

Implementing a Training and Communication Application for System Integrated Testers in DHCW

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1. Introduction



The NHS Wales Informatics Service (NWIS) Test Team previously operated as an independent team. In 2021, NWIS became its own special health authority and rebranded to Digital Health and Care Wales (DHCW). During this transition, DHCW Testers were disbanded and moved to roles within Application Teams, although they still test in the same SIT environment.

The restructure coupled with the shift to remote working due to the COVID-19 pandemic has resulted in communication challenges amongst Testers, posing potential risk to patient care.

2. Aim



The aim of this project was to identify the communication obstacles and deliver a SIT Training and Communication Application to improve communication and collaboration across DHCW Testers

3. Research



A literature review was conducted and found that:

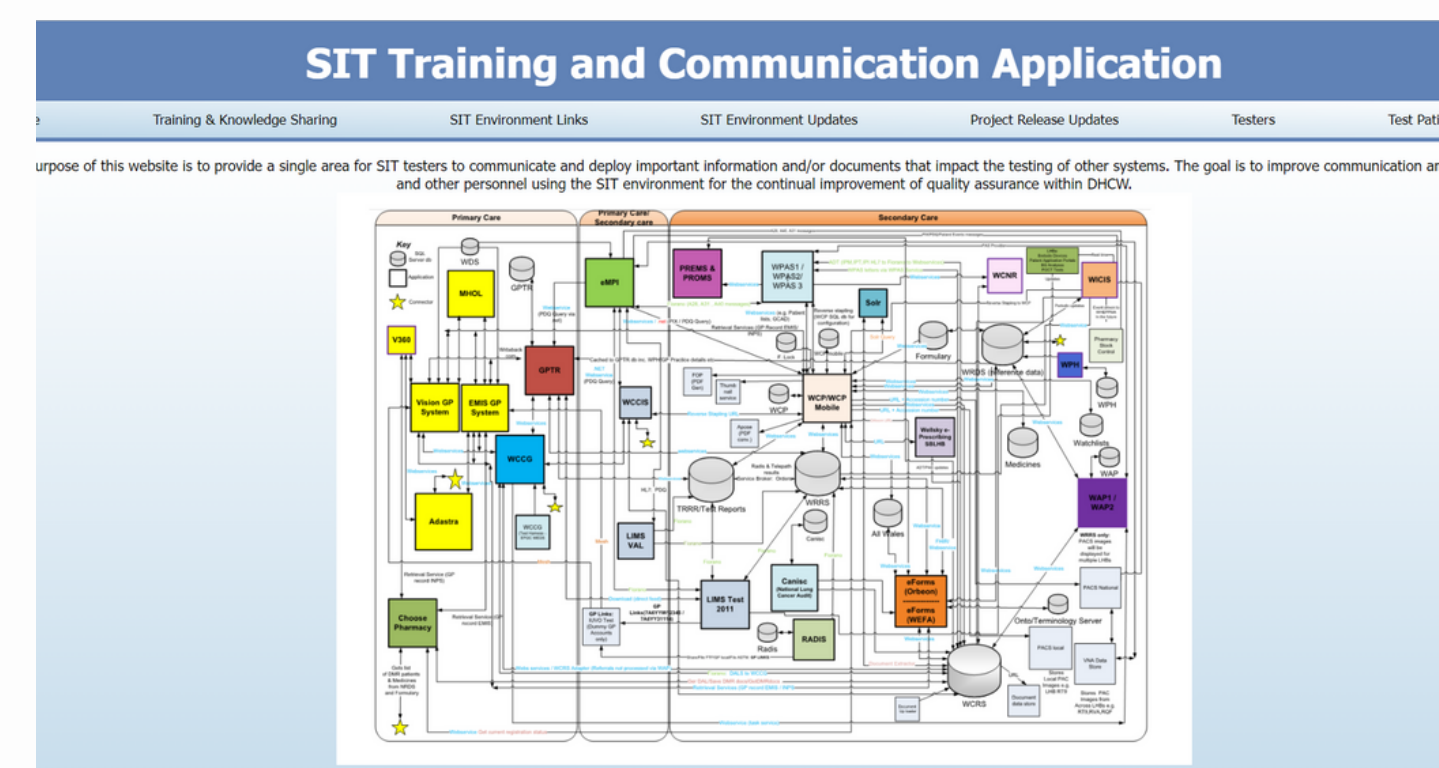
- Communication is a key factor in minimising errors and delays, and ensuring the software lifecycle is executed efficiently and effectively [1]
- Remote working introduced challenges of communication in software development [2]
- Successful development methodologies are best decided on a project-by-project basis [3]

A survey was conducted with DHCW Testers and found that remote working and the restructure produced communication obstacles that aligned with the literature review findings. Testers were then asked what features they would like to see within an application solution.

4. Design and Implementation

Requirements were refined from the survey results and put into the form of user stories.

From this, a client-side SIT Training and Communication Application prototype was developed through the use of html, CSS, and jQuery, using an agile methodology.



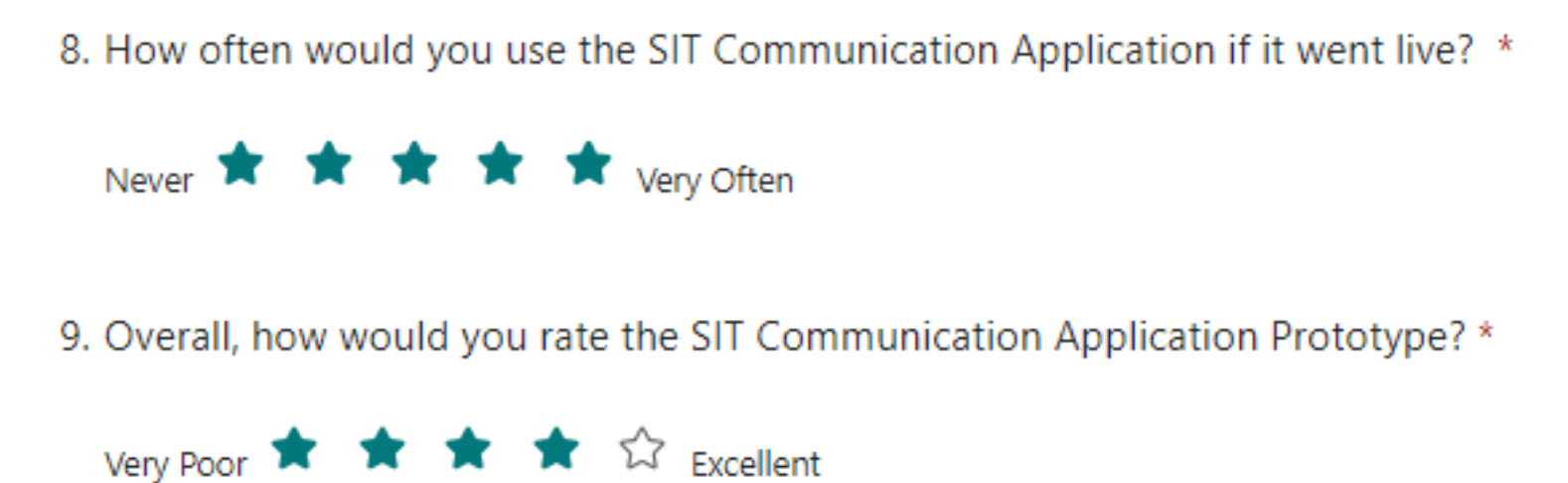
5. Conclusion

Upon completion of the development sprint and receiving feedback from DHCW Testers, the overall aim for the project was met. User feedback was very positive, however further development will be needed for the application to be in a ready state for go live.

Further development

The following development is needed for the application to be in a state of ready for go live:

- Convert code to ASP.Net with C# and SQL server for implementing a client-server relationship
- Cosmetic bug fixes



References

- [1] R. E. Kraut and L. A. Streeter, "Coordination in Software Development," *Communications of the ACM*, vol. 38, no. 3, pp. 69-81, Mar. 1995
- [2] A. Alharbi *et al.*, "An Empirical Investigation to Understand the Issues of Distributed Software Testing amid COVID-19 Pandemic," *Processes*, vol. 10, no. 5, p.838, Apr. 2022
- [3] B. V. Thummadi and K. Lyytinen, "How Much Method-in-Use Matters? A Case Study of Agile and Waterfall Software Projects," *Journal of the Association for Information Systems*, vol. 21, no. 4, pp. 864-900, Jul 2020