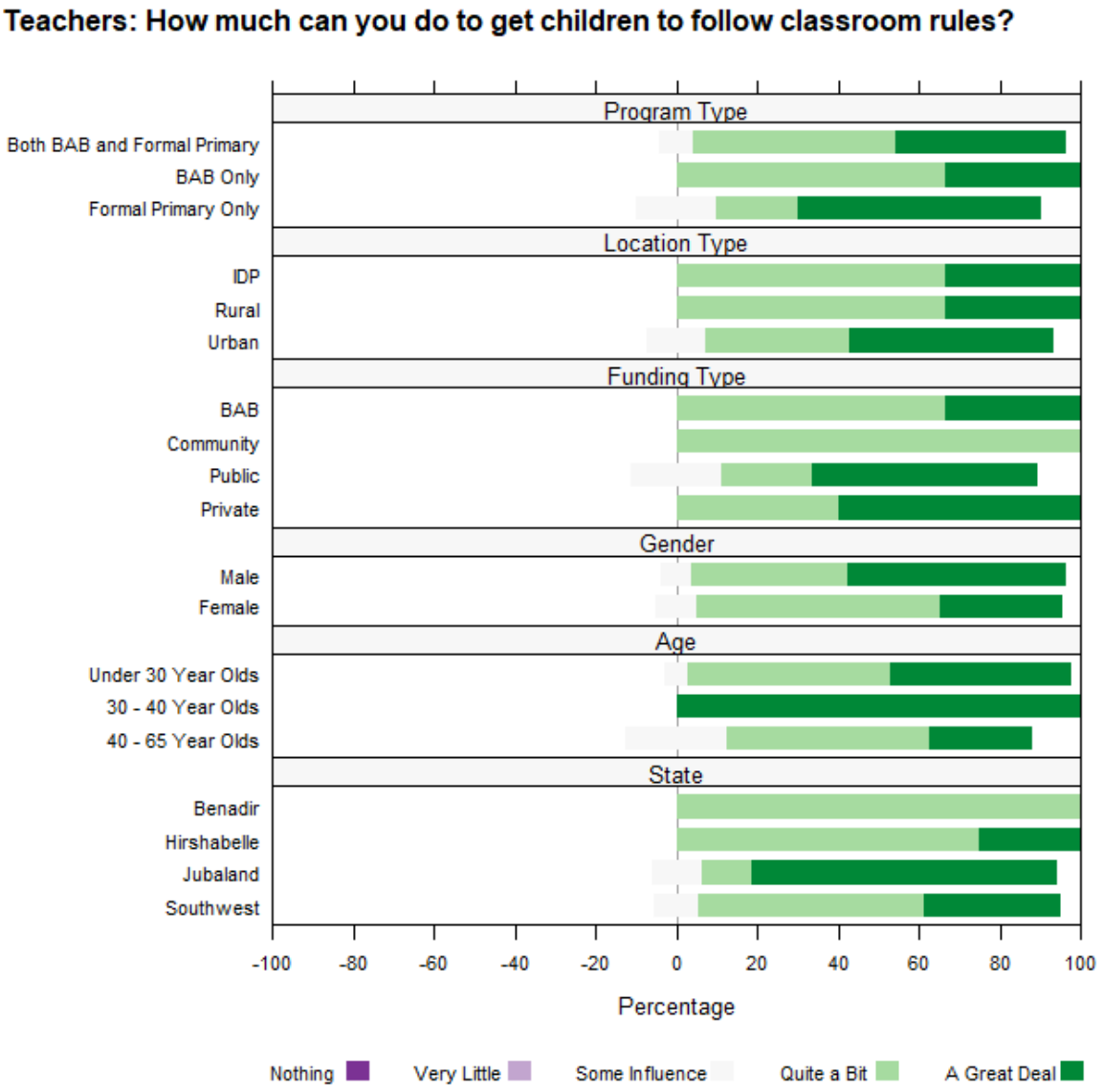
Teachers: How much can you do to overcome the influence of adverse community conditions on students' learning?



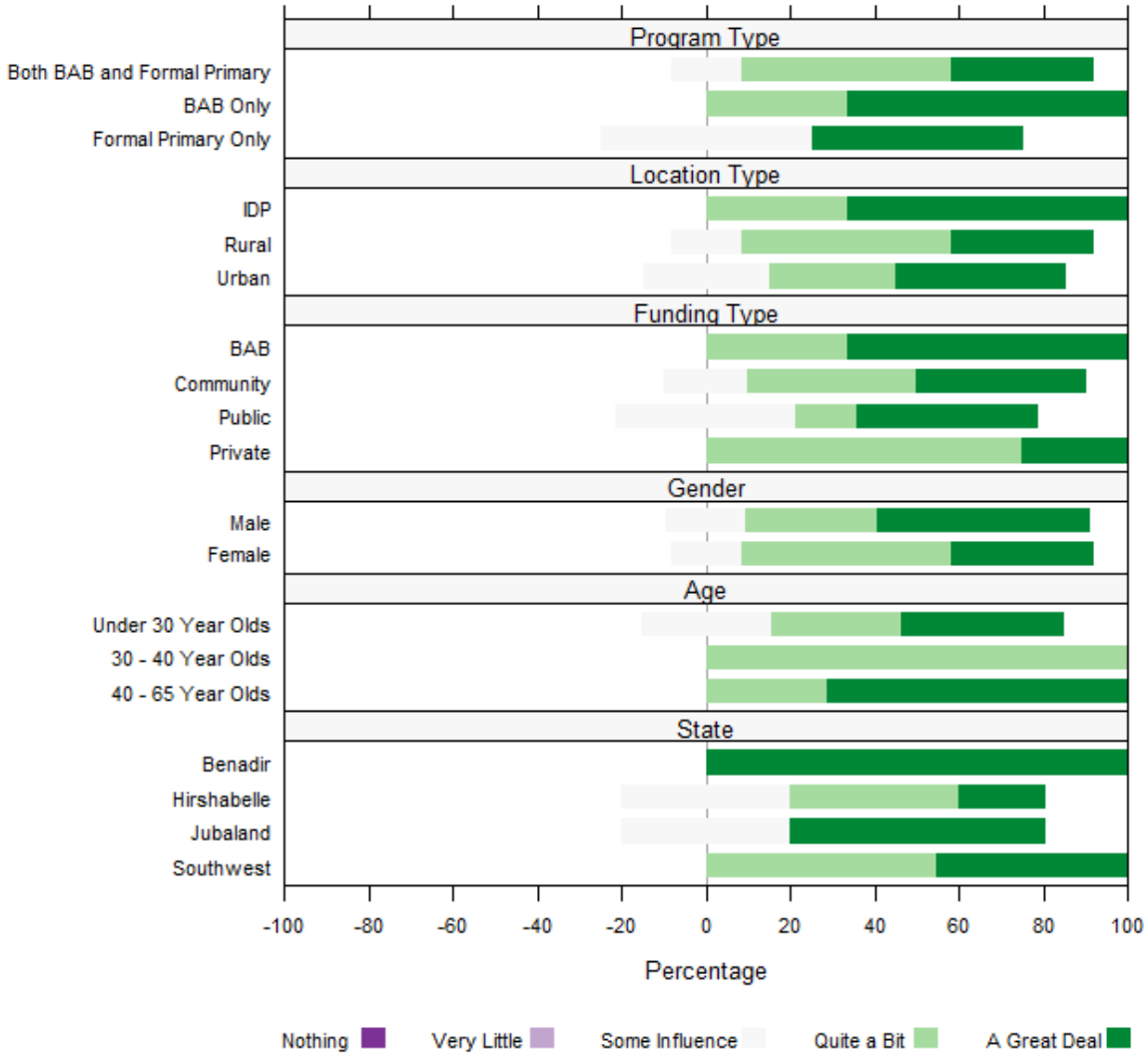
Teachers: How much can you do to get children to do their homework?



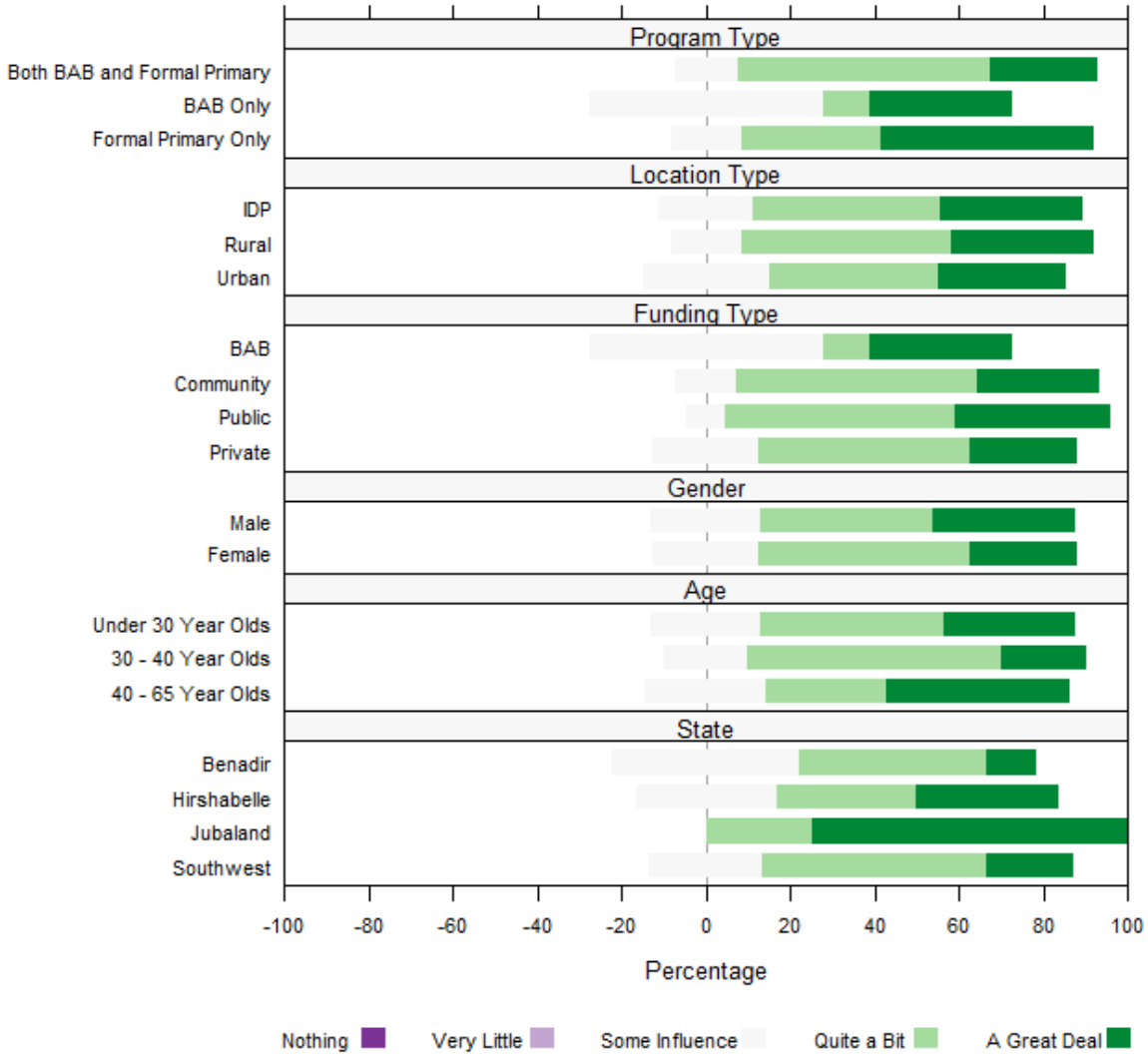
Teacher Disciplinary Self-Efficacy Items



Teachers: How much can you do to control disruptive behavior in the classroom?

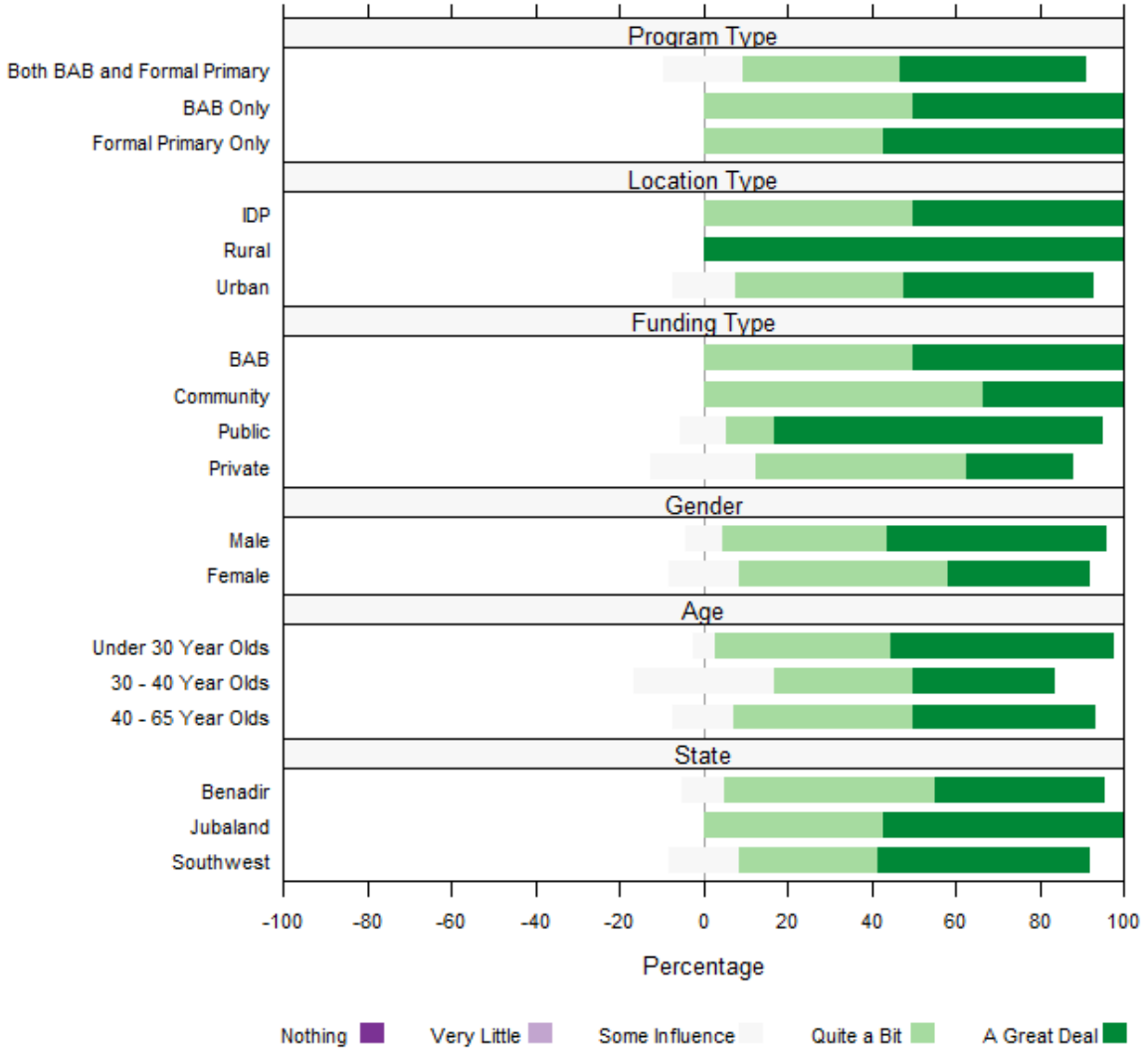


Teachers: How much can you do to prevent problem behavior on the school grounds?

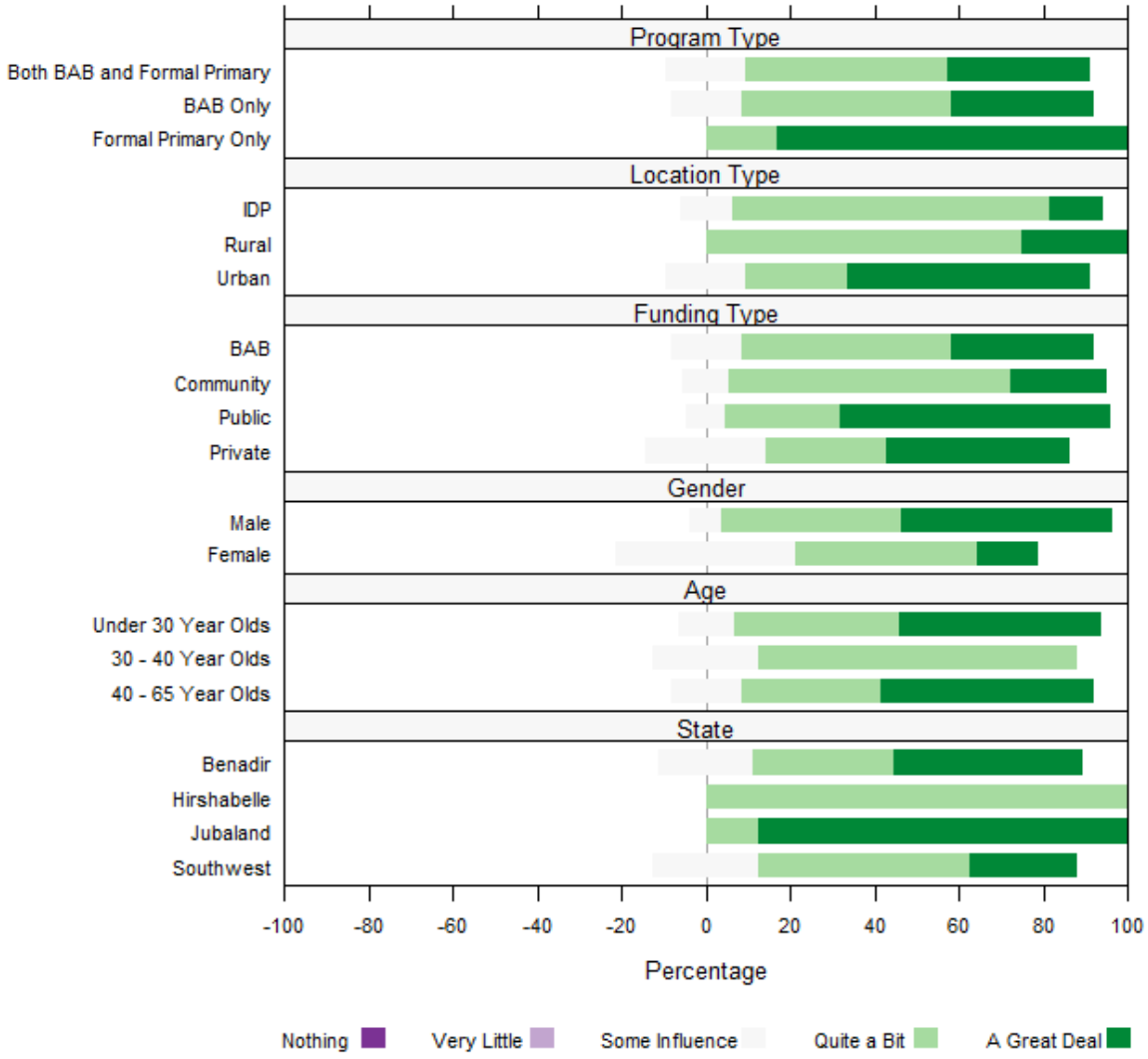


Teacher Efficacy to Enlist Parental Involvement

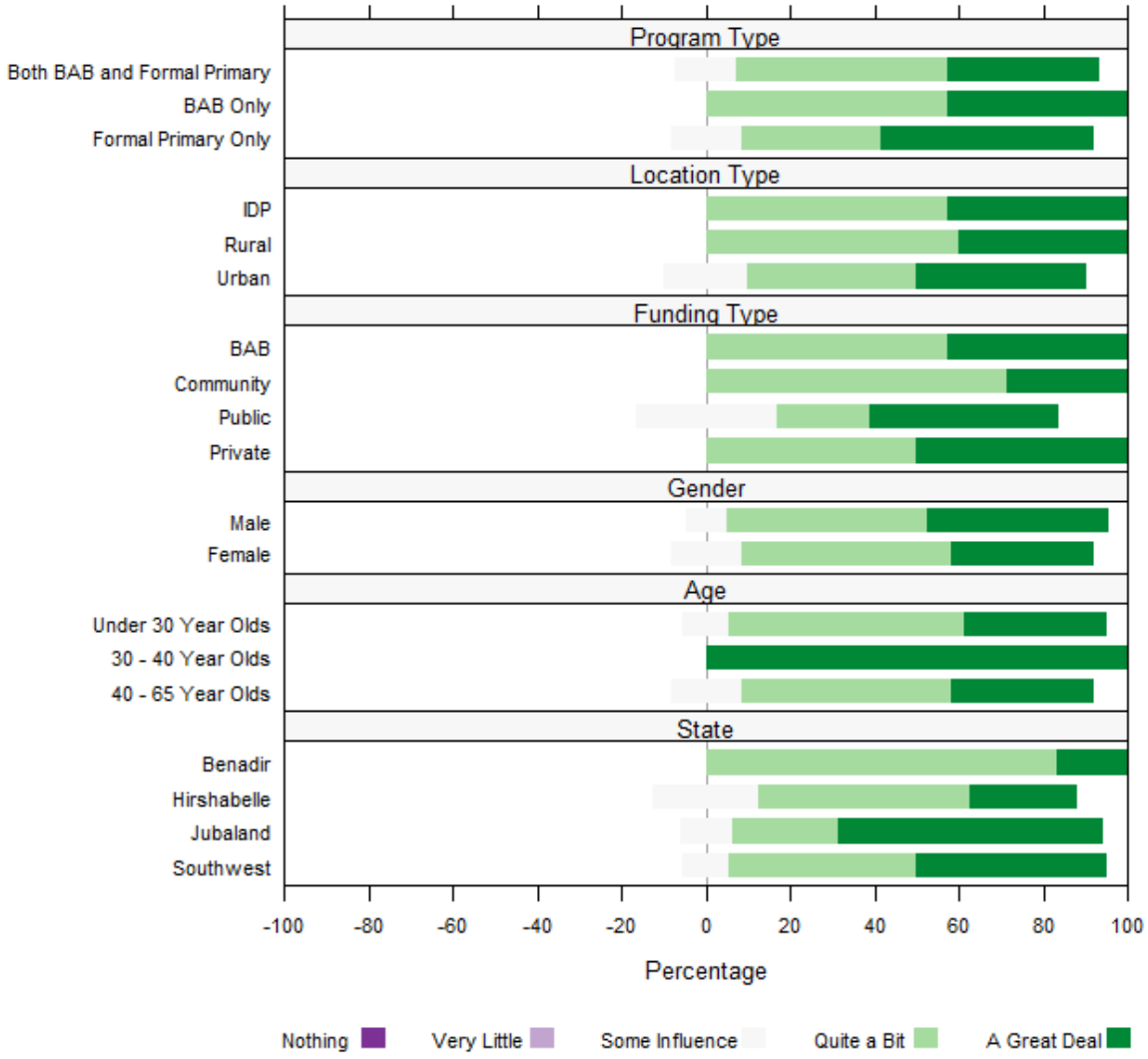
Teachers: How much can you do to get parents to become involved in school activities?



Teachers: How much can you assist parents in helping their children do well in school?



Teachers: How much can you do to make parents feel comfortable coming to school?



Appendix B

Appendix B contains data tables for the longitudinal data diaggregated by Location Type and District. The first set of tables are general counts and then a table for each scale item that contains the BAB portion of the Longitudinal study sample followed by a table with the Formal Primary portion. For each of the tables, any subgroup with a mean value more than 0.1 higher than that of the overall student mean for that table is indicated by a green box and any subgroup with a mean value more than 0.1 lower than the overall student mean is indicated by a purple box.

BAB Student Counts by Location Type and District

Location Type	District	School SubTotal	School Total	Student SubTotal	Student Total
IDP	Baidoa	7		301	
	Deynile	3		140	
	Kahada	1	11	29	470
Rural	Balcad	2		80	
	Barawe	1		32	
	Jowhar	2		86	
	Kismayo	2		82	
	Walanweyn	1	8	51	331
Urban	Baidoa	2		78	
	Balcad	2		75	
	Barawe	1		56	
	Deynile	1		37	
	Diinsor	1		40	
	Hamarwayne	1		45	
	Jowhar	2		93	
	Kahada	3		120	
	Kismayo	5		234	
	Shibis	1		34	
	Walanweyn	2	21	101	913

Formal Primary Student Counts by Location Type and District

Location Type	District	School SubTotal	School Total	Student SubTotal	Student Total
IDP	Baidoa	2		149	
	Deynile	1		53	
	Kahada	1	4	76	278
Rural	Balcad	1		27	

Location Type	District	School SubTotal	School Total	Student SubTotal	Student Total
	Jowhar	1		23	
	Kismayo	2		152	
	Walanweyn	1	5	24	226
Urban	Baidoa	1		82	
	Balcad	2		80	
	Barawe	1		52	
	Deynile	2		69	
	Diinsor	1		66	
	Hamarwayne	1		32	
	Jowhar	2		95	
	Kahada	1		19	
	Kismayo	4		182	
	Shibis	1	16	17	694

Student Perceptions of Social Economic Status (SES)

The SES scale items were used to assess student's perception of social economic status. Each item was a no=0 and yes=1 question with a higher value indicating a higher perceived SES level. The scale is composed of the summation of the following 4 items with a range of 0 to 4:

- Do you have electricity at home?
- Do you have a radio at home?
- Does your house have an indoor bathroom/toilet?
- Does your house have a telephone or mobile phone?

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Social Economic Status		**2.10**	**1.19**	
IDP	All Districts	1.53	0.91	
	Baidoa	1.47	0.92	-0.06
	Deynile	1.62	0.88	0.09
	Kahada	1.69	0.85	0.16
Rural	All Districts	1.82	1.16	
	Balcad	2.59	0.81	0.77
	Barawe	1.94	0.84	0.12
	Jowhar	1.49	1.27	-0.33
	Kismayo	1.23	1.22	-0.59
	Walanweyn	2.02	0.74	0.20
Urban	All Districts	2.49	1.19	
	Baidoa	2.44	1.18	-0.05

Location Type	District	Mean	SD	Diff from Overall Mean
	Balcad	3.44	0.50	0.95
	Barawe	3.00	0.75	0.51
	Deynile	2.28	1.03	-0.21
	Diinsor	1.62	0.70	-0.87
	Hamarwayne	2.84	0.74	0.35
	Jowhar	3.33	0.97	0.84
	Kahada	2.44	1.01	-0.05
	Kismayo	1.64	1.23	-0.85
	Shibis	3.15	0.50	0.66
	Walanweyn	2.87	0.98	0.38

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Social Economic Status		**2.36**	**1.25**	
IDP	All Districts	1.67	1.03	
	Baidoa	1.44	0.89	-0.23
	Deynile	1.83	1.05	0.16
	Kahada	2.00	1.13	0.33
Rural	All Districts	1.92	1.14	
	Balcad	2.89	0.85	0.97
	Jowhar	1.22	0.74	-0.70
	Kismayo	1.83	1.19	-0.09
	Walanweyn	2.08	0.65	0.16
	Baidoa	2.94	1.06	1.02
Urban	All Districts	2.78	1.19	
	Balcad	3.45	0.64	0.67
	Barawe	3.25	0.65	0.47
	Deynile	3.20	0.76	0.42
	Diinsor	2.30	1.01	-0.48
	Hamarwayne	3.38	0.55	0.59
	Jowhar	3.51	0.81	0.73
	Kahada	2.74	1.10	-0.05
	Kismayo	1.79	1.31	-0.99
	Shibis	3.24	0.75	0.45

Student Equity Perceptions

The Equity items were used to assess student perception of equity in the classroom. The scale is composed of the average of the following 2 items:

- My teacher treats me fairly at school.
- Reverse of item: In my classroom, some children are treated better than others.

All items were measured on 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated the frequency of perceived equity with each statement.

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Student Equity Perceptions		**3.73**	**1.06**	
IDP	All Districts	3.86	1.08	
	Baidoa	3.86	1.14	0.01
	Deynile	3.90	0.95	0.04
	Kahada	3.55	0.94	-0.30
Rural	All Districts	3.53	1.00	
	Balcad	3.65	0.92	0.12
	Barawe	4.62	0.58	1.09
	Jowhar	2.92	0.58	-0.62
	Kismayo	3.46	1.04	-0.07
	Walanweyn	3.82	1.08	0.29
Urban	All Districts	3.74	1.07	
	Baidoa	3.69	1.16	-0.05
	Balcad	3.57	0.97	-0.17
	Barawe	4.66	0.65	0.92
	Deynile	3.38	1.36	-0.36
	Diinsor	4.10	0.73	0.36
	Hamarwayne	3.34	0.96	-0.39
	Jowhar	3.14	0.77	-0.60
	Kahada	3.89	1.00	0.15
	Kismayo	3.78	1.01	0.04
	Shibis	3.82	1.43	0.08
	Walanweyn	3.81	1.17	0.07

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student Equity Perceptions		**3.78**	**0.99**	

Location Type	District	Mean	SD	Diff from Overall Mean
IDP	All Districts	3.80	1.03	
	Baidoa	3.77	1.11	-0.03
	Deynile	3.89	0.85	0.09
	Kahada	3.80	0.97	0.00
Rural	All Districts	3.79	0.95	
	Balcad	4.33	0.31	0.54
	Jowhar	2.98	0.61	-0.82
	Kismayo	3.86	0.97	0.06
	Walanweyn	3.56	1.04	-0.23
	Baidoa	3.64	1.23	-0.15
Urban	All Districts	3.77	1.00	
	Balcad	3.59	0.93	-0.18
	Barawe	4.47	0.84	0.70
	Deynile	4.08	0.86	0.31
	Diinsor	4.11	0.86	0.34
	Hamarwayne	4.06	0.69	0.29
	Jowhar	3.18	0.71	-0.58
	Kahada	3.63	0.88	-0.14
	Kismayo	3.71	1.03	-0.06
	Shibis	4.03	0.94	0.26

Student School Engagement Perceptions

The Engagement scale items were used to assess student emotional engagement while being at school. Scale items derive from the School Engagement Scale (Fredericks, et.al., 2005). Only 3 of the 5 emotional engagement items from the scale were included at baseline, as the other 2 items require knowledge of the classroom that may not be present early in the year. The full scale will be included at midline and endline. The baseline scale is composed of the average of the following 3 items:

- I like being at school.
- I feel happy at school.
- I am interested in the work at school.

All items were measured on a 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated the frequency of engagement at school with each statement.

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Student School Engagement Perceptions		**3.17**	**1.09**	
IDP	All Districts	3.27	1.13	
	Baidoa	3.14	1.18	-0.13
	Deynile	3.55	0.97	0.28
	Kahada	3.31	1.12	0.04
Rural	All Districts	2.69	1.10	
	Balcad	3.05	0.73	0.35
	Barawe	3.89	0.80	1.19
	Jowhar	1.62	0.77	-1.07
	Kismayo	2.96	0.93	0.26
	Walanweyn	2.79	1.04	0.10
Urban	All Districts	3.30	1.03	
	Baidoa	3.18	1.02	-0.12
	Balcad	3.19	0.66	-0.11
	Barawe	4.14	0.73	0.84
	Deynile	3.31	1.20	0.01
	Diinsor	3.50	0.58	0.20
	Hamarwayne	3.67	1.05	0.37
	Jowhar	1.96	0.89	-1.34
	Kahada	3.66	0.95	0.36
	Kismayo	3.43	0.91	0.13
	Shibis	3.72	0.95	0.42
	Walanweyn	3.11	0.77	-0.19

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student School Engagement Perceptions		**3.16**	**1.08**	
IDP	All Districts	3.26	1.04	
	Baidoa	3.19	1.03	-0.07
	Deynile	3.35	1.08	0.09
	Kahada	3.32	1.04	0.06
Rural	All Districts	2.98	1.05	
	Balcad	3.32	0.63	0.35
	Jowhar	1.81	0.66	-1.16
	Kismayo	3.17	1.03	0.19
	Walanweyn	2.49	0.99	-0.49
	Baidoa	3.05	1.21	0.08

Location Type	District	Mean	SD	Diff from Overall Mean
Urban	All Districts	3.18	1.09	
	Balcad	3.41	0.62	0.23
	Barawe	4.19	0.76	1.01
	Deynile	3.46	0.94	0.29
	Diinsor	3.43	0.90	0.26
	Hamarwayne	3.55	0.84	0.38
	Jowhar	1.74	0.72	-1.44
	Kahada	3.56	0.90	0.39
	Kismayo	3.28	0.94	0.11
	Shibis	3.18	0.99	0.00

Student Perception of Safety in the School Environment

The Safety scale items were used to assess student's perception of safety in the school environment. The scale is composed of the average of the following 3 items:

- I feel safe at school.
- I feel safe on my way to school.
- Reverse of item: I am picked on or bullied at school.

All items were measured on a 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated their perceived safety with each statement.

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Student Perception of Safety in the School Environment		**3.62**	**1.02**	
IDP	All Districts	3.52	1.11	
	Baidoa	3.36	1.20	-0.15
	Deynile	3.87	0.82	0.35
	Kahada	3.41	0.92	-0.10
Rural	All Districts	3.54	1.00	
	Balcad	3.79	0.66	0.24
	Barawe	4.49	0.62	0.95
	Jowhar	2.71	0.89	-0.84
	Kismayo	3.54	0.99	-0.01
	Walanweyn	3.99	0.79	0.44
Urban	All Districts	3.71	0.97	
	Baidoa	3.32	1.08	-0.39

Location Type	District	Mean	SD	Diff from Overall Mean
	Balcad	3.52	0.68	-0.19
	Barawe	4.47	0.67	0.76
	Deynile	3.64	0.86	-0.07
	Diinsor	3.72	0.73	0.02
	Hamarwayne	3.70	1.03	0.00
	Jowhar	2.75	0.96	-0.95
	Kahada	3.83	0.87	0.12
	Kismayo	3.74	0.92	0.03
	Shibis	4.12	0.81	0.41
	Walanweyn	4.25	0.72	0.55

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student Perception of Safety in the School Environment		**3.74**	**0.93**	
IDP	All Districts	3.75	0.96	
	Baidoa	3.59	1.07	-0.16
	Deynile	4.07	0.77	0.32
	Kahada	3.84	0.76	0.09
Rural	All Districts	3.70	0.83	
	Balcad	3.86	0.52	0.17
	Jowhar	3.12	0.83	-0.58
	Kismayo	3.73	0.87	0.03
	Walanweyn	3.86	0.62	0.16
	Baidoa	3.58	1.26	-0.12
Urban	All Districts	3.75	0.96	
	Balcad	3.76	0.69	0.01
	Barawe	4.47	0.66	0.72
	Deynile	4.08	0.71	0.33
	Diinsor	4.17	0.61	0.42
	Hamarwayne	3.71	0.71	-0.04
	Jowhar	2.89	1.00	-0.86
	Kahada	4.16	0.72	0.41
	Kismayo	3.75	0.87	0.00
	Shibis	3.71	0.76	-0.04

Student Quality of Life

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Student Quality of Life		**3.24**	**0.64**	
IDP	All Districts	3.19	0.64	
	Baidoa	3.07	0.64	-0.11
	Deynile	3.40	0.62	0.22
	Kahada	3.31	0.46	0.12
Rural	All Districts	3.07	0.63	
	Balcad	3.53	0.49	0.47
	Barawe	3.31	0.48	0.24
	Jowhar	2.60	0.36	-0.47
	Kismayo	3.16	0.69	0.10
	Walanweyn	2.83	0.52	-0.24
Urban	All Districts	3.34	0.63	
	Baidoa	3.10	0.68	-0.24
	Balcad	3.50	0.49	0.16
	Barawe	3.51	0.51	0.18
	Deynile	3.22	0.51	-0.12
	Diinsor	3.32	0.48	-0.02
	Hamarwayne	3.50	0.58	0.16
	Jowhar	2.80	0.50	-0.54
	Kahada	3.47	0.56	0.13
	Kismayo	3.55	0.60	0.21
	Shibis	3.58	0.78	0.24
	Walanweyn	3.04	0.63	-0.30

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student Quality of Life		**3.32**	**0.62**	
IDP	All Districts	3.24	0.63	
	Baidoa	3.16	0.66	-0.08
	Deynile	3.25	0.70	0.01
	Kahada	3.40	0.45	0.16
Rural	All Districts	3.22	0.70	
	Balcad	3.58	0.39	0.37
	Jowhar	2.70	0.46	-0.52
	Kismayo	3.33	0.71	0.12
	Walanweyn	2.56	0.31	-0.65

Location Type	District	Mean	SD	Diff from Overall Mean
	Baidoa	3.12	0.72	-0.09
Urban	All Districts	3.39	0.59	
	Balcad	3.73	0.42	0.34
	Barawe	3.55	0.55	0.16
	Deynile	3.50	0.44	0.11
	Diinsor	3.50	0.36	0.11
	Hamarwayne	3.57	0.42	0.18
	Jowhar	2.79	0.39	-0.60
	Kahada	3.47	0.57	0.08
	Kismayo	3.50	0.57	0.11
	Shibis	3.41	0.67	0.02

Student Quality of Life Friendship Perceptions

The Friend scale items from the KINDL Quality of Life Survey (Ravens-Sieberer, U. & Bullinger, M. (1998b). were used to assess student's perception of friendship as it contributes to overall perceptions of quality of life. The scale is composed of the average of the following 4 items:

- During the past week, how often did you play or do things together with your friends
- During the past week, how often did you feel that other kids liked you?
- During the past week, how often did you get along with your friends?
- During the past week, how often did you feel different from other children/youth?

All items were measured on a 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated the status of friendships over the past week with each statement.

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Student Quality of Life Friendship Perceptions		**2.87**	**0.86**	
IDP	All Districts	2.88	0.92	
	Baidoa	2.90	0.97	0.03
	Deynile	2.85	0.80	-0.03
	Kahada	2.75	0.94	-0.13
Rural	All Districts	2.70	0.76	
	Balcad	3.02	0.70	0.32
	Barawe	3.16	0.78	0.46
	Jowhar	2.03	0.29	-0.68
	Kismayo	2.89	0.72	0.19

Location Type	District	Mean	SD	Diff from Overall Mean
	Walanweyn	2.75	0.73	0.05
Urban	All Districts	2.93	0.86	
	Baidoa	2.98	0.89	0.05
	Balcad	3.07	0.61	0.14
	Barawe	3.06	0.95	0.13
	Deynile	2.68	0.80	-0.25
	Diinsor	3.26	0.74	0.33
	Hamarwayne	2.93	0.87	0.00
	Jowhar	2.37	0.53	-0.56
	Kahada	2.91	0.92	-0.02
	Kismayo	3.15	0.86	0.22
	Shibis	3.06	0.87	0.13
	Walanweyn	2.65	0.87	-0.28

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student Quality of Life Friendship Perceptions		**2.91**	**0.78**	
IDP	All Districts	2.91	0.78	
	Baidoa	2.96	0.75	0.05
	Deynile	2.75	0.88	-0.16
	Kahada	2.92	0.74	0.01
Rural	All Districts	2.80	0.81	
	Balcad	2.91	0.83	0.10
	Jowhar	2.14	0.38	-0.66
	Kismayo	2.96	0.81	0.15
	Walanweyn	2.35	0.59	-0.45
	Baidoa	2.97	0.86	0.17
Urban	All Districts	2.94	0.77	
	Balcad	3.21	0.68	0.27
	Barawe	3.16	0.84	0.22
	Deynile	2.93	0.69	-0.01
	Diinsor	2.92	0.77	-0.02
	Hamarwayne	3.09	0.61	0.15
	Jowhar	2.32	0.37	-0.62
	Kahada	2.79	0.80	-0.15
	Kismayo	3.06	0.77	0.12
	Shibis	3.04	0.93	0.10

Student Quality of Life Self-Esteem Perceptions

The Self-Esteem scale items from the KINDL Quality of Life Survey (Ravens-Sieberer, U. & Bullinger, M. (1998b) were used to assess student's perception of their self-esteem during the prior week as component of quality of life. The scale is composed of the average of the following 4 items:

- During the past week, how often were you proud of yourself?
- During the past, how often did you feel happy?
- During the past week, how often did you feel pleased with yourself?
- During the past week, how often did you have lots of good ideas?

All items were measured on a 6 point Likert scale (0-None of the time, 1-A little of the time, 2-Some of the time, 3-A lot of the time, 4-Most of the time, 5-All the time) where students indicated their self-esteem during the past week with each statement.

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Student Quality of Life Self-Esteem Perceptions		**2.71**	**1.06**	
IDP	All Districts	2.66	1.11	
	Baidoa	2.46	1.08	-0.20
	Deynile	3.02	1.06	0.36
	Kahada	2.97	1.06	0.32
Rural	All Districts	2.40	1.01	
	Balcad	2.83	0.87	0.43
	Barawe	2.33	0.72	-0.07
	Jowhar	1.61	0.82	-0.79
	Kismayo	2.82	1.04	0.42
	Walanweyn	2.43	0.79	0.03
Urban	All Districts	2.84	1.02	
	Baidoa	2.47	1.09	-0.37
	Balcad	3.00	0.76	0.16
	Barawe	3.02	0.88	0.18
	Deynile	2.66	1.21	-0.19
	Diinsor	2.86	0.57	0.02
	Hamarwayne	3.43	1.10	0.59
	Jowhar	1.98	0.81	-0.86
	Kahada	3.04	1.06	0.20
	Kismayo	3.11	0.97	0.26
	Shibis	3.34	0.93	0.50
	Walanweyn	2.49	0.88	-0.35

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student Quality of Life Self-Esteem Perceptions		**2.83**	**0.97**	
IDP	All Districts	2.84	0.98	
	Baidoa	2.88	0.93	0.03
	Deynile	2.70	1.14	-0.15
	Kahada	2.88	0.94	0.03
Rural	All Districts	2.68	1.01	
	Balcad	2.86	0.68	0.19
	Jowhar	1.82	0.60	-0.86
	Kismayo	2.82	1.08	0.14
	Walanweyn	2.41	0.76	-0.27
	Baidoa	2.81	1.03	0.14
Urban	All Districts	2.87	0.94	
	Balcad	3.31	0.62	0.44
	Barawe	2.99	0.84	0.11
	Deynile	2.99	0.80	0.12
	Diinsor	3.07	0.65	0.20
	Hamarwayne	3.05	0.82	0.18
	Jowhar	1.86	0.62	-1.01
	Kahada	3.20	1.08	0.32
	Kismayo	3.03	0.95	0.15
	Shibis	2.82	1.34	-0.05

Student Quality of Life Emotional Well-Being

The Emotional Well-Being scale items from the KINDL Quality of Life Survey (Ravens-Sieberer, U. & Bullinger, M. (1998b) were used to assess student's perception of their emotional well-being during the past week as it plays part in their quality of life. We included 2 or the 4 scale items in the analysis, as the 4th item did not perform as expected in the Somali context. The scale is composed of the average of the following 3 items:

- Reverse of item: During the past week, how often were you bored?
- Reverse of item: During the past week, how often did you feel alone?
- Reverse of item: During the past week, how often were you scared or unsure of yourself?

All items were measured on a 6 point Likert scale (0-All the time, 1-Most of the time, 2-A lot of the time, 3-Some of the time, 4-A little of the time, 5-None of the time) where students indicated their emotional well-being during the past week with each statement.

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Student Quality of Life Emotional Well-Being		**4.15**	**1.00**	
IDP	All Districts	4.03	1.07	
	Baidoa	3.86	1.15	-0.17
	Deynile	4.34	0.84	0.32
	Kahada	4.21	0.80	0.18
Rural	All Districts	4.11	1.04	
	Balcad	4.75	0.59	0.64
	Barawe	4.45	0.61	0.34
	Jowhar	4.16	0.86	0.05
	Kismayo	3.79	1.23	-0.32
	Walanweyn	3.31	1.06	-0.80
Urban	All Districts	4.24	0.93	
	Baidoa	3.85	1.24	-0.39
	Balcad	4.43	0.75	0.19
	Barawe	4.46	0.55	0.22
	Deynile	4.32	0.72	0.08
	Diinsor	3.84	0.85	-0.39
	Hamarwayne	4.13	0.85	-0.10
	Jowhar	4.05	0.88	-0.19
	Kahada	4.45	0.70	0.21
	Kismayo	4.39	0.90	0.15
	Shibis	4.34	1.06	0.11
	Walanweyn	3.97	1.16	-0.26

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Student Quality of Life Emotional Well-Being		**4.23**	**0.97**	
IDP	All Districts	3.97	1.06	
	Baidoa	3.63	1.11	-0.34
	Deynile	4.31	1.03	0.35
	Kahada	4.39	0.70	0.42
Rural	All Districts	4.17	1.09	
	Balcad	4.98	0.13	0.81
	Jowhar	4.13	0.80	-0.04
	Kismayo	4.22	1.05	0.06
	Walanweyn	2.93	1.11	-1.24
	Baidoa	3.59	1.17	-0.58

Location Type	District	Mean	SD	Diff from Overall Mean
Urban	All Districts	4.36	0.87	
	Balcad	4.66	0.68	0.30
	Barawe	4.51	0.69	0.15
	Deynile	4.58	0.70	0.22
	Diinsor	4.52	0.58	0.16
	Hamarwayne	4.55	0.63	0.19
	Jowhar	4.21	0.80	-0.15
	Kahada	4.44	0.74	0.08
	Kismayo	4.43	0.86	0.07
	Shibis	4.37	0.86	0.01

EGRA (Early Grade Reading Assessment) Overall Test Results

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students EGRA Total Percent Scores		37.22	22.97	
IDP	All Districts	40.99	26.40	
	Baidoa	43.84	27.13	2.85
	Deynile	36.89	25.40	-4.10
	Kahada	31.17	17.86	-9.82
Rural	All Districts	31.80	19.02	
	Balcad	35.96	18.10	4.16
	Barawe	30.25	14.84	-1.55
	Jowhar	26.13	17.94	-5.68
	Kismayo	27.95	13.62	-3.85
	Walanweyn	42.02	25.91	10.22
Urban	All Districts	37.25	21.98	
	Baidoa	39.29	23.55	2.05
	Balcad	37.64	19.42	0.39
	Barawe	40.96	18.84	3.72
	Deynile	18.41	8.91	-18.84
	Diinsor	37.23	17.52	-0.02
	Hamarwayne	33.27	18.41	-3.98
	Jowhar	33.22	18.41	-4.03
	Kahada	43.23	24.33	5.98
	Kismayo	37.23	23.50	-0.02
	Shibis	39.12	17.96	1.87
	Walanweyn	38.02	24.29	0.77

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students EGRA Total Percent Scores		**39.56**	**24.19**	
IDP	All Districts	32.24	23.96	
	Baidoa	37.88	26.65	5.64
	Deynile	20.36	16.12	-11.88
	Kahada	29.47	19.21	-2.77
Rural	All Districts	30.89	19.44	
	Balcad	45.41	18.02	14.51
	Jowhar	24.26	11.41	-6.63
	Kismayo	28.36	19.66	-2.53
	Walanweyn	36.96	17.15	6.06
	Baidoa	55.85	28.13	24.96
Urban	All Districts	45.31	24.06	
	Balcad	57.48	24.46	12.16
	Barawe	47.83	19.23	2.51
	Deynile	50.58	20.91	5.27
	Diinsor	48.68	19.60	3.37
	Hamarwayne	57.31	23.39	12.00
	Jowhar	34.83	15.12	-10.48
	Kahada	43.95	16.46	-1.37
	Kismayo	35.23	24.42	-10.08
	Shibis	40.59	21.10	-4.73

EGRA Listening Comprehension

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Listening Comprehension		74.18	29.65	
IDP	All Districts	75.66	29.06	
	Baidoa	77.08	29.16	1.42
	Deynile	75.14	28.07	-0.52
	Kahada	63.45	30.74	-12.21
Rural	All Districts	65.14	36.37	
	Balcad	84.00	20.23	18.86
	Barawe	78.12	27.99	12.99
	Jowhar	50.70	43.35	-14.44
	Kismayo	54.63	35.70	-10.50

Location Type	District	Mean	SD	Diff from Overall Mean
	Walanweyn	68.63	33.29	3.49
Urban	All Districts	76.69	26.49	
	Baidoa	83.08	24.14	6.38
	Balcad	83.73	23.64	7.04
	Barawe	86.07	17.02	9.38
	Deynile	60.00	28.28	-16.69
	Diinsor	75.50	25.41	-1.19
	Hamarwayne	79.56	22.76	2.86
	Jowhar	68.60	33.54	-8.09
	Kahada	76.33	25.14	-0.36
	Kismayo	78.46	27.32	1.77
	Shibis	81.18	18.38	4.48
	Walanweyn	68.91	24.73	-7.78

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Listening Comprehension		**73.77**	**30.70**	
IDP	All Districts	66.47	31.54	
	Baidoa	65.10	32.73	-1.37
	Deynile	66.04	32.72	-0.44
	Kahada	69.47	28.37	3.00
Rural	All Districts	62.04	35.09	
	Balcad	77.04	27.57	15.00
	Jowhar	50.43	38.08	-11.60
	Kismayo	60.53	36.61	-1.51
	Walanweyn	65.83	23.94	3.80
	Baidoa	78.05	28.91	16.01
Urban	All Districts	80.52	26.81	
	Balcad	91.50	17.94	10.98
	Barawe	87.31	23.10	6.79
	Deynile	79.71	21.56	-0.81
	Diinsor	82.42	26.14	1.91
	Hamarwayne	81.25	24.33	0.73
	Jowhar	76.42	32.74	-4.10
	Kahada	85.26	16.11	4.74
	Kismayo	77.03	28.17	-3.49
	Shibis	69.41	30.92	-11.11

EGRA Phonemic Awareness

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Phonemic Awareness		67.23	35.64	
IDP	All Districts	68.94	34.75	
	Baidoa	67.48	35.14	-1.46
	Deynile	73.07	32.65	4.14
	Kahada	64.14	39.69	-4.80
Rural	All Districts	63.50	38.74	
	Balcad	81.88	29.30	18.37
	Barawe	75.62	26.75	12.12
	Jowhar	44.53	42.17	-18.97
	Kismayo	60.73	40.73	-2.77
	Walanweyn	63.53	33.58	0.02
Urban	All Districts	67.71	34.85	
	Baidoa	62.95	35.82	-4.76
	Balcad	75.73	32.43	8.02
	Barawe	76.25	28.13	8.54
	Deynile	44.86	33.55	-22.85
	Diinsor	78.50	23.04	10.79
	Hamarwayne	65.11	36.03	-2.60
	Jowhar	62.15	36.11	-5.56
	Kahada	72.75	35.24	5.04
	Kismayo	67.44	35.69	-0.27
	Shibis	83.53	17.04	15.82
	Walanweyn	60.40	37.47	-7.31

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Phonemic Awareness		**71.49**	**34.88**	
IDP	All Districts	61.29	37.28	
	Baidoa	65.97	35.81	4.68
	Deynile	47.17	37.69	-14.13
	Kahada	61.97	37.84	0.68
Rural	All Districts	63.72	38.35	
	Balcad	79.63	32.40	15.91
	Jowhar	38.70	35.07	-25.02
	Kismayo	63.36	39.53	-0.36
	Walanweyn	72.08	27.66	8.37

Location Type	District	Mean	SD	Diff from Overall Mean
	Baidoa	78.90	30.55	15.19
Urban	All Districts	78.10	31.04	
	Balcad	91.12	20.99	13.03
	Barawe	84.81	23.22	6.71
	Deynile	89.86	18.43	11.76
	Diinsor	86.52	15.44	8.42
	Hamarwayne	90.62	11.62	12.53
	Jowhar	68.00	36.66	-10.10
	Kahada	85.79	20.36	7.69
	Kismayo	64.95	38.03	-13.15
	Shibis	77.06	29.74	-1.04

EGRA Letter Sound Identification

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Letter Sound Identification		31.22	31.40	
IDP	All Districts	36.54	35.55	
	Baidoa	41.06	37.81	4.52
	Deynile	29.05	30.79	-7.49
	Kahada	25.83	22.83	-10.71
Rural	All Districts	25.74	27.44	
	Balcad	24.36	27.54	-1.38
	Barawe	22.62	27.87	-3.12
	Jowhar	14.41	23.87	-11.34
	Kismayo	32.24	26.51	6.50
	Walanweyn	38.53	26.75	12.79
Urban	All Districts	30.46	30.06	
	Baidoa	37.99	39.29	7.53
	Balcad	26.04	29.10	-4.42
	Barawe	37.96	25.96	7.51
	Deynile	6.73	8.96	-23.73
	Diinsor	37.15	27.26	6.69
	Hamarwayne	26.56	25.50	-3.90
	Jowhar	24.12	30.09	-6.34
	Kahada	35.68	29.86	5.23
	Kismayo	29.78	30.08	-0.67

Location Type	District	Mean	SD	Diff from Overall Mean
	Shibis	35.32	24.92	4.87
	Walanweyn	31.09	28.96	0.63

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Letter Sound Identification		**35.59**	**31.48**	
IDP	All Districts	27.23	34.25	
	Baidoa	34.11	39.10	6.88
	Deynile	11.28	19.43	-15.95
	Kahada	24.86	27.84	-2.37
Rural	All Districts	31.28	29.12	
	Balcad	44.52	28.97	13.24
	Jowhar	26.83	29.01	-4.45
	Kismayo	27.43	28.90	-3.84
	Walanweyn	45.00	23.12	13.72
	Baidoa	53.51	36.54	22.23
Urban	All Districts	40.34	30.18	
	Balcad	48.27	28.33	7.93
	Barawe	40.13	22.39	-0.21
	Deynile	45.23	28.24	4.89
	Diinsor	55.56	29.19	15.22
	Hamarwayne	54.56	27.44	14.22
	Jowhar	23.93	19.52	-16.42
	Kahada	38.58	22.69	-1.76
	Kismayo	30.18	29.56	-10.16
	Shibis	36.88	25.73	-3.46

EGRA Invented Words

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Invented Words		18.39	30.48	
IDP	All Districts	25.10	35.94	
	Baidoa	30.27	38.59	5.17
	Deynile	17.59	30.50	-7.51
	Kahada	7.66	13.17	-17.44

Location Type	District	Mean	SD	Diff from Overall Mean
Rural	All Districts	10.36	20.99	
	Balcad	11.40	22.17	1.04
	Barawe	4.44	16.44	-5.93
	Jowhar	11.81	24.58	1.45
	Kismayo	4.83	11.93	-5.53
	Walanweyn	18.90	23.51	8.54
Urban	All Districts	17.85	29.57	
	Baidoa	25.23	38.16	7.38
	Balcad	17.95	28.26	0.10
	Barawe	17.86	27.79	0.01
	Deynile	0.05	0.33	-17.79
	Diinsor	13.45	22.85	-4.40
	Hamarwayne	12.89	26.64	-4.96
	Jowhar	11.96	25.00	-5.89
	Kahada	25.90	31.75	8.05
	Kismayo	18.13	31.23	0.28
	Shibis	14.82	28.24	-3.03
	Walanweyn	18.77	26.78	0.92

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Invented Words		**20.33**	**30.60**	
IDP	All Districts	14.58	30.01	
	Baidoa	21.58	36.81	7.00
	Deynile	4.15	15.91	-10.43
	Kahada	8.13	16.10	-6.45
Rural	All Districts	9.63	19.61	
	Balcad	19.19	22.27	9.56
	Jowhar	7.39	20.61	-2.24
	Kismayo	8.30	19.15	-1.33
	Walanweyn	9.42	16.25	-0.21
	Baidoa	37.22	40.02	27.59
Urban	All Districts	26.12	32.39	
	Balcad	38.60	37.16	12.48
	Barawe	25.31	27.98	-0.81
	Deynile	31.77	31.61	5.65
	Diinsor	29.06	30.21	2.94
	Hamarwayne	40.31	38.50	14.19

Location Type	District	Mean	SD	Diff from Overall Mean
	Jowhar	12.59	20.05	-13.53
	Kahada	18.74	24.94	-7.38
	Kismayo	18.42	29.07	-7.70
	Shibis	21.53	26.90	-4.59

EGRA Familiar/Real Words

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Real Words		19.72	31.63	
IDP	All Districts	27.37	37.72	
	Baidoa	32.17	39.95	4.81
	Deynile	20.41	33.65	-6.95
	Kahada	11.03	18.59	-16.33
Rural	All Districts	11.05	21.56	
	Balcad	12.05	22.93	1.00
	Barawe	4.06	13.43	-6.98
	Jowhar	10.67	21.67	-0.37
	Kismayo	5.00	11.41	-6.05
	Walanweyn	24.20	29.11	13.15
Urban	All Districts	18.92	30.34	
	Baidoa	25.38	38.43	6.46
	Balcad	16.69	25.97	-2.23
	Barawe	18.39	26.08	-0.53
	Deynile	0.86	4.93	-18.06
	Diinsor	13.50	22.78	-5.42
	Hamarwayne	13.91	27.85	-5.01
	Jowhar	14.95	28.50	-3.97
	Kahada	27.18	32.94	8.26
	Kismayo	19.34	32.20	0.42
	Shibis	16.18	28.23	-2.74
	Walanweyn	20.65	28.89	1.73

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Real Words		**21.24**	**31.87**	

Location Type	District	Mean	SD	Diff from Overall Mean
IDP	All Districts	15.75	31.35	
	Baidoa	23.42	38.30	7.67
	Deynile	4.30	16.69	-11.45
	Kahada	8.68	16.77	-7.06
Rural	All Districts	9.28	18.24	
	Balcad	17.04	21.18	7.75
	Jowhar	1.39	3.74	-7.89
	Kismayo	8.17	17.21	-1.11
	Walanweyn	15.17	24.77	5.88
	Baidoa	41.68	41.63	32.40
Urban	All Districts	27.33	34.02	
	Balcad	39.40	38.65	12.07
	Barawe	25.23	27.40	-2.10
	Deynile	33.33	33.46	6.00
	Diinsor	27.91	32.04	0.58
	Hamarwayne	44.62	40.89	17.29
	Jowhar	15.22	23.29	-12.11
	Kahada	22.11	24.72	-5.23
	Kismayo	18.08	30.05	-9.25
	Shibis	21.18	29.23	-6.15

EGRA Oral Reading Fluency

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Oral Reading Fluency		19.51	32.66	
IDP	All Districts	25.98	37.84	
	Baidoa	32.04	40.89	6.06
	Deynile	16.50	30.48	-9.48
	Kahada	8.83	17.53	-17.15
Rural	All Districts	9.24	22.09	
	Balcad	12.22	27.68	2.97
	Barawe	2.46	8.02	-6.78
	Jowhar	6.04	15.81	-3.20
	Kismayo	1.63	5.06	-7.62
	Walanweyn	26.47	32.33	17.23
Urban	All Districts	19.91	32.11	

Location Type	District	Mean	SD	Diff from Overall Mean
	Baidoa	28.17	41.93	8.26
	Balcad	24.71	35.33	4.80
	Barawe	11.34	20.24	-8.57
	Deynile	5.28	18.02	-14.63
	Diinsor	11.44	22.01	-8.47
	Hamarwayne	15.93	30.41	-3.98
	Jowhar	17.86	31.56	-2.05
	Kahada	25.71	32.30	5.80
	Kismayo	19.08	32.92	-0.83
	Shibis	10.25	21.82	-9.66
	Walanweyn	25.40	31.82	5.49

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Oral Reading Fluency		**20.08**	**32.16**	
IDP	All Districts	19.34	35.21	
	Baidoa	31.81	42.81	12.47
	Deynile	3.72	14.21	-15.63
	Kahada	5.80	12.47	-13.54
Rural	All Districts	11.25	24.20	
	Balcad	47.03	39.70	35.78
	Jowhar	4.61	12.10	-6.64
	Kismayo	5.16	13.91	-6.09
	Walanweyn	15.91	26.84	4.66
	Baidoa	44.49	42.76	33.24
Urban	All Districts	23.25	32.64	
	Balcad	34.87	39.02	11.62
	Barawe	21.10	29.36	-2.15
	Deynile	26.88	30.08	3.63
	Diinsor	18.57	26.35	-4.68
	Hamarwayne	39.06	38.03	15.81
	Jowhar	11.55	22.33	-11.70
	Kahada	17.46	21.32	-5.78
	Kismayo	14.35	26.30	-8.90
	Shibis	13.46	19.34	-9.79

EGRA Reading Comprehension

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Reading Comprehension		9.75	21.88	
IDP	All Districts	13.36	26.38	
	Baidoa	17.21	29.76	3.85
	Deynile	7.43	18.17	-5.93
	Kahada	2.07	8.19	-11.29
Rural	All Districts	8.22	18.75	
	Balcad	3.75	11.07	-4.47
	Barawe	1.88	10.61	-6.34
	Jowhar	11.16	23.08	2.95
	Kismayo	4.39	12.97	-3.83
	Walanweyn	20.39	25.14	12.17
Urban	All Districts	8.46	20.12	
	Baidoa	11.79	25.06	3.34
	Balcad	2.67	8.90	-5.79
	Barawe	3.57	9.43	-4.88
	Deynile	0.54	3.29	-7.92
	Diinsor	5.50	13.58	-2.96
	Hamarwayne	3.56	10.69	-4.90
	Jowhar	15.05	26.81	6.60
	Kahada	8.17	19.49	-0.29
	Kismayo	9.06	22.08	0.60
	Shibis	2.94	8.71	-5.51
	Walanweyn	13.86	23.11	5.41

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Reading Comprehension		**10.68**	**22.79**	
IDP	All Districts	9.93	24.55	
	Baidoa	16.78	31.20	6.85
	Deynile	1.13	6.10	-8.80
	Kahada	2.63	8.85	-7.30
Rural	All Districts	5.13	13.67	
	Balcad	5.19	8.93	0.05
	Jowhar	11.30	19.84	6.17
	Kismayo	2.50	10.12	-2.63
	Walanweyn	15.83	22.05	10.70

Location Type	District	Mean	SD	Diff from Overall Mean
	Baidoa	29.76	38.01	24.62
Urban	All Districts	12.80	24.10	
	Balcad	20.00	26.81	7.20
	Barawe	6.92	16.27	-5.87
	Deynile	10.14	17.70	-2.65
	Diinsor	10.91	20.81	-1.89
	Hamarwayne	16.25	22.40	3.45
	Jowhar	14.11	25.24	1.31
	Kahada	6.32	9.55	-6.48
	Kismayo	5.49	15.61	-7.30
	Shibis	4.71	11.25	-8.09

EGRA Dictation 1

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Dictation 1		67.48	35.88	
IDP	All Districts	68.30	36.52	
	Baidoa	69.30	36.68	1.00
	Deynile	65.57	36.94	-2.73
	Kahada	71.03	33.20	2.74
Rural	All Districts	67.49	36.61	
	Balcad	67.25	38.88	-0.24
	Barawe	71.25	32.90	3.76
	Jowhar	56.51	39.67	-10.98
	Kismayo	73.66	33.98	6.17
	Walanweyn	74.12	30.28	6.63
Urban	All Districts	67.05	35.31	
	Baidoa	64.36	36.56	-2.69
	Balcad	64.53	38.28	-2.52
	Barawe	80.71	31.44	13.66
	Deynile	46.49	30.57	-20.57
	Diinsor	79.00	26.78	11.95
	Hamarwayne	64.00	35.32	-3.05
	Jowhar	61.51	36.02	-5.55
	Kahada	72.17	35.29	5.11
	Kismayo	63.33	36.84	-3.72

Location Type	District	Mean	SD	Diff from Overall Mean
	Shibis	78.82	26.94	11.77
	Walanweyn	71.29	31.29	4.23

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Dictation 1		**71.15**	**35.79**	
IDP	All Districts	59.35	39.32	
	Baidoa	65.91	39.28	6.55
	Deynile	37.74	37.35	-21.62
	Kahada	61.58	35.74	2.23
Rural	All Districts	63.45	36.72	
	Balcad	77.78	29.53	14.33
	Jowhar	59.13	32.18	-4.32
	Kismayo	60.00	38.86	-3.45
	Walanweyn	73.33	29.29	9.88
	Baidoa	90.24	20.43	26.79
Urban	All Districts	78.39	32.08	
	Balcad	93.25	19.08	14.86
	Barawe	89.62	17.49	11.23
	Deynile	88.12	22.83	9.73
	Diinsor	89.09	22.79	10.70
	Hamarwayne	89.38	16.84	10.99
	Jowhar	67.37	36.68	-11.02
	Kahada	80.00	23.09	1.61
	Kismayo	59.12	39.21	-19.27
	Shibis	81.18	24.97	2.79

EGRA Dictation 2

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Dictation 2		27.62	40.70	
IDP	All Districts	27.73	41.29	
	Baidoa	28.02	41.20	0.29
	Deynile	27.38	41.99	-0.35
	Kahada	26.44	40.22	-1.29

Location Type	District	Mean	SD	Diff from Overall Mean
Rural	All Districts	25.78	40.29	
	Balcad	27.08	40.08	1.30
	Barawe	12.50	31.40	-13.28
	Jowhar	29.46	41.98	3.68
	Kismayo	14.63	31.90	-11.15
	Walanweyn	43.79	47.37	18.01
Urban	All Districts	28.22	40.56	
	Baidoa	14.96	33.40	-13.26
	Balcad	26.67	41.01	-1.56
	Barawe	35.71	41.61	7.49
	Deynile	0.90	5.48	-27.32
	Diinsor	20.83	31.75	-7.39
	Hamarwayne	17.78	33.03	-10.44
	Jowhar	22.58	37.80	-5.64
	Kahada	45.00	44.84	16.78
	Kismayo	30.91	41.99	2.69
	Shibis	28.43	40.31	0.21
	Walanweyn	32.01	42.41	3.79

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Dictation 2		**31.69**	**42.46**	
IDP	All Districts	16.31	34.54	
	Baidoa	16.33	34.58	0.02
	Deynile	7.55	24.14	-8.76
	Kahada	22.37	39.40	6.06
Rural	All Districts	22.42	38.48	
	Balcad	41.98	47.67	19.56
	Jowhar	18.84	38.70	-3.58
	Kismayo	19.96	36.45	-2.46
	Walanweyn	19.44	35.33	-2.97
	Baidoa	48.37	44.80	25.96
Urban	All Districts	40.87	44.15	
	Balcad	60.00	45.13	19.13
	Barawe	50.00	43.03	9.13
	Deynile	50.24	43.39	9.37
	Diinsor	38.38	43.85	-2.49
	Hamarwayne	59.38	46.94	18.50

Location Type	District	Mean	SD	Diff from Overall Mean
	Jowhar	24.21	37.80	-16.66
	Kahada	40.35	37.81	-0.52
	Kismayo	29.49	41.20	-11.39
	Shibis	39.22	48.93	-1.66

EGMA (Early Grade Math Assessment) Overall Test Results

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students EGMA Total Percent Scores		33.79	22.92	
IDP	All Districts	37.54	25.31	
	Baidoa	38.39	26.37	0.85
	Deynile	36.44	23.41	-1.10
	Kahada	34.03	23.08	-3.51
Rural	All Districts	28.34	21.68	
	Balcad	28.91	20.23	0.57
	Barawe	19.94	16.06	-8.40
	Jowhar	23.62	19.86	-4.73
	Kismayo	20.09	13.27	-8.26
	Walanweyn	53.96	21.77	25.62
Urban	All Districts	33.83	21.66	
	Baidoa	33.94	23.50	0.10
	Balcad	30.40	20.26	-3.43
	Barawe	39.84	19.45	6.01
	Deynile	21.38	16.54	-12.45
	Diinsor	31.42	21.07	-2.41
	Hamarwayne	32.58	18.26	-1.25
	Jowhar	27.66	18.60	-6.18
	Kahada	38.67	24.14	4.84
	Kismayo	30.41	20.60	-3.42
	Shibis	41.21	16.99	7.37
	Walanweyn	44.42	22.71	10.58

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students EGMA Total Percent Scores		**34.00**	**23.43**	

Location Type	District	Mean	SD	Diff from Overall Mean
IDP	All Districts	27.29	23.37	
	Baidoa	32.66	24.46	5.37
	Deynile	17.47	19.00	-9.82
	Kahada	23.62	21.16	-3.67
Rural	All Districts	23.68	21.13	
	Balcad	26.52	19.40	2.84
	Jowhar	22.17	15.07	-1.50
	Kismayo	19.34	19.60	-4.33
	Walanweyn	49.38	19.46	25.70
	Baidoa	52.27	22.27	28.59
Urban	All Districts	40.05	22.25	
	Balcad	49.54	21.17	9.48
	Barawe	47.25	18.13	7.20
	Deynile	45.78	18.75	5.73
	Diinsor	41.65	17.55	1.60
	Hamarwayne	50.00	16.30	9.95
	Jowhar	31.40	17.39	-8.65
	Kahada	46.26	21.54	6.21
	Kismayo	29.07	23.19	-10.99
	Shibis	25.41	14.39	-14.64

EGMA Number Identification

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Number Identification		62.30	37.58	
IDP	All Districts	64.57	37.30	
	Baidoa	65.40	36.40	0.82
	Deynile	63.57	39.31	-1.00
	Kahada	60.86	37.54	-3.71
Rural	All Districts	51.93	37.51	
	Balcad	58.69	37.31	6.75
	Barawe	45.00	32.58	-6.93
	Jowhar	34.94	36.86	-16.99
	Kismayo	48.72	35.68	-3.21
	Walanweyn	79.51	25.75	27.58
Urban	All Districts	64.90	37.14	

Location Type	District	Mean	SD	Diff from Overall Mean
	Baidoa	65.96	35.06	1.07
	Balcad	60.33	39.64	-4.56
	Barawe	79.29	31.84	14.39
	Deynile	45.41	38.10	-19.49
	Diinsor	64.75	34.47	-0.15
	Hamarwayne	65.56	37.89	0.66
	Jowhar	45.38	35.62	-19.52
	Kahada	68.12	37.56	3.23
	Kismayo	65.36	38.07	0.47
	Shibis	81.47	24.70	16.57
	Walanweyn	73.86	32.55	8.97

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Number Identification		**64.48**	**38.36**	
IDP	All Districts	51.69	40.06	
	Baidoa	60.34	37.99	8.64
	Deynile	33.21	39.03	-18.48
	Kahada	47.63	40.21	-4.06
Rural	All Districts	47.88	40.22	
	Balcad	63.70	34.57	15.83
	Jowhar	37.61	27.17	-10.27
	Kismayo	42.86	42.92	-5.01
	Walanweyn	71.67	22.78	23.79
	Baidoa	88.96	20.95	41.09
Urban	All Districts	75.01	33.30	
	Balcad	85.25	27.88	10.24
	Barawe	91.06	12.14	16.04
	Deynile	86.38	24.04	11.36
	Diinsor	79.85	25.87	4.83
	Hamarwayne	93.91	18.39	18.89
	Jowhar	58.37	32.91	-16.65
	Kahada	81.84	28.78	6.83
	Kismayo	59.18	41.23	-15.84
	Shibis	65.00	27.61	-10.01

EGMA Number Discrimination

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Number Discrimination		60.87	37.90	
IDP	All Districts	61.62	36.45	
	Baidoa	58.11	37.64	-3.51
	Deynile	69.00	32.37	7.38
	Kahada	62.41	38.23	0.80
Rural	All Districts	51.06	39.54	
	Balcad	55.75	39.93	4.69
	Barawe	46.25	35.26	-4.81
	Jowhar	40.81	44.60	-10.24
	Kismayo	45.49	35.56	-5.57
	Walanweyn	72.94	28.80	21.88
Urban	All Districts	64.04	37.47	
	Baidoa	53.97	37.70	-10.07
	Balcad	58.53	37.44	-5.51
	Barawe	75.18	35.32	11.14
	Deynile	57.03	37.33	-7.01
	Diinsor	69.00	34.48	4.96
	Hamarwayne	69.56	32.26	5.51
	Jowhar	47.20	39.66	-16.84
	Kahada	68.50	37.90	4.46
	Kismayo	64.02	38.37	-0.02
	Shibis	76.76	27.27	12.72
	Walanweyn	73.86	32.80	9.82

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Number Discrimination		**60.57**	**38.30**	
IDP	All Districts	47.12	37.34	
	Baidoa	46.64	34.96	-0.48
	Deynile	39.06	37.79	-8.07
	Kahada	53.68	40.72	6.56
Rural	All Districts	46.42	39.41	
	Balcad	51.85	39.13	5.44
	Jowhar	38.70	33.07	-7.72
	Kismayo	42.96	41.19	-3.46
	Walanweyn	69.58	23.31	23.17

Location Type	District	Mean	SD	Diff from Overall Mean
	Baidoa	75.85	34.10	29.44
Urban	All Districts	70.56	35.14	
	Balcad	80.50	28.59	9.94
	Barawe	86.35	19.90	15.78
	Deynile	79.71	28.13	9.15
	Diinsor	80.61	21.26	10.04
	Hamarwayne	91.56	14.62	21.00
	Jowhar	50.74	37.28	-19.83
	Kahada	80.53	30.45	9.96
	Kismayo	58.13	41.28	-12.43
	Shibis	67.06	29.53	-3.50

EGMA Missing Number

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Missing Number		28.62	26.01	
IDP	All Districts	31.11	26.99	
	Baidoa	35.32	30.38	4.21
	Deynile	23.57	16.71	-7.53
	Kahada	23.79	19.90	-7.31
Rural	All Districts	26.31	28.31	
	Balcad	24.75	19.61	-1.56
	Barawe	18.75	15.19	-7.56
	Jowhar	38.95	43.06	12.64
	Kismayo	11.71	11.63	-14.61
	Walanweyn	35.69	20.32	9.37
Urban	All Districts	28.17	24.50	
	Baidoa	35.13	31.69	6.96
	Balcad	27.47	19.73	-0.70
	Barawe	35.36	21.66	7.19
	Deynile	23.24	21.48	-4.93
	Diinsor	27.50	16.13	-0.67
	Hamarwayne	30.67	21.15	2.50
	Jowhar	41.40	38.29	13.23
	Kahada	26.83	20.70	-1.34
	Kismayo	19.70	20.12	-8.47

Location Type	District	Mean	SD	Diff from Overall Mean
	Shibis	27.06	15.08	-1.11
	Walanweyn	29.70	20.02	1.53

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Missing Number		**28.13**	**24.95**	
IDP	All Districts	25.43	25.20	
	Baidoa	33.62	28.79	8.19
	Deynile	13.02	14.62	-12.41
	Kahada	18.03	16.25	-7.41
Rural	All Districts	17.52	20.76	
	Balcad	21.11	16.49	3.59
	Jowhar	46.96	35.48	29.43
	Kismayo	10.46	12.99	-7.06
	Walanweyn	30.00	15.04	12.48
	Baidoa	45.85	27.08	28.33
Urban	All Districts	32.67	24.93	
	Balcad	38.88	20.00	6.21
	Barawe	44.81	22.45	12.14
	Deynile	28.70	13.71	-3.97
	Diinsor	31.52	14.28	-1.15
	Hamarwayne	34.38	18.83	1.71
	Jowhar	43.58	36.99	10.91
	Kahada	33.68	21.66	1.02
	Kismayo	16.81	16.45	-15.85
	Shibis	27.65	21.37	-5.02

EGMA Addition Level 1

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Addition Level 1		34.31	34.95	
IDP	All Districts	43.96	38.27	
	Baidoa	45.07	39.34	1.11
	Deynile	42.75	36.88	-1.21
	Kahada	38.28	33.76	-5.68

Location Type	District	Mean	SD	Diff from Overall Mean
Rural	All Districts	24.71	30.92	
	Balcad	25.44	29.71	0.72
	Barawe	18.91	22.74	-5.81
	Jowhar	9.42	22.05	-15.29
	Kismayo	19.02	25.92	-5.69
	Walanweyn	62.16	27.77	37.44
Urban	All Districts	32.82	33.35	
	Baidoa	36.03	36.74	3.21
	Balcad	27.93	26.10	-4.89
	Barawe	46.07	31.27	13.25
	Deynile	14.05	24.43	-18.77
	Diinsor	35.25	35.84	2.43
	Hamarwayne	30.78	28.36	-2.04
	Jowhar	17.26	25.58	-15.56
	Kahada	42.96	36.24	10.14
	Kismayo	26.41	32.97	-6.41
	Shibis	42.06	31.94	9.24
	Walanweyn	47.48	31.72	14.65

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Addition Level 1		**35.03**	**34.90**	
IDP	All Districts	29.62	36.09	
	Baidoa	38.42	38.79	8.80
	Deynile	17.17	28.96	-12.45
	Kahada	21.05	30.38	-8.57
Rural	All Districts	20.86	30.27	
	Balcad	25.37	31.13	4.51
	Jowhar	9.13	20.54	-11.73
	Kismayo	15.59	26.48	-5.27
	Walanweyn	60.42	29.71	39.55
	Baidoa	58.23	34.99	37.37
Urban	All Districts	41.80	34.10	
	Balcad	49.25	30.77	7.45
	Barawe	48.85	31.29	7.05
	Deynile	53.77	30.31	11.97
	Diinsor	49.17	27.10	7.37
	Hamarwayne	62.19	29.70	20.39

Location Type	District	Mean	SD	Diff from Overall Mean
	Jowhar	24.68	27.22	-17.12
	Kahada	47.37	29.41	5.57
	Kismayo	28.68	34.89	-13.12
	Shibis	20.29	30.80	-21.51

EGMA Addition Level 2

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Addition Level 2		25.29	32.00	
IDP	All Districts	29.23	33.51	
	Baidoa	29.17	34.15	-0.06
	Deynile	29.71	32.41	0.48
	Kahada	27.59	33.13	-1.65
Rural	All Districts	21.33	32.11	
	Balcad	17.00	24.87	-4.33
	Barawe	8.75	18.27	-12.58
	Jowhar	23.49	38.09	2.16
	Kismayo	6.10	13.22	-15.23
	Walanweyn	56.86	32.59	35.53
Urban	All Districts	24.69	30.96	
	Baidoa	24.62	32.86	-0.07
	Balcad	26.67	31.76	1.98
	Barawe	26.43	23.23	1.74
	Deynile	13.51	24.52	-11.17
	Diinsor	18.50	24.97	-6.19
	Hamarwayne	22.67	26.83	-2.02
	Jowhar	19.78	33.81	-4.90
	Kahada	29.00	33.49	4.31
	Kismayo	17.35	26.75	-7.34
	Shibis	33.53	30.64	8.84
	Walanweyn	43.17	33.43	18.48

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Addition Level 2		**25.79**	**31.80**	

Location Type	District	Mean	SD	Diff from Overall Mean
IDP	All Districts	18.42	28.49	
	Baidoa	23.62	31.37	5.21
	Deynile	10.57	22.40	-7.85
	Kahada	13.68	24.27	-4.73
Rural	All Districts	14.42	25.70	
	Balcad	17.78	23.75	3.35
	Jowhar	20.00	35.68	5.58
	Kismayo	7.24	17.31	-7.19
	Walanweyn	50.83	29.48	36.41
	Baidoa	41.95	35.64	27.53
Urban	All Districts	32.45	33.16	
	Balcad	51.50	34.97	19.05
	Barawe	36.54	36.24	4.09
	Deynile	37.68	29.21	5.23
	Diinsor	32.42	25.96	-0.03
	Hamarwayne	43.75	25.62	11.30
	Jowhar	23.79	31.46	-8.66
	Kahada	41.05	33.65	8.60
	Kismayo	20.33	30.28	-12.12
	Shibis	10.59	21.35	-21.86

EGMA Subtraction Level 1

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Subtraction Level 1		23.83	31.85	
IDP	All Districts	32.01	36.10	
	Baidoa	35.71	38.67	3.70
	Deynile	26.21	30.78	-5.80
	Kahada	21.55	26.02	-10.46
Rural	All Districts	17.34	27.96	
	Balcad	14.94	26.27	-2.40
	Barawe	8.59	19.40	-8.75
	Jowhar	10.17	22.78	-7.17
	Kismayo	6.40	14.26	-10.94
	Walanweyn	56.27	27.11	38.93
Urban	All Districts	21.97	29.99	

Location Type	District	Mean	SD	Diff from Overall Mean
	Baidoa	25.26	36.21	3.29
	Balcad	12.07	19.98	-9.90
	Barawe	23.12	25.93	1.16
	Deynile	6.89	15.52	-15.07
	Diinsor	11.38	23.31	-10.59
	Hamarwayne	16.00	22.48	-5.97
	Jowhar	15.65	25.91	-6.32
	Kahada	30.71	34.91	8.74
	Kismayo	17.41	28.47	-4.55
	Shibis	29.71	25.96	7.74
	Walanweyn	41.88	31.69	19.92

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Subtraction Level 1		**21.84**	**29.84**	
IDP	All Districts	18.35	30.89	
	Baidoa	25.34	35.72	6.99
	Deynile	9.06	19.42	-9.29
	Kahada	11.12	23.12	-7.23
Rural	All Districts	13.56	26.33	
	Balcad	7.59	19.43	-5.97
	Jowhar	2.17	5.80	-11.39
	Kismayo	9.70	21.41	-3.86
	Walanweyn	55.62	34.59	42.06
	Baidoa	47.01	36.36	33.45
Urban	All Districts	25.94	29.78	
	Balcad	30.56	28.43	4.63
	Barawe	25.58	26.69	-0.36
	Deynile	34.49	27.84	8.56
	Diinsor	24.92	25.64	-1.01
	Hamarwayne	34.69	29.29	8.75
	Jowhar	14.21	20.48	-11.73
	Kahada	35.26	31.64	9.33
	Kismayo	17.39	28.23	-8.55
	Shibis	2.94	8.30	-23.00

EGMA Subtraction Level 2

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Subtraction Level 2		19.24	29.95	
IDP	All Districts	21.96	31.56	
	Baidoa	23.32	32.94	1.36
	Deynile	19.86	29.53	-2.10
	Kahada	17.93	25.83	-4.03
Rural	All Districts	19.58	32.71	
	Balcad	10.25	18.82	-9.33
	Barawe	5.00	12.44	-14.58
	Jowhar	23.49	39.55	3.91
	Kismayo	5.12	15.34	-14.46
	Walanweyn	60.00	32.50	40.42
Urban	All Districts	17.72	27.93	
	Baidoa	18.46	30.02	0.74
	Balcad	13.60	24.64	-4.12
	Barawe	16.43	20.22	-1.29
	Deynile	5.41	16.09	-12.32
	Diinsor	12.00	26.33	-5.72
	Hamarwayne	15.56	27.60	-2.17
	Jowhar	18.28	33.71	0.56
	Kahada	23.00	31.18	5.28
	Kismayo	11.37	21.35	-6.35
	Shibis	21.18	22.53	3.45
	Walanweyn	35.45	32.85	17.72

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Subtraction Level 2		**18.73**	**28.98**	
IDP	All Districts	13.60	27.36	
	Baidoa	18.26	30.57	4.66
	Deynile	5.28	16.71	-8.31
	Kahada	10.26	24.98	-3.33
Rural	All Districts	11.77	25.04	
	Balcad	5.93	17.38	-5.84
	Jowhar	13.91	32.16	2.14
	Kismayo	6.71	17.82	-5.06
	Walanweyn	48.33	33.32	36.56

Location Type	District	Mean	SD	Diff from Overall Mean
	Baidoa	37.56	34.77	25.79
Urban	All Districts	23.05	30.04	
	Balcad	36.00	34.04	12.95
	Barawe	24.23	30.51	1.18
	Deynile	26.96	28.04	3.90
	Diinsor	21.52	27.69	-1.54
	Hamarwayne	21.88	24.02	-1.18
	Jowhar	18.95	30.37	-4.11
	Kahada	26.32	28.33	3.26
	Kismayo	13.52	24.33	-9.54
	Shibis	2.35	9.70	-20.70

EGMA Word Problems

Location Type	District	Mean	SD	Diff from Overall Mean
All BAB Students Word Problems		49.59	33.54	
IDP	All Districts	53.23	32.93	
	Baidoa	53.27	33.41	0.04
	Deynile	53.10	32.21	-0.13
	Kahada	53.45	32.54	0.22
Rural	All Districts	42.80	33.25	
	Balcad	52.92	29.74	10.12
	Barawe	28.13	29.77	-14.67
	Jowhar	31.40	37.08	-11.40
	Kismayo	38.21	26.77	-4.59
	Walanweyn	62.75	29.74	19.95
Urban	All Districts	50.18	33.63	
	Baidoa	45.73	32.28	-4.46
	Balcad	47.33	31.48	-2.85
	Barawe	56.55	32.52	6.37
	Deynile	27.48	28.66	-22.71
	Diinsor	45.00	40.86	-5.18
	Hamarwayne	42.22	31.70	-7.96
	Jowhar	44.09	38.12	-6.10
	Kahada	58.89	32.04	8.71
	Kismayo	52.14	33.08	1.95

Location Type	District	Mean	SD	Diff from Overall Mean
	Shibis	58.82	30.49	8.64
	Walanweyn	53.96	30.75	3.78

Location Type	District	Mean	SD	Diff from Overall Mean
All Formal Primary Students Word Problems		**51.39**	**35.02**	
IDP	All Districts	41.31	31.40	
	Baidoa	47.43	31.10	6.12
	Deynile	29.25	26.54	-12.06
	Kahada	37.72	32.47	-3.59
Rural	All Districts	40.41	34.30	
	Balcad	45.06	31.63	4.65
	Jowhar	31.16	36.69	-9.25
	Kismayo	38.27	34.46	-2.15
	Walanweyn	57.64	29.07	17.23
	Baidoa	74.80	29.19	34.38
Urban	All Districts	59.01	34.70	
	Balcad	74.17	27.93	15.16
	Barawe	67.95	34.75	8.94
	Deynile	64.49	30.24	5.49
	Diinsor	55.05	30.80	-3.96
	Hamarwayne	67.19	25.22	8.18
	Jowhar	48.07	39.11	-10.94
	Kahada	70.18	30.21	11.17
	Kismayo	47.53	35.63	-11.48
	Shibis	33.33	27.00	-25.67