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as

Speaker

in The International Conference on Science Education and Technology (ICOSETH) 2019

"Facing Industrial Revolution 4.0 and Society 5.0

on Science Education and Technology"

Surakarta, 23 November 2019

DEKAN DEKAN DAWARD TOT. Mardiyana, M.Si.

Dean of Teacher Training and Education Faculty Universitas Sebelas Maret



Chairman of ICOSETH 2019

Evaluation of Lecturer Web-Based Application SIPADU-STIS Using Heuristic and Observation Method

Lutfi Rahmatuti Maghfiroh Politeknik Statistika STIS

SIPADU-STIS



Management of class schedules (submitting changes in schedule or room) Test score entry Distribution of semester results (PA lecturer) Guidance for the final project (supervisor) Confirm the seminar schedule and final exam for the final project

Previous System Evaluation

Blackbox Testing

SUS

Aisha Adetia, Sistem Informasi Key Performance Indicator (KPI) Pegawai STIS. Skripsi. 2011. Sekolah Tinggil Imu Statistik. Alrasyid, Harun, Pengembangan Sistem Informasi Perpustakaan Sekolah Tinggi Ilmu Statistik (Aplikasi Desktop Admin, Web Admin dan Pemberitahuan Keterlambatan dengan SMS Gateway). Skripsi. 2011. Sekolah Tinggil Imu Statistik. Hardjantho, Abialam Koesnandy, Analisis User Acceptance Terhadap SIPADU-STIS Menggunakan Teori Technology Acceptance Model (TAM) dan Metode Analisis Structural Equation Modeling (SEM). Skripsi. 2014. Sekolah Tinggi Imu Statistik.

Previous System



Yustianto, Purnomo, Suhardi, Robin Doss, Consolidating service engineering perpective. 2015 International conference on information technology system and innovation (ICITSI), Bandung-Bali, November 16-19, ISBN 978-1-4673-6664-9. Ben Shneiderman, Designing the User Interface (3rd Ed.), Addison-Wesley,

Jeff Johnson, GUI Bloopers 2.0 - Common User Interface Design Don'ts and Dos, Morgan Kaufmann, 2008

Wilbert O. Galitz, The Essential Guide to User Interface Design: An Introduction to GUI Design Principles and Techniques (3rd Ed.), Wiley Publishing, 2007.

Methods

6 novice and 5 expert User use system for daily activity Respondents fill out the questionnaire Respondents determine the usability problem

Descriptive analysis

Jakob Nielsen on April 24, 1994. https://www.nngroup.com/articles/ten-usability-heuristics/. Accesed on October 15, 2019

Yusoh, Suweena, Sureena Matayong. Heuristic Evaluation of Online Satisfaction Survey System for Public Healthcare Service: Applying Analytical Hierarchical Process. 2017 2nd International Conferences on Information Technology, Information Systems and Elect Salvado, Valeria Farinazzo Martins, Lincoln de Assis Moura Jr. Heuristic Evaluation For Automatic Radiology Reporting Transcription Systems. 10th International Conference on Information Science, Signal Processing and their Applications (ISSPA 2010) Almarashdeh, Ibrahim, Mutasem, Alsmadi. Heuristic Evaluation of Mobile Government Portal Services: An Experts' Review. The 11th International Conference for Internet Technology and Secured Transactions (ICITST-2016). 978-1-908320/73/5/\$31.00 © 2016 IEE Paz, Freddy, Freddy A. Paz, Daniela Villanueva, Jos'e Antonio Pow-Sang. Heuristic Evaluation as a Complement to Usability Testing: A Case Study in Web Domain. 2015 12th International Conference on Information Technology - New Generations Borovina Nihad. Heuristic based evaluation of mobile services web portal usability. 22nd telecommunications forum TELFOR 2014

Botella, Federico, Jose A. Gallud, and Ricardo Tesoreiro. Using Interaction Patterns in Heuristic Evaluation. A. Marcus (Ed.): Design, User Experience, and Usability, Pt I, HCII 2011, LNCS 6769, pp. 23–32, 2011. © Springer-Verlag Berlin Heidelberg 2011 Rais, Nendy Akbar Rozaq, Hari Agustiyo, Moch. Arfian Ardiansyah. Evaluasi Heuristic Study Kasus Tiket.com. Seminar Nasional Teknologi Informasi dan Multimedia 2018. ISSN : 2302-3805.

Aziza, Rifda Faticha Alfa, Yahya Taufiq Hidayat. 2019. Analisa Usability Desain User Interface Pada Website Tokopedia Menggunakan Metode Heuristics Evaluation. Jurnal TEKNOKOMPAK, Vol. 13, No. 1, 2019, 7-11. ISSN 1412-9663 Salgado, Andr´e de Lima, Renata Pontin de Mattos Fortes. Heuristic Evaluation for Novice Evaluators. Springer International Publishing Switzerland 2016. A. Marcus (Ed.): DUXU 2016, Part I, LNCS 9746, pp. 387–398, 2016. DOI: 10.1007/978-3-319-40409-7 37

Questionnaire

Visibility of System Status
Match between the
system and the real
world

User control and freedom

Consistency and standards

Recognition rather than recall

Error prevention

Flexibility and efficiency of use

Aesthetic and minimalist design

Help users recognize, diagnose, and recover from errors

- Help and documentation

10 Aspect assessment Usability problem level not a usability problems,

cosmetic problems,

minor usability problems,

major usability problems,

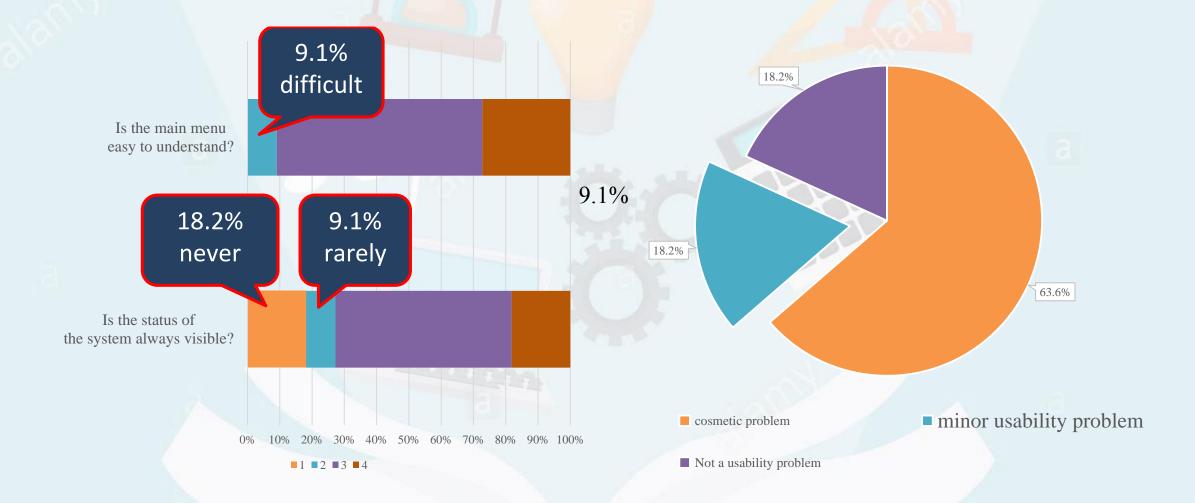
usability catastrophes

Heuristic

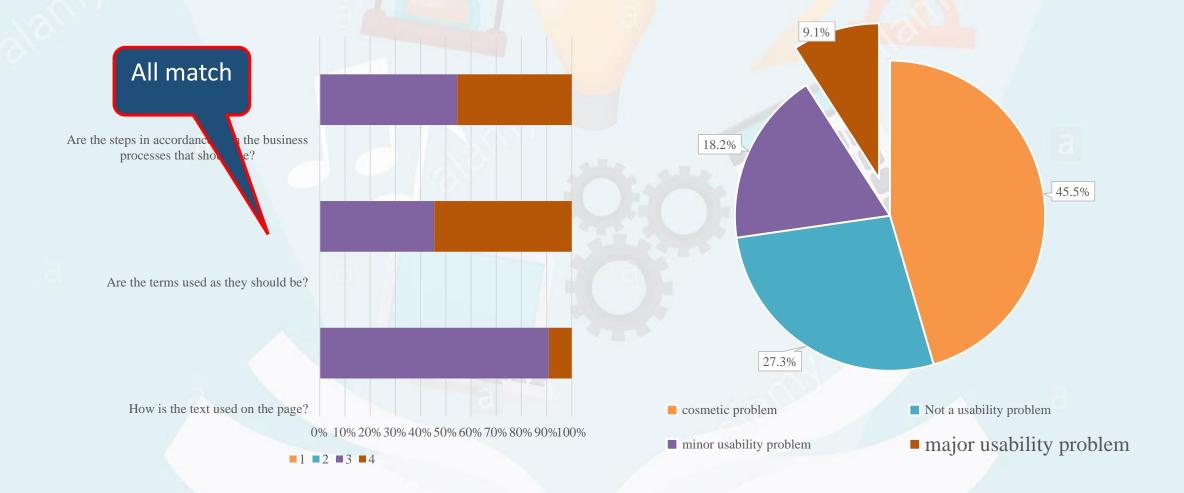
Aspect of

Nielsen

Visibility of System Status

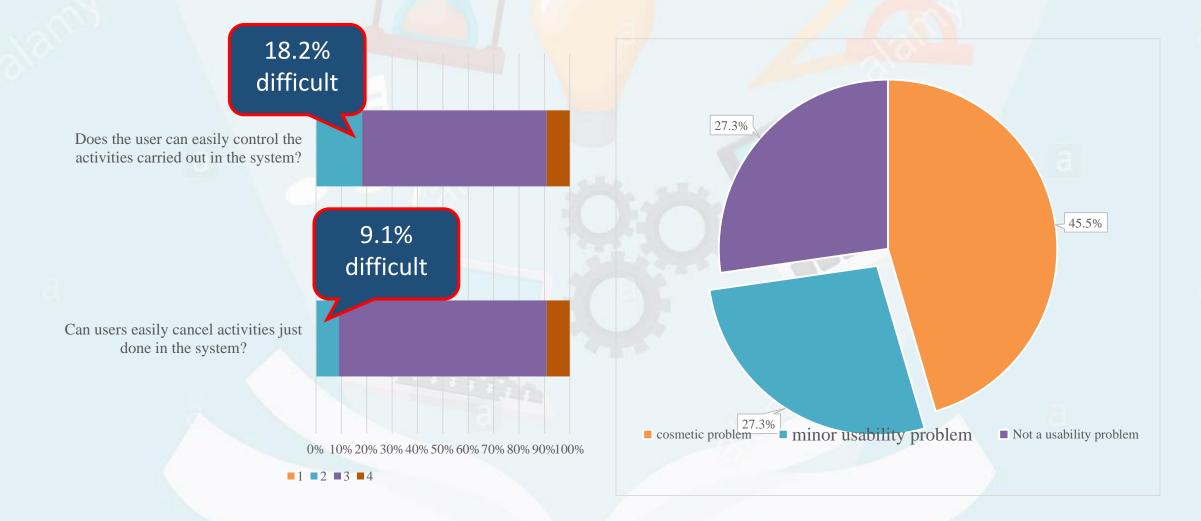


Match between the system and the real world

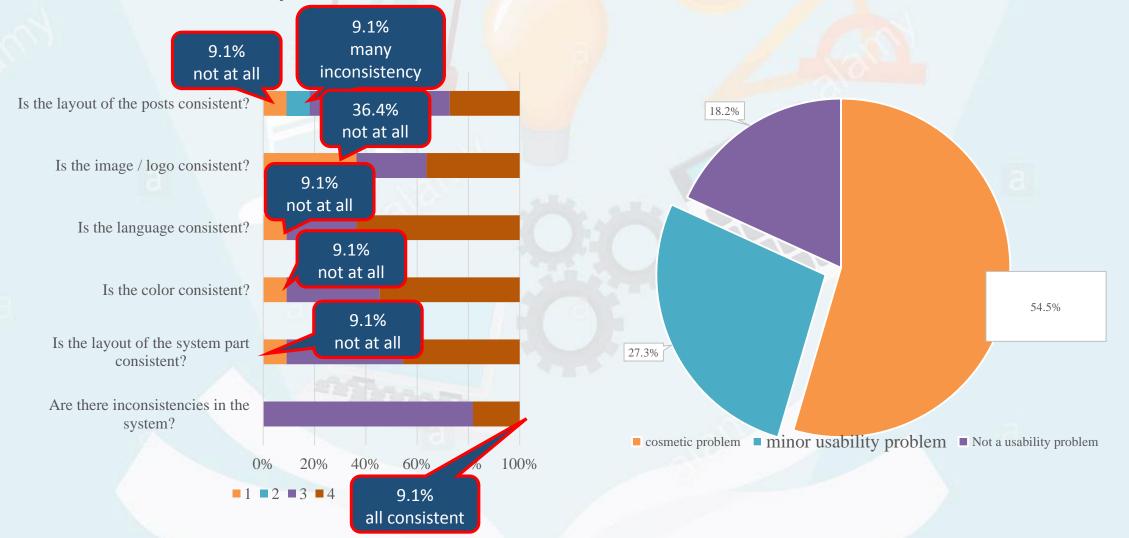


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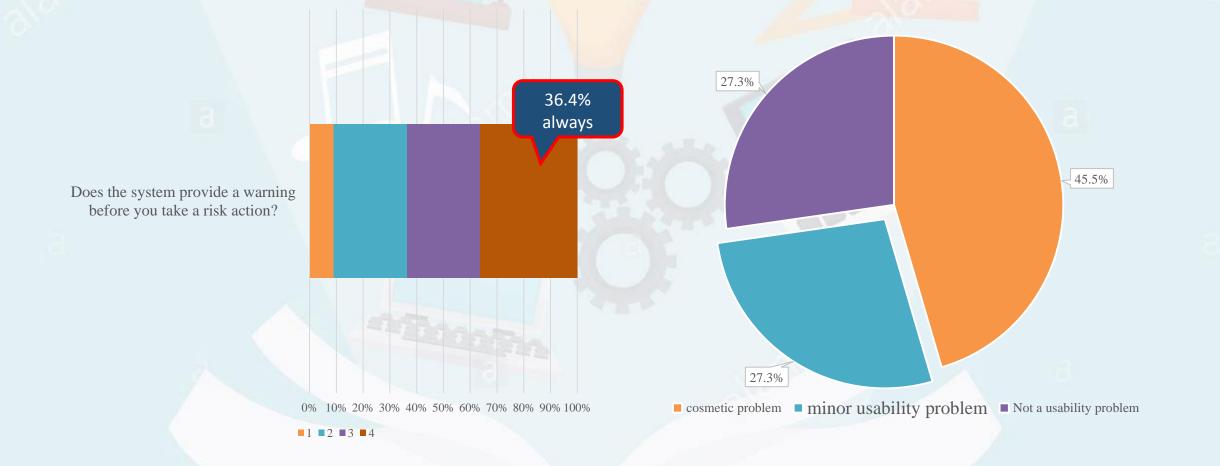
User control and freedom



Consistency and standards

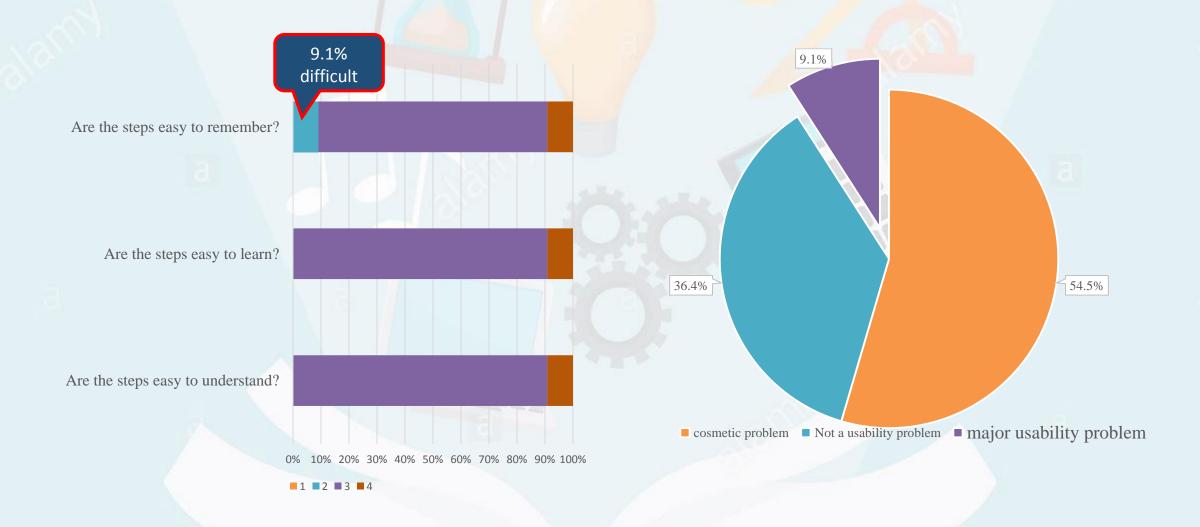


Error prevention

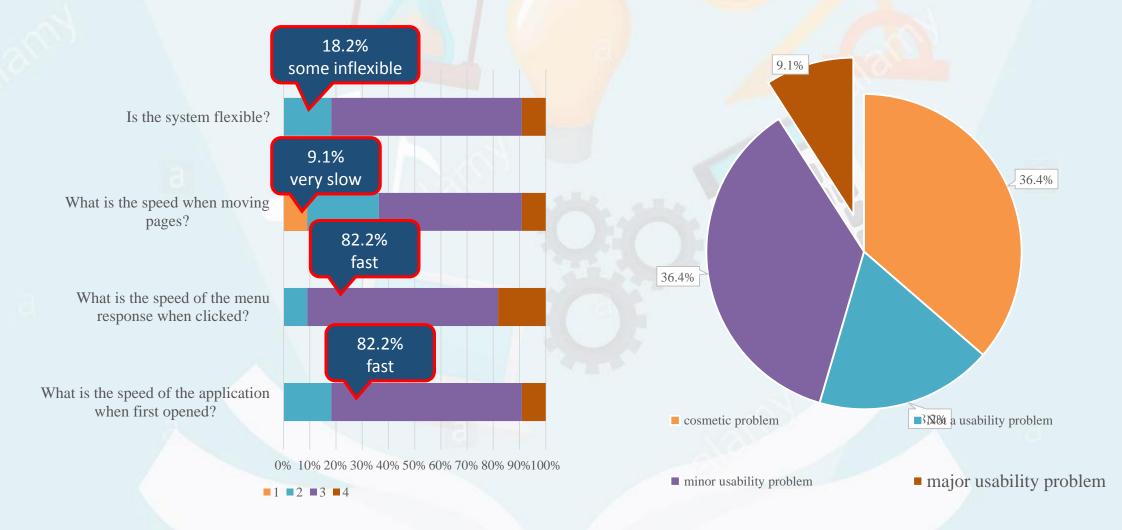


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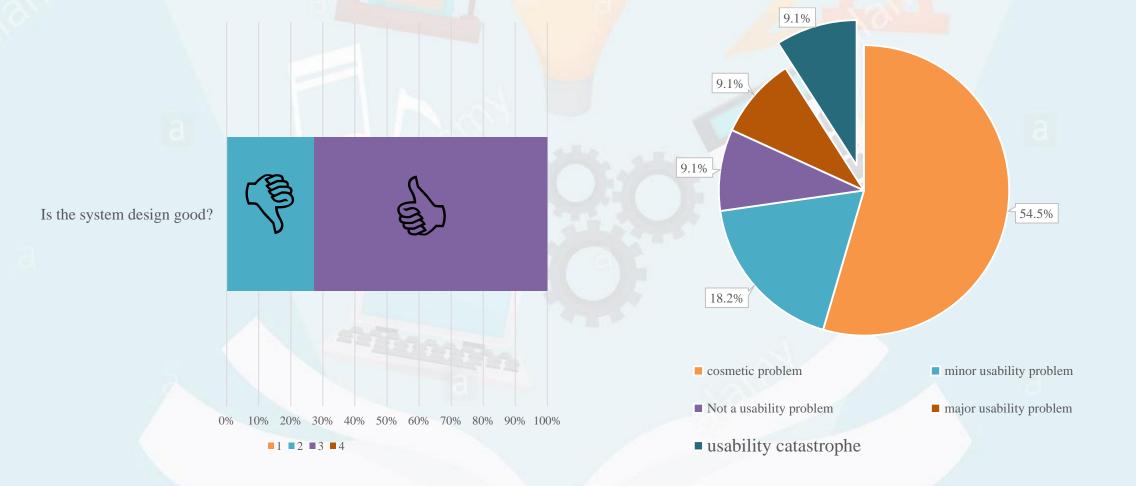
Recognition rather than recall



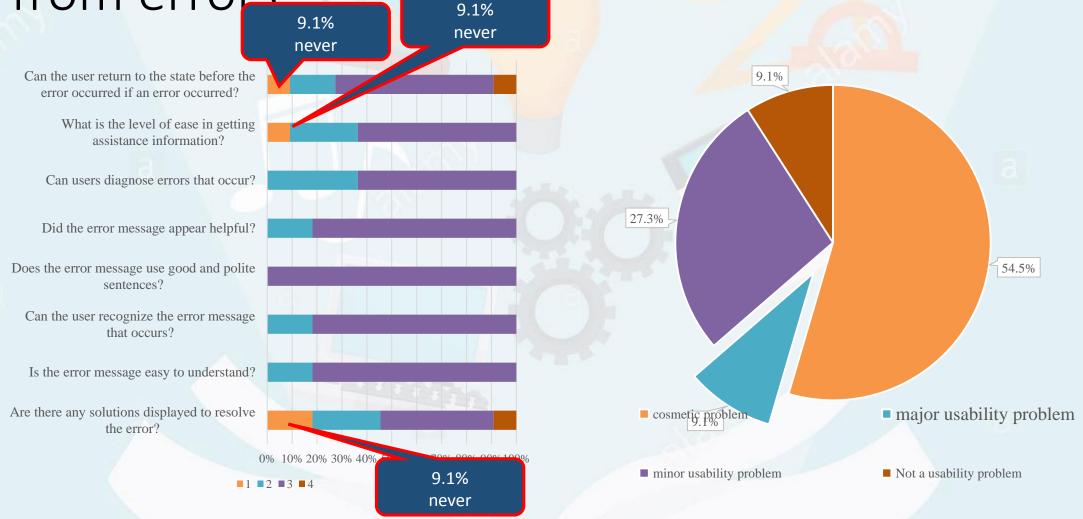
Flexibility and efficiency of use



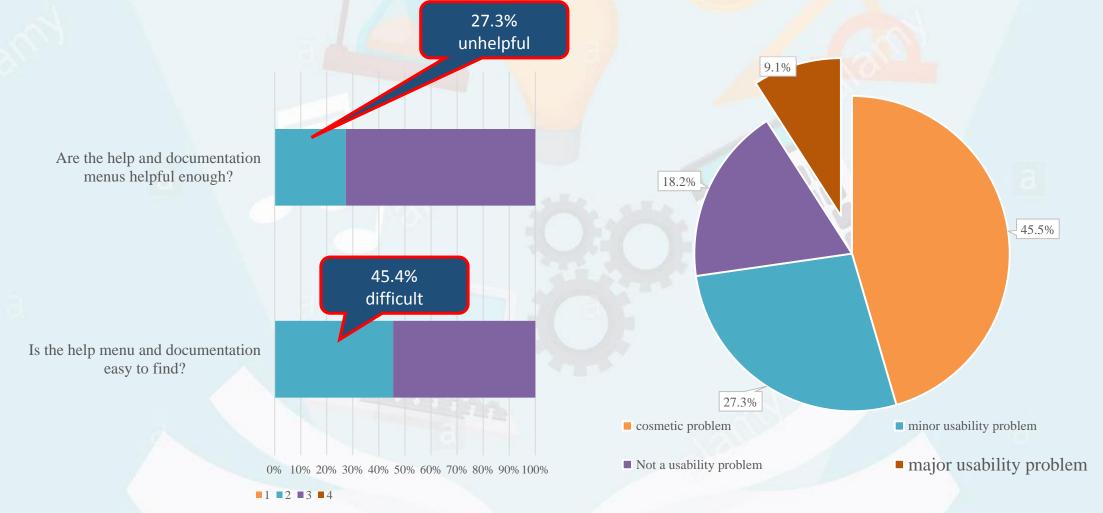
Aesthetic and minimalist design



Help users recognize, diagnose, and recover from errors



Help and documentation



2

Conclusion

From this research it was found that all aspects still have shortcomings or problems

even though only 9.1% stated it.

From the 10 aspects evaluated, there are

4 aspects that have Minor usability problems (Visibility of system status / feedback, Use control and freedom, Consistency and Standards and Error Prevention), 5 aspects have major usability problems (Match between system and the real world, Recognition Rather than Recall, flexibility and efficiency of Use help users to recognize, dialogue, and recovers from errors and also Help and documentation)

1 aspect that has Usability catastrophe (Aesthetic and Minimalist

netic and Minima Design).

Suggestion

developers should redesign aspects of Aesthetic and Minimalist Design

Improvements to improve services to lecturer, especially in the aspects of

- $\bullet \mathsf{Match}$ between system and the real world ,
- •Recognition Rather than Recall,
- •Flexibility and efficiency of Use
- •Help users to recognize, dialogue, and recovers from errors
- •Help and documentation

Thank you