Case Study:

Led research on a complex learning management system, uncovering systemic usability barriers and informing high-impact improvements

Led an end-to-end UX overhaul of a university LMS, prioritising feedback loops, transparency, and feature discoverability to drive a 40% increase in student engagement and secure long-term investment in digital learning.

❯ Context & challenge

> Academic environment with high frustration/attitude towards the legacy system.
> Strong pressure from management to make improvements.

❯ The risk

The problems were numerous, yet the real key was to solve the most important problems first enabling staff to do their job effectively during COVID-19, and for students to have the right level of support in a remote working context.

❯ The UX Decision

Due to a favourable budget, it was possible to organise 3 months worth of research to speak to the key stakeholders (staff/students). This allowed us to prioritise the most crucial problems.

❯ The Outcome

> 40% increase in the overall usage across campus by students.
> Better update in previously unused features/elimination of unused features.

❯ Key outcomes: At a glance

40% increase in the overall usage across campus by students

Empowered academic staff

Improved student experience

Organisational alignment

❯ Baseline KPIs

This analysis defined the initial problem scope.

Determine the reason for lack of student engagement
Gain a deeper understanding of what is preventing students from interacting with the LMS.

Find out why certain features are not being used
A deep dive into what features are not used and moreover why they are not being used.

❯ My role in the project

I owned end-to-end UX strategy and decision-making, from research and prioritisation through to delivery and post-release evaluation, working closely with academic leadership, lecturers, and students.
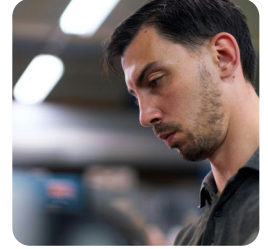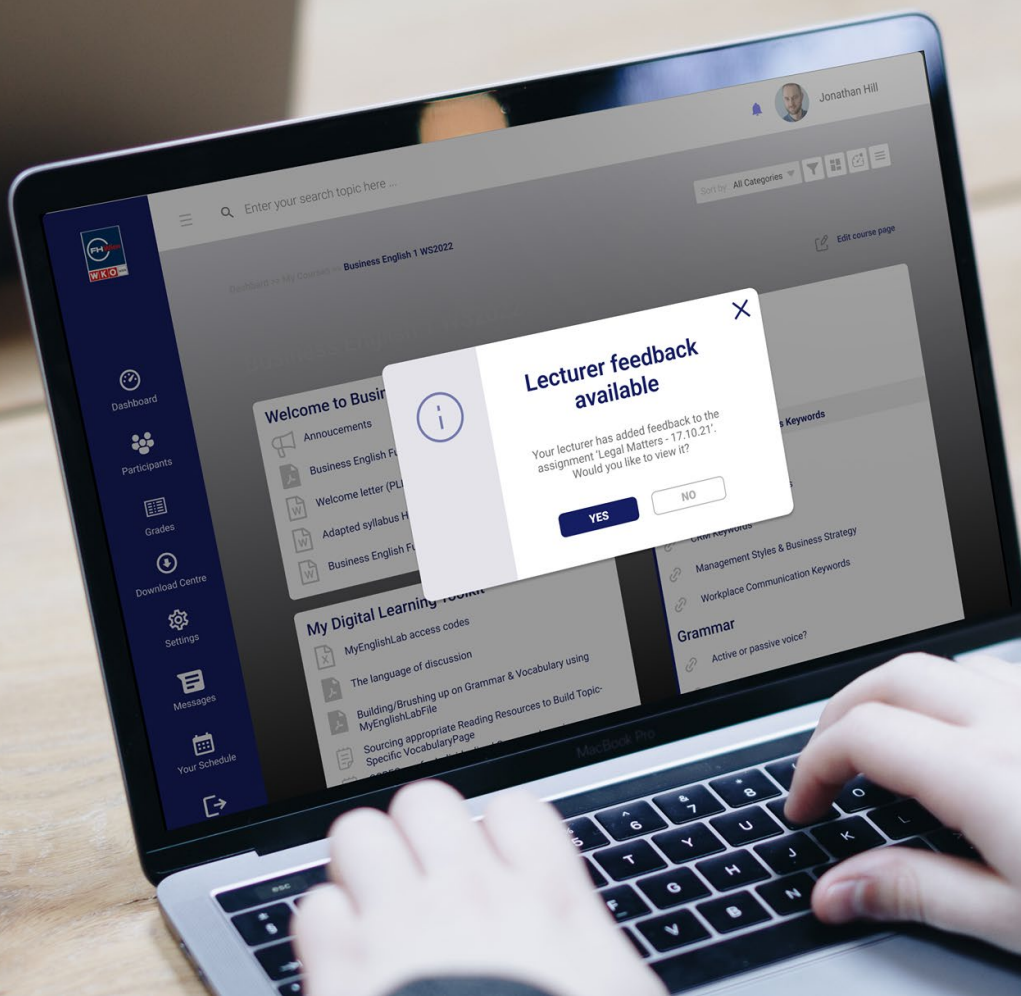
Head of Digital Education

The Lecturer (Internal FH Wien der WKW Staff Member

Student

Academic Co-ordinator

❯ Business Goals

The university's management board clearly wanted to lean into:

Improved student engagement across the entire LMS.

Reduce waste across the LMS by removing unwanted/unnecessary features.

Upskilling lecturers/academic staff on the LMS so they can get the most out of it for planning, running classes and following up with after class topics such as assignment marking and feedback to students.

❯ User interviews: Key Research Findings

Engagement broke down around feedback, not content.
Students struggled to access and interpret lecturer feedback and grade weightings, limiting post-assignment dialogue and learning continuity.

**Core academic workflows were obscured by UI complexity.**
Assignment creation and management spanned multiple dashboard areas with insufficient contextual cues, increasing cognitive load for both students and lecturers.

Feature adoption was constrained by poor discoverability, not lack of value.
New and existing LMS capabilities were well received once introduced, but lacked in-context guidance, onboarding, and lightweight training.

Remote learning amplified the need for transparency and responsiveness.
During COVID-driven remote study, students placed significantly higher value on clear expectations, timely feedback, and visible progress indicators.
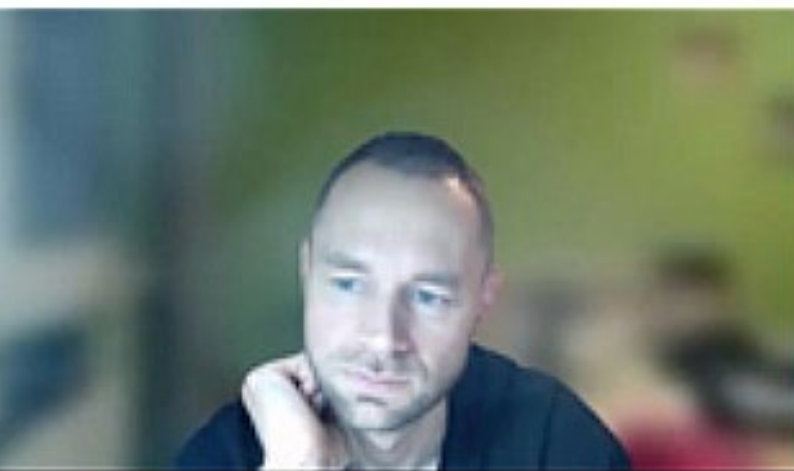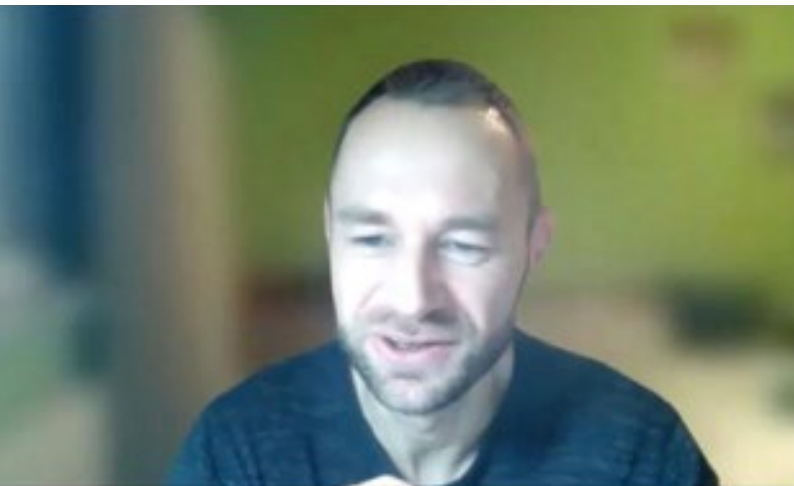
❯ Key decision tensions

Although stakeholder buy-in and funding were strong, the project faced a different challenge: More valid feature requests than could realistically be delivered within the timeframe.

Key tensions included:

Breadth of feature requests vs. depth of impact
Many suggestions were valuable, but attempting to deliver too many risked shallow adoption and increased cognitive load.

Student clarity vs. lecturer effort
Enhancing transparency and feedback required additional lecturer input, which needed to remain sustainable alongside teaching responsibilities.

Formal training vs. in-context enablement
Traditional training approaches were impractical during remote teaching, requiring lightweight alternatives that respected time constraints.

❯ How these decisions were navigated

Prioritisation focused on features most likely to change behaviour, rather than those that simply added capability.

Lecturer feedback loops and grade transparency were selected because they directly supported dialogue and engagement, rather than passive consumption.

Short-form video "shorts" were chosen over formal training to maximise adoption with minimal disruption to academic workflows.
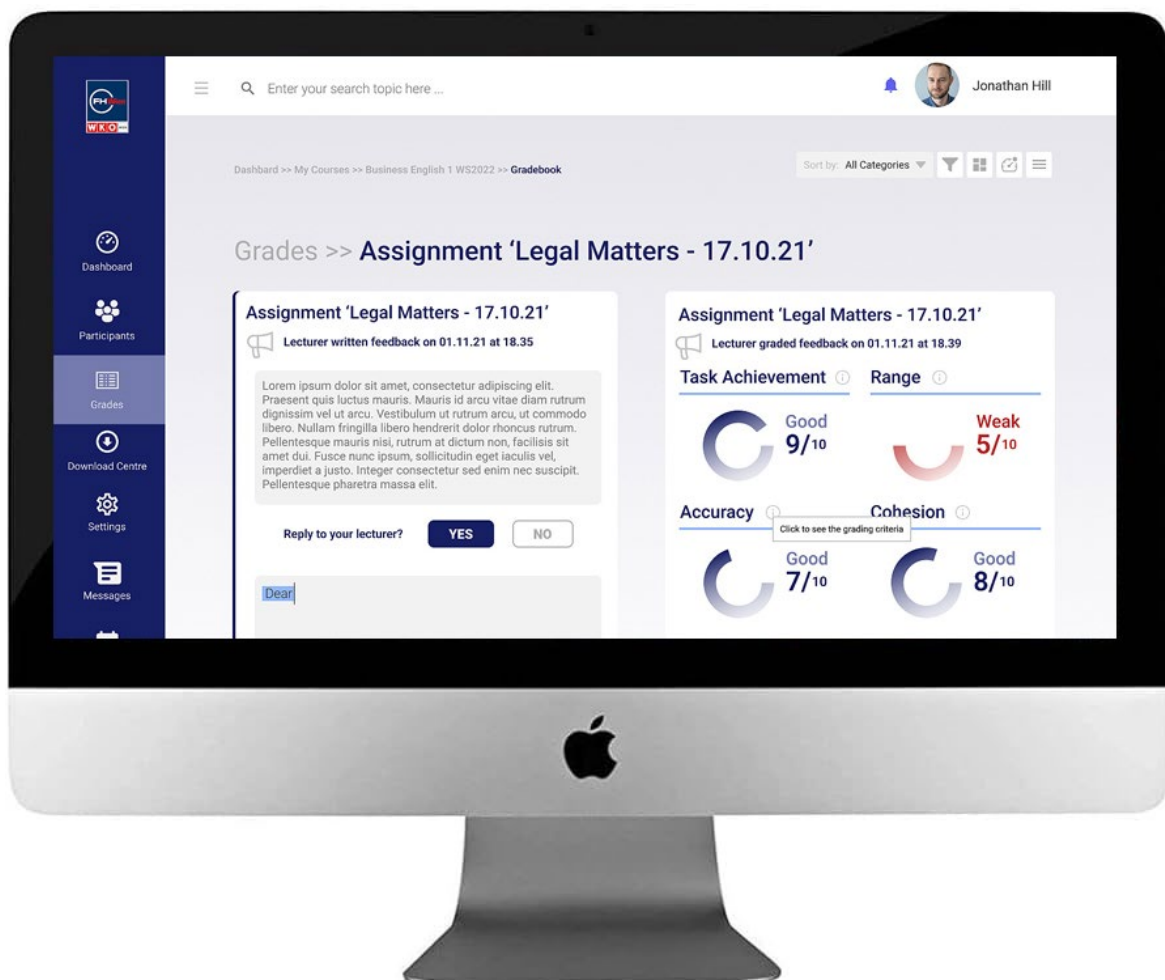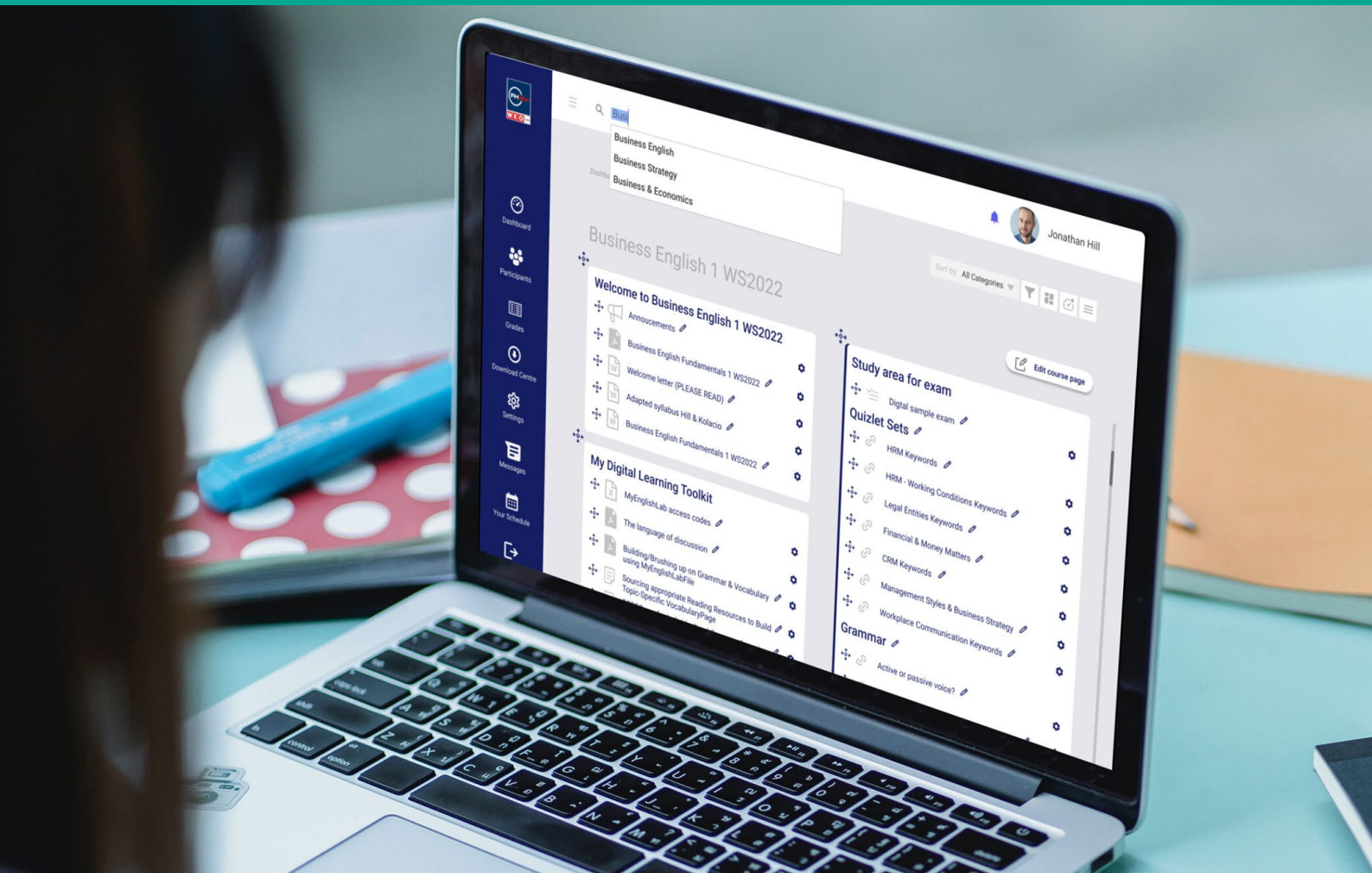
❯ The key improvements/introductions that were made

Assignment feedback feature:

A simple and easy to follow feedback section was a key finding to be implemented. The new interface provides a dashboard for students to easily view their grades per section of the assignment weighting mechanism.

Fully customisable dashboard:

The dashboard was designed to be fully customisable, however, we also learned that a search option would greatly improve the user experience allowing students or lecturers to perform deeper searches.

Just-in-time announcements:

A major complaint that frequently surfaced was not being notified about upcoming assignments, deadlines, or exams. Having announcements to be alerted about any potential feedback, deadlines or other crucial information for students studies was a must.

Short training videos:

Another win for the platform was the use of 'shorts' or short training videos. Based on feedback these short videos were added to the dashboard, and from initial findings the engagement rate was high and lead to the use of old/new features.

❯ Feedback from the FH Wien Digital Learning Team

Tobias Schwarzbauer | FH Wien Digital Learning Team

Jonathan is a passionate UX researcher and designer. As a former language teacher he has a deep understanding of the user needs in higher education and recognises the pain points of popular learning platforms. He is therefore able to identify sustainable development potential for the digital learning environment within the framework of existing possibilities.

Wolfgang Rutte | FH Wien Digital Learning Team

Working with Jonathan was a pleasure due to his in-depth knowledge of UX processes and finding clever ways to uncover facts we probably wouldn't have been able to manage. His work has greatly allowed us to achieve better engagement and make the life of the FH Wien Digital Learning Team much easier overall.

❯ In summary

Upon completing the research and design proposals a post-project report with a series of recommendations and suggestions was prepared.

Working closely with the developers throughout the implementation and post-release, engagement was monitored through analytics and qualitative follow-up. The findings indicated that:

Student engagement with the LMS jumped by up to 40%
This was driven by clearer visualisation of grade weightings and the introduction of lecturer feedback loops, which encouraged post-assessment discussion and repeat platform use, particularly valuable during COVID-era remote learning.

Lecturer adoption and understanding of LMS features improved significantly.
Short, task-focused video "shorts" increased feature discoverability and reduced reliance on formal training or ad-hoc support.

Improved transparency and dialogue increased trust in the platform
For both students and lecturers, shifting the LMS from a transactional system to a space for ongoing learning interaction with lecturer feedback greatly improved trust.

The results influenced academic leadership to commit ~5–7% of the university's budget
This meant ongoing LMS development and digital learning support from 2021 onwards into 2022.