

DISCoverMe: A Web-Based DISC Personality Assessment System for Self-Development and Organisational Use

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ABSTRACT

This paper presents DISCoverMe, a web-based DISC personality assessment system developed to support self-awareness, communication, teamwork and human resource development. The system responds to the need for an accessible, cost-effective and Malay-language platform that can generate clearer real-time personality reports for individuals and small organisations. Grounded in the DISC model, the system measures four behavioural styles: Dominance, Influence, Steadiness and Conscientiousness. The study adopted an Agile software development approach involving analysis, design, development, testing and delivery. Requirements were gathered through literature review, analysis of existing systems and user questionnaires. DISCoverMe was implemented with registration, login, DISC questionnaire, automatic scoring, report generation, user profile and administrator functions. Functional testing covered ten test cases and all passed. Usability testing with 30 respondents indicated high acceptance, especially for ease of use, interface design, report clarity and language suitability. The findings suggest that DISCoverMe can serve as a practical digital tool for personality awareness and talent development, although future work should strengthen multilingual support, report export, email integration, mobile responsiveness and security features.

Keywords: DISC personality assessment; DISCoverMe; web-based system; usability testing; human resource development

INTRODUCTION

Personality assessment is commonly used to understand individual characteristics, behaviours, communication styles, decision-making tendencies and responses to stress. In organisational settings, such assessment can support recruitment, training, team development and leadership planning by helping managers understand how people function within teams. The project identified a practical gap: many existing personality assessment tools are costly, less user-friendly, dependent on interpretation support, or not sufficiently accessible to small organisations and general users. DISCoverMe was therefore developed as a web-based DISC personality assessment system that is easier to access, cost-effective, and suitable for users in Malaysia.

The objectives were to develop a web-based personality assessment system using the DISC model adapted for Malaysian users; to generate accurate and informative reports that identify strengths and weaknesses for self-improvement; and to improve accessibility and usability for different user groups, including individuals and small organisations. The system is scoped as a Bahasa Melayu web application for individual and organisational users, with data confidentiality recognised as a key constraint. This paper reconstructs the project into a journal format by discussing the literature basis, methodology, system outcomes, discussion and conclusion.

LITERATURE REVIEW

The DISC model is a behavioural assessment approach associated with four styles: Dominance, Influence, Steadiness and Conscientiousness (Gordon et al. 2019). Within the project, DISC is positioned as a tool for understanding observable behavioural tendencies rather than measuring intelligence, mental health or total personality. This framing is important because the system is intended to support reflection, communication and development conversations rather than permanently labelling users. In the organisational context, DISC-based information can assist coaching, teamwork, leadership

development and the design of training that responds to individual communication and work preferences.

The project reviewed three existing systems: DISC by Tony Robbins (Robbins 2025), Everything DiSC and Assessment 24x7 (Christy 2018). These platforms are web-based and provide personality assessment functions, but the comparison highlighted several limitations from the perspective of the proposed system: English-only content, non-real-time reporting, cost barriers, reports that may be too brief or dependent on external interpretation, and cultural orientation outside Malaysia. DISCoverMe attempts to address these issues by offering Bahasa Melayu content, real-time reporting, deeper yet understandable feedback, an interactive interface and questions considered more relevant to Malaysian users.

METHOD

The study adopted the System Development Life Cycle using an Agile model (Andrei 2019). The approach divided the project into smaller phases and allowed iterative refinement across analysis, design, development, testing and delivery. During analysis, user needs and system goals were identified through literature review, user engagement, market analysis and a questionnaire. The needs survey showed that 77.1% of respondents were aged 31 to 50, 74.8% held management roles, 98.3% believed personality assessment could positively affect work productivity, and 97.5% believed the system could benefit their organisations. These findings strengthened the rationale for a practical, accessible and meaningful assessment platform.

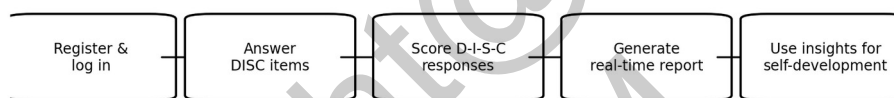


FIGURE 1. Core DISCoverMe Workflow from User Access to Real-Time Personality Report.

The design phase translated requirements into functional and non-functional specifications, use cases, sequence diagrams, activity diagrams, database design, algorithm design and interface design. The system architecture followed the Model-View-Controller approach and used a database to store user information, questionnaire responses and reports. Main user functions included account registration, login, answering the DISC questionnaire, viewing a real-time report and downloading or printing the report. Administrator functions included managing questionnaire items, viewing user data and accessing reports. The questionnaire process displays items in pages, saves responses, submits complete answers and generates a DISC report based on scoring logic.

DISCoverMe was implemented as a web-based system (Pop & Altar 2014) with modules for registration, login, questionnaire homepage, DISC questionnaire, DISC report and user profile. MySQL/phpMyAdmin was used for database implementation and included critical code sections for registration, login, questionnaire processing, report generation and profile viewing. Testing combined component testing, system testing and black-box testing to confirm that each module and the overall system met the intended requirements. Usability testing assessed navigation, interface layout and understanding of the generated DISC report as seen in Table 1.

TABLE 1. Testing Outcome.

Evaluation Area	Main Evidence from Testing	Interpretation
Functional testing	10/10 test cases passed	Core functions worked as specified
Interface and modules	Most modules received 90% or above strongly agree responses; 96.7% strongly agreed on colour, buttons, layout and readability	Users found the system easy to use
Report and language	96.7% strongly agreed the report was understandable; 93.3% strongly agreed language was suitable	Output was clear and locally appropriate

OUTCOME AND DISCUSSION

The main outcome is a working web-based DISC assessment platform that offers automatic scoring and real-time personality reporting. The system strengths include systematic automation, a user-friendly interface, report presentation using graphics and text, a countdown timer, database-supported profile and report storage, and suitability for educational, personal development and human resource contexts. The usability results suggest that the system flow is understandable and that the report output is perceived as useful. By using Bahasa Melayu and focusing on local accessibility, DISCoverMe responds to users who may prefer assessment content in their national language. By generating reports immediately, it reduces dependency on manual analysis and shortens the time between assessment completion and feedback. By presenting strengths, weaknesses and development suggestions, it moves beyond simple scoring and supports reflection for self-improvement. The interfaces of DISCoverMe are shown in Figure 2.

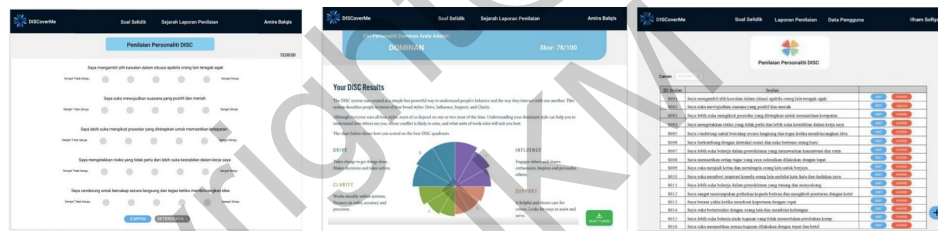


FIGURE 2. Interfaces of DISCoverMe.

Several limitations should be considered. First, the system is currently limited to Bahasa Melayu, which may reduce accessibility for non-Malay speakers and limit international use. Second, report export and automatic email delivery functions are not yet fully available, requiring users to rely on manual methods to save or share results. Third, the interface is not fully optimised for mobile devices, which may affect smartphone users. Fourth, advanced authentication such as two-factor verification is not yet included, although the system stores personal information and personality scores. Finally, the usability test involved a relatively small sample, so broader testing is needed before large-scale deployment. The contribution is practical, technical and contextual: it provides a prototype digital assessment tool, demonstrates how a behavioural model can be translated into a database-driven web application, and localises the DISC assessment experience for Malaysian users.

CONCLUSION

DISCoverMe achieved its aim of developing a web-based DISC personality assessment system that is accessible, interactive and useful for self-development and organisational contexts. The system enables users to register, log in, answer DISC questionnaire items, receive automatically generated reports and review profile information. Testing showed that all ten functional test cases passed, while usability feedback indicated strong satisfaction with the modules, interface, report clarity and language suitability. Future improvements should focus on multilingual options, PDF export, automated report delivery through email, stronger mobile responsiveness, enhanced data security, wider usability testing and possible integration with existing talent development systems. With continuous refinement,

DISCoverMe has potential to become a more comprehensive self-assessment and talent development platform for education, organisations and individual career planning.

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