

WEB APPLICATION

Madison Metropolitan School District



Streamlining an antiquated, time-consuming process.





MADISON METROPOLITAN SCHOOL DISTRICT IN MADISON, WISCONSIN

Streamlining the process of scheduling faculty across the district.

WHO		WHAT
51 district schools with thousands of faculty and staff		Ruby on Rails Bootstrap

The Goal

A TALE AS OLD AS TIME

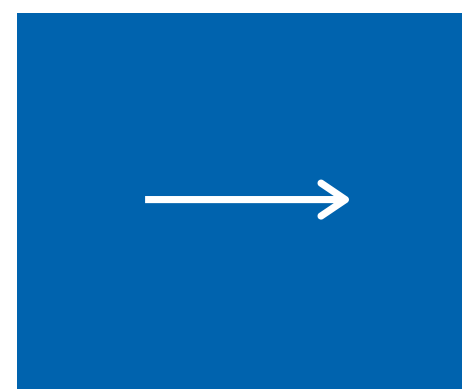
MMSD wanted what most organizations want: take an extremely complicated and manual process and automate it. One of their employees was spending an exorbitant amount of time maintaining a very complicated Excel spreadsheet that kept track of the staffing schedules across the District. Every faculty placement decision would have to go to him so it could be entered and maintained in the spreadsheet.

MMSD wanted a tool that would allow principals and other administrators to be more collaborative and self-efficient with scheduling faculty and staff among the schools.



The Product

We developed a Ruby on Rails web application, managed by Entrision, that the school administrators could interact with simply and efficiently to meet their staffing needs. With this tool, the one-person spreadsheet maintenance was eliminated. Principals were given a framework that provides guidelines to work autonomously during the planning season.



Staff

LEVEL

LOCATION

- Any -

- Any -

ALLOCATION STATUS

JOB CLASS PREFIX

- Any -

- Any -

CERTIFICATION STATUS

CERTIFICATION CODE

- Any -

- Any -

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Search Staff

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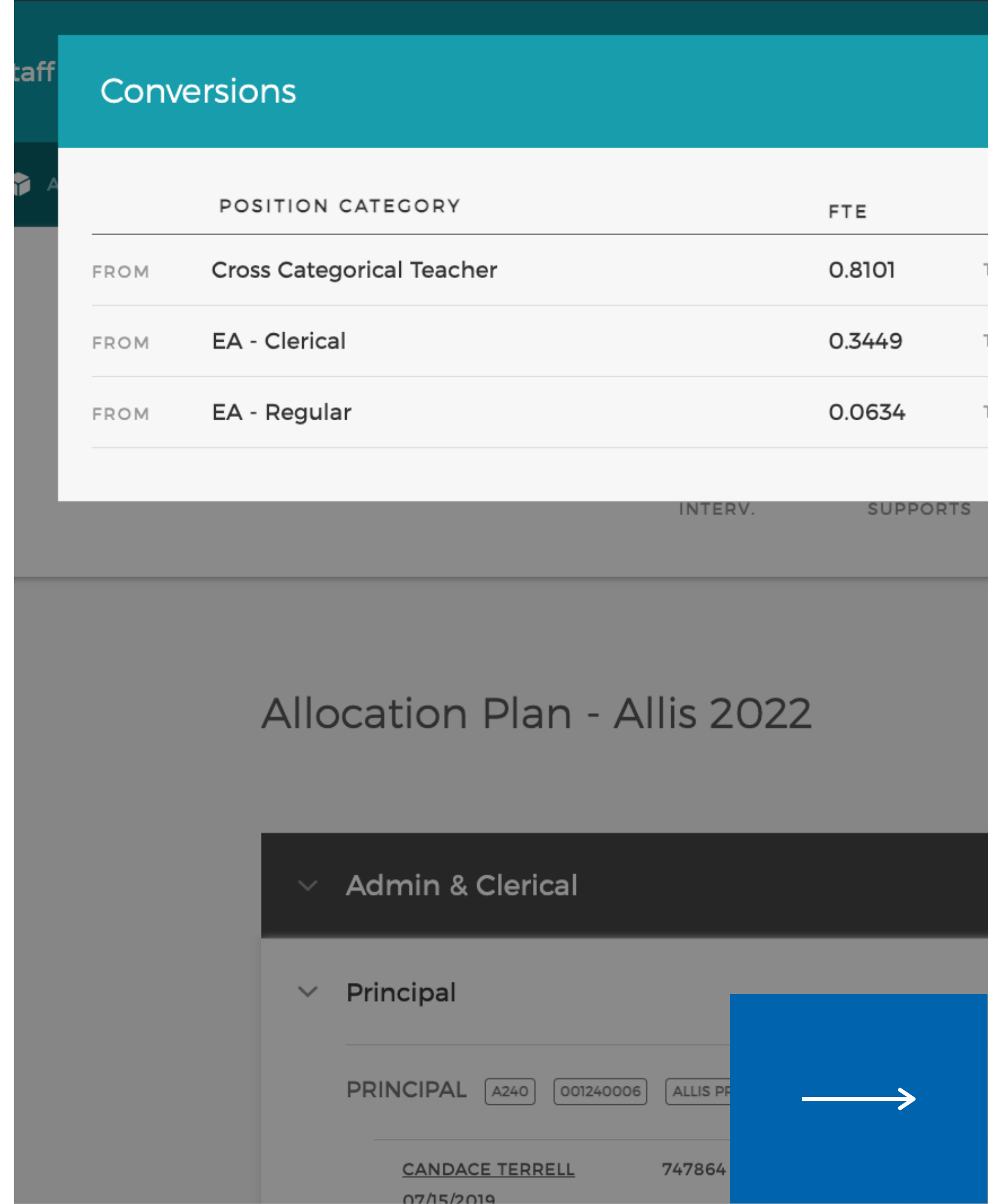
NAME ▲

NUMBER SENIORITY

Workflow Collaboration

The tool helps manage the schedule through various states (from a "Started" plan to a "Published" plan). Reviewers are able to see all the data and make comments, starting a conversation with the important parties through the tool. Ultimately, the district plan has a final review by a "Budget Chief".

These "Chief Reviews" used to be a big hassle of getting everyone in a room, then the principal would have to present their budget and the chiefs would review in real-time. If there were significant issues found, they may have to have another in-person meeting. Now the chiefs are able to start reviewing well before they'd traditionally first see the plan, so the feedback loops have been shortened quite a bit and there is obviously no need for in-person meetings.



Reporting & Data Management

After the scheduling is complete, the tool provides historical tracking for the budget office to do efficient accounting. It streamlines the analysis of allocated school resources and ensures that union contracts are met.

Allocation Plans

SCHOOL NAME	TYPE
Allis - 2022	Elementary
Anana - 2022	Elementary
Chavez - 2022	Elementary
Crestwood - 2022	Elementary
Elvehjem - 2022	Elementary
Emerson - 2022	Elementary
Franklin - 2022	Elementary
Gompers - 2022	Elementary
Hawthorne - 2022	Elementary
Henderson - 2022	Elementary
Huegel - 2022	Elementary
Kennedy - 2022	Elementary

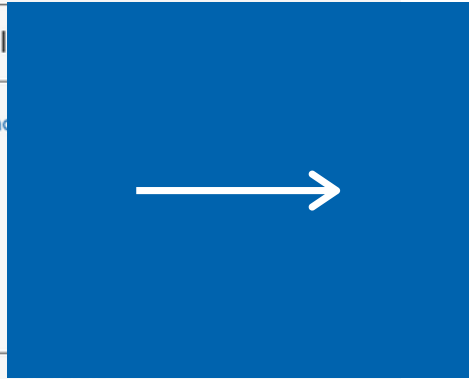
Certifications

CODE	NAME	TYPE	DATE
O070	SPECIAL EDUCATION PROGRAM AIDE	NONE	06/30/2023

FTE	
2022 Owed	0.6605
2022 Allocated	0.7375
2022 Leave	0.0000
2022 Separation	0.0000
2022 Surplus	0.0000
2022 Voluntary	0.0000
2022 Voluntary One Year	0.0000
2022 Total	

Allocations

JOB	POS. #	SCHOOL	CERT.	OVERRIDE
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Our Process



RESEARCH & DISCOVERY

CRAFT THE USER EXPERIENCE

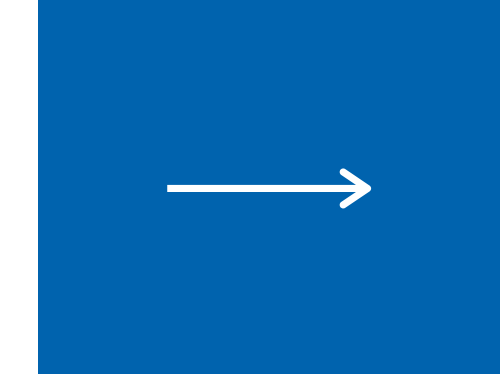
DEVELOPMENT

RELEASE EARLY AND OFTEN

LAUNCH AND BEYOND



Research & Discovery

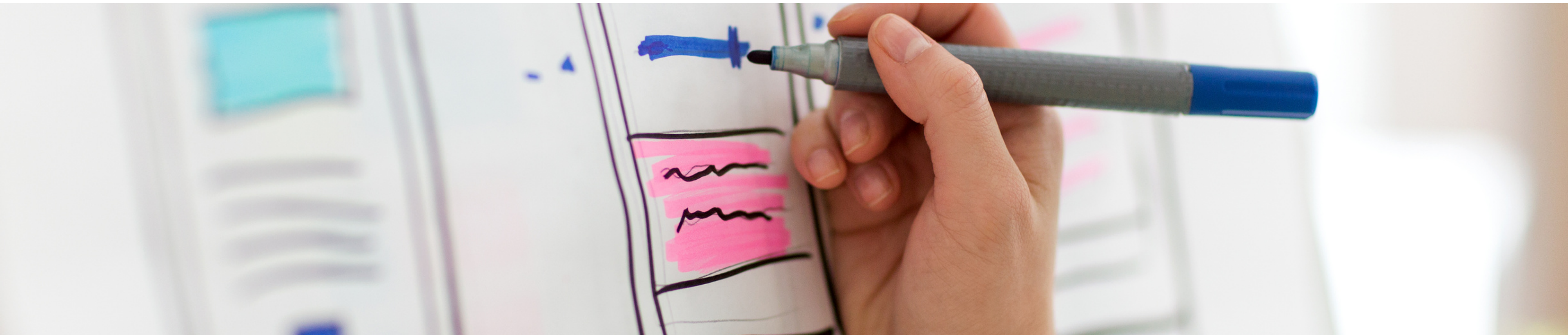
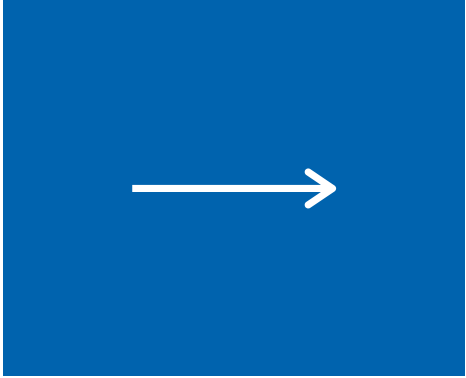


We spent a lot of that initial discovery time at the administrative buildings talking to the stakeholders and the end-users about the current processes, data sets, and challenges they faced during each scheduling season. We traveled to Madison each week and met with them virtually to ask questions, give updates, and provide demos of the application. Through this, we established a solid foundation of communication with the stakeholders.



Craft the User Experience

After pulling together all of the necessary information from MMSD, we mapped out what we believed to be the best solution. Our designer drew up a mock-up that we presented to MMSD for approval. Then, we went through a trimming process to determine our MVP - a minimal viable product. The first usable release of the application was very basic, but it answered a lot of MMSD's pain points.



Development



Early on in the project with MMSD, we knew a traditional Agile Scrum process wasn't going to work. We adapted our typical sprints and Scrum ceremonies to be more in line with the MMSD work style. The sprints were typically a week but were much less defined than what you'd see in Scrum. This was different for us, but it allowed us to work in tandem with the MMSD team in the best way possible. Our adaptation to their workflow grew open communication and transparency during each phase of development.



Release Early and Often



The MMSD stakeholders were part of every stage of this process. At every iteration from basic web application functionality to MVP, the MMSD team was an important part. Every week they provide feedback on our demos and presentations. With later iterations, they tested the application to ensure it would meet their needs and function as expected. We went through several releases before the inaugural year.



Launch and Beyond



Since that initial project release, each year prior to the District's scheduling season, we work with the stakeholders to evaluate the previous year's data, any process changes, and new business goals. We take that new information and adapt the application to fit these changes. We are continually developing and fine-tuning the application to accommodate and understand the Districts process nuances so that we can integrate it with the Districts HR System, thus removing the need for data imports each year.



Entrision has a deep understanding of our needs. They were a true partner in this project. They helped guide us through the process, and the result is an application that makes our annual budgeting 50x easier.

MMSD Liaison, Stakeholder



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