Experimental Script For:

Not Playing Favorites:
An Experiment on Parental Fairness Preferences

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In the experiment, the scenarios were presented to respondents in the following order:

- Base Case
- Lump Sum to Child L
- Higher Returns to Child H
- Higher-Returns to Child L & Lump Sum to Child H
- Higher Returns to Child L

This order was optimized during piloting to facilitate respondent understanding of the payment functions.

**Script**

In this experiment today, we are going to ask you several questions involving lottery tickets. In all of these scenarios, we will give you 10 lottery tickets and ask you how to split them between two things.

[Show demo lottery tickets.]

1. **Hypothetical lottery**

Before we go through today’s experiment, we want to give you a hypothetical demo for how this would work. So, imagine a hypothetical scenario where we present you with 10 lottery tickets. One of them will be selected randomly as the winning ticket [put your hand over your eyes and gesture as though picking one lottery ticket randomly] and whatever is specified on that ticket will happen. In this example, regardless of which ticket is chosen, the prize for winning would be cash paid to you, and you would choose for each ticket whether the prize delivered if that ticket is chosen is a smaller or larger amount of money, that is, 50 MWK or 100 MWK. If you choose 50 MWK for each ticket, you would be guaranteed to receive 50 MWK with certainty, because every ticket would say 50 MWK on it, so whichever ticket was chosen would also say 50 MWK [mime picking a ticket]. On the other hand, if you choose 100 MWK for each ticket you would be guaranteed to receive 100 MWK with certainty because every ticket would say 100 MWK. If you split your tickets, there is some chance that you would only win 50 MWK. Thus, if you definitely want a higher amount of money (which most people do!) you would just assign all tickets to 100 MWK. If you want some chance at a lower amount of money then you would allocate some tickets to 50 MWK, with your chances of winning 50 MWK instead of 100 MWK increasing as the number of tickets you pick to carry a prize of 50 MWK increases. How would you want to allocate these 10 lottery tickets?

50 MWK |___|___| (out of 10 tickets)

100 MWK |___|___| (out of 10 tickets)

[Enumerator note: If parent chooses a smaller amount, 50 MWK, for any ticket, first, ask why, then explain that there is no reason for the parent to choose 50 MWK as the prize for any lottery ticket, adjusting your explanation to match their reason.]
2. Description of experiment

Today, both your children will be taking a test. It’s the same test we described in our previous interview with you – a 30-minute exam on math. The test will be multiple choice questions that are drawn from the curricula that your children covered last year in school. So, your child’s expected score should be similar to tests that were administered in their schools last year. Both your children will receive a reward based on how well they do on the test – the better each child does, the higher the value of the reward that child will receive.

“Your children’s expected rewards will depend on their scores as well as a lottery we will perform. We will explain the lottery in more detail but it will determine the relationship between scores and rewards. So depending on how the lottery goes, your children could get a high reward for their score, or a lower reward per score. So as you can see, there is some chance/luck involved in the process. This means it won’t make sense to compare with other families, because they could have gotten more or less lucky than you in the lottery.”

One of your children will receive tutoring, based on your choices in today’s experiment. The goal of the tutoring is to help the child do better on today’s test so that they can get a higher reward after. The tutoring class would review material similar to what will be covered on the test. It is designed particularly to help your child do better on this specific test. So, the tutor will only go through material that will be covered on today’s test. It is likely that the child who receives an hour of tutoring will perform better on this test [show the test] than if he/she did not receive tutoring. And, the higher the score a child gets on the test, the higher his/her expected reward. Each child can earn up to 10,500 MWK. After the test, each child will be delivered his or her reward in the form of cash delivered directly to him or her; we will present each child directly with her or her individual reward, along with a certificate certifying the amount of cash earned, and will tell him or her that the cash is his or hers directly to keep and spend as they choose. So for example, if one of your children receives a reward of 4200 MWK and the other receives a reward of 1000 MWK, they will each be presented with those amounts at the end of the test along with a certificate saying how much they earned and telling them that they can spend the cash as they choose.

In order to decide which one of your children will receive tutoring, we’ll ask you to allocate 10 lottery tickets across your children. One out of the 10 lottery tickets will be randomly selected, and the child whose ticket is selected will receive one hour of tutoring. If that chosen lottery ticket belongs to “Child A”, he/she will receive tutoring, otherwise, “Child B” will receive tutoring. Thus, the child with a larger allocation of lottery tickets has a higher chance of receiving tutoring.

2.1 Description of how the tutoring is assigned
So, here’s how the lottery tickets for tutoring work. Here are 10 sample tickets. We’ll ask you to choose how you want to allocate your 10 lottery tickets across your children by checking “Child A” on each ticket or “Child B” on each ticket. One out of the 10 lottery tickets will be randomly selected [put your hand over your eyes and gesture as though picking one lottery ticket randomly], and the child whose ticket it is will receive one hour of tutoring. If that chosen lottery ticket belongs to “Child A”, he/she will receive tutoring, otherwise, “Child B” will receive tutoring. Thus, the child with a larger allocation of lottery tickets has a higher chance of receiving tutoring. You can choose which child receives the tutoring by simply giving all lottery tickets to that child and then we are guaranteed to give that child the tutoring. Alternatively, you may give some tickets to each child in order to give them both a chance to win. Any of these decisions is totally fine – it is up to you – and we will not tell your children what you chose or tell them that you had any influence over whether they did or did not receive tutoring. Do you have any questions before I start?

[Pause to answer questions]

[In response to questions about how surveyor will respond to children’s questions on how tutoring was allocated: children will be told that tutoring was allocated by a random lottery.]

Before we begin with the actual experiment, I would like to explain to you how the value of prizes that each child receives might depend on their test score. I will go through a few examples, and then explain to you how we will choose which example to use.

2.2 Practice Scenario A

A first example is here, shown on this scenario. [Fill in Practice Scenario A Visual Aid with appropriate values based on the parent’s beliefs, and then show the visual aid to the parent].

Let’s start with Child A. In this example, if Child A scores more than 40 points on the test, s/he will get 10 MWK for every point over 40. If s/he scores below 40, s/he won’t get any reward money [Point to left graph. Continue pointing to graph throughout explaining this and the next paragraph]. This graph shows how the prize (on the y-axis) for Child A would depend on the score she receives (on the x-axis). The graph shows that the prize is equal to 10 times the points scored over 40. So, if Child A gets 50 points, Child A would get a reward worth (50-40 =) 10 points X 10 MWK per point = 100 MWK.

Now let’s look at Child B [Point to right graph]. In this example, if Child B scores more than 40 points, s/he gets 50 MWK for every point he/she scores over 40. If s/he scores below 40, s/he won’t get any reward money. Again, the graph shows how the prize (on the y-axis) for Child B would depend on the score she receives (on the x-axis). The graph shows that the prize is equal to 50 times the score over 40. So, if Child B gets 70 points, he/she would get a reward worth (70-40) 30 points X 50 MWK per point = 1500 MWK.
Without tutoring, you expected Child A to score 50 on the test. Now remember that Child A gets 10 MWK for every point over 40. So, if Child A does in fact score 50, that means that Child A would get a prize worth 10 points \( \times \) 10 MWK per point = 100 MWK. With tutoring, you expected Child A to get a score of 60. If Child A does in fact score 60 without tutoring, he/she will receive a prize worth 20 points \( \times \) 10 MWK per point = 200 MWK. So, then the more tickets you give to Child A, the higher chance they get tutoring and get a higher reward.

Similarly, without tutoring, you expected Child B to score 70 on the test. Remember that Child B gets 50 MWK for every point over 40. If she does score 70, she would get a prize worth 30 \( \times \) 50 = 1500 MWK. With tutoring, you expected Child B to get a score of 80, in which case he/she will receive a prize worth 40 points \( \times \) 50 MWK = 2000 MWK. So, then the more tickets you give to Child B, the higher chance they get tutoring and get a higher reward.

For instance,

If Child A is allocated _____ tickets and Child B is allocated _____ tickets, expected reward for Child A is MWK______, while expected reward for Child B is MWK ______ [go through 1 (0,10) and 2 (10,0)].

A different way to see this would be to look at the following table [point to table below]. The top row shows how many tickets you would be allocating to Child A, the next row shows Child A’s expected reward if you gave that many tickets to her, and the next row shows Child B’s expected reward in that case. The more tickets you allocate to Child A, the higher the chance Child A gets tutoring relative to Child B, and so the higher Child A’s expected reward, and the lower Child B’s reward. [point to different ticket and reward amounts in the columns]. So basically, on the table you can think of picking a ticket allocation as the same as picking a column. You can also add up the rewards for both kids to get the total. If you do that you’ll notice that the total reward amount is highest when all tickets are allocated to Child B because that guarantees that Child B gets the tutoring. The reason that, on this scenario, guaranteeing that Child B gets the tutoring maximizes the total reward is that Child B is getting more MWK per point (50 as opposed to 10) and so Child B’s reward increases more with the tutoring than Child A’s. You will also notice that giving all tickets to Child B yields the largest gap between the
expected rewards of Child A and Child B. This is all specific to this scenario example; that might be different on different scenarios.

So to summarize: [Continue explaining using the table]

If you want to give the tutoring to Child A, you should allocate all tickets to Child A [point to the relevant column/part of graph].

If you want to give the tutoring to Child B, you should allocate all tickets to Child B [point to the relevant column/part of graph].

As discussed before, if you would like to maximize the total reward amount received by child A and child B combined, you would give all the tickets to child B [point to the relevant column] because their reward will increase more with the tutoring.

If you would like to give both children as close to the same expected reward as possible, you would allocate the tickets such that the expected rewards are the same, which means to give more tickets to Child A than Child B [point to the relevant columns/part of graph].

If you would like to give both children an equal opportunity to receive tutoring, you would allocate tickets equally: 5 tickets to Child A and 5 tickets to Child B [point to the relevant column/part of graph].

Do you have any questions? Now to make sure I explained things well, let me ask you a few questions. The goal is just to help you understand – don’t worry if you get any wrong. How would you allocate your tickets IF:

- You would like to definitely give the tutoring to Child A?
- You would like to definitely give the tutoring to Child B?
- You would like to maximize the total reward across both children?
- You would like to give both children an equal opportunity to receive tutoring?
- You would like to give both children as close to the same reward as possible?

[If parent gets any of the above answers wrong, continue explaining]

Which do you think you would have done if this was the real scenario? [Elicit allotments]

Why would you allocate ___ tickets to Child A, and ___ tickets to Child B [make sure that the parents’ explanation is consistent with their allocation].

2.3 Practice Scenario B

Let's walk through the second example scenario. [Show Practice Scenario B Visual Aid]. This one is really similar, except now things are flipped, so now it is Child B who gets 10 MWK for every point over a score of 40 and child A who gets 50 MWK for every point over 40. As before, you can see that these graphs show how the payoffs change with the scores for each child, and the tables show how the expected rewards change with the payoff for each child.
Do you have any questions? Now to make sure I explained things well, let me ask you a few questions. The goal is just to help you understand – don’t worry if you get any wrong. How would you allocate your tickets IF:

- You would like to definitely give the tutoring to Child A?
- You would like to definitely give the tutoring to Child B?
- You would like to maximize the total reward across both children?
- You would like to give both children an equal opportunity to receive tutoring?
- You would like to give both children as close to the same reward as possible? Enumerator, please pause on this question as it is likely to be the most confusing to parents

[If parent gets any of the above answers wrong, continue explaining]

Which do you think you would have done if this was the real scenario? [Elicit allotments]

Why would you allocate ___ tickets to Child A, and ___ tickets to Child B [make sure that the parents’ explanation is consistent with their allocation].

### 2.4 Description of how the actual scenario will be chosen for the experiment

I’ve just given you two different examples – conveyed by the two different sets of graphs and scenarios – for how each child’s payout will depend on their test score. You’re probably wondering, if this were the real experiment, which lottery ticket allocation, the one in Scenario A or Scenario B, will decide which child receives tutoring! In fact the answer is that I don’t know the identity of that scenario! There are 5 different potential scenarios/options we might use for the actual experiment. I will go through each of the 5 different potential options with you and find out how you would want to allocate your lottery tickets if that scenario is chosen as the actual scenario for the experiment. After making allocations for all 5 scenarios, the computer will randomly assign 1 out of these 5 scenarios to you: I do not know which one. This scenario will be the “lucky scenario.” Whichever scenario is chosen will show us how your children’s rewards will depend on their scores in the actual experiment. At that point, we will conduct the lottery using whatever allocation you chose on that lucky scenario – you won’t be able

<table>
<thead>
<tr>
<th></th>
<th>Beliefs w/o T</th>
<th>Beliefs w T</th>
<th>Scenario</th>
<th>Payoff w/o T</th>
<th>Payoff w T</th>
<th># Tickets o/f 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child A</td>
<td>50</td>
<td>60</td>
<td>Reward = $50 X (Score - 40)</td>
<td>500</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>Child B</td>
<td>70</td>
<td>80</td>
<td>Reward = $10 X (Score - 40)</td>
<td>300</td>
<td>400</td>
<td></td>
</tr>
</tbody>
</table>
to change your allocation! So please make sure to consider each scenario carefully because it might end up being the lucky scenario! And if it is, you won’t be able to change your answer later. To conduct the lottery, I’ll write your children’s names on these lottery tickets, following whatever allocation you originally gave on the lucky scenario. I will then place all the tickets in this box [show box]. We will then ask you to pick a lottery ticket with your eyes covered. Whichever child’s ticket is chosen will win an hour of tutoring.

2.5 Practice round with choosing the “lucky scenario”

So, to make this concrete, let’s pretend that these last two scenarios we did were the two scenarios used in the experiment. Then, after we filled them in, the computer will randomly assign 1 out of these 2 scenarios to you: the surveyor does not know the number. For that scenario, based on your ticket allocations, we’ll write your children’s names on these lottery tickets, and place all the tickets in this box [show box]. We will then ask you to pick a lottery ticket. So, you see that the child with a higher allocation of lottery tickets has a greater chance of winning the lottery. Your allocations for the two practice scenarios were:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Child A</th>
<th>Child B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario 1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>

Now, if the computer randomly assigns Scenario 2, we’ll write Child A’s name on 8 lottery tickets, and Child B’s name on 2 tickets, and place all the tickets in this box [show box]. Similarly, if the computer randomly assigns Scenario 1, we’ll write Child A’s name on 5 lottery tickets, and Child B’s name on 5 lottery tickets, and place all the tickets in this box [show box]. We will then ask you to pick a lottery ticket. The surveyor will reveal the child that won an hour of tutoring.

Do you have any questions?

If computer picks scenario A:

OK so the computer picked scenario A. That was the scenario where \$\{\text{childA}\} \text{ gets 10 MWK per point above } \$\{\text{cutoff}\} \text{ and } \$\{\text{childB}\} \text{ got 50 MWK per point above } \$\{\text{cutoff}\} \text{ and you gave } \$\{\text{scenarioA_childA}\} \text{ tickets to } \$\{\text{childA}\} \text{ and } \$\{\text{scenarioA_childB}\} \text{ tickets to } \$\{\text{childB}\}.

So if this were the real thing we’d now write \$\{\text{childA}\}'s name on \$\{\text{scenarioA_childA}\} \text{ tickets and } \$\{\text{childB}\}'s name on \$\{\text{scenarioA_childB}\} \text{ tickets and then draw a ticket who won the tutoring!}

[mime writing name on lottery tickets] So notice that in the end it is only one scenario -- in this example scenario A -- that determines which lottery tickets we use, and which child gets tutoring. Because your ticket allocation can make a big difference on which child gets tutoring, and because only one scenario is
randomly selected by the computer, you should think of each scenario as a standalone scenario and evaluate it in isolation, pretending that that scenario is the scenario selected by the computer and thinking what you want to happen in that case.

Please note: some scenarios will have higher rewards, and some will have lower rewards. This means that the rewards your children will receive will ultimately depend on the lottery -- conducted by the computer -- that chooses a scenario. you might be lucky and have a scenario chosen where rewards are higher, or unlucky and have a scenario chosen where rewards are lower. If you are uncomfortable with having some chance of having low rewards and some chance of having high rewards, you are completely free to withdraw at this time.

If computer picks scenario B:

OK so the computer picked scenario B. That was the scenario where ${childA} gets 50 MWK per point above ${cutoff} and ${childB} got 10 MWK per point above ${cutoff} and you gave ${scenarioB_childA} tickets to ${childA} and ${scenarioB_childB} tickets to ${childB}.

So if this were the real thing we’d now write ${childA}'s name on ${scenarioB_childA} tickets and ${childB}'s name on ${scenarioB_childB} tickets and then draw a ticket who won the tutoring!

[mime writing name on lottery tickets] So notice that in the end it is only one scenario -- in this example scenario B -- that determines which lottery tickets we use, and which child gets tutoring. Because your ticket allocation can make a big difference on which child gets tutoring, and because only one scenario is randomly selected by the computer, you should think of each scenario as a standalone scenario and evaluate it in isolation, pretending that that scenario is the scenario selected by the computer and thinking what you want to happen in that case.

Please note: some scenarios will have higher rewards, and some will have lower rewards. This means that the rewards your children will receive will ultimately depend on the lottery -- conducted by the computer -- that chooses a scenario. you might be lucky and have a scenario chosen where rewards are higher, or unlucky and have a scenario chosen where rewards are lower. If you are uncomfortable with having some chance of having low rewards and some chance of having high rewards, you are completely free to withdraw at this time.
3. Real-stakes experiment

3.1 Scenario 1 (Base Case)

Here’s your first scenario. With this scenario, both children get 10 MWK for every point scored over 40 on the test.

So, if Child A gets 50 points and Child B gets 70 points, with this scenario, Child A would get a reward worth \((50-40)\) points \(\times\) 10 MWK per point = 100 MWK, and Child B would get a reward worth \((70-40)\) points \(\times\) 10 MWK per point = 300 MWK. So, the expected reward for each child depends on the score they receive, but with this scenario, both children get 10 MWK for each point scored.

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<th>Payoff w T</th>
<th># Tickets o/f 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child A</td>
<td>50</td>
<td>60</td>
<td>10*(TS-40)</td>
<td>100</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Child B</td>
<td>70</td>
<td>80</td>
<td>10*(TS-40)</td>
<td>300</td>
<td>400</td>
<td></td>
</tr>
</tbody>
</table>

Without tutoring, you expected Child A to score 50 on the test; if they do in fact score 50, then Child A would get a prize worth \(10\*(50-40) = 100\) MWK. With tutoring, you expected Child A to get a score of 60. If she did score 60, he/she will receive a prize worth \(10\*(60-40) = 200\) MWK. So, then the more tickets you give to Child A, the higher chance you move them from a prize worth 100 MWK to a prize worth 200 MWK.

Similarly, without tutoring, you expected Child B to score 70 on the test, which means that Child B would get a prize worth \(10\*(70-40) = 300\) MWK. With tutoring, you expected Child B to get a score of 80. With this reward scenario, he/she will receive \(10\*(80-40) = MWK 400\) So, then the more tickets you give to Child B, the higher chance you move them from a prize worth MWK 300 to a prize worth MWK 400.

For instance,

If Child A is allocated _____ tickets and Child B is allocated _____ tickets, expected reward for Child A is MWK_____, while expected reward for Child B is MWK _____ [go through 1 (0,10) and 2 (10,0)].

If you would like to maximize Child A’s reward, you should allocate all tickets to Child A [point to the relevant column].

If you would like to maximize Child B’s reward, you should allocate all tickets to Child B [point to the relevant column].

[RA Check] If one child has a higher score gain from tutoring than the other: If you would like to maximize the total reward amount received by child A and child B combined, you would give the
tutoring to [Child with higher returns to tutoring] because s/he is the one whose expected reward would increase more with tutoring. To do that, you would allocate all the tickets to [Child with higher returns to tutoring] [point to the relevant column].

[RA Check] If one child does not have a higher score gain from tutoring than the other: If you want to maximize the total reward amount received by Child A and Child B combined, it wouldn’t matter how you allocate the tickets because they all have the same total expected reward – the only thing that differs across allocations is the split between Child A and B not the total (point to the total rewards row)

If you would like to give both children an equal opportunity to get tutoring, you should allocate tickets equally; 5 tickets to Child A and 5 tickets to Child B [point to the relevant column].

If you would like to give both children an equal opportunity to get the same reward, you should allocate more tickets to Child A than Child B [point to the relevant columns].

<table>
<thead>
<tr>
<th>Tickets to Child A</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child A's Expected Reward</td>
<td>100</td>
<td>110</td>
<td>120</td>
<td>130</td>
<td>140</td>
<td>150</td>
<td>160</td>
<td>170</td>
<td>180</td>
<td>190</td>
<td>200</td>
</tr>
<tr>
<td>Child B's Expected Reward</td>
<td>400</td>
<td>390</td>
<td>380</td>
<td>370</td>
<td>360</td>
<td>350</td>
<td>340</td>
<td>330</td>
<td>320</td>
<td>310</td>
<td>300</td>
</tr>
</tbody>
</table>

Do you have any questions?

So, here are 10 tickets we’ll ask you to divide these 10 lottery tickets between your children. One out of the 10 lottery tickets will be randomly selected by you, and the child whose ticket it is will receive one hour of tutoring. If that chosen lottery ticket belongs to “Child A”, he/she will receive tutoring, otherwise, “Child B” will receive tutoring. Thus, the child with a larger allocation of lottery tickets has a higher chance of receiving tutoring.

Because your ticket allocation can make a big difference on which child gets tutoring, and because only one scenario is randomly selected by the computer, you should think of each scenario as a standalone scenario and evaluate it in isolation, pretending that that scenario is the scenario selected by the computer and thinking what you want to happen in that case

Please allocate these 10 lottery tickets across your two children.

[Elicit allotments]
Why did you allocate ___ tickets to Child A, and ___ tickets to Child B? [make sure that the parents’ explanation is consistent with their allocation].

3.2 Scenario 2 (Lump Sum to Child L)

Here’s your second scenario. With this scenario, both children will still receive 10 MWK for every point scored over 40 on the test, but Child A will also get an extra 1000 MWK irrespective of his/her score. Child B will not receive any additional payment besides the 10 MWK per point over 40.

So, if Child A gets 50 points and Child B gets 70 points, with this scenario, Child A would get a reward worth (50-40 points * 10 MWK per point) = 100 MWK plus an additional 1000 MWK additional payment for a total payment of 1,100 MWK. Child B would just get the 10 MWK per point, so a reward worth (70-40 points * 10 MWK per point) = 300 MWK. So, the expected reward for each child depends on the score they receive, but with this scenario, both children get 10 MWK for each point scored over 40 on the test, with Child A getting an additional 1000 MWK on top of that that child A does not receive.

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<th>Payoff w T</th>
<th># Tickets o/f 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child A</td>
<td>50</td>
<td>60</td>
<td>10*(TS-40)+1000</td>
<td>1100</td>
<td>1200</td>
<td></td>
</tr>
<tr>
<td>Child B</td>
<td>70</td>
<td>80</td>
<td>10*(TS-40)</td>
<td>300</td>
<td>400</td>
<td></td>
</tr>
</tbody>
</table>

Without tutoring, you expected Child A to score 50 on the test; if they do in fact score 50, then Child A would get a prize worth (10*(50-40) + an additional 1000 MWK payment) = 1100 MWK. With tutoring, you expected Child A to get a score of 60. If she did score 60, he/she will receive a prize worth (10*(60-40) + an additional 1000 MWK payment) = 1200 MWK. So, then the more tickets you give to Child A, the higher chance you move them from a prize worth 1100 MWK to a prize worth 1200 MWK.

Similarly, without tutoring, you expected Child B to score 70 on the test, which means that Child B would get a prize worth (10*(70-40)) = 300 MWK. With tutoring, you expected Child B to get a score of 80. With this reward scenario, he/she will receive (10*(80-40)) = 400 MWK. So, then the more tickets you give to Child B, the higher chance you move them from a price worth 300 MWK to a price worth 400 MWK.

More comparison to previous scenario: So this scenario is very similar to the last scenario, where both children received 10 MWK for every point scored over 40. The only difference is that now Child A also gets an additional 1000 MWK added onto their payment. So this means that if you chose the same ticket allocation as on the first scenario, Child A would get a 1000 MWK larger reward whereas Child B would get the same reward. On scenario 1 you gave [#] tickets to Child A and [#] tickets to Child B. In this scenario, that means Child A’s expected reward would be [#] and Child B’s expected reward would be [#]
More generally, the fact that, relative to scenario 1, there is no change in the MWK per point for either child, but Child A has a higher base reward means that:

If you would like to maximize Child A’s reward or Child B’s reward, you would do the same thing as before: allocate all tickets to Child A or Child B [point to the relevant column].

[RA Check] If one child has a higher score gain from tutoring than the other: Similarly, if you would like to maximize the total reward amount received by child A and child B combined, you would still give the tutoring to [Child with higher returns to tutoring] because s/he is the one whose expected reward would increase more with tutoring. To do that, you would allocate all the tickets to [Child with higher returns to tutoring] [point to the relevant column/part of graph].

Likewise, if you would like to give both children an equal opportunity to get tutoring, you would still allocate tickets equally; 5 tickets to Child A and 5 tickets to Child B [point to the relevant column].

If Tickets to B on scenario 1 wasn’t 10: The only difference is that, if you would like to give both children an equal expected reward, then you would change your allocation relative to Scenario 1: you would allocate more tickets to Child A than Child B [point to the relevant columns].

<table>
<thead>
<tr>
<th>Tickets to Child A</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child A's Expected Reward</td>
<td>1100</td>
<td>1110</td>
<td>1120</td>
<td>1130</td>
<td>1140</td>
<td>1150</td>
<td>1160</td>
<td>1170</td>
<td>1180</td>
<td>1190</td>
<td>1200</td>
</tr>
<tr>
<td>Child B's Expected Reward</td>
<td>400</td>
<td>390</td>
<td>380</td>
<td>370</td>
<td>360</td>
<td>350</td>
<td>340</td>
<td>330</td>
<td>320</td>
<td>310</td>
<td>300</td>
</tr>
<tr>
<td>Tickets to Child B</td>
<td>10</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Do you have any questions?

So, here are **10** tickets we’ll ask you to divide these **10** lottery tickets between your children. One out of the **10** lottery tickets will be randomly selected by you, and the child whose ticket it is will receive one hour of tutoring. If that chosen lottery ticket belongs to “Child A”, he/she will receive tutoring, otherwise, “Child B” will receive tutoring. Thus, the child with a larger allocation of lottery tickets has a higher chance of receiving tutoring.

Because your ticket allocation can make a big difference on which child gets tutoring, and because only one scenario is randomly selected by the computer, you should think of each scenario as a standalone scenario and evaluate it in isolation, pretending that that scenario is the scenario selected by the computer and thinking what you want to happen in that case.
Please allocate these 10 lottery tickets across your two children.

[Elicit allotments]

Why did you allocate ___ tickets to Child A, and ___ tickets to Child B? [make sure that the parents’ explanation is consistent with their allocation].

**3.3 Scenario 3 (Higher Returns to Child H)**

Here’s your third scenario. On this scenario, Child A gets 10 MWK for every point scored over 40, whereas child B will get ten times as many MWK in rewards per score point over 40 – Child B will get **100** MWK per point scored over 40 on the test. Neither child receives any additional payment irrespective of their score. So, if Child A gets 50 points and Child B gets 70 points, with this scenario, Child A would get a reward worth (50-40 points * 10 MWK per point)=100 MWK, and Child B would get a reward worth (70-40 points *100 MWK per point)=3000 MWK. So, the expected reward for each child depends on the score they receive, but with this scenario, Child A gets 10 MWK for each point over 40, while Child B gets 100 MWK for every point scored over 40 on the test.

<table>
<thead>
<tr>
<th></th>
<th>Beliefs w/o T</th>
<th>Beliefs w T</th>
<th>Scenario</th>
<th>Payoff w/o T</th>
<th>Payoff w T</th>
<th># Tickets o/f 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child A</td>
<td>50</td>
<td>60</td>
<td>10*(TS-40)</td>
<td>100</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Child B</td>
<td>70</td>
<td>80</td>
<td>100*(TS-40)</td>
<td>3000</td>
<td>4000</td>
<td></td>
</tr>
</tbody>
</table>

Without tutoring, you expected Child A to score 50 on the test, which means that Child A would get a prize worth 10*(50-40) = 100 MWK. With tutoring, you expected Child A to get a score of 60. With this reward scenario, he/she will receive a prize worth 10*(60-40) = 200 MWK. So, then the more tickets you give to Child A, the higher chance you move them from a prize worth 100 MWK to a prize worth 200 MWK.

Similarly, without tutoring, you expected Child B to score 70 on the test, which means that Child B would get a prize worth 100*(70-40) = 3000 MWK. With tutoring, you expected Child B to get a score of 80. With this reward scenario, he/she will receive 100*(80-40) MWK = 4000. So, then the more tickets you give to Child B, the higher chance you move them from a prize worth MWK 3000 to a prize worth MWK 4000.

**More comparison to Scenario 1:** Let’s compare this scenario to scenario 1 – on that scenario, both kids received 10 MWK per point above 40, whereas on this scenario, child A is still receiving 10 MWK per point whereas child B is receiving 10 times that much. So the fact that Child B now earns ten times as much reward per point over 40 as Child A means that, relative to scenario 1, if you chose the same ticket allocation as before, Child B would get ten times as large a reward whereas Child A would get the same
reward. On scenario 1 you gave [#] tickets to Child A and [#] tickets to Child B. In this scenario, that means Child A’s expected reward would be [#] and Child B’s expected reward would be [#]

More generally, the fact that Child A and Child B get different rewards per point means that the more tickets you allocate to Child B, the more you

- increase the expected amount Child B gets relative to Child A by making it more likely that child B will get the tutoring
- increase the total reward amount received by your kids, since Child B gets more rewards per point.

This means that if you would like to maximize the total reward amount received by both your kids, you would give all the tickets to child B [point to the relevant column]

If you would like to give both children the same expected reward, you should allocate more tickets to Child A than Child B [point to the relevant columns].

And, like before, if you would like to maximize Child A’s reward, you should allocate all tickets to Child A [point to the relevant column].

If you would like to maximize Child B’s reward, you should allocate all tickets to Child B [point to the relevant column].

If you would like to give both children an equal opportunity to get tutoring, you should allocate tickets equally; 5 tickets to Child A and 5 tickets to Child B [point to the relevant column].

<table>
<thead>
<tr>
<th>Tickets to Child A</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child A’s Expected Reward</td>
<td>100</td>
<td>110</td>
<td>120</td>
<td>130</td>
<td>140</td>
<td>150</td>
<td>160</td>
<td>170</td>
<td>180</td>
<td>190</td>
<td>200</td>
</tr>
<tr>
<td>Child B’s Expected Reward</td>
<td>4000</td>
<td>3900</td>
<td>3800</td>
<td>3700</td>
<td>3640</td>
<td>3500</td>
<td>3400</td>
<td>3300</td>
<td>3200</td>
<td>3100</td>
<td>3000</td>
</tr>
<tr>
<td>Tickets to Child B</td>
<td>10</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Do you have any questions?

So, here are 10 tickets we’ll ask you to divide these 10 lottery tickets between your children. One out of the 10 lottery tickets will be randomly selected by you, and the child whose ticket it is will receive one
hour of tutoring. If that chosen lottery ticket belongs to “Child A”, he/she will receive tutoring, otherwise, “Child B” will receive tutoring. Thus, the child with a larger allocation of lottery tickets has a higher chance of receiving tutoring.

Because your ticket allocation can make a big difference on which child gets tutoring, and because only one scenario is randomly selected by the computer, you should think of each scenario as a standalone scenario and evaluate it in isolation, pretending that that scenario is the scenario selected by the computer and thinking what you want to happen in that case.

Please allocate these 10 lottery tickets across your two children.

[Elicit allotments]

Why did you allocate ___ tickets to Child A, and ___ tickets to Child B? [make sure that the parents’ explanation is consistent with their allocation].

3.4 Scenario 4 (Higher-Returns to Child L & Lump Sum to Child H)

Here’s your fourth scenario. Here, Child A will get more reward per point: he/she will get 100 MWK for every point scored over 40 on the test. Child B in contrast only gets 10 MWK per score point over 40 on the test. However, Child B will also get an extra 6000 MWK irrespective of his/her score. So, if Child A gets 50 points and Child B gets 70 points, with this scenario, Child A would get a reward worth (50-40 points * 100 MWK per point)=1000 MWK, and Child B would get a reward worth (70-40 points *10 MWK per point + 6000 MWK)=6300 MWK. So, the expected reward for each child depends on the score they receive, but with this scenario, Child A gets 100 MWK for each point over 40, and although Child B gets only 10 MWK for each point over 40, he/she also gets an additional 6000 MWK irrespective of his/her score.

<table>
<thead>
<tr>
<th>Scenarios</th>
<th>Beliefs w/o T</th>
<th>Beliefs w T</th>
<th>Scenario</th>
<th>Payoff w/o T</th>
<th>Payoff w T</th>
<th># Tickets o/f 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child A</td>
<td>50</td>
<td>60</td>
<td>100*(TS-40)</td>
<td>1000</td>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>Child B</td>
<td>70</td>
<td>80</td>
<td>10*(TS-40) + 6000</td>
<td>6300</td>
<td>6400</td>
<td></td>
</tr>
</tbody>
</table>

Without tutoring, you expected Child A to score 50 on the test, which means that Child A would get a prize worth 100*(50-40) = 1000 MWK. With tutoring, you expected Child A to get a score of 60. With this reward scenario, he/she will receive a prize worth 100*(60-40) = 2000 MWK. So, then the more tickets you give to Child A, the higher chance you move them from a prize worth 1000 MWK to a prize worth 2000 MWK.
Similarly, without tutoring, you expected Child B to score 70 on the test, which means that Child B would get a prize worth \(10 \times (70 - 40) + 6000\) = 6300 MWK. With tutoring, you expected Child B to get a score of 80. With this reward scenario, he/she will receive \(10 \times (80 - 40) + 6000\) = 6400 MWK. So, then the more tickets you give to Child B, the higher chance you move them from a prize worth MWK 6300 to a prize worth MWK 6400.

**More comparison to previous scenario:** There’s a couple key differences relative to the previous scenario:

- Now it’s Child A who earns ten times as much reward per point as Child B as opposed to the previous scenario, where Child B earned ten times as much per point as Child A.
- However, note that compared to the previous scenario, Child B now earns an additional 6000 MWK irrespective of his/her score, while Child A gets no extra reward.

So, on this scenario there are two things to notice:

- Regardless of how many tickets you allocate to Child A, Child B’s expected reward will be higher than Child A’s expected reward, because Child B gets 6000 MWK whether or not he/she receives tutoring.
- Child A’s reward would increase a lot more from receiving tutoring than Child B’s would, because Child A receives ten times as many MWK per point as Child B does.

More generally, the fact that Child A gets more rewards per point means that the more tickets you allocate to Child A, the more you

- increase the expected amount Child A gets relative to Child B by making it more likely that child A will get the tutoring
- increase the total reward amount received by your kids, since Child A gets more rewards per point.

This means that if you would like to maximize the total reward amount received by both your kids, you would give all the tickets to child A [point to the right column where child A receives 10 tickets]

In fact, with this scenario, if you would like to give both as close to the same expected reward as possible, you should **still** allocate more tickets to Child A than Child B [point to the right column where child A receives 10 tickets]; this is because, although Child A gets more rewards per point, Child B gets that extra 6000 MWK irrespective of his/her score

If instead you would like to give both children an opportunity to get tutoring, you should allocate some tickets to both children [point to the columns where child A receives 1 – 9 tickets].

<table>
<thead>
<tr>
<th>Tickets to Child A</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>
Do you have any questions?

So, here are 10 tickets we’ll ask you to divide these 10 lottery tickets between your children. One out of the 10 lottery tickets will be randomly selected by you, and the child whose ticket it is will receive one hour of tutoring. If that chosen lottery ticket belongs to “Child A”, he/she will receive tutoring, otherwise, “Child B” will receive tutoring. Thus, the child with a larger allocation of lottery tickets has a higher chance of receiving tutoring.

Because your ticket allocation can make a big difference on which child gets tutoring, and because only one scenario is randomly selected by the computer, you should think of each scenario as a standalone scenario and evaluate it in isolation, pretending that that scenario is the scenario selected by the computer and thinking what you want to happen in that case.

Please allocate these 10 lottery tickets across your two children.

<table>
<thead>
<tr>
<th>Elicit allotments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why did you allocate ___ tickets to Child A, and ___ tickets to Child B? [make sure that the parents’ explanation is consistent with their allocation].</td>
</tr>
</tbody>
</table>

### 3.5 Scenario 5 (Higher Returns to Child L)

Here’s your fifth scenario. Like the previous scenario, Child A will get 100 MWK for every point scored over 40 on the test, whereas child B will get 10 MWK in rewards for every point over 40. However, unlike the previous scenario, Child B will not get an extra 6000 MWK. So, if Child A gets 50 points and Child B gets 70 points, with this scenario, Child A would get a reward worth (50-40 points * 100 MWK per point)=1000 MWK, and Child B would get a reward worth (70-40 points * 10 MWK per point)=300 MWK. So, the expected reward for each child depends on the score they receive, but with this scenario, Child A gets 100 MWK per point over 40, while Child B gets 10 MWK for every point over scored 40 on the test, but does not get an additional 6000 MWK like before.
Without tutoring, you expected Child A to score 50 on the test, which means that Child A would get a prize worth $10\times(50-40) = 1000$ MWK. With tutoring, you expected Child A to get a score of 60. With this reward scenario, he/she will receive a prize worth $10\times(60-40) = 2000$ MWK. So, then the more tickets you give to Child A, the higher chance you move them from a prize worth 1000 MWK to a prize worth 2000 MWK.

Similarly, without tutoring, you expected Child B to score 70 on the test, which means that Child B would get a prize worth $10\times(70-40) = 300$ MWK. With tutoring, you expected Child B to get a score of 80. With this reward scenario, he/she will receive $10\times(80-40) = 400$ MWK. So, then the more tickets you give to Child B, the higher chance you move them from a prize worth MWK 300 to a prize worth MWK 400.

**More comparison to previous scenario:** So the fact that Child A still earns ten times as much reward per point as Child B, but that Child B does not earn an extra 6000 MWK means that relative to the previous scenario, if you chose the same ticket allocation as before, Child A would get the same reward but Child B would get a reward 6000 MWK smaller than the reward earned in the previous scenario. Last time you gave [#] tickets to Child A and [#] tickets to Child B. In this scenario, that means Child A’s expected reward would be [#] and Child B’s expected reward would be [#]

More generally, the fact that Child A and Child B get different rewards per point means that the more tickets you allocate to Child A, the more you

- increase the expected amount Child A gets relative to Child B by making it more likely that child A will get the tutoring
- increase the total reward amount received by your kids, since Child A gets more rewards per point.

This means that, like on the last scenario, if you would like to maximize the total reward amount received by both your kids, you would give all the tickets to child A [point to the relevant column]

However, unlike the last scenario, if you would like to give both children as close to the same expected reward as possible, you should allocate more tickets to Child B than Child A [point to the relevant columns].

And, like before, if you would like to maximize Child A’s reward, you should allocate all tickets to Child A [point to the relevant column].
If you would like to maximize Child B’s reward, you should allocate all tickets to Child B [point to the relevant column].

If you would like to give both children an equal opportunity to get tutoring, you should allocate tickets equally; 5 tickets to Child A and 5 tickets to Child B [point to the relevant column].

<table>
<thead>
<tr>
<th>Tickets to Child A</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child A's Expected Reward</td>
<td>1000</td>
<td>1100</td>
<td>1200</td>
<td>1300</td>
<td>1400</td>
<td>1500</td>
<td>1600</td>
<td>1700</td>
<td>1800</td>
<td>1900</td>
<td>2000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tickets to Child B</th>
<th>10</th>
<th>9</th>
<th>8</th>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child B's Expected Reward</td>
<td>400</td>
<td>390</td>
<td>380</td>
<td>370</td>
<td>360</td>
<td>350</td>
<td>340</td>
<td>330</td>
<td>320</td>
<td>310</td>
<td>300</td>
</tr>
</tbody>
</table>

Do you have any questions?

So, here are 10 tickets we’ll ask you to divide these 10 lottery tickets between your children. One out of the 10 lottery tickets will be randomly selected by you, and the child whose ticket it is will receive one hour of tutoring. If that chosen lottery ticket belongs to “Child A”, he/she will receive tutoring, otherwise, “Child B” will receive tutoring. Thus, the child with a larger allocation of lottery tickets has a higher chance of receiving tutoring.

Because your ticket allocation can make a big difference on which child gets tutoring, and because only one scenario is randomly selected by the computer, you should think of each scenario as a standalone scenario and evaluate it in isolation, pretending that that scenario is the scenario selected by the computer and thinking what you want to happen in that case.

Please allocate these 10 lottery tickets across your two children.

[Elicit allotments]

Why did you allocate ___ tickets to Child A, and ___ tickets to Child B? [make sure that the parents’ explanation is consistent with their allocation].

3.6 Lottery ticket selection

Having made all the allocations, we will now go into the lottery ticket selection. Your allocations for the five scenarios were:
Like we discussed earlier, the computer will randomly assign 1 out of these 5 scenarios to you: the surveyor does not know the number. For that scenario, based on your ticket allocations, we’ll write your children’s names on these lottery tickets, and place all the tickets in this box [show box]. We will then ask you to pick a lottery ticket.

Do you have any questions?