Alignment Experiment 8 - Plan

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marshall call
UWA to mark job
wide
Singapore possibility

Summary

- Experiment 8 (previously called Experiment 4 in the context of the article, but it is the 8th alignment experiment of the thesis) investigates the effects of alignment, reliability type, NPV amount, and reliability amount on allocations.
- IVs
  - Alignment: low and high
    - Between-subjects
  - Reliability type: implicit and explicit
    - Between-subjects
  - Reliability amount: low and high
    - Within-subjects
  - NPV amount: vector of five approximately equally spaced integers between 400-900 ~ is this too large?
    - Within-display
    - Slightly different between each display
- DVs
  - Allocation (0-100)
  - Ranking (1-5)

Hypotheses

Omnibus

- Alignment × reliability amount × reliability type × NPV amount interaction
- See Figure 1.

Specifically

- *Explicit reliability, high alignment*: NPV amount × reliability amount interaction.
  - **Participants will rely on NPV when told it is reliable, but will rely on intrinsic features when told NPV is unreliable.**
- *Explicit reliability, low alignment*: main effect of NPV amount.
  - **Participants will rely on NPV regardless of stated reliability.**
- *Implicit reliability*: no effects.
  - **Participants will allocate equally across projects.**

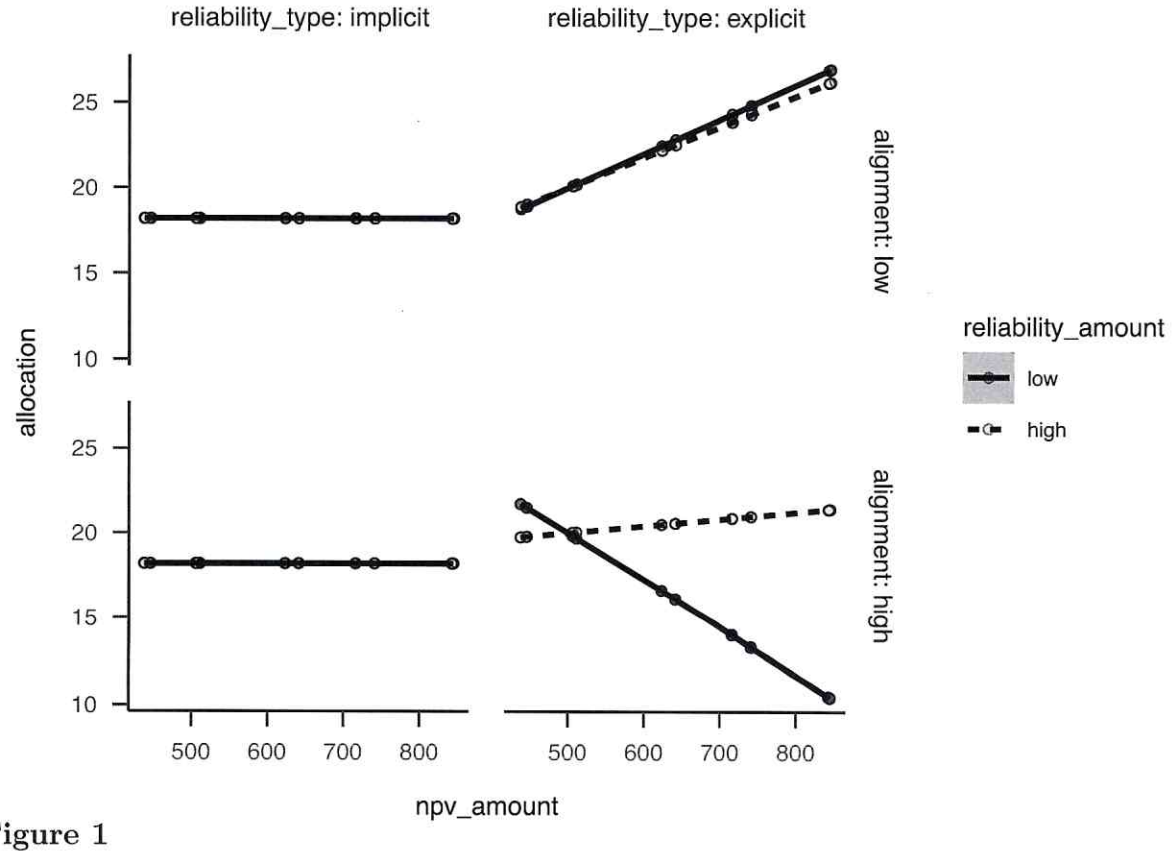

Figure 1

Alignment Experiment 8 predicted data

Power analysis

- I conducted a power analysis through simulation of the effects listed above (and the simple effects implied by them)
  - I simulated data with the same regression coefficients as Experiment 2 for the explicit condition, no effects for the implicit condition (as shown in Figure 1), and the intercept and residual variance of Experiment 2.
  - The null effects are analysed using the two one-sided tests (TOST) procedure, or *equivalence* testing (Lakens et al., 2018), and setting the smallest effect size of interest to the smallest difference that leads to a significant equivalence between low and high implicit reliability for low alignment in Experiment 7.
- See Figure 2.
- The analysis suggests a total sample size of 448 (112 × 4). ~ wow
  - This means a total cost of approximately $1,325.99 AUD (£730.24).

how much for exps

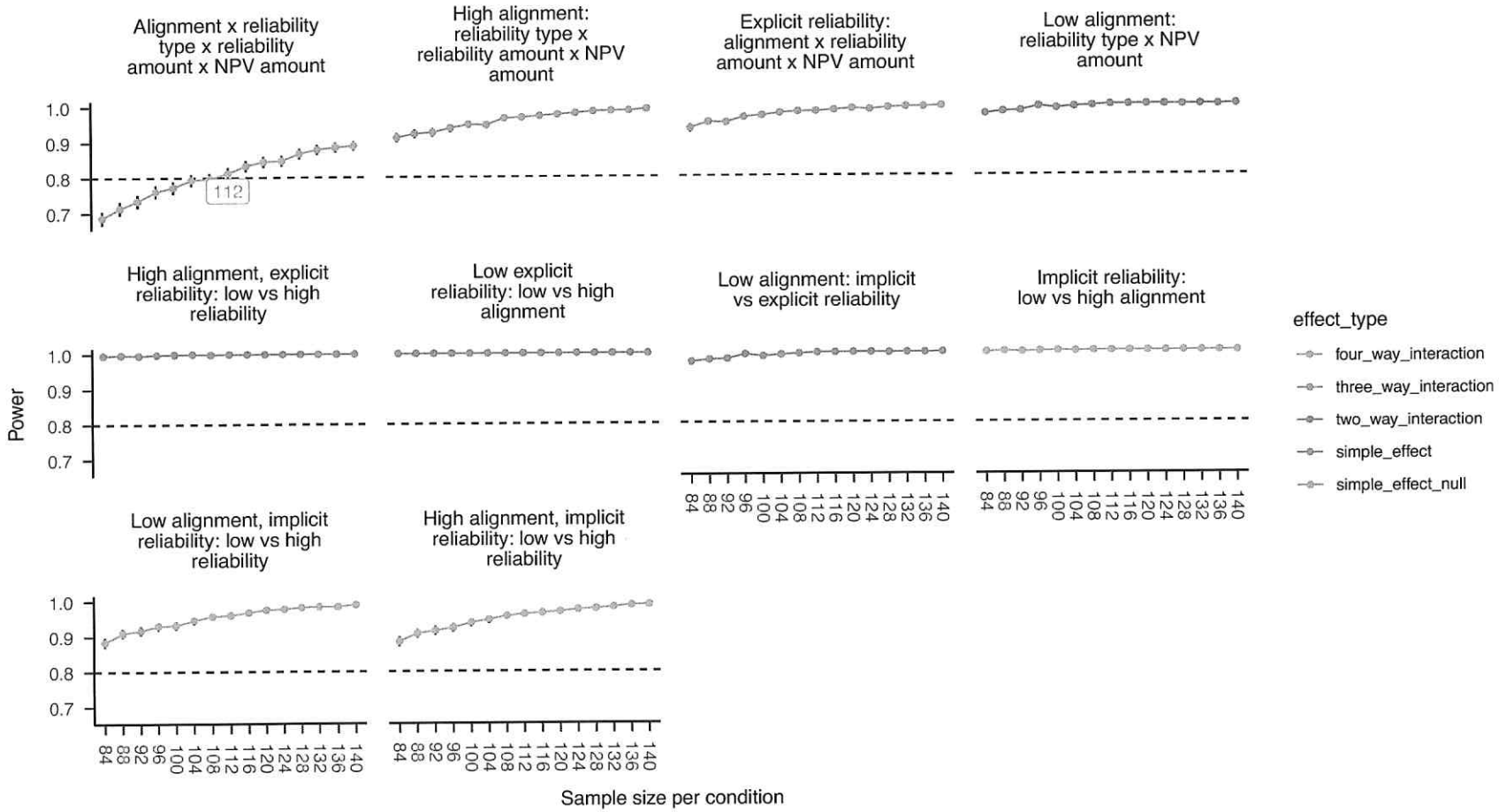

Figure 2

Alignment Experiment 8 power curve. Labels indicate lowest sample size above 80% power.

Materials

- Instructions
  - One version for each reliability type condition.
  - Includes a test of basic NPV understanding.
    * Also acts as a sort of attention check as, though it is required to answer, the response should only be one of two letters.
- Each participant will see two project displays. like to see
  - One for each reliability amount condition.
  - Each display will have one of two sets of five projects (10 individual projects total).
  - Each display has a table describing the projects in the set, with ranking and allocation inputs.
  - Before each display, participants will see an "interstitial" page, whose role is 1. to introduce the next display, and 2. an attention check (not required to answer, so can be skipped if the interstitial text isn't read).
- The following are counterbalanced:
  - The association of reliability amount and project set (two variations).
  - The association of business name with NPV (five latin square variations).
  - Project variation (five variations per alignment condition).
    * For high alignment this means the project type.
    * For low alignment this means the intrinsic feature variant for the relevant project type.
- The following are randomised:
  - Table column order.

  - Project display order.

- The below figures show a sample of the possible project displays participants will see.
  - For the low alignment displays, only one "variation" is shown here.
    * Across the two reliability amount conditions this shows all 10 possible project types.
    * Both reliability type conditions are shown.
      · All that differs here is the way the NPV is described.
  - For the high alignment displays, all five "variations" are shown.
    * For both reliability amount conditions.

Screenshots

Imagine that you are a CEO of a large company composed of many individual businesses.

You will be shown information about a number of projects that your company is considering to invest in. Some specific information about the project itself is provided. In addition to those numbers, you will find each project's net present value (NPV), which is the company's estimation of the future returns of the project. An NPV that is greater than 0 (zero) indicates that there is an expectation of profit. The higher the NPV, the better the expectations for each project.

For each project, you will see a range of possible NPVs alongside a 'midpoint'. The range literally represents the range of plausible outcomes, but the midpoint is the best guess, and hence is the same as a single NPV.

Your task is to rank the projects in order of investment priority and decide how to allocate the available budget (as a percentage) between them.

Test yourself on the above instructions. If Project A has an NPV of $100, and Project B has an NPV of $200, write in the following text box the name of the project that has a greater expectation of profit: Project

Continue

Figure 3

Instructions, reliability type: implicit.

The projects are not correlated

smaller range means lower risk

Imagine that you are a CEO of a large company composed of many individual businesses.

You will be shown information about a number of projects that your company is considering to invest in. Some specific information about the project itself is provided. In addition to those numbers, you will find each project's net present value (NPV), which is the company's estimation of the future returns of the project. An NPV that is greater than 0 (zero) indicates that there is an expectation of profit. The higher the NPV, the better the expectations for each project.

For each project, you will see an NPV, alongside a statement of whether NPV is considered to be a reliable (or an unreliable) metric for that project. There are usually a range of plausible NPV outcomes, so when NPV is considered to be "reliable" this means that the range of possible values is relatively narrow (indicating high confidence in the estimate). Conversely, when NPV is considered to be "unreliable", this means that the range of possible values is relatively wider (indicating low confidence in the estimate).

Your task is to rank the projects in order of investment priority and decide how to allocate the available budget (as a percentage) between them.

Test yourself on the above instructions. If Project A has an NPV of $100, and Project B has an NPV of $200, write in the following text box the name of the project that has a greater expectation of profit: Project

Continue

Figure 4

Instructions, reliability type: explicit.

You will now see the first project display. It is important that you pay attention and read through the task carefully. Click the following checkbox before continuing on to the next page:

Continue

Figure 5

Interstitial 1.

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking: ÷	Ranking: ÷	Ranking: ÷	Ranking: ÷	Ranking: ÷
Project allocation (%)	Allocation: ÷	Allocation: ÷	Allocation: ÷	Allocation: ÷	Allocation: ÷
Business name	Vital Records	Microxy	Dinerly	Refinera	Logivia
Project type	record label	microchip	restaurant chain	oil well	shipping logistics
Predicted project features	• Record projects completed: 8 a year • Radio listenership nationally: 2 million • Relevant network connections: 13	• Microchips produced: 4000 an hour • Usable semiconductor yield after testing: 60% • Compatible PCs in the market: 80%	• Restaurants established: 9 a year • Number of reservations on a Saturday night: 100 • Positive reviews: 40 a month	• Oil extracted: 2000L an hour • Time the machinery lasts before requiring maintenance: 7 years • Probability of finding oil: 90%	• Packages shipped: 800 a week • Number of packages that do not spend time in a bottleneck: 400 a day • Average accuracy of shipments: 94%
NPV ($)	516 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)	735 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)	407 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)	636 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)	836 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)

Continue

why predicted

100%

Do we want a limit on allocation per project?

Figure 6

Interstitial 2.

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking: ÷	Ranking: ÷	Ranking: ÷	Ranking: ÷	Ranking: ÷
Project allocation (%)	Allocation: ÷	Allocation: ÷	Allocation: ÷	Allocation: ÷	Allocation: ÷
Business name	Logivia	Refinera	Vital Records	Microxy	Dinerly
Project type	shipping logistics	oil well	record label	microchip	restaurant chain
Predicted project features	• Packages shipped: 800 a week • Number of packages that do not spend time in a bottleneck: 400 a day • Average accuracy of shipments: 94%	• Oil extracted: 2000L an hour • Time the machinery lasts before requiring maintenance: 7 years • Probability of finding oil: 90%	• Record projects completed: 8 a year • Radio listenership nationally: 2 million • Relevant network connections: 13	• Microchips produced: 4000 an hour • Usable semiconductor yield after testing: 60% • Compatible PCs in the market: 80%	• Restaurants established: 9 a year • Number of reservations on a Saturday night: 100 • Positive reviews: 40 a month
NPV ($)	836 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)	636 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)	516 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)	735 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)	407 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)

Continue

Figure 7

Project allocation - alignment: low, reliability type: explicit, reliability amount: high, variation: 1.

what's different from previous

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking: ÷	Ranking: ÷	Ranking: ÷	Ranking: ÷	Ranking: ÷
Project allocation (%)	Allocation: ÷	Allocation: ÷	Allocation: ÷	Allocation: ÷	Allocation: ÷
Business name	Vital Records	Logivia	Microxy	Refinera	Dinerly
Project type	record label	shipping logistics	microchip	oil well	restaurant chain
Predicted project features	• Record projects completed: 8 a year • Radio listenership nationally: 2 million • Relevant network connections: 13	• Packages shipped: 800 a week • Number of packages that do not spend time in a bottleneck: 400 a day • Average accuracy of shipments: 94%	• Microchips produced: 4000 an hour • Usable semiconductor yield after testing: 60% • Compatible PCs in the market: 80%	• Oil extracted: 2000L an hour • Time the machinery lasts before requiring maintenance: 7 years • Probability of finding oil: 90%	• Restaurants established: 9 a year • Number of reservations on a Saturday night: 100 • Positive reviews: 40 a month
NPV ($)	516 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)	836 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)	735 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)	636 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)	407 million. (In this industry, NPV is a **reliable** predictor of a project's profits.)

Continue

Figure 8

Project allocation - alignment: low, reliability type: explicit, reliability amount: low, variation: 1.

what's different?

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking: ÷	Ranking: ÷	Ranking: ÷	Ranking: ÷	Ranking: ÷
Project allocation (%)	Allocation: ÷	Allocation: ÷	Allocation: ÷	Allocation: ÷	Allocation: ÷
Business name	Vital Records	Dinerly	Logivia	Refinera	Microxy
Project type	record label	restaurant chain	shipping logistics	oil well	microchip
Predicted project features	• Record projects completed: 8 a year • Radio listenership nationally: 2 million • Relevant network connections: 13	• Restaurants established: 9 a year • Number of reservations on a Saturday night: 100 • Positive reviews: 40 a month	• Packages shipped: 800 a week • Number of packages that do not spend time in a bottleneck: 400 a day • Average accuracy of shipments: 94%	• Oil extracted: 2000L an hour • Time the machinery lasts before requiring maintenance: 7 years • Probability of finding oil: 90%	• Microchips produced: 4000 an hour • Usable semiconductor yield after testing: 60% • Compatible PCs in the market: 80%
NPV ($)	490-542 million. (Midpoint: 516.)	387-427 million. (Midpoint: 407.)	794-878 million. (Midpoint: 836.)	604-668 million. (Midpoint: 636.)	698-772 million. (Midpoint: 735.)

Continue

Figure 9

Project allocation - alignment: low, reliability type: implicit, reliability amount: high, variation: 1.

- high NPV - should have higher range
- should range be visual

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking:	Ranking:	Ranking:	Ranking:	Ranking:
Project allocation (%)	Allocation:	Allocation:	Allocation:	Allocation:	Allocation:
Business name	Vital Records	Logivia	Dinerly	Microxy	Refinera
Project type	record label	shipping logistics	restaurant chain	microchip	oil well
Predicted project features	• Record projects completed: 8 a year • Radio listenership nationally: 2 million • Relevant network connections: 13	• Packages shipped: 800 a week • Number of packages that do not spend time in a bottleneck: 400 a day • Average accuracy of shipments: 94%	• Restaurants established: 9 a year • Number of reservations on a Saturday night: 100 • Positive reviews: 40 a month	• Microchips produced: 4000 an hour • Usable semiconductor yield after testing: 60% • Compatible PCs in the market: 80%	• Oil extracted: 2000L an hour • Time the machinery lasts before requiring maintenance: 7 years • Probability of finding oil: 90%
NPV ($)	490-542 million. (Midpoint: 516.)	794-878 million. (Midpoint: 836.)	387-427 million. (Midpoint: 407.)	698-772 million. (Midpoint: 735.)	604-668 million. (Midpoint: 636.)

Continue

Figure 10

Project allocation - alignment: low, reliability type: implicit, reliability amount: low, variation: 1.

difference to last?

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking:	Ranking:	Ranking:	Ranking:	Ranking:
Project allocation (%)	Allocation:	Allocation:	Allocation:	Allocation:	Allocation:
Business name	Oilpier	Petroyield	Enfuel	Liquid Pipeline	Refinera
Project type	oil well	oil well	oil well	oil well	oil well
Predicted project features	• Oil extracted: 3054L an hour • Time the machinery lasts before requiring maintenance: 10 years • Probability of finding oil: 94%	• Oil extracted: 4108L an hour • Time the machinery lasts before requiring maintenance: 14 years • Probability of finding oil: 99%	• Oil extracted: 2000L an hour • Time the machinery lasts before requiring maintenance: 7 years • Probability of finding oil: 90%	• Oil extracted: 3581L an hour • Time the machinery lasts before requiring maintenance: 12 years • Probability of finding oil: 96%	• Oil extracted: 2527L an hour • Time the machinery lasts before requiring maintenance: 8 years • Probability of finding oil: 92%
NPV ($)	604-668 million. (Midpoint: 636.)	387-427 million. (Midpoint: 407.)	794-878 million. (Midpoint: 836.)	490-542 million. (Midpoint: 516.)	698-772 million. (Midpoint: 735.)

Continue

Figure 11

Project allocation - alignment: high, reliability type: implicit, reliability amount: high, variation: 1.

NPV & Range

So no obvious choice or do we want obvious - payoffs ? for all questions

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking:	Ranking:	Ranking:	Ranking:	Ranking:
Project allocation (%)	Allocation:	Allocation:	Allocation:	Allocation:	Allocation:
Business name	Altchip	Microxy	GridCircuit	Plextronics	Wired Board
Project type	microchip	microchip	microchip	microchip	microchip
Predicted project features	• Microchips produced: 7162 an hour • Usable semiconductor yield after testing: 69% • Compatible PCs in the market: 86%	• Microchips produced: 4000 an hour • Usable semiconductor yield after testing: 60% • Compatible PCs in the market: 80%	• Microchips produced: 8216 an hour • Usable semiconductor yield after testing: 72% • Compatible PCs in the market: 88%	• Microchips produced: 6108 an hour • Usable semiconductor yield after testing: 66% • Compatible PCs in the market: 84%	• Microchips produced: 5054 an hour • Usable semiconductor yield after testing: 63% • Compatible PCs in the market: 82%
NPV ($)	490-542 million. (Midpoint: 516.)	794-878 million. (Midpoint: 836.)	387-427 million. (Midpoint: 407.)	604-668 million. (Midpoint: 636.)	698-772 million. (Midpoint: 735.)

Continue

Figure 12

Project allocation - alignment: high, reliability type: implicit, reliability amount: high, variation: 2.

how different from previous?
what does each subject see

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking:	Ranking:	Ranking:	Ranking:	Ranking:
Project allocation (%)	Allocation:	Allocation:	Allocation:	Allocation:	Allocation:
Business name	Direct Vector	Solgistics	Logivia	Tough Haul	Cargo Ace
Project type	shipping logistics	shipping logistics	shipping logistics	shipping logistics	shipping logistics
Predicted project features	• Packages shipped: 1010 a week • Number of packages that do not spend time in a bottleneck: 505 a day • Average accuracy of shipments: 95%	• Packages shipped: 1432 a week • Number of packages that do not spend time in a bottleneck: 716 a day • Average accuracy of shipments: 97%	• Packages shipped: 800 a week • Number of packages that do not spend time in a bottleneck: 400 a day • Average accuracy of shipments: 94%	• Packages shipped: 1643 a week • Number of packages that do not spend time in a bottleneck: 821 a day • Average accuracy of shipments: 98%	• Packages shipped: 1221 a week • Number of packages that do not spend time in a bottleneck: 610 a day • Average accuracy of shipments: 96%
NPV ($)	698-772 million. (Midpoint: 735.)	490-542 million. (Midpoint: 516.)	794-878 million. (Midpoint: 836.)	387-427 million. (Midpoint: 407.)	604-668 million. (Midpoint: 636.)

Continue

Figure 13

Project allocation - alignment: high, reliability type: implicit, reliability amount: high, variation: 3.

how different

- very complex

should we use 3 options instead of 5

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking:	Ranking:	Ranking:	Ranking:	Ranking:
Project allocation (%)	Allocation:	Allocation:	Allocation:	Allocation:	Allocation:
Business name	Farmhouse Chef	Dinerly	Savoro	Third Cook	LunchLover
Project type	restaurant chain	restaurant chain	restaurant chain	restaurant chain	restaurant chain
Predicted project features	• Restaurants established: 11 a year • Number of reservations on a Saturday night: 126 • Positive reviews: 50 a month	• Restaurants established: 18 a year • Number of reservations on a Saturday night: 205 • Positive reviews: 82 a month	• Restaurants established: 13 a year • Number of reservations on a Saturday night: 152 • Positive reviews: 61 a month	• Restaurants established: 9 a year • Number of reservations on a Saturday night: 100 • Positive reviews: 40 a month	• Restaurants established: 16 a year • Number of reservations on a Saturday night: 179 • Positive reviews: 71 a month
NPV ($)	698-772 million. (Midpoint: 735.)	387-427 million. (Midpoint: 407.)	604-668 million. (Midpoint: 636.)	794-878 million. (Midpoint: 836.)	490-542 million. (Midpoint: 516.)

Continue

Figure 14

Project allocation - alignment: high, reliability type: implicit, reliability amount: high, variation: 4.

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking:	Ranking:	Ranking:	Ranking:	Ranking:
Project allocation (%)	Allocation:	Allocation:	Allocation:	Allocation:	Allocation:
Business name	Vital Records	Poppin	Dotsonic	Extasy	NextRecord
Project type	record label	record label	record label	record label	record label
Predicted project features	• Record projects completed: 16 a year • Radio listenership nationally: 4 million • Relevant network connections: 26	• Record projects completed: 12 a year • Radio listenership nationally: 3 million • Relevant network connections: 19	• Record projects completed: 8 a year • Radio listenership nationally: 2 million • Relevant network connections: 13	• Record projects completed: 10 a year • Radio listenership nationally: 2 million • Relevant network connections: 16	• Record projects completed: 14 a year • Radio listenership nationally: 3 million • Relevant network connections: 23
NPV ($)	387-427 million. (Midpoint: 407.)	604-668 million. (Midpoint: 636.)	794-878 million. (Midpoint: 836.)	698-772 million. (Midpoint: 735.)	490-542 million. (Midpoint: 516.)

Continue

Figure 15

Project allocation - alignment: high, reliability type: implicit, reliability amount: high, variation: 5.

- how different
very worried re complexity
- need table w/ all experiments + differences

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking:	Ranking:	Ranking:	Ranking:	Ranking:
Project allocation (%)	Allocation:	Allocation:	Allocation:	Allocation:	Allocation:
Business name	Petroyield	Oilpier	Refinera	Enfuel	Liquid Pipeline
Project type	oil well	oil well	oil well	oil well	oil well
Predicted project features	• Oil extracted: 4108L an hour • Time the machinery lasts before requiring maintenance: 14 years • Probability of finding oil: 99%	• Oil extracted: 3054L an hour • Time the machinery lasts before requiring maintenance: 10 years • Probability of finding oil: 94%	• Oil extracted: 2527L an hour • Time the machinery lasts before requiring maintenance: 8 years • Probability of finding oil: 92%	• Oil extracted: 2000L an hour • Time the machinery lasts before requiring maintenance: 7 years • Probability of finding oil: 90%	• Oil extracted: 3581L an hour • Time the machinery lasts before requiring maintenance: 12 years • Probability of finding oil: 96%
NPV ($)	387-427 million. (Midpoint: 407.)	604-668 million. (Midpoint: 636.)	698-772 million. (Midpoint: 735.)	794-878 million. (Midpoint: 836.)	490-542 million. (Midpoint: 516.)

Continue

Figure 16

Project allocation - alignment: high, reliability type: implicit, reliability amount: low, variation: 1.

NPV + range on every thing

What's new

- Assuming uniform distribution

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking: ÷	Ranking: ÷	Ranking: ÷	Ranking: ÷	Ranking: ÷
Project allocation (%)	Allocation: ÷	Allocation: ÷	Allocation: ÷	Allocation: ÷	Allocation: ÷
Business name	Altchip	Microxy	GridCircuit	Wired Board	Plextronics
Project type	microchip	microchip	microchip	microchip	microchip
Predicted project features	• Microchips produced: 7162 an hour • Usable semiconductor yield after testing: 69% • Compatible PCs in the market: 86%	• Microchips produced: 4000 an hour • Usable semiconductor yield after testing: 60% • Compatible PCs in the market: 80%	• Microchips produced: 8216 an hour • Usable semiconductor yield after testing: 72% • Compatible PCs in the market: 88%	• Microchips produced: 5054 an hour • Usable semiconductor yield after testing: 63% • Compatible PCs in the market: 82%	• Microchips produced: 6108 an hour • Usable semiconductor yield after testing: 66% • Compatible PCs in the market: 84%
NPV ($)	490-542 million. (Midpoint: 516.)	794-878 million. (Midpoint: 836.)	387-427 million. (Midpoint: 407.)	698-772 million. (Midpoint: 735.)	604-668 million. (Midpoint: 636.)

Continue

Figure 17

Project allocation - alignment: high, reliability type: implicit, reliability amount: low, variation: 2.

what's different

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking: ÷	Ranking: ÷	Ranking: ÷	Ranking: ÷	Ranking: ÷
Project allocation (%)	Allocation: ÷	Allocation: ÷	Allocation: ÷	Allocation: ÷	Allocation: ÷
Business name	Logivia	Direct Vector	Tough Haul	Solgistics	Cargo Ace
Project type	shipping logistics	shipping logistics	shipping logistics	shipping logistics	shipping logistics
Predicted project features	• Packages shipped: 800 a week • Number of packages that do not spend time in a bottleneck: 400 a day • Average accuracy of shipments: 94%	• Packages shipped: 1010 a week • Number of packages that do not spend time in a bottleneck: 505 a day • Average accuracy of shipments: 95%	• Packages shipped: 1643 a week • Number of packages that do not spend time in a bottleneck: 821 a day • Average accuracy of shipments: 98%	• Packages shipped: 1432 a week • Number of packages that do not spend time in a bottleneck: 716 a day • Average accuracy of shipments: 97%	• Packages shipped: 1221 a week • Number of packages that do not spend time in a bottleneck: 610 a day • Average accuracy of shipments: 96%
NPV ($)	794-878 million. (Midpoint: 836.)	698-772 million. (Midpoint: 735.)	387-427 million. (Midpoint: 407.)	490-542 million. (Midpoint: 516.)	604-668 million. (Midpoint: 636.)

Continue

Figure 18

Project allocation - alignment: high, reliability type: implicit, reliability amount: low, variation: 3.

whats different

- need to randomize what's seen - order for each subset
- like to have example of complete questions for each subset

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking: ÷	Ranking: ÷	Ranking: ÷	Ranking: ÷	Ranking: ÷
Project allocation (%)	Allocation: ÷	Allocation: ÷	Allocation: ÷	Allocation: ÷	Allocation: ÷
Business name	Farmhouse Chef	Third Cook	LunchLover	Savoro	Dinerly
Project type	restaurant chain	restaurant chain	restaurant chain	restaurant chain	restaurant chain
Predicted project features	• Restaurants established: 11 a year • Number of reservations on a Saturday night: 126 • Positive reviews: 50 a month	• Restaurants established: 9 a year • Number of reservations on a Saturday night: 100 • Positive reviews: 40 a month	• Restaurants established: 16 a year • Number of reservations on a Saturday night: 179 • Positive reviews: 71 a month	• Restaurants established: 13 a year • Number of reservations on a Saturday night: 152 • Positive reviews: 61 a month	• Restaurants established: 18 a year • Number of reservations on a Saturday night: 205 • Positive reviews: 82 a month
NPV ($)	698-772 million. (Midpoint: 735.)	794-878 million. (Midpoint: 836.)	490-542 million. (Midpoint: 516.)	604-668 million. (Midpoint: 636.)	387-427 million. (Midpoint: 407.)

Continue

Figure 19

Project allocation - alignment: high, reliability type: implicit, reliability amount: low, variation: 4.

whats different

Carefully read through the project descriptions below and then do the following: 1. Rank the projects between 1 and 5 in order of investment priority in the relevant "Project Ranking" row input; and 2. Allocate each project a percentage (a number between 1 and 100) of the total budget in the relevant "Project Allocation" row input.

Relevant information	Project 1	Project 2	Project 3	Project 4	Project 5
Project ranking	Ranking:	Ranking:	Ranking:	Ranking:	Ranking:
Project allocation (%)	Allocation:	Allocation:	Allocation:	Allocation:	Allocation:
Business name	Poppin	Dotsonic	Vital Records	NextRecord	Extasy
Project type	record label	record label	record label	record label	record label
Predicted project features	• Record projects completed: 12 a year • Radio listenership nationally: 3 million • Relevant network connections: 19	• Record projects completed: 8 a year • Radio listenership nationally: 2 million • Relevant network connections: 13	• Record projects completed: 16 a year • Radio listenership nationally: 4 million • Relevant network connections: 26	• Record projects completed: 14 a year • Radio listenership nationally: 3 million • Relevant network connections: 23	• Record projects completed: 10 a year • Radio listenership nationally: 2 million • Relevant network connections: 16
NPV ($)	604-668 million. (Midpoint: 636.)	794-878 million. (Midpoint: 836.)	387-427 million. (Midpoint: 407.)	490-542 million. (Midpoint: 516.)	698-772 million. (Midpoint: 735.)

Continue

Figure 20

Project allocation - alignment: high, reliability type: implicit, reliability amount: low, variation: 5.

what's different?

- very worried re complexity

what is the "right" decision on All

References

Lakens, D., Scheel, A. M., & Isager, P. M. (2018). Equivalence Testing for Psychological Research: A Tutorial. *Advances in Methods and Practices in Psychological Science*, *1*(2), 259–269. https://doi.org/10.1177/2515245918770963