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ANALISIS, INTERPRETASI, DAN PENYAJIAN DATA

Sistem Interaksi Gasal 2024/2025

Syifa Nurhayati, M.Kom.

ACKNOWLEDGEMENT

“

Salindia ini disusun berdasarkan materi pada buku

INTERACTION DESIGN: beyond human-computer interaction
edisi ke-5

yang ditulis oleh Preece, J., Sharp, H., & Rogers, Y.

Kontributor salindia:

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SASARAN PEMBELAJARAN

- Mahasiswa mampu membedakan data kualitatif dan kuantitatif serta analisisnya
- Mahasiswa mampu menganalisis data yang diperoleh kuesioner, wawancara, dan observasi
- Mahasiswa mengetahui software yang dapat membantu analisis data
- Mahasiswa memahami kekeliruan umum dalam menganalisis, menginterpretasikan, dan menyajikan data
- Mahasiswa mampu menginterpretasikan dan menyajikan data secara tepat



HAL YANG AKAN DIPELAJARI

- Data kuantitatif dan kualitatif
- **Analisis kuantitatif**
- **Analisis kualitatif**
- Tools yang umum digunakan
- Kerangka teoritis analisis kualitatif
- **System Usability Scale (SUS)**
- **User Experience Questionnaire (UEQ)**
- Studi Kasus



DATA KUALITATIF DAN KUANTITATIF



TIPE-TIPE DATA



Kualitatif
Naratif / Artefak



Kuantitatif
Numerik

Data **Kualitatif**: data yang **sulit diekspresikan** dalam **angka-angka**, misal : ketidaksukaan

Analisisnya menggambarkan **karakteristik elemen** dan direpresentasikan dalam **pola** dan **cerita**

TIPE-TIPE DATA



Kualitatif
Naratif / Artefak



Kuantitatif
Numerik

Data **kuantitatif** : data berupa **angka-angka**

Menggunakan **metode numerik** untuk mengukur **besar, magnitude, dan jumlah**

ANALISIS KUANTITATIF



ANALISIS KUANTITATIF SEDERHANA

$\Sigma x / n$

Rerata
Mean, Median,
Modus

100%

Presentase
Proporsi yang
dimiliki data



Representasi
Grafis
Sebagai
overview

CONTOH REPRESENTASI GRAFIS

<https://www.quora.com/How-do-you-pick-the-right-chart-type-or-graph-for-your-data>



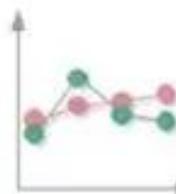
Pie



Bar



Column



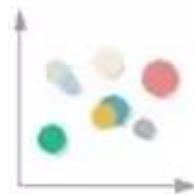
Line



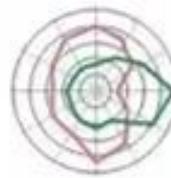
Area



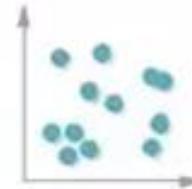
Doughnut



Bubble Chart



Spider and Radar



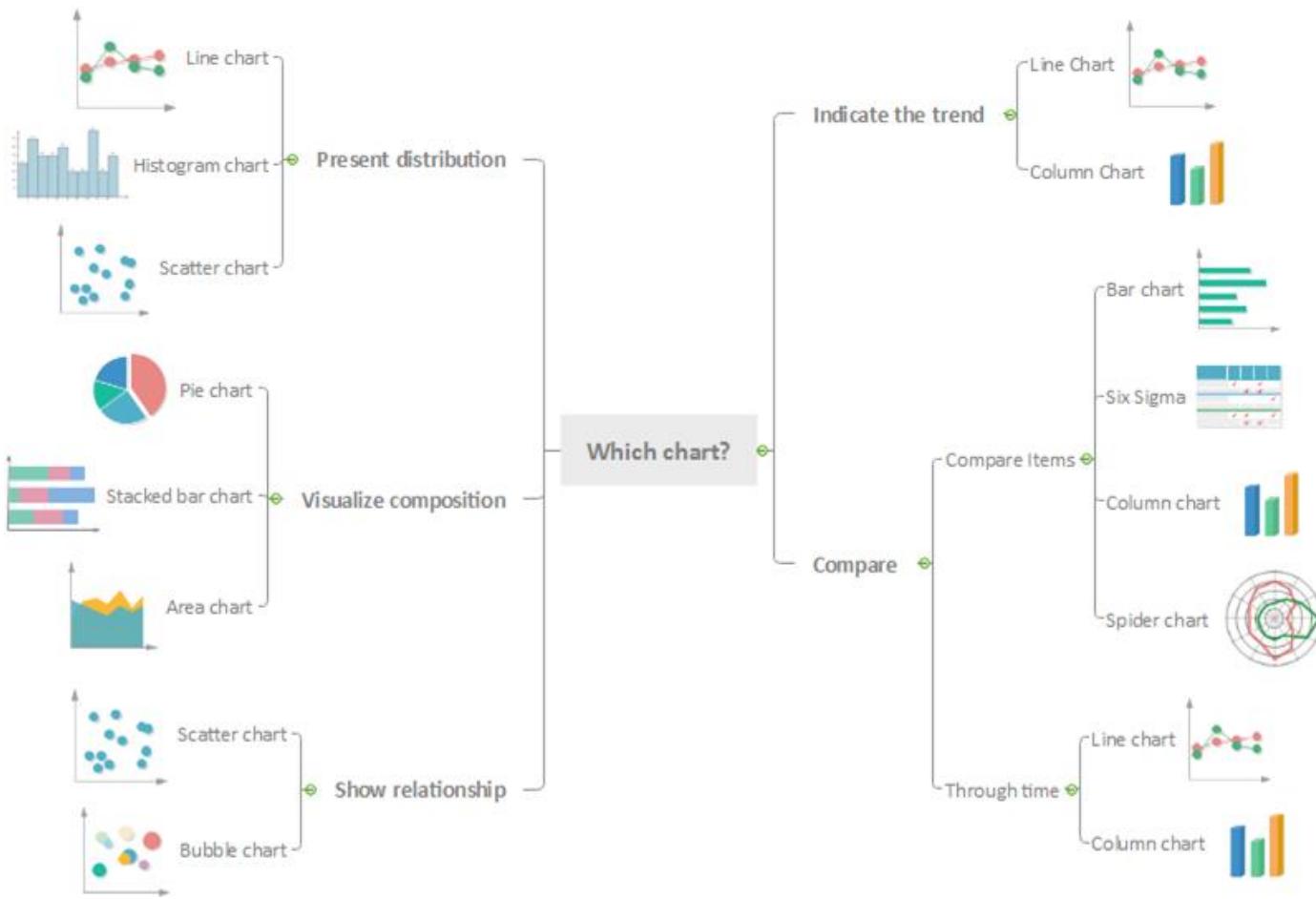
Scatter



Stacked bar chart



Gauges



LATIHAN 1

Kritisilah penyajian data berikut ini, lalu usulkan teknik visualisasi yang tepat.

Konteks:

Kita ingin menginterpretasikan hasil pengisian sebuah kuesioner kepuasan pengguna sistem e-Learning di sebuah universitas. Diketahui terdapat beberapa segmen pengguna yang berpartisipasi dalam survei, yakni mahasiswa S1, S2, dan S3 serta kelompok mahasiswa dengan gaya belajar verbal dan visual. Survei dilakukan dengan tujuan membandingkan perbedaan dan persamaan persepsi pengguna dari segmen yang berbeda.

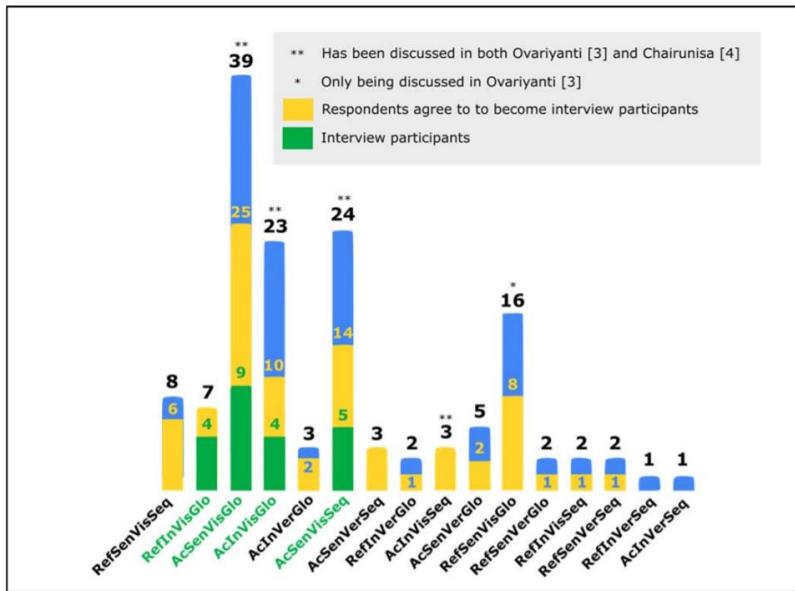
BAB 3: Hasil dan Pembahasan

Survei kepuasan pengguna sistem *e-Learning* dilakukan terhadap 120 responden dengan sebaran: 90 mahasiswa S1, 20 mahasiswa S2, dan 10 mahasiswa S3. Tabel 4 berikut ini memvisualisasikan hasil survei tersebut.

Tabel 3. Hasil Survei

Nama Responden	Jenjang	Gaya Belajar Visual/Verbal	P1	P2	P3	P4	P5	P6	P7	P8
Joan Sitepu	S1	Visual	1	2	1	1	2	1	1	1
Fabrizio Sulianto	S1	Verbal	1	3	5	5	5	6	7	1
Marcel Ramadhan Putra	S2	Verbal	1	1	4	6	2	2	1	1
Michael Siswondo	S3	Visual	2	3	3	5	4	4	2	7
Mohamad Naella Putratama	S2	Visual	2	2	1	1	1	1	1	7
Mursid	S1	Verbal	7	7	1	7	6	7	7	7
Netarama Ramadianti	S1	Verbal	1	1	1	1	1	1	1	1
Marsia Rakan Azalia	S2	Verbal	5	5	5	5	5	5	5	5
Galih Alam Perwira	S1	Visual	1	3	4	2	1	1	1	2

COMPARING BETWEEN GROUPS



ICACSIS 2019 978-1-7281-5292-9/19/\$31.00 ©2019 IEEE
Designing Alternative Interface Design of e-Learning Modules based on Felder-Silverman Learning Styles and User Centered Design Approach

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Fig. 2. Learning style demography survey result

WEB ANALYTICS (1)



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WEB ANALYTICS (2)

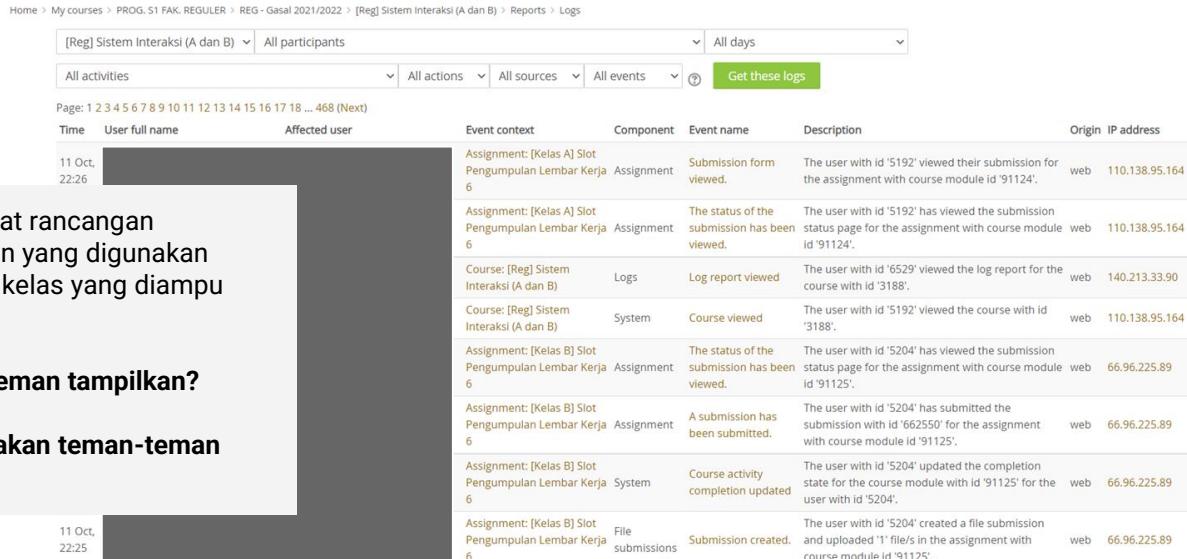


WEB ANALYTICS (3)



LATIHAN 2

Scele yang kita gunakan merekam log aktivitas mahasiswa secara lengkap (**aktivitas** yang dilakukan, **kapan** aktivitas tersebut dilakukan, dan oleh **siapa** aktivitas itu dilakukan). Selanjutnya, Scele juga dapat memberikan riwayat semua **nilai** yang terekam (diasumsikan semua asesmen diselenggarakan via Scele)



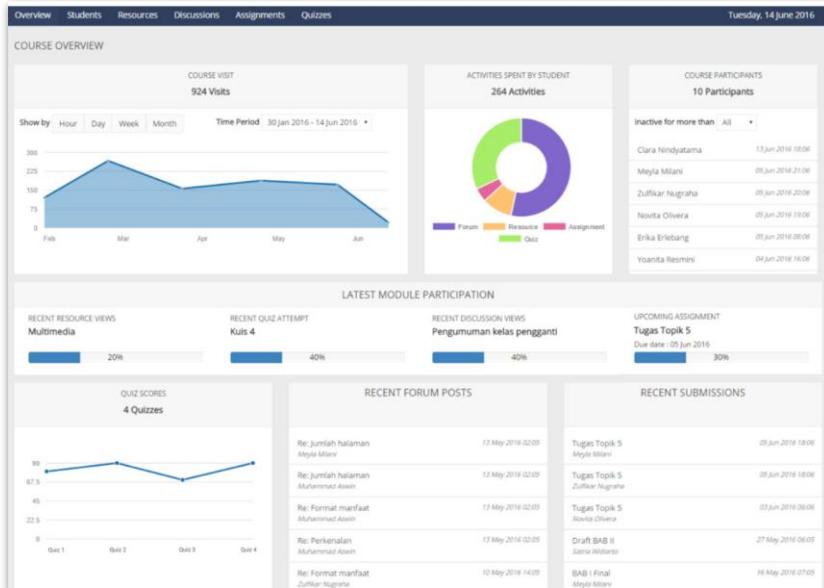
The screenshot shows a web-based application interface for managing student logs. At the top, there's a navigation bar with links like 'Home', 'My courses', 'PROG. S1 FAK. REGULER', 'REG - Gasal 2021/2022', '[Reg] Sistem Interaksi (A dan B)', 'Reports', and 'Logs'. Below the navigation is a search/filter bar with dropdowns for 'All participants' (set to 'All participants'), 'All days' (set to 'All days'), and a main search field 'All activities' with sub-options 'All actions', 'All sources', and 'All events'. A green button labeled 'Get these logs' is also present. The main area displays a table of logs with the following columns: Time, User full name, Affected user, Event context, Component, Event name, Description, Origin, and IP address. The table lists several entries, each detailing a specific action taken by a student (e.g., viewing submission form, viewing log report, updating course completion) on a specific date and time.

Time	User full name	Affected user	Event context	Component	Event name	Description	Origin	IP address
11 Oct, 22:26	[REDACTED]		Assignment: [Kelas A] Slot Pengumpulan Lembar Kerja	Assignment	Submission form viewed.	The user with id '5192' viewed their submission for the assignment with course module id '91124'.	web	110.138.95.164
			Assignment: [Kelas A] Slot Pengumpulan Lembar Kerja	Assignment	The status of the submission has been viewed.	The user with id '5192' has viewed the submission status page for the assignment with course module id '91124'.	web	110.138.95.164
			Course: [Reg] Sistem Interaksi (A dan B)	Logs	Log report viewed	The user with id '6529' viewed the log report for the course with id '3188'.	web	140.213.33.90
			Course: [Reg] Sistem Interaksi (A dan B)	System	Course viewed	The user with id '5192' viewed the course with id '3188'.	web	110.138.95.164
			Assignment: [Kelas B] Slot Pengumpulan Lembar Kerja	Assignment	The status of the submission has been viewed.	The user with id '5204' has viewed the submission status page for the assignment with course module id '91125'.	web	66.96.225.89
			Assignment: [Kelas B] Slot Pengumpulan Lembar Kerja	Assignment	A submission has been submitted.	The user with id '5204' has submitted the submission with id '662550' for the assignment with course module id '91125'.	web	66.96.225.89
			Assignment: [Kelas B] Slot Pengumpulan Lembar Kerja	System	Course activity completion updated	The user with id '5204' updated the completion state for the course module with id '91125' for the user with id '5204'.	web	66.96.225.89
			Assignment: [Kelas B] Slot Pengumpulan Lembar Kerja	File submissions	Submission created.	The user with id '5204' created a file submission and uploaded '1' file/s in the assignment with course module id '91125'.	web	66.96.225.89

Semisal teman-teman ditugaskan membuat rancangan konseptual sebuah dashboard untuk dosen yang digunakan untuk memonitor performa mahasiswa di kelas yang diajari dosen tersebut.

- **Data apa saja yang akan teman-teman tampilkan?**
- **Teknik visualisasi apa saja yang akan teman-teman gunakan?**

VISUALIZING LOG DATA



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2018 15(1)

The Development of a Learning Dashboard for Lecturers: A Case Study on a Student Centered E-Learning Environment

Harry B. Santoso, Universitas Indonesia
Alvia Khaira Batuparan, Universitas Indonesia
R. Hugo K. Isal, Universitas Indonesia
Wade H. Goodridge, Utah State University

Abstract

Student Centered e-Learning Environment (SCELE) is a Moodle-based learning management system (LMS) that has been modified to enhance learning within a computer science department curriculum offered by the Faculty of Computer Science of large public university in Indonesia. This Moodle provided a mechanism to record students' activities when engaged in learning with e-Learning software. However, while the software captured the data and presented it adequately, there is room for enhancement and further refinement. The purpose of this research is to investigate and understand lecturer needs as they monitor student activities in SCELE and then develop a learning monitoring tool capable of visualizing and collecting data in a form that facilitates lecturer observation, analysis, and targeting of specific concepts. Theories found within information architecture and information visualization are used as a foundational approach in the development of the application. The result of the research focuses on developing a learning dashboard Moodle plugin that can be easily utilized by lecturers engaging SCELE.

Keywords:

e-learning, dashboard, information architecture, Moodle, SCELE, visualization

https://www.thejeo.com/archive/2018_15_1/santoso_batuparan_isal_goodridge

ANALISIS KUALITATIF



ANALISIS KUALITATIF SEDERHANA



Pola

Yang muncul dari
data (Emergent)



Kategorisasi
(Emergent / Pre-specified)



Mencari Critical
Incidents
(Key events)

CONTOH: CODING SCHEME (CONVENTIONAL)

Q2: Apa pendapat Anda terhadap prototipe yang baru saja Anda gunakan?

“**Bagus** sih maksudnya kalau dibandingin Scele, paling ini jadi **lebih berwarna**, Scele kan formal kayaknya apa ya warnanya gitu aja, terus ini ada reactionnya gitu lho, kayak Slack, ada jempol gitu... Kayak orang bales di chatroom ada tombolnya atau dropdown bisa langsung (react), di mata kuliah X (pakai Slack) kalau ngasih link buat tugas gitu dosennya suka ngasih reaction gitu hehe... Emang sering gitu makanya, jadi **lebih santai**, tapi nggak ngilangin formalnya juga” (MHS-1)

“**Seru** sih kayak beda banget sama ..., kan kalau Scele kan agak lama desainnya, kalau ini desainnya **baru** gitu. Aku suka yang dominan putih gini, bagus, **enak diliatnya**. Terus tulisannya juga nggak kecil, kayak enak diliat sih Kak, terus **flownya juga jelas**, ada breadcrumbs ini kan jadi tau (lagi di mana)” (MHS-2)

... dst

Open coding themes:

Bagus (n = 10), **Seru** (n = 1),
Lebih berwarna (n = 1),
Lebih santai (n = 1), **Enak dilihat** (n = 1)
Kekinian (n = 9), **Flow jelas** (n = 2)

...
dst

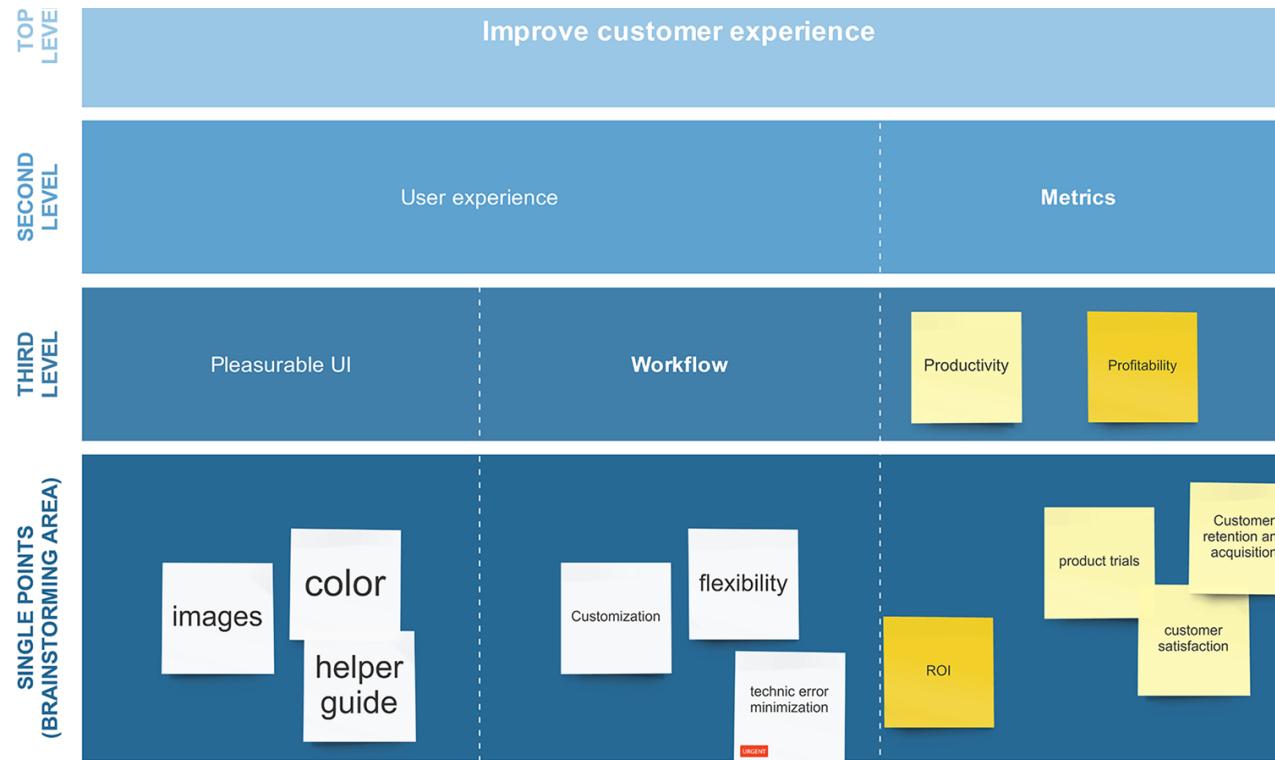
Categories

Pandangan positif (n = 11)
Estetika antarmuka indah (n = 10),
Kejelasan antarmuka (n = 1),
...
dst

Interpretasi:

Terdapat pengguna yang memiliki pandangan positif terhadap antarmuka prototipe (n = 11) karena antarmuka dinilai memiliki estetika yang indah karena dinilai kekinian (n = 9). Hal ini dapat menjelaskan tingginya rerata skala novelty (5.97; n = 120) ... dst

CONTOH ANALISIS KUALITATIF : AFFINITY DIAGRAM



TOOLS YANG UMUM DIGUNAKAN



TOOLS YANG UMUM DIGUNAKAN

Spreadsheet

Statistical
Packages :
SPSS

Qualitative
Data Analysis
Tools

Nvivo &
Atlas.ti

CAQDAS

SPREADSHEET

“

Contoh Spreadsheet :

Data Analysis Tools untuk 'Asesmen dan Pengembangan Desain User Experience Sistem Informasi Asisten Fasilkom UI'

Adinegoro, Pratama, Fiandi, dan Hasani (2018)

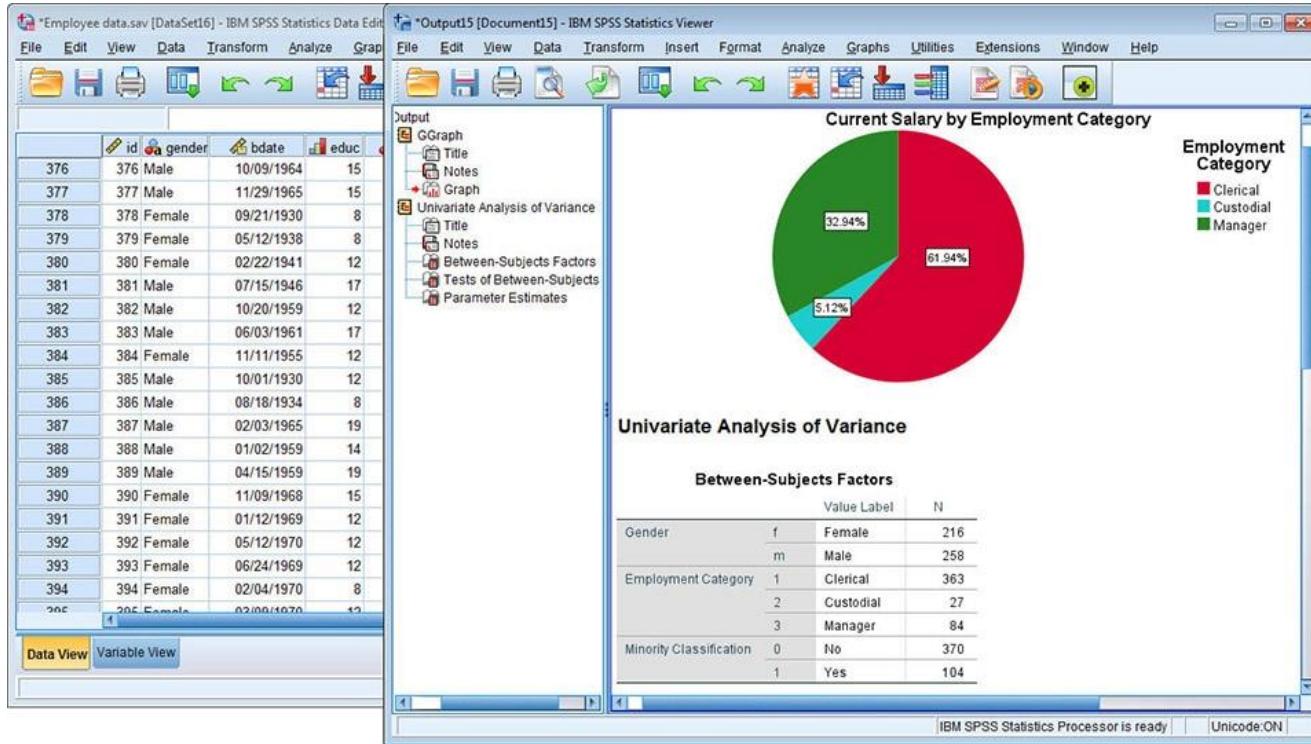
UEQ Data Analysis Tools by : Dr. Martin Schrepp

UEQ Versi Bahasa Indonesia by : Harry Budi Santoso

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
2															
3	Confidence interval ($p=0.05$) per item														
4	Item	Mean	Std. Dev.	N	Confidence	Confidence interval									
5	1	0.700	0.949	10	0.588	0.112	1.288								
6	2	1.500	0.972	10	0.602	0.898	2.102								
7	3	-1.800	0.789	10	0.489	-2.289	-1.311								
8	4	1.100	1.524	10	0.944	0.156	2.044								
9	5	2.000	0.816	10	0.506	1.494	2.506								
10	6	-0.600	1.075	10	0.666	-1.266	0.066								
11	7	-0.200	1.033	10	0.640	-0.840	0.440								
12	8	1.500	1.179	10	0.730	0.770	2.230								

Confidence intervals ($p=0.05$) per scale															
Scale	Mean	Std. Dev.	N	Confidence	Confidence interval										
Daya tarik	0.500	0.906	10	0.562	-0.062	1.062									
Kejelasan	1.250	1.275	10	0.790	0.460	2.040									
Efisiensi	0.925	1.034	10	0.641	0.284	1.566									
Ketepatan	1.150	0.937	10	0.581	0.569	1.731									
Stimulasi	0.375	0.892	10	0.553	-0.178	0.928									
Kebaruan	-1.400	0.810	10	0.502	-1.902	-0.898									

SPSS



“

Contoh Tampilan SPSS :
<https://www.ibm.com/uk-en/marketplace/spss-statistics>

NVivo

The screenshot shows the NVivo application window. The menu bar includes File, Home, Create, External Data, Analyze, Explore, Layout, and View. The ribbon tabs are File, Home, Create, External Data, Analyze, Explore, Layout, and View. The workspace pane on the left lists 'Nodes' (with 'Nodes', 'Self Reflection', 'Relationships', and 'Node Matrices' under it), 'Sources', 'Nodes' (which is selected and highlighted in yellow), 'Classifications', 'Collections', 'Queries', 'Reports', and 'Models'. The main area displays a table titled 'Self Reflection' with columns: Name, Sources, References, Created On, Created By, Modified On, and Modified By. The table contains three rows: 'Learned' (Sources: 3, References: 10, Created On: 4/10/2012 8:31 PM, Created By: ASNA, Modified On: 4/10/2012 8:43 PM, Modified By: ASNA), 'Skills Acqu' (Sources: 2, References: 2, Created On: 4/10/2012 8:59 PM, Created By: ASNA, Modified On: 4/10/2012 11:24 PM, Modified By: ASNA), and 'Understan' (Sources: 4, References: 12, Created On: 4/10/2012 11:29 PM, Created By: ASNA, Modified On: 4/10/2012 11:46 PM, Modified By: ASNA). Below the table is a text editor window containing the following text:

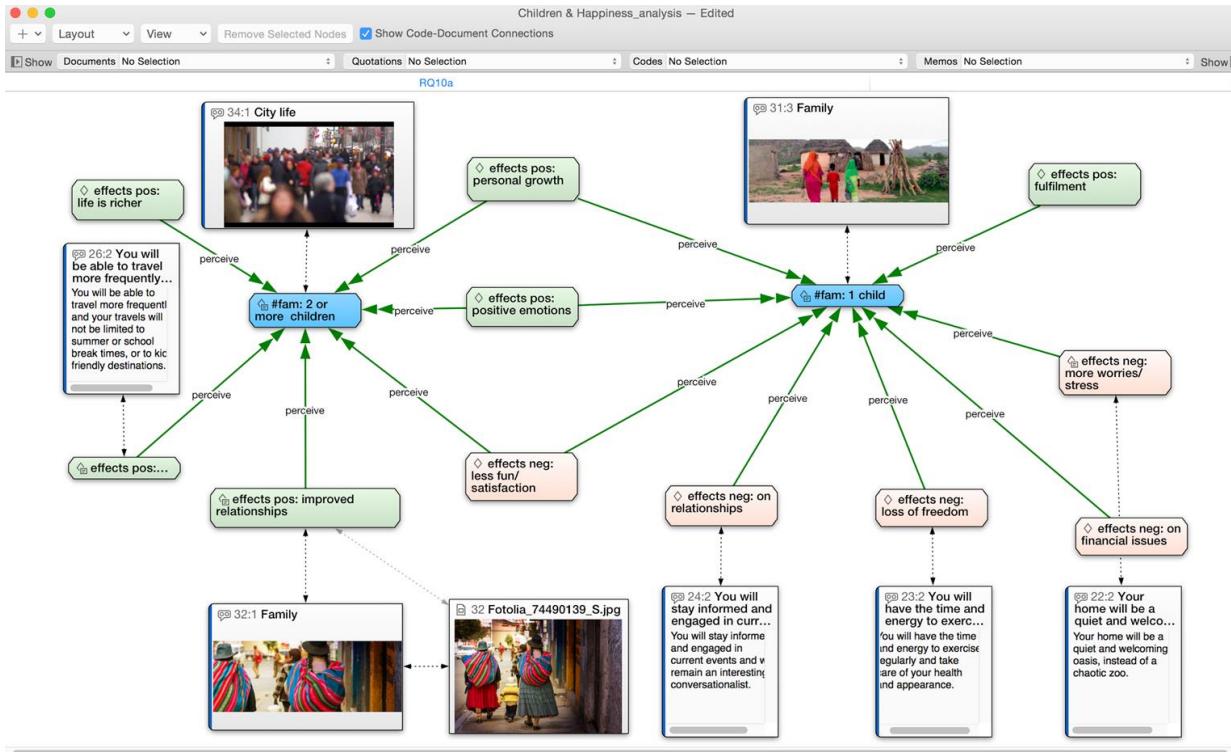
Last Wednesday was my group's (Group A) presentation on phenomenological research along with other Group D and Group E, in which both presenting about grounded theory. From group D, I learnt the formation of grounded theory and how the inductive nature of qualitative research in grounded theory was considered essential for generating theory as it searches to identify the core social processes within a given social situation. It was very interesting because group D has prepared a very detail explanation on the meaning and

The bottom navigation bar includes tabs for In, Nodes, Code At, Knowledge (Nodes\Self Reflection), and a toolbar with various icons.

“

Contoh Tampilan NVivo:
<http://www.rctd.org/102.html>

ATLAS.TI



“

Contoh Tampilan Atlas.ti:
<https://atlasti.com/product/mac-os-edition/>

CAQDAS

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COMPUTER ASSISTED QUALITATIVE DATA ANALYSIS (CAQDAS) NETWORKING PROJECT

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A large, abstract graphic in the background consisting of intersecting black lines on a light gray gradient background. It features several parallel diagonal lines and a prominent 'X' shape formed by two sets of intersecting lines.

COMPUTER ASSISTED QUALITATIVE DATA ANALYSIS (CAQDAS) NETWORKING PROJECT

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KERANGKA TEORITIS ANALISIS KUALITATIF



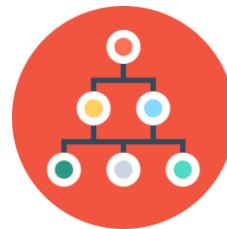
KERANGKA TEORITIS ANALISIS KUALITATIF

“

Analisis yang didasarkan kepada kerangka teoritis dapat memberikan pemahaman yang lebih mendalam



Grounded Theory



Distributed Cognition



Activity Theory

GROUNDED THEORY (1)



Bertujuan **memformulasikan teori** berdasarkan **analisis data**

Didasarkan kepada **pendekatan kategorisasi** (disebut juga "coding")

Tiga Level Coding : **Open** (Identifikasi Kategori), **Axial** (Menghubungkan Subkategori),
Selektif (Membentuk Skema Teoritis)

UX Researcher dituntut untuk mendasarkan analisisnya pada **landasan teori**

GROUNDED THEORY (2)

“

Code Book yang digunakan dalam mengimplementasikan Analisis Ground Theory

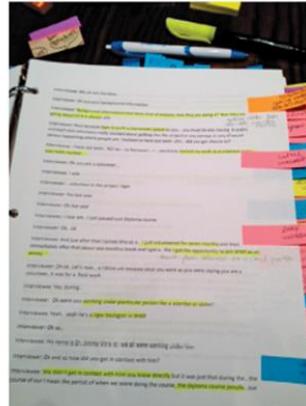


Figure 8.13 Code book used in a grounded theory analysis of citizens' motivations to contribute to citizen science

Source: Rotman, D. et al (2014). Does motivation in citizen science change with time and culture? In *Proceedings of the companion publication of the 17th ACM conference on Computer supported cooperative work & social computing (CSCW Companion '14)*. ACM, New York, NY, USA, 229–232. ©2014 Association for Computing Machinery, Inc. Reprinted by permission.

GROUNDED THEORY (3)

“

Contoh axial coding dalam Analisis Ground Theory

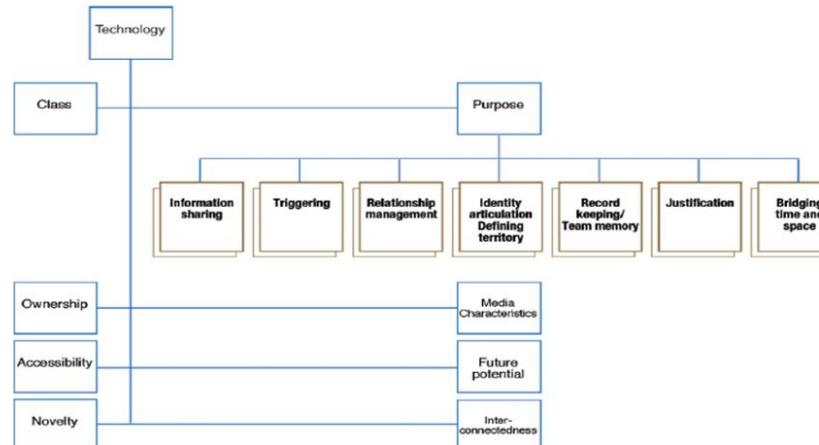


Figure 8.14 Axial coding for the technology category

Source: S. Sarker, F. Lau and S. Sahay (2001): "Using an adapted grounded theory approach for inductive theory building about virtual team development". *The Data Base for Advances in Information Systems*, 32(1), pp. 38–56 ©2001 Association for Computing Machinery, Inc. Reprinted by permission.

PENYAJIAN DATA



Buatlah **pernyataan** yang dapat dipertanggungjawabkan **berdasarkan data** yang Anda peroleh

Penyajian data bergantung pada **audiens**, **tujuan**, teknik **pengambilan** dan **analisis** data

Penyajian data secara **grafis** dapat menjadi teknik penyajian yang **tepat**

Teknik lainnya : (1) **Rigorous notation** (UML), (2) Menggunakan **cerita**, dan (3) **Rangkuman hasil**

SYSTEM USABILITY SCALE (SUS)



SYSTEM USABILITY SCALE



Tools analisis kuantitatif sederhana untuk menilai **usabilitas sistem**

Kuesioner **10 pertanyaan** terkait usabilitas dan menghasilkan **skala usabilitas (1 - 10)**

Tepat digunakan untuk mengetahui **usabilitas** suatu sistem secara **keseluruhan** dan **cepat**

Skala yang diperoleh dapat dimanfaatkan sebagai dasar melakukan **benchmarking**

KUESIONER SYSTEM USABILITY SCALE (1)

	Sangat Tidak Setuju		Sangat Setuju	
1. Saya pikir bahwa saya akan ingin lebih Sering menggunakan aplikasi ini	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Saya menemukan bahwa aplikasi ini, tidak harus dibuat serumit ini	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Saya pikir aplikasi ini mudah untuk digunakan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Saya pikir bahwa saya akan membutuhkan bantuan dari orang teknis untuk dapat menggunakan aplikasi ini	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Saya menemukan berbagai fungsi di	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

“

Cuplikan Kuesioner System Usability Scale (SUS)

Pudjoatmodjo, B., & Wijaya, R. (2016).

Tes Kegunaan (Usability Testing) Pada Aplikasi Kepegawaian Dengan Menggunakan System Usability Scale (Studi Kasus: Dinas Pertanian Kabupaten Bandung). *SEMNASTEKNOMEDIA ONLINE*, 4(1), 2-9.

KUESIONER SYSTEM USABILITY SCALE (2)

7. Saya bayangkan bahwa kebanyakan orang akan mudah untuk mempelajari aplikasi ini dengan sangat cepat

			✓	
1	2	3	4	5

8. Saya menemukan, aplikasi ini sangat rumit untuk digunakan

	✓			
1	2	3	4	5

9. Saya merasa sangat percaya diri untuk menggunakan aplikasi ini

				✓
1	2	3	4	5

10. Saya perlu belajar banyak hal sebelum saya bisa memulai menggunakan aplikasi ini

✓				
1	2	3	4	5

$$30 \times 1,5 = 75$$

“

Cuplikan Kuesioner System Usability Scale (SUS)
Pudjoatmodjo, B., & Wijaya, R. (2016).

Tes Kegunaan (Usability Testing) Pada Aplikasi Kepegawaian Dengan Menggunakan System Usability Scale (Studi Kasus: Dinas Pertanian Kabupaten Bandung). *SEMNAS TEKNOMEDIA ONLINE*, 4(1), 2-9.

SKALA SYSTEM USABILITY SCALE (1)

Melakukan proses perhitungan SUS Score. Dari 5 responden yang melakukan proses perekaman dan pengisian kuesioner didapatkan nilai (score) SUS berdasarkan perhitungan sebelumnya, sebagai berikut :

- a. Responden 1 : 75
- b. Responden 2 : 75
- c. Responden 3 : 72
- d. Responden 4 : 75
- e. Responden 5 : 70

Nilai rata-rata yang diperoleh dari persamaan (1) adalah 73,4

“

Cuplikan Kuesioner System Usability Scale (SUS)
Pudjoatmodjo, B., & Wijaya, R. (2016).

Tes Kegunaan (Usabiltv Testing)
Pada Aplikasi Kepegawaian
Dengan Menggunakan System
Usabiltv Scale (Studi Kasus:
Dinas Pertanian Kabupaten
Bandung). *SEMNASTEKNOMEDIA*
ONLINE, 4(1), 2-9.

SKALA SYSTEM USABILITY SCALE (2)

“

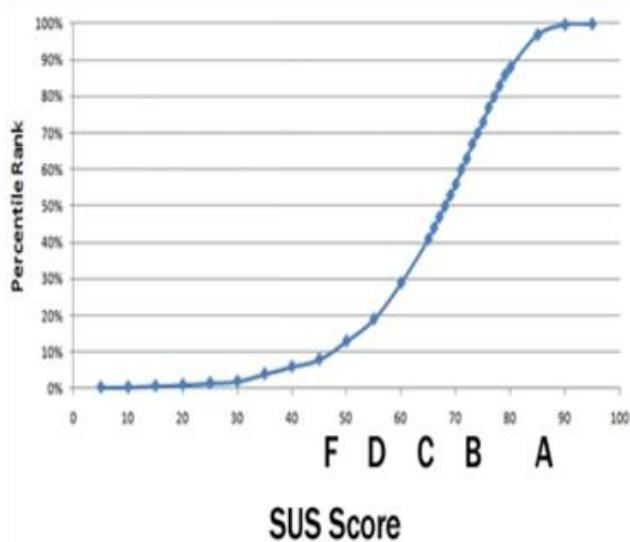
UNTUK DETAIL LEBIH LENGKAP MENGENAI CARA MENGHITUNG SUS SCORE SILAHKAN MERUJUK KE :

<https://www.usability.gov/how-to-and-tools/methods/system-usability-scale.html>

SKALA SYSTEM USABILITY SCALE (2)

Dari grafik rujukan, diperoleh bahwa nilai 73,4 termasuk dalam rentang B (rentang 70-80).

Hasil ini menunjukkan bahwa kualitas aplikasi kepegawaian yang dibuat mempunyai kualitas yang baik.



Gambar 9. Grafik Rujukan

“

Cuplikan Kuesioner System Usability Scale (SUS)

Pudjoatmodjo, B., & Wijaya, R. (2016).

Tes Kegunaan (Usabiltv Testing)
Pada Aplikasi Kepegawaian
Dengan Menggunakan System
Usabiltv Scale (Studi Kasus:
Dinas Pertanian Kabupaten
Bandung). *SEMNASTEKNOMEDIA*
ONLINE, 4(1), 2-9.

USER EXPERIENCE QUESTIONNAIRE (UEQ)



USER EXPERIENCE QUESTIONNAIRE



Tools analisis kuantitatif yang lengkap untuk menilai **usabilitas sistem** sesuai **6 aspek**

Kuesioner **27 pertanyaan** terkait usabilitas dan menghasilkan **skala UEQ**

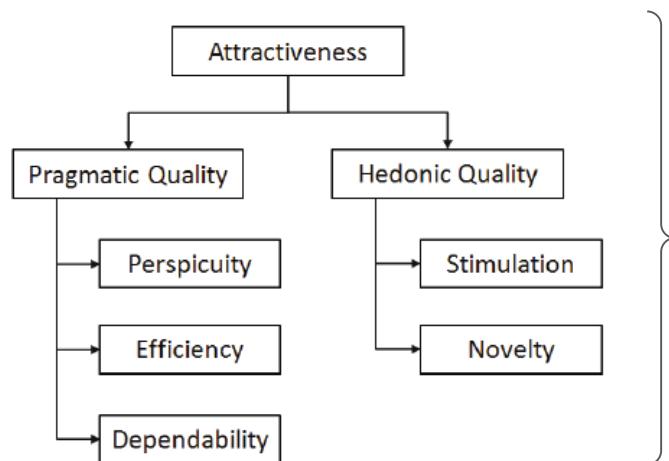
Skala yang dihasilkan dapat digunakan untuk **membandingkan kualitas** banyak sistem

Skala yang diperoleh dapat dimanfaatkan sebagai dasar melakukan **benchmarking**

6 SKALA USER EXPERIENCE QUESTIONNAIRE

“

Aspek apa saja yang diukur dalam UEQ ?



STRUKTUR KUESIONER UEQ

BAGIAN 3 : USER EXPERIENCE QUESTIONNAIRE

Dilisi oleh narasumber.

1 *

Menyusahkan 1 2 3 4 5 6 7 Menyenangkan

Menyusahkan

2 *

Tak Dapat Dipahami 1 2 3 4 5 6 7 Dapat Dipahami

Tak Dapat Dipahami

3 *

Kreatif 1 2 3 4 5 6 7 Monoton

Kreatif

4 *

1 2 3 4 5 6 7

“

Cuplikan Kuesioner UEQ :
'Asesmen dan Pengembangan Desain User Experience Sistem Informasi Asisten Fasilkom UI'
Adinegoro, Pratama, Fiandi, dan Hasani (2018) Diajukan sebagai Tugas Akhir MPPI

UEQ Data Analysis Tools by :
Dr. Martin Schrepp
UEQ Versi Bahasa Indonesia by :
Harry Budi Santoso

DATA ANALYSIS TOOL UEQ

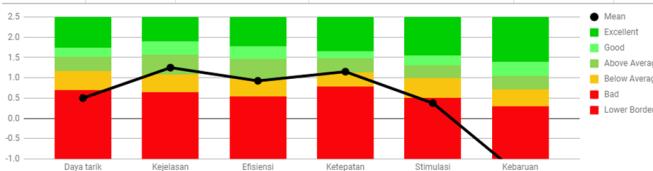
Please enter the data here!

Use the item numbers in the printed questionnaire and the categories 1 (if the alternative on the extreme left is marked) to 7 (if the alternative on the extreme right is marked).

Leave the cell empty if the person has not answered the item. Please do not enter a special character in such cases, since this would cause errors in the calculations.

You can enter data for a maximum of 1000 participants. If you need more, you have to adjust the formulas in the Excel.

2	items																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
3	3	4	6	4	3	2	2	4	5	5	4	4	4	2	3	4	4	5	3	5	5	4	5	5	1	
4	3	4	6	1	1	4	4	7	2	5	7	1	7	5	1	6	3	3	1	4	1	5	1	4	3	2
5	6	7	6	1	1	4	4	7	2	5	7	1	7	5	1	6	3	3	1	4	1	5	1	4	3	2
6	4	5	5	3	2	3	4	4	3	5	5	3	7	4	3	4	4	4	5	3	4	3	5	4	3	2
7	5	5	7	3	3	5	5	6	3	7	6	2	7	5	5	6	2	4	1	6	3	6	2	4	2	2
8	5	5	6	2	2	2	3	5	5	6	5	2	5	4	2	4	4	5	4	5	3	5	2	6	3	2
9	6	6	6	1	1	4	5	7	2	3	7	4	7	7	6	7	4	1	2	7	1	7	1	4	1	4
10	4	7	6	2	1	4	3	5	3	6	6	2	6	4	3	5	6	4	3	5	1	7	3	5	3	2
11	5	5	4	3	2	4	5	7	3	4	5	2	5	5	5	6	2	2	2	6	3	5	3	4	3	2
12	5	6	6	2	4	4	5	3	6	6	2	3	4	2	3	5	4	2	4	5	2	5	5	5	2	
13	4	5	6	4	3	2	3	5	5	6	4	4	3	4	3	3	3	6	4	3	5	6	5	6	3	



Scale	Mean	Comparisson to benchmark	Interpretation
Daya tarik	0.500	Bad	In the range of the 25% worst results
Kejelasan	1.250	Above Average	25% of results better, 50% of results worse
Efisiensi	0.925	Below Average	50% of results better, 25% of results worse
Ketepatan	1.150	Above Average	25% of results better, 50% of results worse
Stimulasi	0.375	Bad	In the range of the 25% worst results
Kebaruan	-1.400	Bad	In the range of the 25% worst results

“

Cuplikan Kuesioner UEQ :
‘Asesmen dan Pengembangan
Desain User Experience Sistem
Informasi Asisten Fasilkom UI’
Adinegoro, Pratama, Fiandi, dan
Hasani (2018)

UEQ Data Analysis Tools by :

Dr. Martin Schrepp

UEQ Versi Bahasa Indonesia by :

Harry Budi Santoso

CARA MENGHITUNG SKALA UEQ

“

UNTUK DETAIL LEBIH LENGKAP MENGENAI CARA MENGHITUNG UEQ SCORE SILAHKAN MERUJUK KE :

<https://www.ueq-online.org/>

KABAR GEMBIRA UNTUK KITA SEMUA :) KINI UEQ ADA VERSI BAHASA INDONESIA NYA :

https://www.ueq-online.org/Material/UEQ_All_Languages.zip



STUDI KASUS



Usability Evaluation of the Student Centered e-Learning Environment

“

**Junus, Santoso,
Isal, & Utomo
(2015)**

International Review of Research in Open and Distributed Learning
Volume 16, Number 4

October- 2015

Usability Evaluation of the Student Centered e-Learning Environment



Inas Sofiyah Junus, Harry Budi Santoso, R. Yugo K. Isal, and Andika Yudha Utomo
Faculty of Computer Science, Universitas Indonesia, INDONESIA

Abstract

Student Centered e-Learning Environment (SCeLE) has substantial roles to support learning activities at Faculty of Computer Science, Universitas Indonesia (Fasilkom UI). Although it has

PERTANYAAN PENELITIAN

The screenshot shows the homepage of the SCeLE system. At the top, there's a navigation bar with links for 'SCeLE', 'Academic Links', 'Panduan Mahasiswa', 'Dukungan Kuliah', and 'Bantuan SCeLE'. On the right, there are fields for 'Username' and 'Password' with a green 'Login' button. Below the navigation, there's a search bar with the placeholder 'Search courses' and a magnifying glass icon. The main content area features a 'Clock' section showing the date as October 10, 2018, and a 'Calendar' section for the same month. A central news post titled 'Pengumuman Akademis' is displayed, with a thumbnail showing a person's profile and the title '[Rev 001] Jadwal UTS Gasal 18/19'. The post includes a message from Ridwan Febreyanto dated Wednesday, 10 October 2018, at 6:58 PM. It discusses the academic calendar and encourages users to check their emails for further information. To the right, there are two sidebar sections: 'Akses SCeLE' which lists links for old access, mobile access, and tutorials; and 'Kurikulum 2016' which links to the curriculum guide and international class information.

“
Junus, Santoso,
Isal, & Utomo
(2015)

To find out the **learning experiences** of students and lecturers in SCeLE

To find out **aspects** that are required **to be preserved** in SCeLE;

To find out aspects that are obliged **to be improved** in SCeLE along with the steps needed.

METODE ANALISIS DATA YANG DIGUNAKAN

“

Junus, Santoso,
Isal, & Utomo
(2015)

Likert Scale

Untuk menentukan isu yang muncul berdasarkan faktor yang diamati.

Theme Based Content Analysis (TBCA)

Menganalisis jawaban open ended question.

Solution Identification Analysis

Dilakukan berdasarkan data kuisioner responden.

Computer Self-Efficacy, Cognitive Actions, and Metacognitive Strategies of High School Students While Engaged in Interactive Learning Modules



Dissertation Defense, October 31st, 2013

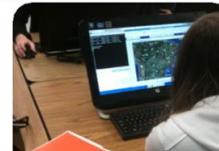
Computer Self-Efficacy, Cognitive Actions, and Metacognitive Strategies of High School Students While Engaged in Interactive Learning Modules

Harry Budi Santoso

Bachelor Degree in Computer Science (1999-2003) – Universitas Indonesia
Master Degree in Computer Science (2005-2007) – Universitas Indonesia
Doctoral Degree in Engineering Education (2009-2013) – Utah State University

Major Professor: Oenardi Lawanto, PhD

“
Santoso, H. B.
(2013)



PERTANYAAN PENELITIAN



“

Santoso, H. B.
(2013)

How is students' **computer self-efficacy (CSE)** related to **cognitive** and **metacognitive strategies** while using interactive learning modules (ILM)?

How do students' **plan and monitor their cognitive actions**, and regulate their monitoring strategies during learning with ILM?

KONTEKS PENELITIAN

- School Selection:



Logan High School | Home of the Grizzlies



- Participant Selection:

School	Class
Logan High School	Programming 1A and Math 1
InTech Collegiate High School	Physics

“

Santoso, H. B.
(2013)

- 100 students from both schools completed all activities in this study.
- Three modules for each class were selected to be used by considering the relevance of the modules to this study.

METODE ANALISIS DATA YANG DIGUNAKAN

“

Santoso, H. B.
(2013)

Statistik Deskriptif Rerata Nilai CSE dan SRCBL

Untuk profiling computer self-efficacy, dan strategi kognitif serta metakognitif siswa

Uji Korelasi (Pearson Test)

Melihat hubungan nilai CSE dengan strategi kognitif dan metakognitif siswa

Uji Multiple Linear Regression

Mengukur pengaruh nilai CSE dengan aksi kognitif dan strategi metakognitif siswa

METODE ANALISIS DATA YANG DIGUNAKAN

“

Santoso, H. B.
(2013)

Pengukuran Berulang (Repeated Measures)

Mengetahui perbedaan aspek seperti planning, monitoring, aksi kognitif dsb.

Cluster Analysis

Menentukan rekaman screen capture dan siswa terpilih untuk diteliti lebih lanjut

Screen Captured Video Analysis

Untuk menjelaskan lebih lanjut mengenai temuan dari analisis kuesioner

METODE ANALISIS DATA YANG DIGUNAKAN

“

Santoso, H. B.
(2013)

Interview Analysis

Menjelaskan lebih lanjut temuan pada analisis video dan kuesioner

Measuring User Experience of the Student-Centered e-Learning Environment

The Journal of Educators Online-JEO January 2016 ISSN 1547-500X Vol 13 Number 1

58

Measuring User Experience of the Student-Centered e-Learning Environment

Harry B. Santoso, Universitas Indonesia, Jawa Barat, INDONESIA

Martin Schrepp, SAP AG, Walldorf, GERMANY

R. Yugo Kartono Isal, Universitas Indonesia, Jawa Barat, INDONESIA

Andika Yudha Utomo, Universitas Indonesia, Jawa Barat, INDONESIA

Bilih Priyogi, Universitas Indonesia, Jawa Barat, INDONESIA

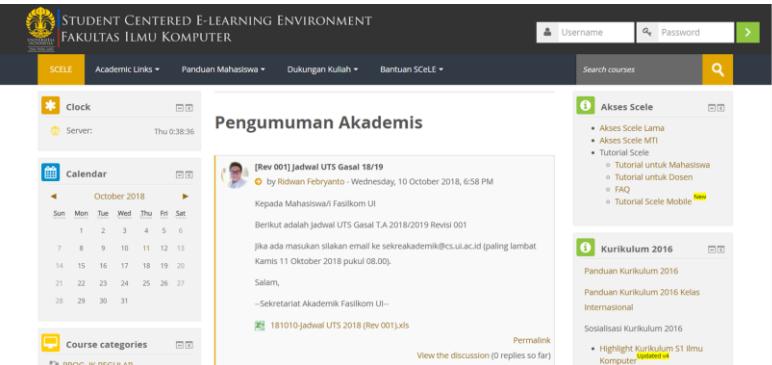
Abstract

The aim of the current study is to develop an adapted version of User Experience Questionnaire (UEQ) and evaluate a learning management system. Although there is a growing interest on User Experience, there are still limited resources (i.e. measurement tools or questionnaires) available

“

Santoso, Schrepp,
Isal, Utomo, &
Priyogi
(2016)

KONTEKS PENELITIAN



The screenshot shows the SCELE platform interface. At the top, there's a navigation bar with the university logo, the text 'STUDENT CENTERED E-LEARNING ENVIRONMENT', and 'FAKULTAS ILMU KOMPUTER'. Below the navigation bar are several tabs: 'SCELE' (which is active), 'Academic Links', 'Panduan Mahasiswa', 'Dukungan Kuliah', and 'Bantuan SCELE'. On the left side, there's a sidebar with a 'Clock' section showing the server time as 'Thu 03:36' and a 'Calendar' section for October 2018. The main content area features a 'Pengumuman Akademis' (Academic Announcements) section. A post by Ridwan Febreyanto on Wednesday, October 10, 2018, at 6:58 PM, titled '[Rev 001] Jadwal UTS Gasal 18/19', is displayed. The post content is as follows:

Berikut adalah jadwal UTS Gasal T.A.2018/2019 Revisi 001
Jika ada masukan silakan email ke sekrekaadmik@cs.ul.ac.id (paling lambat Kamis 11 Oktober 2018 pukul 08.00).
Salam,
-Sekretariat Akademik Fasilkom UI-

Attached file: 181010-Jadwal UTS 2018 (Rev 001).xls

Below the post, there are links to 'View the discussion (0 replies so far)' and 'Permalink'.

On the right side of the main content area, there are two sidebar sections: 'Akses SCELE' and 'Kurikulum 2016'. The 'Akses SCELE' sidebar includes links to 'Akses SCELE Lama', 'Akses SCELE MII', and 'Tutorial SCELE'. The 'Kurikulum 2016' sidebar includes links to 'Panduan Kurikulum 2016', 'Panduan Kurikulum 2016 Kelas Internasional', and 'Sosialisasi Kurikulum 2016'.

Goals :
Measure user experience of Student Centered E-Learning Environment (SCELE),

“

**Santoso, Schrepp,
Isal, Utomo, &
Priyogi
(2016)**

METODE ANALISIS DATA YANG DIGUNAKAN

“

Santoso, Schrepp, Isal, Utomo, & Priyogi
(2016)

UEQ Data Analysis Tools

Untuk mengukur usabilitas SceLe berdasarkan 6 aspek UX

Analisis Open Question

Mengidentifikasi pendapat dan isu yang muncul terkait penggunaan SceLe

UJI PEMAHAMAN

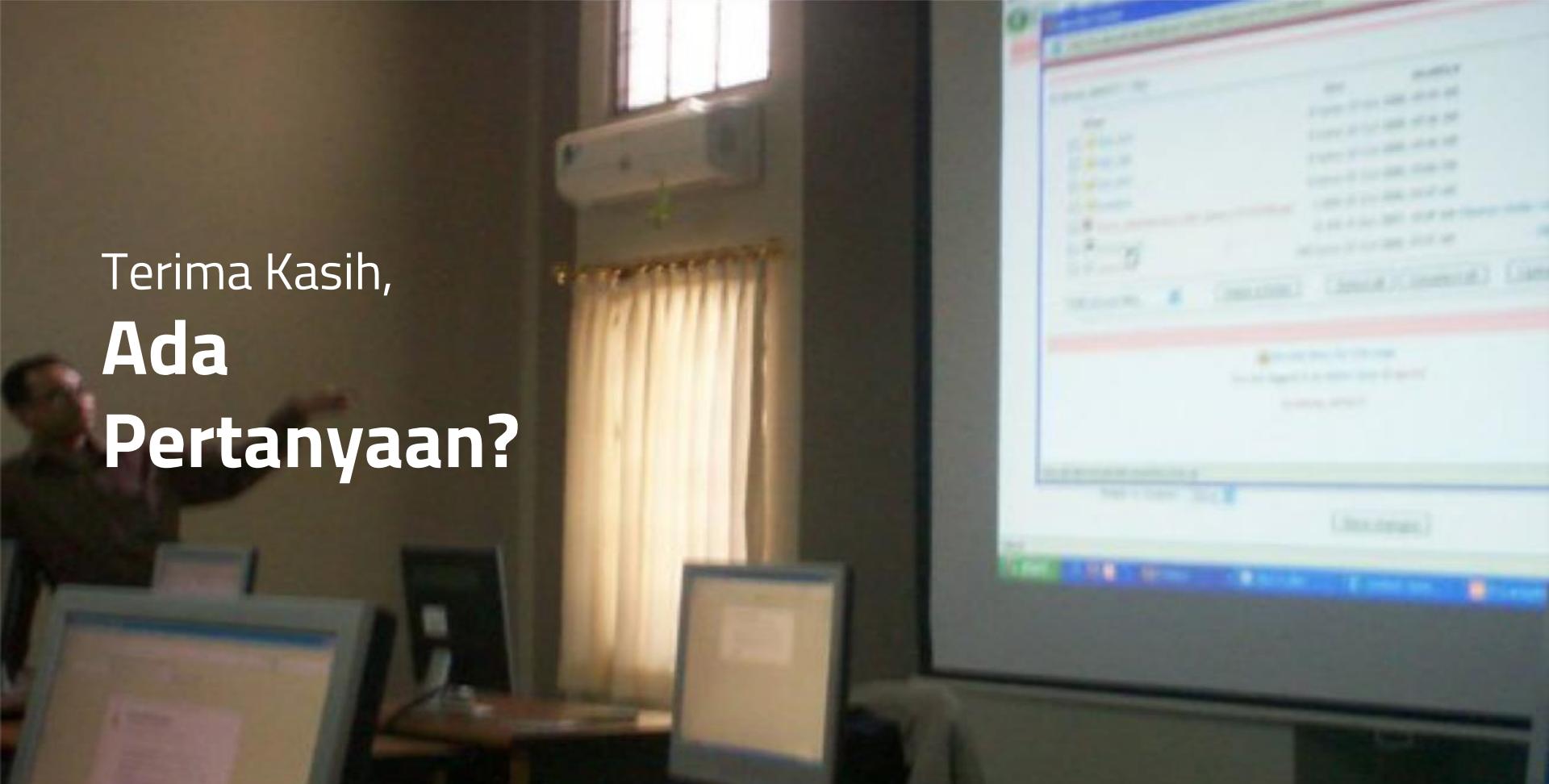
Anda ditugaskan untuk melakukan riset yang bertujuan membandingkan pengalaman pengguna dari aplikasi Scele UI dan Scele Fasilkom. **Data apa yang akan Anda kumpulkan? Apa metode analisis yang akan Anda gunakan?**

Anda telah melakukan wawancara terhadap 30 orang pengguna Grab Food (segmen mitra driver dari 4 kelompok usia). Wawancara dilakukan untuk mendeskripsikan dan membandingkan pengalaman pengguna dari empat segmen pengguna. **Bagaimana cara Anda menganalisis hasil wawancara tersebut?** Silakan berikan asumsi dan berikan argumen untuk pilihan Anda.

Anda memiliki tabel hasil kuesioner skala SUS untuk aplikasi Zoom dan Google Meet yang telah diisi 80 orang pengguna. **Bagaimana strategi Anda untuk menyajikan data** tersebut jika tujuannya adalah untuk membandingkan skala SUS untuk kedua aplikasi tersebut?

DAFTAR REFERENSI

- Santoso, H. B., Batuparan, A. K., Isal, R. Y. K., & Goodridge, W. H. (2018). The Development of a Learning Dashboard for Lecturers: A Case Study on a Student Centered E-Learning Environment. *Journal of Online Education*, 15(1)
- Adinegoro, M. D., Pratama, A., Fiandi, J., & Hasani, L. M.. (2018). Data Analysis Tools untuk 'Asesmen dan Pengembangan Desain User Experience Sistem Informasi Asisten Fasilkom UI'
- Pudjoatmodjo, B., & Wijaya, R. (2016). Tes Kegunaan (Usability Testing) Pada Aplikasi Kepegawaian Dengan Menggunakan System Usability Scale (Studi Kasus: Dinas Pertanian Kabupaten Bandung). *Semnasteknomedia Online*, 4(1), 2-9.
- Inas Sofiyah Junus, Harry B. Santoso, R. Yugo K. Isal, & Andika Yudha Utomo (2015). Usability Evaluation of the Student Centered e-Learning Environment. *The International Review of Research in Open and Distributed Learning*, 16(4), 62-82
- Santoso, H. B. (2013). Computer Self-Efficacy, Cognitive Actions, and Metacognitive Strategies of High School Students While Engaged in Interactive Learning Modules. Utah State University Dissertation [PDF Slides].
- Preece, J., Sharp, H., & Rogers, Y. (2002). *Interaction Design: Beyond Human-Computer Interaction*. New York: John Wiley & Sons.
- Harry B. Santoso, Martin Schrepp, R. Yugo K. Isal, Andika Yudha Utomo, & Bilih Priyogi. (2016). Measuring User Experience of the Student-Centered e-Learning Environment. *Journal of Educators Online*, 13(1), 58-79.



Terima Kasih,
**Ada
Pertanyaan?**