Parenting styles: the Role of Beliefs, Preferences, and Constraints
Pre-Analysis Plan *

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Abstract

In this project, we explore the factors that influence parenting style choices in a lower-middle-income country, with a focus on parental beliefs, preferences, and constraints. Using a sample of 2,400 parents in Ghana, we combine a lab-in-the-field experiment with a theoretical model to examine how parents choose between authoritarian (characterized by low warmth and harsh discipline) and authoritative (marked by high warmth and firm but non-harsh discipline) parenting styles. Using experimental variation, we elicit parental beliefs regarding the effectiveness of these styles, the costs associated with implementing them, and the trade-offs between time spent with children and other activities. Our goal is to identify the key determinants of parenting style decisions. We embed our experiment in a large-scale field experiment testing a parenting program that promotes positive parenting strategies, enabling us to analyze how such interventions affect parental beliefs and behaviors. In doing so, we aim to offer insights into the behavioral mechanisms underlying the impact of parenting programs, contributing to the design of more effective interventions.

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1 Motivation

Socioeconomic inequalities in children's cognitive and social-emotional development are pervasive globally and play a pivotal role in perpetuating existing economic and social disparities. These gaps, which often emerge early in life, create cycles of disadvantage with lasting repercussions for individual and inter-generational opportunities in education, the labor market, and health (Currie and Almond (2011), Heckman and Mosso (2014), Almond, Currie and Duque (2018)). Parental behaviors and beliefs are key drivers of this gap due to the way in which they influence parental choices and investments, and therefore how ultimately children develop skills. Parental income, educational attainment, information, time available, and beliefs around children's ability and school performance are well-documented drivers of inequalities in child development outcomes by socio-economic status (SES) (Boneva and Rauh (2018), Dizon-Ross (2019), Falk et al. (2021), Duhon (2023)).

A less studied potential driver of the skill gap relates to differences in parenting by socioeconomic backgrounds. Parenting - the way parents[1] establish rules, provide guidance, and respond to their children's needs and behaviors - consistently predicts child health, education, and social-emotional outcomes across diverse cultures (Devlin, Wight and Fenton (2018)). Evidence shows that households with lower socio-economic status are more likely to adopt harsher and less effective parenting styles (Beatriz and Salhi (2019)), which are linked to poorer child outcomes. These parenting choices are shaped by a range of factors including beliefs, preferences, and constraints.

Understanding why parents adopt certain parenting styles is essential for designing effective interventions to increase skill development and close the skill gap by SES. This is especially important in low-and middle-income countries, where skills are generally lower, the skill gap by SES larger, and parents tend to adopt harsher parenting styles

[1] We use parent and caregiver interchangeably.

(Hanushek and Woessmann (2008), Beatriz and Salhi (2019)). Parenting programs aiming for more positive, evidence-based styles to promote child outcomes are common (Knerr, Gardner and Cluver (2013)). Yet, the mechanisms behind parenting choices, and how such programs can affect these choices, is an unexplored area of investigation. If harsher parenting styles (authoritarian) persist because parents do not believe less harsh styles (authoritative) are effective, interventions that target such beliefs may be most impactful, at relatively low costs. Conversely, if less harsh styles are perceived as too resource-intensive, interventions that alleviate time or cost constraints may yield better results, potentially especially for lower-SES families. This project seeks to start filling these gaps.

The purpose of this study is to explore the role of beliefs, preferences, and constraints in parenting style choices to inform the design of parenting interventions. Specifically, we aim to answer the following questions:

1. Do parental beliefs about the effectiveness of inputs (time investments and child initial skills) vary depending on the parenting style adopted?
2. Do parents experience a higher utility cost when adopting one parenting style compared to another?
3. Does limited time availability influence parenting style choices and time investment decisions?
4. What roles do beliefs, preferences, child initial skills, and the utility cost of adopting a particular parenting style play in determining the choice of style?
5. Do beliefs, preferences, and the utility costs associated with adopting a parenting style - and consequently, parenting style choices - vary by parental SES?
6. Can parenting interventions influence parental preferences, beliefs, and utility costs? Do these effects vary by SES?

To answer these questions, we will use a lab-in-the-field experiment to elicit beliefs of long-run returns to different parenting styles, utility costs and estimate preferences for child outcomes. Our study will involve 2,400 parents of adolescent children in Ghana.

We will collect data on beliefs about effectiveness of parenting styles, time investments and initial skills, as well as costs and hypothetical choices which can be used to estimate preferences for skill outcomes using vignettes. We will randomly vary children's initial skills and gender, to examine heterogeneity in our variables of interest across these dimensions. Our sample is embedded in a large-scale field experiment of a parenting program focused on promoting more authoritative parenting styles.[2] We will thus exploit the random treatment variation of participating in this parenting program to investigate whether the program shifted parents' preferences, beliefs and utility costs, as key potential mechanisms for program effectiveness.

2 Sample

The data for this study comes from a randomized control trial (RCT) conducted with 2,400 families in the Greater Accra, Eastern, and Central regions of Ghana. The sample was part of a RCT conducted in 2015 for pre-school quality enhancement (QP4G, see Wolf et al. (2019)) and was followed-up in subsequent years. In 2024, the sample was re-randomized to take part in a parenting program (Leveraging Early-Adolescence for Development (LEAD)). The program promotes positive parenting strategies, such as reducing harsh discipline and improving communication between parents and adolescents. The sample for this study will only contain parents. These parents have adolescent children aged around 13 and predominantly live in semi-urban or urban areas around Accra. The data for the lab-in-the-field experiment will be collected in conjunction with the endline data collection for the main study assessing the effectiveness of the parenting program. After finalizing the main questionnaire, parents will be asked if they consent to complete additionally the lab-in-the-field module (being thanked with 20 Ghanaian cedis of airtime).

[2] See pre-registration of the main study (AEA registry, RCT ID: AEARCTR-0014880).

3 Experimental design and Data

The experimental design includes:

- Belief Scenarios: Scenarios about a hypothetical child that vary in the key inputs of our theoretical model: parenting styles, parental time investments, and children's initial skill levels. Based on each scenario, parents are asked to indicate their expectations about future outcomes of the children.

- Cost Scenarios: Hypothetical situations that present trade-offs between parenting time and non-parenting activities. These are designed to elicit parental preferences and constraints. Parents are asked to advise an hypothetical parents on how to split time between time with the child and other non-parenting tasks. Further they are asked to advise this hypothetical parent on how to respond to a particular situation with the child (in other words, which parenting style to exert) within a given set of constraints.

3.1 Belief scenarios

The belief scenario asks the respondent to imagine an hypothetical child and her parents living in a community that is similar to the one of the respondent. In each scenario, parents will receive a description about the time spent with the child (minutes per day), their initial skills as measured by their ranking in their class and the parenting style usually exerted in the family. Based on this information, respondents will be asked to estimate the child's future earnings and the probability of support for the family when the parents grow old.[3] One at a time, we will then vary the child's initial skills, time spent with the child and parenting style to elicit parents' beliefs on their productivity for skill

[3]Besides income or education, we include old-age support or family support, as parents value this as an important lifetime outcome in the local context (Zelu, Deininger and Zhong, 2023).

development. The full text can be found in the Appendix A.1. Scenario 1 describes an authoritarian parenting style, while Scenario 2 describes an authoritative parenting style.

Randomization: To limit survey length and parental fatigue, we randomize scenario types based on the time spent with the child or child's initial skill level (for a graphical illustration, see Figure 1). 50% of respondents will receive an introduction with a fixed initial skill level (out of this, 50% of respondents will receive a high initial skill level in the introduction, while the other 50% will receive an introduction with a low initial skill level). Based on the initial skills level received, parents will be asked to estimate the child's long-term outcomes for four scenarios: (i) high amount of time spent with the child and authoritarian style, (ii) low amount of time spent with the child and authoritarian style, (iii) high amount of time spent with the child and authoritative style, (iv) low amount of time spent with the child and authoritative style. Further, 50% of the sample will receive an introduction with a fixed amount of time the child receives from the parents (50% will receive an introduction with a high amount of time spent, while the other 50% will receive an introduction with a low amount of time spent). Respondents will then be asked to estimate the child's long-term outcomes for four scenarios: (i) high initial skills and authoritarian style, (ii) low initial skills and authoritarian style, (iii) high initial skills and authoritative style, (iv) low initial skills and authoritative style.

Additionally, we randomize the following:

- Gender of the hypothetical child for heterogeneity in beliefs by gender. We use names for the hypothetical children that are familiar in the local context.
- Order of the belief scenarios to avoid anchoring and order bias.
- Order of the answer options to avoid anchoring and order bias.

All belief scenarios are presented with visual aids to help respondents distinguish scenarios (see Appendix A.3). All scenarios content and visual aids have been piloted to ensure respondents' understanding of questions and concepts.

Robustness checks: We embed robustness checks in the design. First, we elicit par-

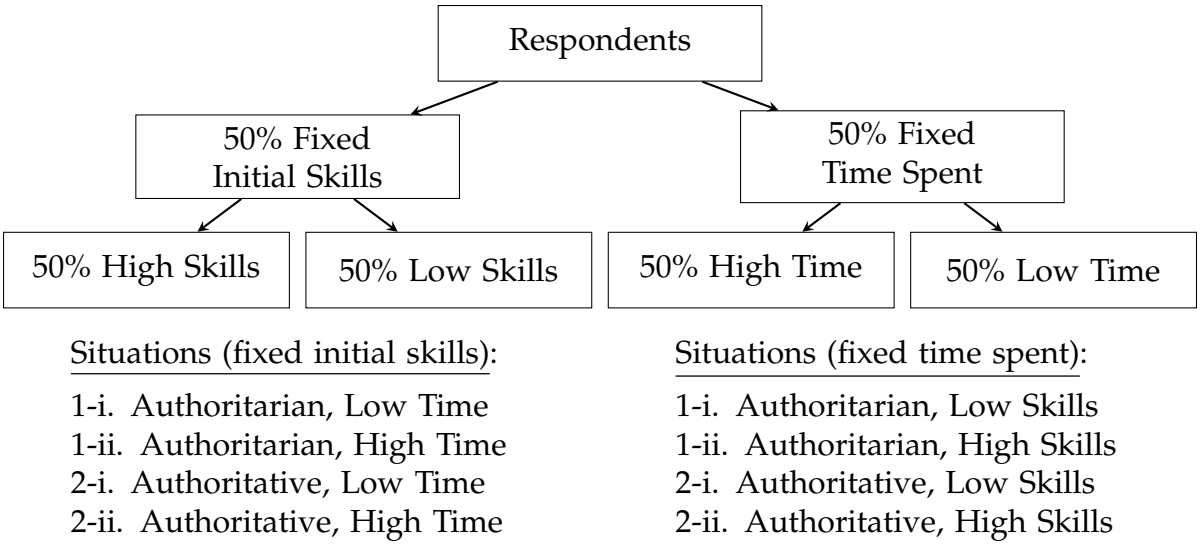

FIGURE 1: Randomization scheme for belief scenarios.

Note: We also randomize respondents to receive a description with either a female or male child as well as the order of the scenarios received.

ents' perceived returns regarding two future outcomes: support for the family and income at age 30. We chose these outcomes because our formative research and the broader literature have found them valuable in low-and middle-income countries, including Ghana. Although, we do not expect beliefs for the effectiveness of inputs and preferences to be the same in magnitude for these outcomes, they can serve as a comparison to validate main takeaways. Additionally, we include a question to check if respondents understood correctly the concept of probability in context of the family support outcomes. We do so by following Walker et al. (2024). Following Kiessling (2021), we also include a question on how certain respondents are about their answers, so that we run robustness by excluding responses of participants who are less certain about their answers avoiding noise to drive the findings.[4]

[4]We describe here only robustness checks, which are embedded by survey design.

3.2 Cost scenarios

In the cost scenarios, we ask respondents to advice hypothetical parents on how to allocate their time between parenting and non-parenting activities. By doing so, we aim to elicit general preferences for child outcomes versus time spent on other activities. After this, we describe a scenario involving a specific challenge that the hypothetical child has encountered, and ask parents to advice the hypothetical parents of this child about which parenting style to choose to interact with the child about this issue. We present parents with the same problem but two scenarios that offer different amount of time available for the hypothetical parent (little versus more time). By doing so, and by varying the amount of time available in each scenario, we can elicit the utility costs associated with a certain parenting style. The full text can be found in Appendix A.2.

Randomization: In this module, we also randomize the gender of the hypothetical child, order of cost scenarios and answer options.

3.3 Further data

As the sample is embedded in an ongoing field experiment, we can use the available panel data as well as data on stress, actual parenting behaviors, randomized assignment to a parenting program, and parental socio-demographic characteristics to explore additional heterogeneity or research questions.

4 Theoretical model

Following Cunha, Elo and Culhane (2013) and Cunha (2015), we develop a model of parenting style choice to support our analysis. Parents derive utility from child outcomes and non-parenting activities. They choose between two parenting styles and how much time to spend with their child versus non-parenting activities (e.g., work, leisure, household

chores). Moreover, parents are constrained by the time they have available.[5] Parents exert either an authoritative (high warmth and no harsh discipline) or an authoritarian (low warmth and harsh discipline) parenting style. The time parents spend with their children, along with their children's initial skill levels, determines child outcomes. Parenting style influences the efficiency with which time and initial skills affect child outcomes. The model incorporates parental beliefs about the effectiveness of these inputs, which vary by parenting styles.

The parent's optimization problem is expressed as follows:

$$\max_{n_i, x_i, p_i} \ln(n_i) + \delta \ln(q_{1,i}) + \nu \mathbb{1}(p_i = \text{authoritarian}) \tag{1}$$

subject to the constraint:

$$T_i = n_i + x_i \tag{2}$$

where n_i is the time spent on non-parenting activities, x_i is time spent with the child, $p_i \in \{a, h\}$ is the parenting style, with h describing an authoritarian style (low warmth, harsh discipline) and a an authoritative style (high warmth, no harsh discipline). $q_{1,i}$ is the child life outcome (income or family support). δ represents preferences for child's outcomes, while ν is the disutility of exerting an authoritarian parenting style.

The human capital function is:

$$q_{1,i} = A_p x_i^{\beta_p} q_{0,i}^{\gamma_p} \tag{3}$$

where A_p is the general productivity.[6] x_i represents parental time investment, while $q_{0,i}$ denotes child's initial skill level (measured as child's rank in class). The parameters, β_p and γ_p, represent the productivity of time investments and initial skills, respectively,

[5] Our formative work shows that parents are quite busy and report time availability as a barrier to spend time with their children, particularly parents with low SES (see also Haushofer and Fehr (2014)).

[6] For our main specification, when using fixed effects we allow A_p to vary at the individual level. Thus A_p is expressed as $A_p = \exp(\alpha_p + \mu_{p,i})$. Otherwise $A_p = \exp(\alpha_p)$ if it does not vary at the individual level.

which depend on the parenting style p_i.

5 Data analysis

We use a three-step estimation strategy to estimate the parameters needed to answer our research questions. Part of the estimations are derived with the help of the theoretical model explained before. The first step involves estimating parental *beliefs* about the effectiveness of inputs, followed by the estimation of parental *preferences* for child outcomes, and finally, the estimation of the *utility cost* parameter associated with adopting different parenting styles. In this document, we lay out our main estimation approach for these three main parameters of interest. We do not present additional analyses (e.g., with other data from earlier waves of the panel) or robustness checks. We focus on our main variables of interest.

5.1 Step 1: Estimation of Beliefs on Effectiveness of Inputs

RQ1: *Do parental beliefs about the effectiveness of inputs (time investments and initial child skills) vary depending on the parenting style adopted?*

To address this question, using data from the belief scenarios, we estimate the parameters that capture parental beliefs about the effectiveness of inputs (parental time investments and child initial skills) in influencing future child outcomes depending on the parenting style described in each scenario. Operationally, we estimate the following equation, derived by taking the logarithm of the human capital function:

$$\ln(q_{1,i,k}) = \alpha_p + \beta_p \ln(x_k) + \gamma_p \ln(q_{0,k}) + \mu_i + \epsilon_{i,k} \tag{4}$$

where $q_{1,i,k}$ represents the expected future outcome of the child (income or support to family at age 30) based on respondent i estimate in scenario k. x_k represents the time

input by the parent described in the scenario (minutes per day spent with the child). $q_{0,k}$ is the initial skill value of the hypothetical child in scenario k, the child's ranking in the class. To control for respondent's characteristics across different scenarios, we include respondent fixed effects μ_i . $\epsilon_{i,k}$ is the error term, clustered at the respondent level.

We run Equation 4 separately for scenarios that present respondents with authoritarian and authoritative styles so that we are able to estimate the effectiveness parameters for each style. In this estimation, β_p describes parental beliefs about the effectiveness of time investments and γ_p reflects the perceived impact of initial skills within each parenting style. With these parameters, we can then test if parents have differential beliefs on the effectiveness of inputs by testing for the significant difference between the estimated parameter for authoritarian and authoritative styles (using t-tests). If we detect a significant difference, we can quantify the magnitudes of how parental beliefs on the effectiveness of inputs vary depending on the parenting style used.

5.1.1 Minimum detectable effect size

To simulate minimum detectable effect sizes, we use the pilot of the lab-in-the-field experiment with a sample of 33 parents who have similar characteristics to our target sample.[7] Given the limited size of this sample, as well as due to the initial wording of questions and procedures used in the pilot, this data is expected to be noisier than our target sample. To estimate the minimum detectable effect size, we simulate effect sizes for the main specification (Equation 4) aiming for 80% power with our target sample of 2,400 respondents. Our approach follows Campos-Mercade (2024). To do so, we use mean and standard deviation of log earnings in the pilot data as dependent variable. According to these simulations, for β_p, the productivity of time investments, we are positioned to detect parameter sizes bigger than 0.045 SD (0.059 SD when clustering at individual level) of the outcome variable (log earnings). With the pilot data variation, this estimate corresponds

[7] The pilot data was conducted in Greater Accra, Ghana.

to a face value of 0.07 (0.09) for β_p (corresponding to a minimum detectable increase of 0.07% (0.09%) in log earnings for 1% increase in time investments). For γ_p, the productivity of child initial skills, we are positioned to detect parameters bigger than 0.105 SD (0.135 SD when clustering at individual level), with a face value of 0.17 (0.21), (corresponding to a minimum detectable increase of 0.17% (0.21%) increase in log earnings for 1% increase in initial skills).[8]

5.2 Step 2: Estimation of Preferences for Child Outcomes

In the second step, we estimate the preference parameters for child outcomes relative to non-parenting time using data from the cost scenarios, where each respondent i receives $j \in \{1, 2\}$ scenarios varying the total time available to allocate to non-parenting time $n_{i,j}$ and time spent with the child $x_{i,j}$. These scenarios are described for a hypothetical parent they give advice to. We assume that they apply the same decision model as for their own children for giving advice (see model in Section 4). Using first-order conditions derived from the theoretical model, we can estimate the following equation:

$$\frac{x_{i,j}}{\beta_p} = \delta n_{i,j} + \epsilon_{i,j} \tag{5}$$

where $x_{i,j}$ is the time investment and $n_{i,j}$ is the non-parenting time of the hypothetical parents advised by respondent i in scenario j. With the data from the cost scenarios, we estimate the preference parameter for child outcomes over non-parenting time, δ, by plugging in the productivity parameter for time investments, β_p, from Step 1. We estimate Equation 5 with ordinary least squares (OLS) and cluster standard errors at the respondent level.

[8] Because the experiment descriptions vary in the time and skill inputs they involve, we can detect smaller productivity differences in time investments, as the numerical gap between high and low time investments is larger.

5.3 Step 3: Estimation of Utility Costs of Exerting Parenting Styles and Simulations

RQ2: *Do parents experience a higher utility cost when adopting one parenting style compared to another?*

The final step involves estimating the utility costs associated with adopting a different parenting styles. This is done by using a logit model based on the observed choices of parenting styles in the hypothetical cost scenarios. Parents choose to advice an authoritarian style if they think the utility U of the other parent for choosing this style is higher. Therefore, for each cost scenario, we can calculate the utility value given the optimal choices using the theoretical model outlined in Section 4. The only parameter that we have not identified in the utility function at this stage is ν, the utility cost of adopting an authoritarian style instead of an authoritative style.

For the logit model, we can express the difference in utilities as $V_h - V_a = x'\beta$. In this difference, we can calculate each utility value with the parameters estimated previously and the model solution except the utility cost of exerting a style. To identify ν, we regress the choices of parenting styles on the difference in utility values. The specification we estimate is the following:

$$V_h - V_a = \beta_0 + X_1'\beta_1 \tag{6}$$

where X_1 is the difference in utilities, computed using the optimal choices from the model solution. Thus, β_0 gives us the difference in the utility costs of exerting authoritarian parenting style versus the authoritative style (ν). If ν is different from 0, we can infer that parents have a higher cost of exerting a particular parenting style.

RQ3: *Does limited time availability influence parenting style choices and time investment decisions?*

Using parameters estimated in steps 1-3, we will be able to see what role each of the choice determinants plays. We plan to explore the role of these choice determinants

using parameter estimates and model simulations. For example, we can simulate how the choices of parents vary if parents have more time available. In this way, we can examine whether time availability drives parenting style choices and time investments.

RQ4: *What roles do beliefs, preferences, initial skills, and the utility cost of adopting a particular parenting style play in determining the choice of style?*

Additionally, we can simulate how choices would vary if children have higher initial skills; parents have different preferences; there are no costs associated with parenting styles or parents have different beliefs on their effectiveness. This allows us to further explore the role of different choice determinants.

5.4 Heterogeneity by socio-economic status, and treatment status in parenting program field experiment

RQ5: *Do beliefs, preferences, and the utility costs associated with adopting a parenting style - and consequently, parenting style choices - vary by parental SES?*

We also plan to estimate parameters that vary by parental SES, proxied by respondent's education, or related SES variables. To do so, we will interact parameters with an indicator for high SES. This will allow us to examine whether beliefs, preferences, and the disutility of exerting a parenting style vary by SES, which is a crucial question for designing parenting interventions.

RQ6: *Can parenting interventions influence parental preferences, beliefs, and utility costs? Do these effects vary by SES?*

In addition, our objective is to examine whether parameter estimates vary by the treatment status of the parenting intervention, to see whether the parenting program shifted parameters relevant for parenting style choices. Moreover, from the cost scenarios, we can test whether respondents advise different parenting styles when they have been part of the intervention, and if these changes vary by SES. In doing so, we can test whether the parenting program affects parental preferences, beliefs, costs, and behaviors and if these

impacts vary by SES and influence choices.

5.5 Exploratory Research questions

We also aim to explore the following research questions:

- Do beliefs, utility costs, and preferences vary by the gender of the hypothetical child?
- Do beliefs, utility costs, and preferences vary by the gender of the respondent?
- Do beliefs, utility costs, and preferences vary by the level of stress and the mental health status of the respondent?

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A Experimental script

A.1 Belief Scenarios

1. **Introduction:** We are interested in your opinion about how important it is for parents to spend time with their children and how they interact with them to help their children develop. Your answers will help us understand what parents like you value for their children. There are no right or wrong answers, and we are simply interested in what you think—not in judging or assessing your views.

   We will ask you to imagine a child, Mary, and her parents, who live in a community like yours. We will show you different situations and ask you what you think Mary will earn monthly at the age of 30 and how likely she will support her family when she is grown up. Mary is a healthy 13-year-old child. She always receives the same care and material resources from her family. The only difference in the situations we will discuss will be the specific details we tell you.

   [Route A: Fixed initial skill with variation in time:] At school, Mary is ranked [at the bottom of the class, 30 out of 40/at the top of the class, 10 out of 40].

   [Route B: Fixed time investment with variation in skill:] Mary's parents spend about [5 minutes/60 minutes] with her every day talking or doing something together.

2. **Scenario 1:** Mary's parents set high expectations for her and do not praise her often when she does well. They do not allow Mary to express her opinion often. If Mary misbehaves, her parents punish her without an explanation. If they punish her, they do so by shouting, scolding, or using other rigid forms of discipline.

   (a) **Income:** How much do you think Mary will earn per month when she is 30 years old in today's Ghana Cedis?

   [Route A:]

   i) If Mary's parents spend a short time—5 minutes—with her every day talking or doing something together.

   ii) If Mary's parents spend a good amount of time—60 minutes—with her every day talking or doing something together.

   [Route B:]

   i) If Mary is ranked at the bottom of the class, 30 out of 40.

   ii) If Mary is ranked at the top of the class, 10 out of 40.

   (b) **Explaining probability:** I will ask you several questions about the chance or likelihood of certain events will occur. There are 10 counters. I would like you to choose some counters out of these 10 to represent what you think is the likelihood of a specific event occurring.If you do not set any counters aside, it means you are sure the event will NOT happen. If you pick 5 counters, it means the event is as likely to happen as not (50-50). If you pick all 10 counters, it means you are SURE the event will happen.

   Check for violation of monotonicity property:

   i. Pick the number of counters that reflects how likely you think it is that:

      A. A woman in your community will go to the market at least once within the next 2 days.

B. A woman in your community will go to the market at least once within the next 2 weeks.

(c) **Family Support**: Pick the number of counters that reflects how likely you think Mary will support her family when the parents grow old.

[Route A:]

i) If Mary's parents spend a short time—5 minutes—with her every day talking or doing something together.

ii) If Mary's parents spend a good amount of time—60 minutes—with her every day talking or doing something together.

[Route B:]

i) If Mary is ranked at the bottom of the class, 30 out of 40.

ii) If Mary is ranked at the top of the class, 10 out of 40.

3. **Scenario 2:** Now imagine the same Mary that you see here. The only difference with the previous situation is the way the parents interact with her. In this new situation, Mary's parents set high expectations for her and praise her often when she does well. They allow Mary to express her opinion. If Mary misbehaves, her parents explain the reason for the punishment and how to do better next time. If they punish her, they do so by withdrawing privileges or giving extra household chores.

(a) **Income:** How much do you think Mary will earn per month when she is 30 years old in today's Ghana Cedis?

[Route A:]

i) If Mary's parents spend a short time—5 minutes—with her every day talking or doing something together.

ii) If Mary's parents spend a good amount of time—60 minutes—with her every day talking or doing something together.

[Route B:]

i) If Mary is ranked at the bottom of the class, 30 out of 40.

ii) If Mary is ranked at the top of the class, 10 out of 40.

(b) **Family Support:** Pick the number of counters that reflects how likely you think Mary will support her family when the parents grow old.

[Route A:]

i) If Mary's parents spend a short time—5 minutes—with her every day talking or doing something together.

ii) If Mary's parents spend a good amount of time—60 minutes—with her every day talking or doing something together.

[Route B:]

i) If Mary is ranked at the bottom of the class, 30 out of 40.

ii) If Mary is ranked at the top of the class, 10 out of 40.

A.2 Cost Scenarios

1. **Introduction:** Now, we will talk about another child, Sarah, who lives in a community like yours. Sarah is ranked [at the bottom, 30 out of 40 of her class/ranked at the top, 10 out of 40 of her class]. Sarah's parents have a limited amount of time available, as they must do many things, such as household chores, working, or they just want to relax. The parents must decide how much time to spend with Sarah in each situation and how much time to spend on other things. Also, they must decide how to interact with Sarah in the given situation. Sarah's parents ask you for advice.

2. **Scenario 1:** Imagine the parents have 60 minutes available at home.

   (a) How many minutes of the 60 minutes would you advise the parents to allocate to spend with Sarah, talking or doing something together?

(b) How many minutes of the 60 minutes would you advise the parents to spend on doing other things to fulfill their other responsibilities in the household?

(c) Now, imagine Sarah wants to talk with the parents about an argument with another child at school. Sarah tells the parents that another child has called her a bad name, and she started insulting the other child because of that. The teacher scolded her for this behavior, and the situation made Sarah feel upset.

(d) If the parents have 60 minutes available, how would you advise the parents to approach the conversation with Sarah?

(1) The parents should tell Sarah not to insult other children. If she gets into trouble, the parents should punish Sarah by yelling or scolding.

(2) The parents should try to understand Sarah's perspective and discuss what she could do if the situation happens again. The parents should clarify that if it happens again, there will be consequences (e.g., additional housework).

3. **Scenario 2:** Imagine the same situation which I gave you. But now, the parents have only 20 minutes available at home.

(a) How many minutes of the 20 minutes would you advise the parents to allocate to spend with Sarah, talking or doing something together?

(b) How many minutes of the 20 minutes would you advise the parents to spend on doing other things to fulfill their other responsibilities in the household?

(c) If the parents have only 20 minutes available, how would you advise the parents to approach the conversation with Sarah?

(1) The parents should tell Sarah not to insult other children. If she gets into trouble, the parents should punish Sarah by yelling or scolding.

(2) The parents should try to understand Sarah's perspective and discuss what she could do if the situation happens again. The parents should clarify

that if it happens again, there will be consequences (e.g., additional housework).

A.3 Visual aids

(A) Visual Aid 1a

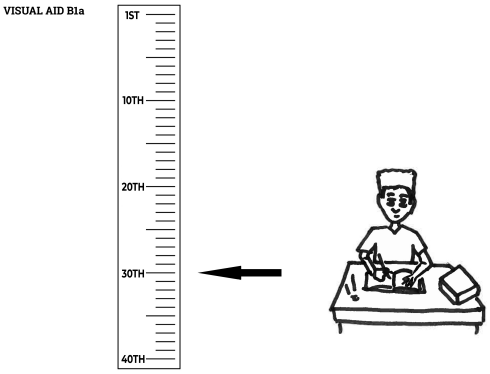
(B) Visual Aid 1b

(A) Visual Aid 2a

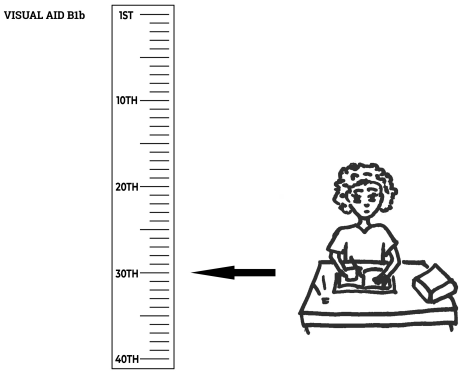
(B) Visual Aid 2b

(A) Visual Aid A1

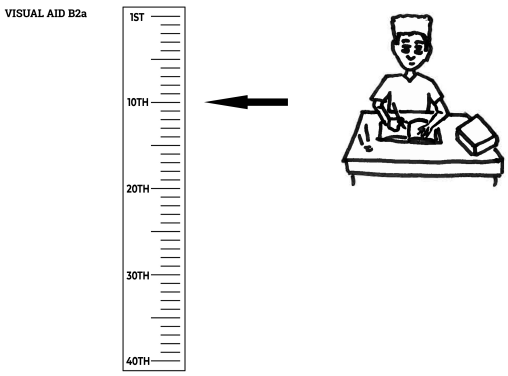
(B) Visual Aid A2



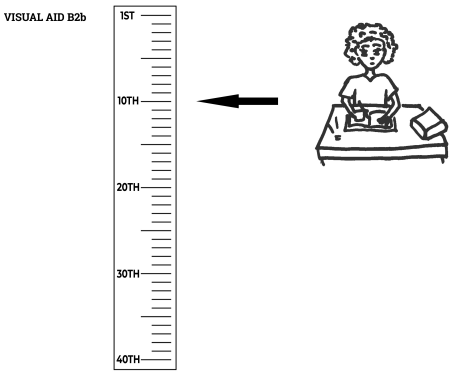
(A) Visual Aid B1a



(B) Visual Aid B1b



(A) Visual Aid B2a



(B) Visual Aid B2b