



BNAI MIS 3504

**Digital Design and
Innovation Studio**

Day 2

Photo: Installation by Jenny Holzer, US Pavillion, Venice Biennale 1990

Quiz

- **30 minutes**
- **Individually | closed notes| closed book**
- **Start: 8:30 end 9:00**

Today's Topics

- **Scope Review**
- **Philadelphia Paint Case**
- **Requirements Gathering**

Verification vs. Validation

These tactics are used both in projects and products.

When a team completes a part of the project, this is called an output.

Verification: Did we do what we were supposed to do?

Validation: Does this provide incremental value ?

Verification	Validation
Are we implementing the system right?	Are we implementing the right system?
Evaluating products of a development phase	Evaluating products at the closing of the development process
The objective is making sure the product is as per the requirements and design specifications	The objective is making sure that the product meets user's requirements
Activities included: reviews, meetings, and inspections	Activities included: black box testing, white box testing, and grey box testing
Verifies that outputs are according to inputs or not	Validates that the users accept the software or not
Items evaluated: plans, requirement specifications, design specifications, code, and test cases	Items evaluated: actual product or software under test
Manual checking of the documents and files	Checking the developed products using the documents and files



Verification

Validation





But how do we get to verification?



The Project Scope Document

The Project Scope Document describes the **context** of your **project** and what it must **deliver**.

Project Scope Document Contains:

- Statement of Purpose (Problem Description)
- Objectives
- Problems & Opportunities
- Risks
- Assumptions and Constraints
- Stakeholders Analysis
- Glossary

Project Scope Document

- Usually done before you would join project by PM but you might be asked to help
- The work that **needs** to be done, and only the work that needs to be done, to deliver the product and solution
- PM should do forward looking parts
- **Scope creep** – an incremental expansion of the project scope as requirements not truly necessary for the solution get included

Statement of Purpose

- **Short description of the problem**
- **Carefully written in business language**
- **Current environment or situation**
- **Essential problem or opportunity**
- **3 paragraphs:**
 - **General context of the organization**
 - **Current condition of the process or product**
 - **Essential problem or opportunity**
 - **Including project approach**

Objectives

Project objectives are the **business' reasons** for doing the project

They might be stated as improving:

The company's finances

The performance of a particular process

The company's position in the market

They should be important enough that you wouldn't need more than 5 or 6 to justify a significant project

Objectives

They should be:

Specific

Measureable

Actionable

Realistic

Time-bound



Project and Business Risks

Risk Analysis

Project Risks – potential problems that might keep the team from **finishing the project**

Sponsor leaves in the middle of the project

Business Risks – potential problems that might impact the **mission of the business**

New commerce initiative fails and creates a major loss

Risk Analysis

Known Risks– problems that the team are aware could arise

i.e.- the project may be delayed due to the upcoming holidays

Unknown Risks – potential problems that are not expected
throughout the project

i.e.- a global pandemic

Risk Response- how do you respond to it?

Avoid it – change the project to eliminate the risk

Transfer it – shift the risk to someone else like a vendor

Mitigate it – reduce the probability or impact

Accept it – just live with it

Risk Matrix

A risk matrix helps identify, keep track, and manage **known risks** throughout the course of a project.

Risk ID #	Business or Project Risk	Probability	Risk Response	Impact
1	IT expert who knows warehousing leaves company	Low	Accept it	



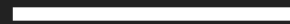
What we know about unknown risks

Plan for contingencies or plan “b”.

What is an example of an unknown risk?



Team Exercise



Group Number	First Name	Family Name	Chinese Name
1	Yahan	DAI	代雅涵
1	Menghe	LI	李梦荷
1	Yifei	QUE	阙一菲
2	Fang	DONG	董方
2	Zhichao	LIN	林志超
2	Kang	SHAO	邵康
3	Muyao	DONG	董慕瑶
3	Dongchang	LIU	刘东昌
3	Ruoming	TANG	唐若铭
5	Zhi	DO	杜智
5	Yusen	LOU	罗宇森
5	Zijian	TIAN	田子鉴
6	Baowei	GUO	郭宝维
6	Yue	MA	马越
6	Ziyi	WAN	万子仪
7	Mengfan	GUO	郭梦凡
7	Weifan	QIAO	乔玮凡
7	Ruoyu	ZHI	支若玉

Group Number	First Name	Family Name	Chinese Name
8	Yucheng	HOU	侯禹丞
8	Jianan	WU	吴佳楠
8	Yi	ZHENG	郑毅
9	Jingyu	JIANG	姜璟羽
9	Qian	WANG	王茜
9	Yimo	WU	吴奕默
9	Ao	ZHOU	周傲
10	Ao	LI	李奥
10	Luxiao	XUE	薛路晓
10	Xinyue	ZHANG	张馨月
11	Chaoyue	LI	李超越
11	Yihan	WANG	王一涵
11	Yifan	YANG	杨一帆
12	Yuqing	YIN	印雨晴
12	Tongjia	ZHANG	张桐嘉
12	Wenhan	ZHAO	赵文涵

Team Exercise: Philadelphia Paint Company Case (60 min)

Instructions:

1. *Read through the case with your teammates*
2. *Think about what you read about the company*
3. *Ask your SME (me) if you have any further questions*
 1. *What points would you want to make about the general context within the company?*
 2. *What points would you want to make about the problem?*
 3. *What points would you want to make about your path forward?*

You have 60 minutes to:

 - 1) *create a sample “statement of purpose” with your group*
 - 2) *3 “smart objectives”*
 - 3) *Create a risk grid with 5 risks. The grid should include how the company should respond to the risk (A,M,A,T).*



Break into your teams for 60 minutes

Email me your statement of purpose and 3 objectives at
Courtney.Minich@temple.edu

MUST include GROUP NUMBER for credit

One per GROUP

Let's review

1. You have 60 minutes to:
 - 1) create a sample *“statement of purpose”* with your group
 - 2) **3** *“smart objectives”*
 - 3) Create a risk grid with **5 risks**. The grid should include how the company should respond to the risk (A,M,A,T).

Break: 15 minutes

Let's review- break until 11AM

1. *Statement of purpose*
 1. *Group 3, 7, 9*
2. *Objectives*
 1. *Group 5,6,8*
3. *Risk Matrix*
 1. *Group 1, 10, 11, 12, 2*

When probability of a risk is LOW, you can ACCEPT the risk.



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Requirements Elicitation &
Intro to Interviewing

Day 2

Photo: Installation by Jenny Holzer, US Pavillion, Venice Biennale 1990

What does *elicitation* mean?

- To draw, bring out or forth, educe, evoke, to elicit the truth.
- To elicit a response with a question.
- Not only is this important for a BA, but it is especially important for an auditor.



How does a BA *elicit*
requirements?

HOW BA's Elicit Requirements

Describe these elicitation techniques and how you would use them:

1. **Reviewing existing documentation**
2. **Observation**
3. **Interviews**
4. Surveys and questionnaires
5. Facilitated sessions
6. Focus groups
7. Competitive analysis
8. Interface analysis

More Methods

- **Observation**
 - Fly on the wall
 - Contextual
 - Shadowing
- **Activities**
 - Collaging
 - Modelling
 - Draw your experience
- **Interviews**
 - Directed storytelling
 - Unfocus group
 - Role playing
 - Extreme user
 - Purse or backpack tour
- **Self-reporting**
 - Journals
 - Beeper study

Saffer's 3 Rules on Doing Design Research

1. You go to them
2. You talk to them
3. You write it down



Rule # 1

YOU GO TO THEM

Discussion: **Trust & Observing**



Why do you need to build trust



Rule #2

YOU TALK TO THEM



Discussion: **Interviewing**

Definition of *INTERVIEW*

1: a formal consultation usually to evaluate qualifications (as of a prospective student or employee)

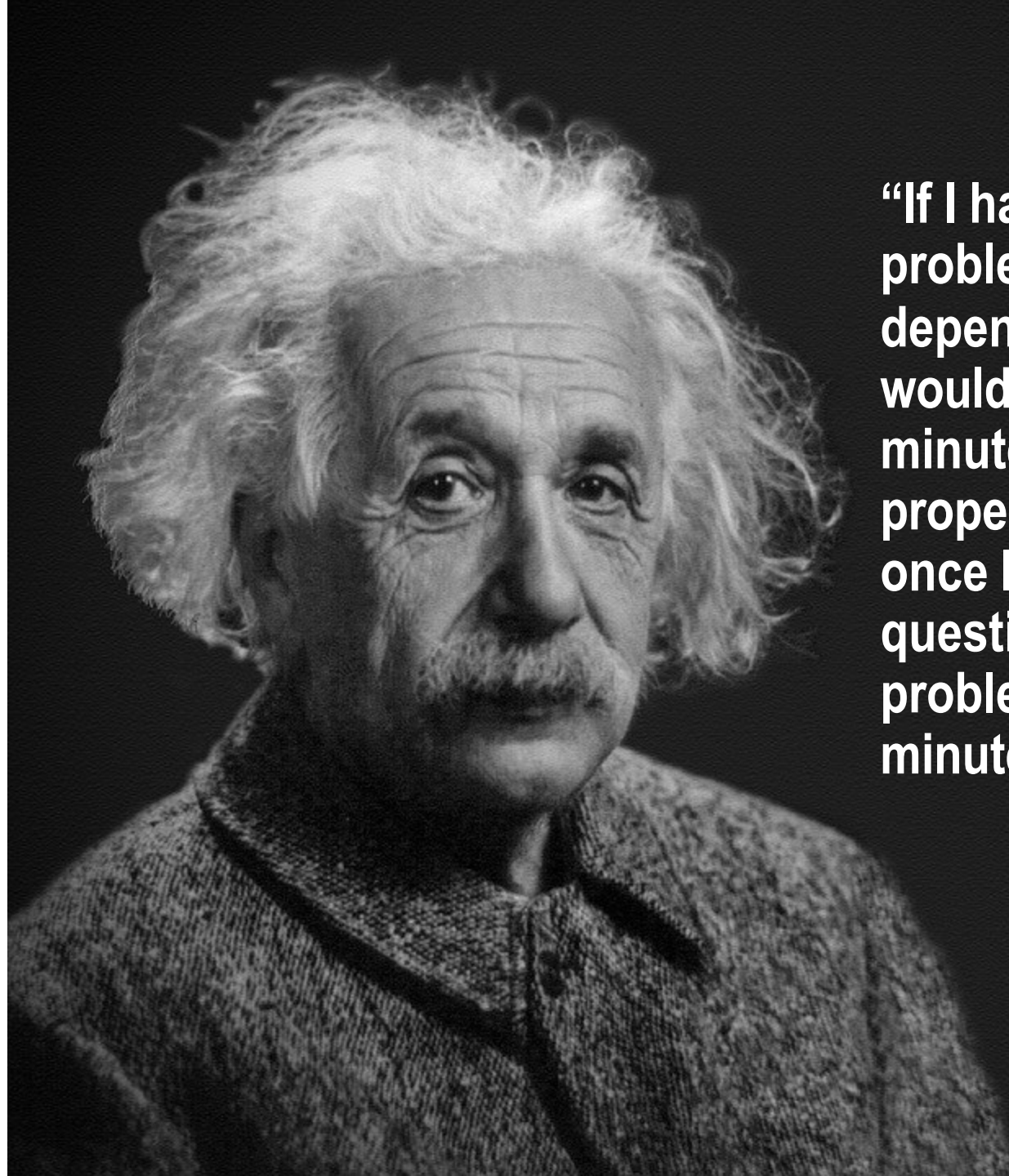
2a : a meeting at which **information is obtained** (as by a reporter, television commentator, or pollster) from a person

<http://www.merriam-webster.com/dictionary/interview>

Know your audience

Points of *view*

What are you **listening/looking** for?



**“If I had an hour to ~~be~~
problem and my life
depended on the solution, I
would spend the first 55
minutes determining the
proper question to ask, for
once I know the proper
question, I could solve the
problem in less than five
minutes.”**

Albert Einstein

Interviewing

Prepare questions in advance

What do you want to know?

Who is best able to tell you?

Executives – Can usually tell you why?

Managers – Can usually tell who? where? And what?

Workers – Are usually the only ones who can tell you how?

Ask open ended questions

Ask follow-up questions using the “reflect” technique

Active Listening



ZENON

“ The reason why we have two ears and only one mouth is that we may listen the more and talk the less. ”

— *Zeno of Citium*

What does it take to listen **actively**?

- 1. Pay Attention**
- 2. Show that you are listening.**
- 3. Provide feedback**
- 4. Defer judgment.**
- 5. Respond Appropriately**

Socrates was good at follow-up questions

Clarification	What do you mean by ____? Could you put that another way? Can you give me an examples?
Probing Assumptions	What are you assuming? How did you choose those assumptions? What could we assume instead?
Probing Reasons and Evidence	How do you know? Why do you think that is true? What would change your mind?
Viewpoint and Perspectives	What are you implying by that? What effect would that have? What is an alternative?
Probing Implications and Consequences	How can we find out? Why is this issue important? What generalizations can you make?
Questions about Questions	What does that mean? What was the point of this question? Why do you think I asked this question?



Rule #3

YOU WRITE IT DOWN



Discussion: **Taking Notes**



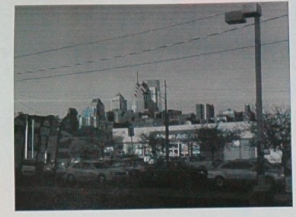
HOW do you take notes

Personality & Interests

Family & Friends



Extra Curricular & Arts



School & Education

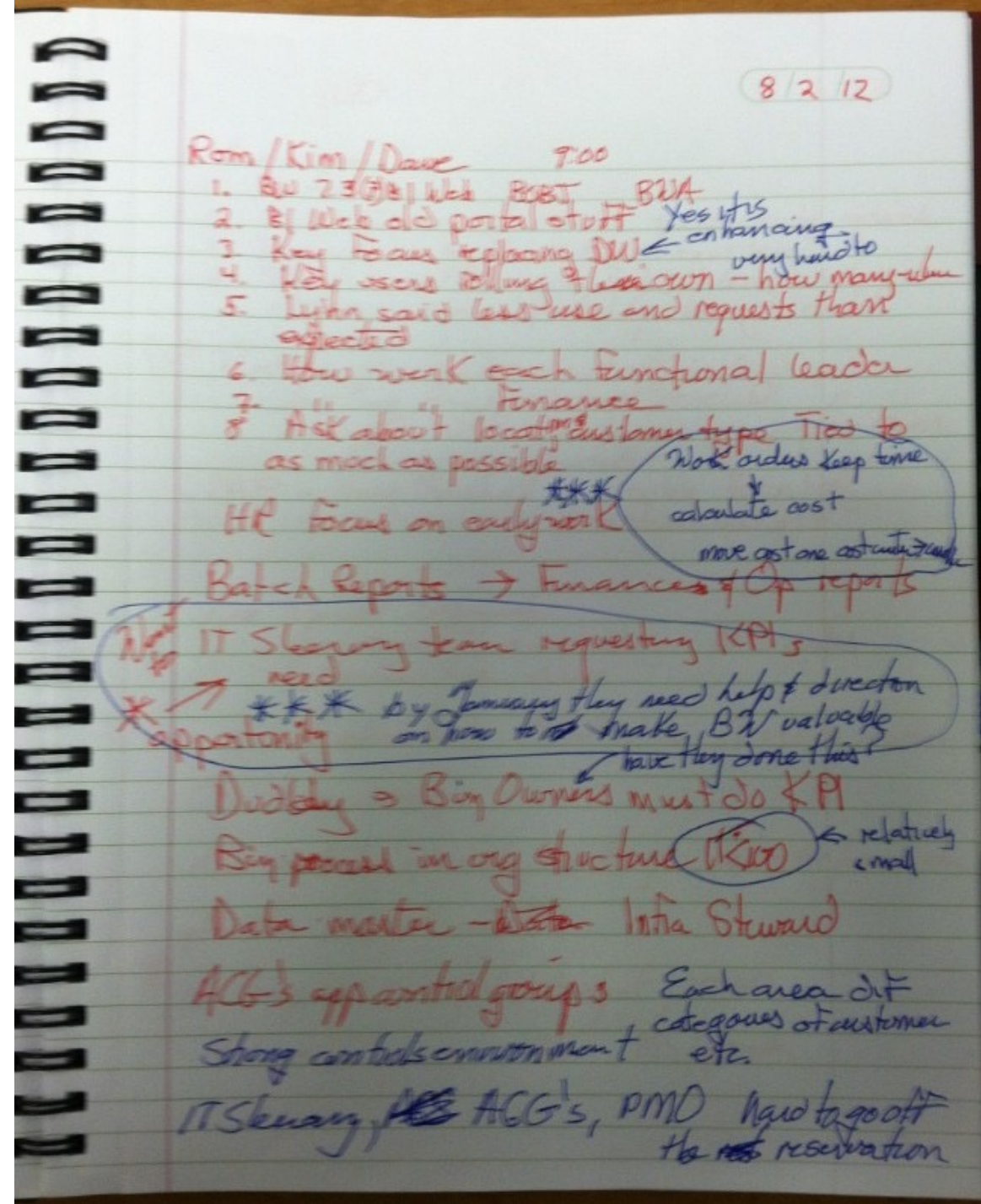


look for patterns

A large board covered in colorful sticky notes and photographs. The notes are organized into sections: 'Personality & Interests' (top left), 'Family & Friends' (top right), 'Extra Curricular & Arts' (middle left), and 'School & Education' (middle right). The notes contain various words and phrases such as 'love', 'friendship', 'family', 'art museum', 'music', 'youth', 'philosophy', 'law', 'professional development', 'college', 'degree', 'poetry', 'philosophy', 'harvard', 'poetry', 'philosophy', 'law', 'professional development', 'college', 'degree', 'poetry', 'philosophy', 'harvard', 'poetry', 'philosophy', 'law', 'professional development', 'college', 'degree'. There are also several photographs: a band performing on stage (two instances), a city skyline, and a building. The board is densely packed with notes, with some overlapping and others clearly visible. The colors of the notes include yellow, green, orange, pink, blue, and white.

Courtney's Approach to Note Taking

- Prepare your questions in advance
- Take brief notes on comments people make (note who said what)
- If something seems very important or surprising, **highlight it**
- As soon as possible, review your notes in a quiet setting
- Add observations, conclusions, ideas in another color
- Start a new page with follow-up questions





Reminder

Class tomorrow at 8:30 AM
Quiz tomorrow: 30 minutes
Introduction to Final Project
Thank you & Goodbye!



Goodbye

再见