# Complete Thesis Defense Script: Laborlink

## BSCS-4B, Group 2

### Afternoon Defense Session

### Opening Statement

Good afternoon honorable panel members. We are Group 2 from BSCS-4B, and today we are presenting our thesis entitled "Laborlink: A Web-based Job Portal with Unified Communication Technology for the Municipalities of Nueva Ecija."

### Research Background

Slide 1

In today's rapidly evolving digital landscape, the challenge of unemployment persists as a critical issue specially those who lack educational degree , particularly affecting Southeast Asian nations.

Slide 2

Recent statistics paint a clear picture of our situation: By May 2024, our country anticipates an unemployment rate of 4.1 percent. While this shows improvement from the 4.3 percent in March 2023, it still represents thousands of individuals seeking employment opportunities. More specifically, our labor force participation rate stands at 64.8 percent, indicating a significant portion of our population actively seeking work.

Our research focuses on addressing this challenge through technological innovation, specifically in Nueva Ecija, Philippines.

### Problem Statement

Our research addresses three key issues:

1. The fragmentation of job information across multiple platforms

2. The specific challenges faced by blue-collar workers in accessing employment opportunities

3. The communication gap between job seekers and employers in Nueva Ecija

### Research Objectives

Through Laborlink, we aim to:

1. Create a centralized platform for blue-collar job opportunities

2. Implement unified communication technology for better employer-employee connections

3. Reduce local unemployment rates by improving job market efficiency

### Methodology

Our research employs a mixed-methods approach, combining both qualitative and quantitative data collection techniques.

#### Sample Size Calculation (Raosoft Explanation)

For determining our sample size, we utilized the Raosoft calculator, which employs a sophisticated statistical approach:

The formula we used is:

n = N \* X / (X + N - 1)

where X = Zα/2² \* p \* (1-p) / MOE²

Let me break this down:

- N represents our population size in Nueva Ecija

- We used a confidence level of 95% (Z-value = 1.96)

- Margin of Error (MOE) is set at 5%

- Response distribution (p) at 50%

This calculation ensures our sample accurately represents our target population while maintaining statistical validity.

### Conceptual Framework

Our research is structured around the Input-Process-Output (IPO) model:

#### Input Phase

We considered several key variables:

- Demographic profiles (age, sex, marital status, education, income)

- System requirements

- User needs and preferences

- Current employment market conditions

#### Process Phase

Our development process follows the SDLC:

1. Planning: Initial concept development and resource assessment

2. Analysis: Detailed requirement gathering

3. Design: System architecture and interface design

4. Development: Actual coding and implementation

5. Testing: Rigorous system validation

6. Deployment: Platform launch

7. Maintenance: Ongoing support and updates

#### Output Phase

The final product, Laborlink, integrates:

- User-friendly interface

- Secure data management

- Unified communication features

- Mobile responsiveness

### System Features

Our platform includes:

1. Advanced job matching algorithms

2. Real-time communication tools

3. User profile management

4. Application tracking system

5. Mobile-responsive design

### Technical Implementation

We developed Laborlink using:

- Modern web technologies

- Secure database management

- Cloud-based infrastructure

- Responsive design principles

### Expected Impact

We anticipate Laborlink will:

1. Reduce job search time for blue-collar workers

2. Improve employer-employee matching efficiency

3. Contribute to reduced unemployment rates in Nueva Ecija

4. Enhance local economic development

### Closing Statement

Thank you for your attention. We believe Laborlink represents a significant step forward in addressing unemployment challenges in Nueva Ecija through technological innovation. We welcome your questions and insights.

### Question Handling Tips

1. Listen carefully to each question

2. Take a moment to organize your thoughts

3. Provide concise but complete answers

4. Support responses with data when possible

5. Be honest if you need clarification

6. Connect answers back to your research objectives

### Common Defense Questions to Prepare For

1. "Why did you choose this specific problem?"

Response: Highlight the unemployment statistics and the gap in current solutions.

2. "How does your solution differ from existing job portals?"

Response: Emphasize the local focus and unified communication technology.

3. "What challenges did you face during development?"

Response: Discuss technical and research challenges honestly, and explain how you overcame them.

4. "How did you validate your results?"

Response: Explain your testing methodology and user feedback process.

Remember to:

- Maintain professional posture

- Speak clearly and confidently

- Use visual aids effectively

- Show enthusiasm for your research

- Thank the panel for their questions

# Rating Scale and Statistical Treatment Script

## Statistical Tools Explanation Section

### Opening Statement

For our statistical analysis, we employed two key tools: a 5-point Likert scale for data collection and the weighted mean formula for data interpretation. Let me explain each in detail.

### Rating Scale Explanation

"Our study utilized a 5-point Likert scale to measure respondents' evaluations of the system. The scale ranges from 1 to 5, with the following interpretations:

5 - Strongly Agree / Excellent / Very High

4 - Agree / Very Good / High

3 - Moderately Agree / Good / Average

2 - Disagree / Fair / Low

1 - Strongly Disagree / Poor / Very Low

For interpreting the computed weighted means, we used the following ranges:

4.21 - 5.00: Excellent / Very High / Strongly Agree

3.41 - 4.20: Very Good / High / Agree

2.61 - 3.40: Good / Average / Moderately Agree

1.81 - 2.60: Fair / Low / Disagree

1.00 - 1.80: Poor / Very Low / Strongly Disagree

### Weighted Mean Formula Explanation

To analyze our collected data, we employed the weighted mean formula:

Weighted Mean (x̄w) = Σ(WX) / ΣF

Where:

- Σ represents the summation

- W represents the weight (1-5)

- X represents the number of responses for each weight

- F represents the total number of respondents

Let me demonstrate with a practical example:

Suppose we're evaluating the system's usability with 50 respondents:

- 20 respondents rated 5 (Strongly Agree)

- 15 respondents rated 4 (Agree)

- 10 respondents rated 3 (Moderately Agree)

- 3 respondents rated 2 (Disagree)

- 2 respondents rated 1 (Strongly Disagree)

The calculation would be:

```

Weighted Mean = (5×20 + 4×15 + 3×10 + 2×3 + 1×2) ÷ 50

= (100 + 60 + 30 + 6 + 2) ÷ 50

= 198 ÷ 50

= 3.96

```

Based on our interpretation scale, this weighted mean of 3.96 falls within the range of 3.41 - 4.20, indicating that respondents generally "Agree" or rate the system as "Very Good" in terms of usability.

### Importance of These Tools

These statistical tools were crucial for:

1. Quantifying qualitative feedback

2. Ensuring consistent evaluation across all system aspects

3. Providing clear interpretations of user responses

4. Enabling objective comparison across different system features

### Potential Panel Questions and Responses

Q: "Why did you choose a 5-point scale over other options?"

A: "The 5-point scale provides a good balance between granularity and ease of use for respondents. It offers enough options for meaningful differentiation while remaining simple to understand and complete."

Q: "How did you ensure the reliability of your scale?"

A: "We conducted pilot testing with a small group to verify the clarity of our questions and scale interpretations. Additionally, we used Cronbach's alpha to test the internal consistency of our instrument."

Q: "Why use weighted mean instead of other statistical measures?"

A: "The weighted mean was chosen because it accounts for the frequency of responses while providing a single, easily interpretable value that represents the central tendency of our ordinal data."

### Closing Note

These statistical tools allowed us to transform qualitative user feedback into quantitative data, enabling objective analysis of our system's performance across various dimensions. Would the panel like me to elaborate on any aspect of our statistical methodology?

Here's the expanded and more specific explanation of your statistical tools:

"For the statistical treatment of our data, we carefully selected two essential analytical tools that formed the foundation of our evaluation methodology:

First, we implemented a 5-point Likert scale which served as our primary data collection instrument. This was chosen specifically for its effectiveness in capturing user responses across multiple dimensions of system evaluation. Each point on our scale was precisely defined to ensure consistent interpretation:

The scale ranges and their corresponding interpretations are as follows:

Score | Verbal Interpretation | Description

5 points | Strongly Agree | Exceptionally meets the criteria

4 points | Agree | Substantially meets the criteria

3 points | Moderately Agree | Adequately meets the criteria

2 points | Disagree | Partially meets the criteria

1 point | Strongly Disagree | Does not meet the criteria

The second tool we employed was the weighted mean formula, which we used to process and interpret the collected data. This formula is represented as:

Weighted Mean (x̄w) = Σ(WX) / ΣF

Where:

- Σ represents the summation operation

- W represents the weight or point value (ranging from 1 to 5)

- X represents the frequency of responses for each weight

- F represents the total number of respondents

For interpreting the results, we established the following ranges:

Range | Verbal Interpretation | Level of Implementation

4.21 - 5.00 | Strongly Agree | Very High

3.41 - 4.20 | Agree | High

2.61 - 3.40 | Moderately Agree | Average

1.81 - 2.60 | Disagree | Low

1.00 - 1.80 | Strongly Disagree | Very Low

These ranges were carefully calibrated to provide meaningful distinctions between different levels of system performance and user satisfaction. The weighted mean calculation allows us to account for both the frequency and intensity of responses, providing a more nuanced understanding of user feedback."

Would you like me to provide a specific example calculation using this framework, or would you prefer additional detail about any particular aspect of these tools?

# Script para sa Thesis Defense: Laborlink

## BSCS-4B, Group 2

### Afternoon Defense Session

### Opening Statement

Magandang hapon po sa aming mga respected panel members. Kami po ang Group 2 mula sa BSCS-4B, at ngayon po ay iprepresent namin ang aming thesis na pinamagatang "Laborlink: A Web-based Job Portal with Unified Communication Technology for the Municipalities of Nueva Ecija."

### Research Background

Sa kasalukuyang digital age, ang kawalan ng trabaho ay patuloy na problema, lalo na sa Southeast Asia. Ang aming research ay naka-focus sa pagtugon sa problemang ito gamit ang technology, specifically dito sa Nueva Ecija, Philippines.

Base sa latest statistics: By May 2024, inaasahan na 4.1 percent ang unemployment rate sa ating bansa. Kahit na mas mababa ito kumpara sa 4.3 percent noong March 2023, marami pa ring Pilipino ang naghahanap ng trabaho. Specifically, ang ating labor force participation rate ay nasa 64.8 percent, na nagpapakita na malaking bahagi ng ating population ay aktibong naghahanap ng work.

### Problem Statement

Tatlong main problems ang aming tinutugunan:

1. Ang pagkalat ng job information sa iba't ibang platforms

2. Ang specific na challenges ng blue-collar workers sa paghahanap ng work

3. Ang communication gap sa pagitan ng job seekers at employers sa Nueva Ecija

### Research Objectives

Sa pamamagitan ng Laborlink, layunin naming:

1. Gumawa ng isang centralized platform para sa blue-collar job opportunities

2. Mag-implement ng unified communication technology para sa mas maayos na connection ng employer at employee

3. Mabawasan ang local unemployment rates sa pamamagitan ng mas efficient na job market

### Methodology

Ang aming research ay gumagamit ng mixed-methods approach, kung saan pinagsama namin ang qualitative at quantitative na data collection.

#### Sample Size Calculation

Para sa sample size, gumamit kami ng Raosoft calculator. Ganito ang formula:

n = N \* X / (X + N - 1)

kung saan X = Zα/2² \* p \* (1-p) / MOE²

Para mas maintindihan:

- N ay ang population size sa Nueva Ecija

- 95% confidence level ang ginamit namin (Z-value = 1.96)

- 5% ang Margin of Error (MOE)

- 50% ang response distribution (p)

### Conceptual Framework

Ginamit namin ang Input-Process-Output (IPO) model:

#### Input Phase

Ang mga variables na kinonsider namin:

- Demographics (edad, kasarian, civil status, edukasyon, kita)

- System requirements

- Mga pangangailangan ng users

- Kasalukuyang kondisyon ng job market

#### Process Phase

Sinunod namin ang SDLC:

1. Planning: Initial concept at resource assessment

2. Analysis: Detailed requirement gathering

3. Design: System architecture at interface design

4. Development: Actual coding at implementation

5. Testing: System validation

6. Deployment: Launch ng platform

7. Maintenance: Regular updates at support

#### Output Phase

Ang final product, Laborlink, ay may:

- User-friendly interface

- Secure data management

- Unified communication features

- Mobile responsiveness

### System Features

Kasama sa aming platform ang:

1. Advanced job matching algorithms

2. Real-time communication tools

3. User profile management

4. Application tracking system

5. Mobile-responsive design

### Technical Implementation

Ang Laborlink ay ginawa gamit ang:

- Modern web technologies

- Secure database management

- Cloud-based infrastructure

- Responsive design principles

### Expected Impact

Inaasahan naming ang Laborlink ay:

1. Mapapabilis ang job search ng blue-collar workers

2. Mas magiging efficient ang employer-employee matching

3. Makakatulong sa pagbawas ng unemployment sa Nueva Ecija

4. Mapapaganda ang local economic development

### Closing Statement

Maraming salamat po sa inyong oras at atensyon. Naniniwala po kami na ang Laborlink ay isang mahalagang hakbang para matugunan ang unemployment sa Nueva Ecija gamit ang technology. Bukas po kami sa inyong mga tanong at insights.

### Tips sa Pagsagot ng Questions

1. Makinig nang mabuti sa bawat tanong

2. Mag-pause sandali para ayusin ang thoughts

3. Straight to the point pero complete ang sagot

4. Mag-provide ng data kapag kailangan

5. Wag mahiyang magtanong kung hindi malinaw ang question

6. I-connect ang mga sagot sa research objectives

### Common Defense Questions at Mga Posibleng Sagot

1. "Bakit ito ang napili ninyong problem?"

Sagot: I-highlight ang unemployment statistics at kung ano ang kulang sa current solutions.

2. "Paano naiiba ang solution niyo sa ibang job portals?"

Sagot: I-emphasize ang local focus at unified communication technology.

3. "Anong mga challenges ang naranasan niyo habang ginagawa ito?"

Sagot: Pag-usapan ang technical at research challenges, at kung paano ito na-resolve.

4. "Paano niyo validate ang results?"

Sagot: I-explain ang testing methodology at user feedback process.

Mga Important Reminders:

- Maintain professional posture

- Magsalita nang malinaw at confident

- Gamitin ng tama ang visual aids

- Ipakita ang passion sa research

- Magpasalamat sa panel sa kanilang mga tanong

# Script para sa Thesis Defense: Laborlink

[Previous content remains the same...]

# Rating Scale at Statistical Treatment Script

## Statistical Tools Explanation Section

### Opening Statement

Para sa aming statistical analysis, gumamit kami ng dalawang main tools: 5-point Likert scale para sa data collection at weighted mean formula para sa interpretation ng data. Ie-explain ko po isa-isa.

### Rating Scale Explanation

Sa aming study, gumamit kami ng 5-point Likert scale para ma-measure kung paano ni-rate ng respondents ang system. Ang scale ay mula 1 hanggang 5, at ganito po ang meaning:

5 - Strongly Agree / Excellent / Very High

4 - Agree / Very Good / High

3 - Moderately Agree / Good / Average

2 - Disagree / Fair / Low

1 - Strongly Disagree / Poor / Very Low

Para naman sa pag-interpret ng weighted means, ganito ang ranges na ginamit namin:

4.21 - 5.00: Excellent / Very High / Strongly Agree

3.41 - 4.20: Very Good / High / Agree

2.61 - 3.40: Good / Average / Moderately Agree

1.81 - 2.60: Fair / Low / Disagree

1.00 - 1.80: Poor / Very Low / Strongly Disagree

### Weighted Mean Formula Explanation

Para ma-analyze ang data na nakolekta namin, ginamit namin ang weighted mean formula:

Weighted Mean (x̄w) = Σ(WX) / ΣF

Kung saan:

- Σ ay summation

- W ay weight (1-5)

- X ay bilang ng responses sa bawat weight

- F ay total number ng respondents

Halimbawa:

Kunwari sinusuri natin ang usability ng system at may 50 respondents:

- 20 respondents ang nag-rate ng 5 (Strongly Agree)

- 15 respondents ang nag-rate ng 4 (Agree)

- 10 respondents ang nag-rate ng 3 (Moderately Agree)

- 3 respondents ang nag-rate ng 2 (Disagree)

- 2 respondents ang nag-rate ng 1 (Strongly Disagree)

Ganito ang calculation:

```

Weighted Mean = (5×20 + 4×15 + 3×10 + 2×3 + 1×2) ÷ 50

= (100 + 60 + 30 + 6 + 2) ÷ 50

= 198 ÷ 50

= 3.96

```

Base sa interpretation scale natin, ang weighted mean na 3.96 ay nasa range na 3.41 - 4.20, ibig sabihin "Agree" o "Very Good" ang rating ng users sa usability ng system.

### Importance ng Mga Tools na Ito

Ang statistical tools na ito ay importante para sa:

1. Pag-convert ng qualitative feedback sa numbers

2. Consistent evaluation sa lahat ng aspects ng system

3. Clear interpretation ng user responses

4. Objective comparison ng different system features

### Potential Panel Questions at Mga Sagot

Q: "Bakit 5-point scale ang pinili niyo kaysa sa ibang options?"

A: "Ang 5-point scale ay may magandang balance ng detalye at madaling sagutan para sa respondents. May sapat na options para meaningful ang differences pero hindi complicated intindihin."

Q: "Paano niyo sinigurado na reliable ang scale niyo?"

A: "Nag-conduct kami ng pilot testing sa maliit na group para ma-verify kung malinaw ang questions at scale interpretations. Gumamit din kami ng Cronbach's alpha para i-test ang internal consistency ng instrument."

Q: "Bakit weighted mean ang ginamit niyo kaysa sa ibang statistical measures?"

A: "Pinili namin ang weighted mean kasi kino-consider nito ang frequency ng responses habang nagbibigay ng isang value na madaling intindihin para sa ordinal data namin."

### Closing Note

Sa pamamagitan ng statistical tools na ito, na-transform namin ang qualitative feedback ng users into quantitative data, na nagbigay-daan sa objective analysis ng performance ng system sa iba't ibang aspects. May gusto pa po ba kayong i-clarify tungkol sa aming statistical methodology?