National Institute of Mental Health
Division of Intramural Research Programs

2.5.13

User Research
Findings & Recommendations

> PREPARED BY:

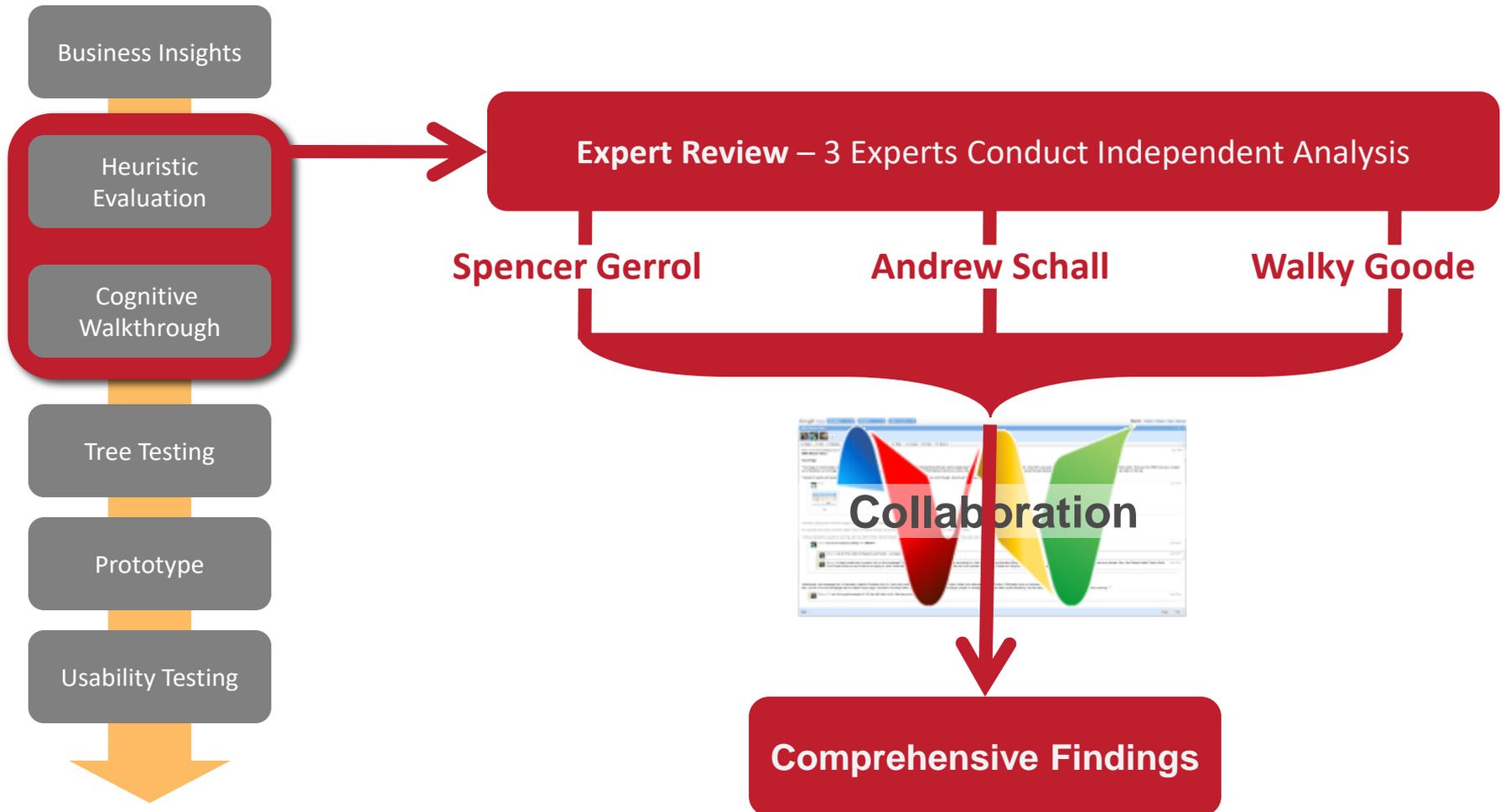Spencer Gerrol

Andrew Schall

Hal Miller-Jacobs

SPARK Experience Design

> PREPARED FOR:

NIMH

National Institute of Mental Health

spark

Overview of User Experience Evaluation Process

Business Insights

Heuristic Evaluation

Cognitive Walkthrough

Tree Testing

Prototype

Usability Testing

Expert Review – 3 Experts Conduct Independent Analysis

Spencer Gerrol

Andrew Schall

Walky Goode

Collaboration

Comprehensive Findings

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Tree Testing

Conducted a tree test in order to validate and improve the new information architecture (IA)

- ✦ Recruited representative sample from key user groups
- ✦ Requested users to complete tasks using the new IA
- ✦ Tracked stumbling points and task success
- ✦ Revised the IA based on tree test results

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Recruited representative sample from key user groups

NIMH IRP Internal
14 responses

University Faculty/External Collaborators
2 responses

Non-NIMH Federal Employees
111 responses

NIMH IRP Fellows/Students
8 responses

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Tracked stumbling points and task success
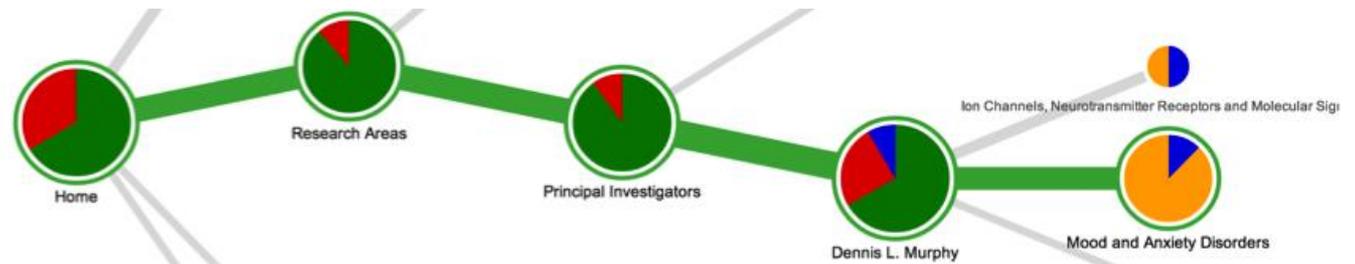
"Resources for Staff" label caused confusion

This generic, 'catch-all' label led participants off track as they hunted for the right content.

Participants showed difficulty locating a specific PI

About DIRP and Resources for Staff were common locations where participants said they would find this information.

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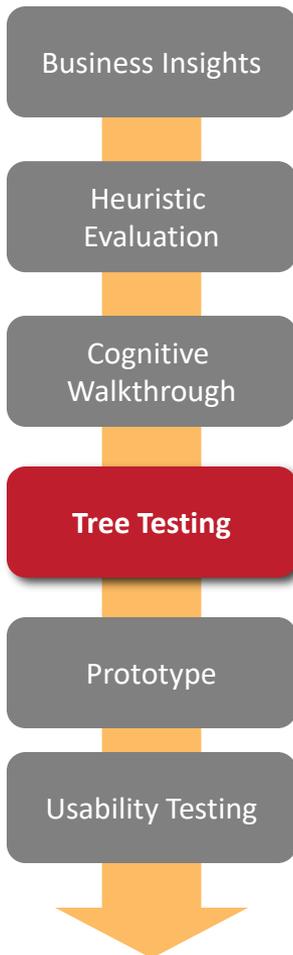
Tree Testing

Revised the IA based on tree test results

- **Rename "Resources for Staff" to "For DIRP Staff"**

  Using an audience-based label clarifies the type of content a user will find there. The category was also moved to the utility navigation.

- **Make sure the homepage includes a prominent access point (button, link) to the list of Principal Investigators**

- **Incorporate a cross-linking system into the design**

  Incorrect paths followed by users in the tree study help determine what content should be cross-linked, e.g. Labs, Branches, and Sections and Principal Investigators under the About DIRP category and About the Clinical Center under Core Services

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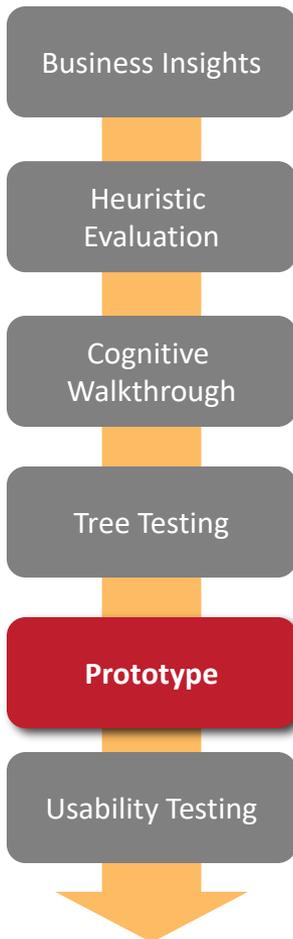
Usability Testing

Prototype Development

Developed a clickable prototype to be evaluated during the usability test.

✦ Incorporated the recommendations from the expert review and tree test

✦ Modified the prototype based on feedback from the usability test

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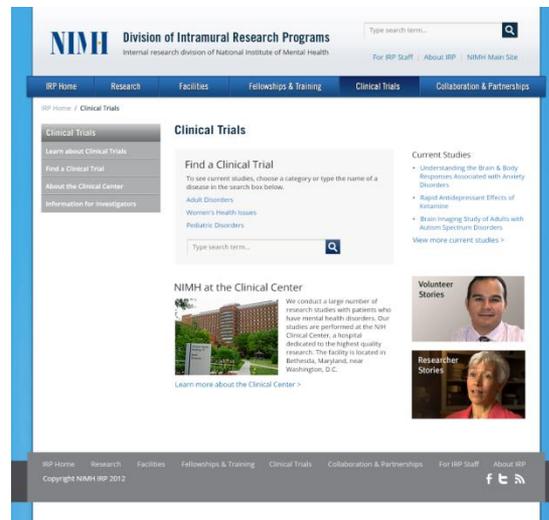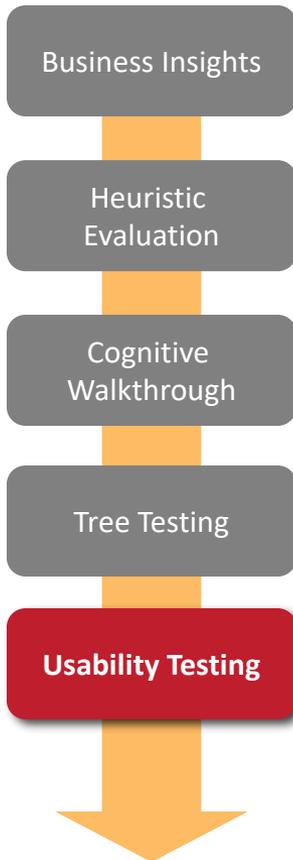
Usability Testing

Usability Testing

Observed representative users interacting with the website

- ✦ Recruited representative sample from key user groups
- ✦ Observed users completing real tasks
- ✦ Tracked stumbling points and user experience issues

Overview of User Experience Evaluation Process

- Business Insights
- Heuristic Evaluation
- Cognitive Walkthrough
- Tree Testing
- **Usability Testing**
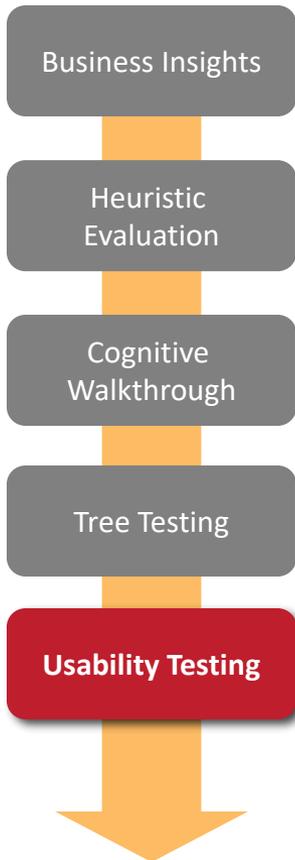
Usability Testing

Recruited representative sample from key user groups
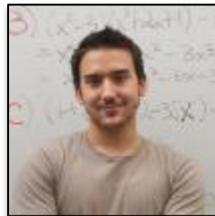
Students (4)

Faculty (3)

General Public (5)

IRP Staff (3)

Practitioners (3)

Summary of Findings: Current Site

- The current website is not designed for the tasks that its primary audiences (e.g. potential research fellows, researchers, etc.) need to achieve

- The website's navigation was often confusing

- Page content was often difficult to skim and caused participants to miss key information

- Most participants were critical of the visual design

Summary of Findings: Prototype

- All participants enthusiastically reported that they would prefer to use the prototype over the existing website

- The prototype succeeded in meeting the needs of the target audiences

- Participants were able to complete most tasks quickly and easily

- The layout and organization helped participants to quickly understand the content

- All participants reported that they liked the new visual design
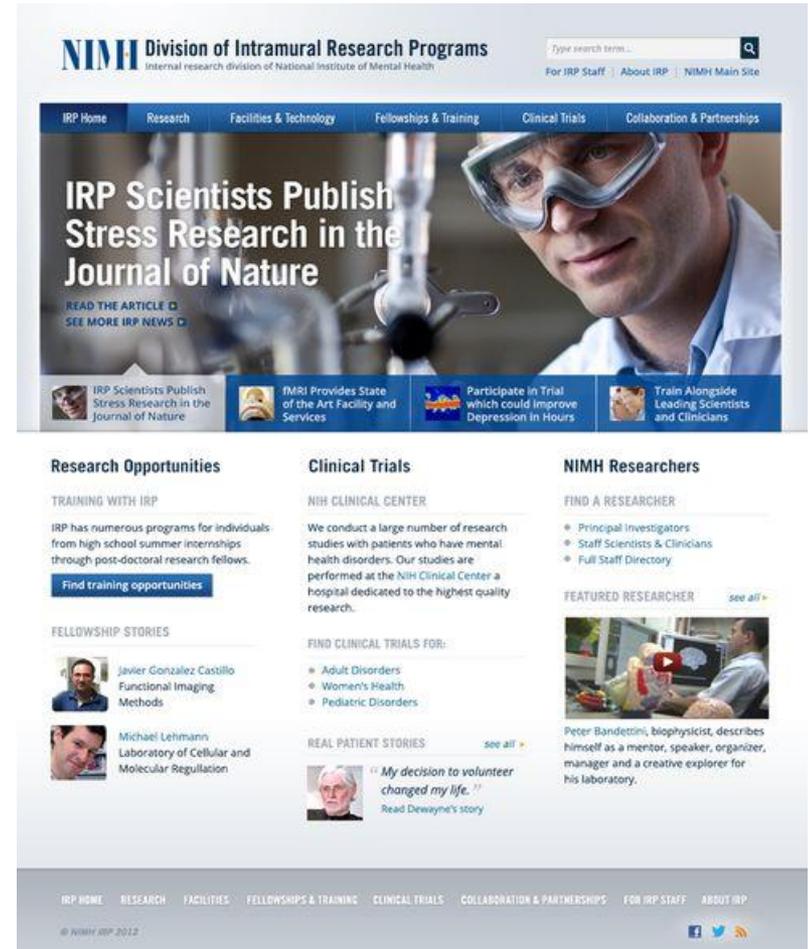
The Prototype Was Easier to Use

Participants were asked to complete a series of information-seeking tasks using both the current site (old) and using the prototype (new).

Task Performance Average
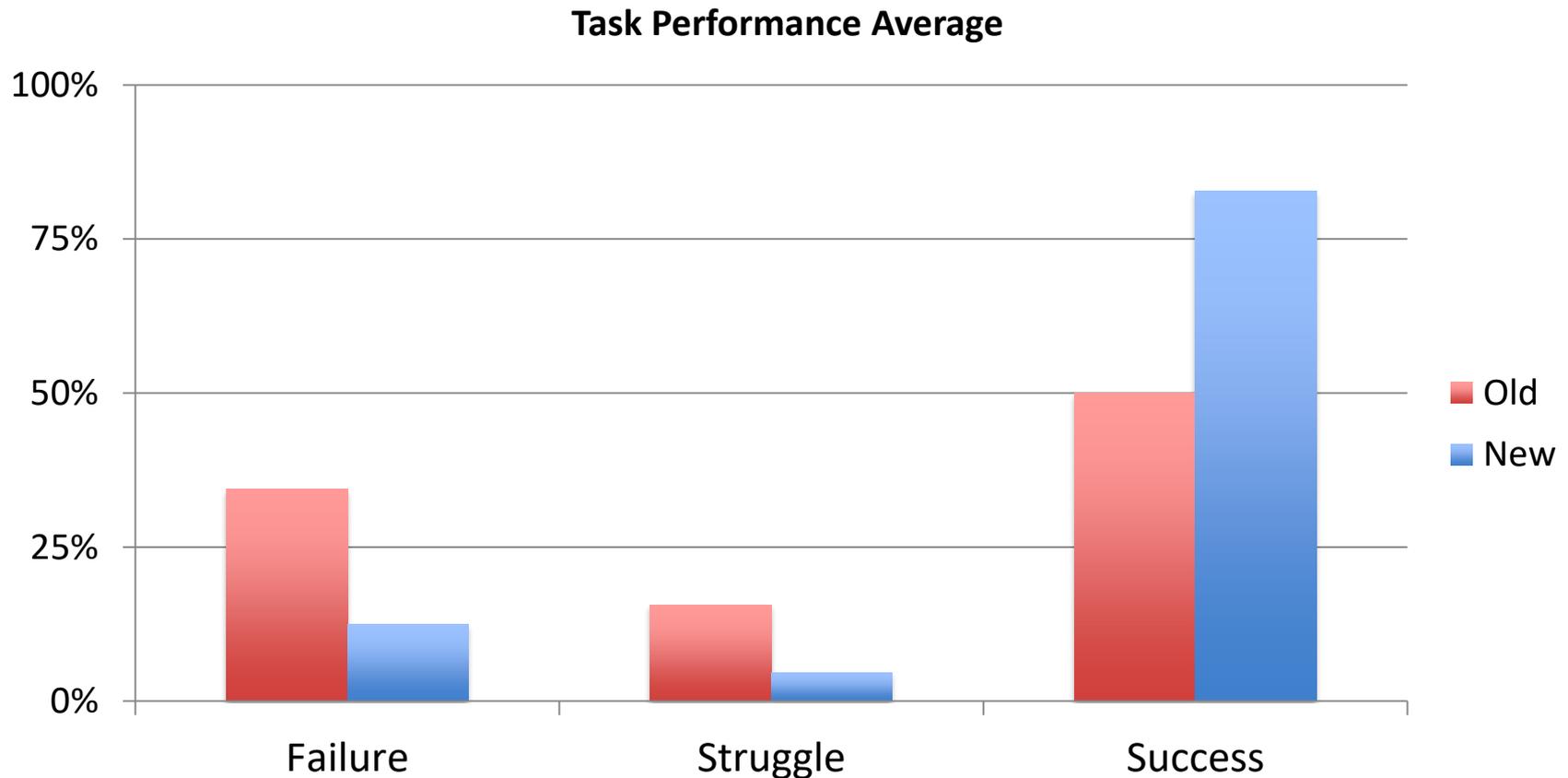
Most Strongly Preferred the Prototype

Participants were asked to rate their level of agreement with a series of statements at the end of their experience with both the current site (old) and prototype (new).

Overall, the website left me with a positive impression of NIMH's Intramural Research Program
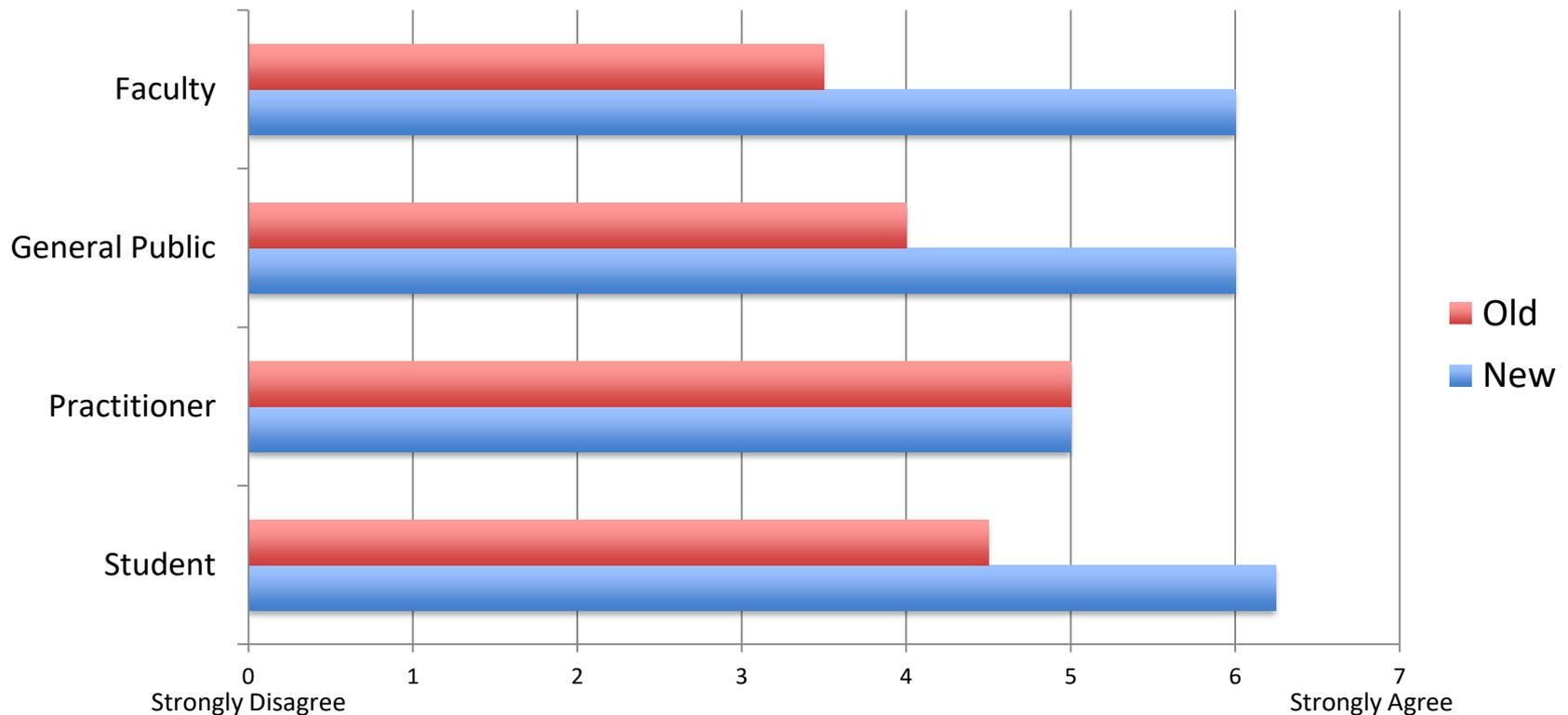
Home Page

Where it all begins

The Home Page Design Did Not Make a Good First Impression

The visual design of the home page did not encourage participants to explore the website

The current presentation of content makes it difficult to know what to focus on and does not help a user to quickly identify the areas that would aid in task completion.

Participants commented that areas of the page are extremely dense with text while other areas have too much whitespace, making the page feel unbalanced. Only one participant wanted to read the paragraph of text.

The Home Page Content isn't Helpful

Participants could not easily gain an understanding of what IRP is about

Most participants struggled to understand what IRP is and what the organization does.

Several participants stated that the website seemed to target an internal audience and did not appear to be for the public.

The Prototype Home Page Is Fresh & Inviting

The new design gave participants a better overview of IRP and encouraged them to explore the website

Participants were able to quickly gain an understanding of the primary offerings of IRP by looking at the home page content.
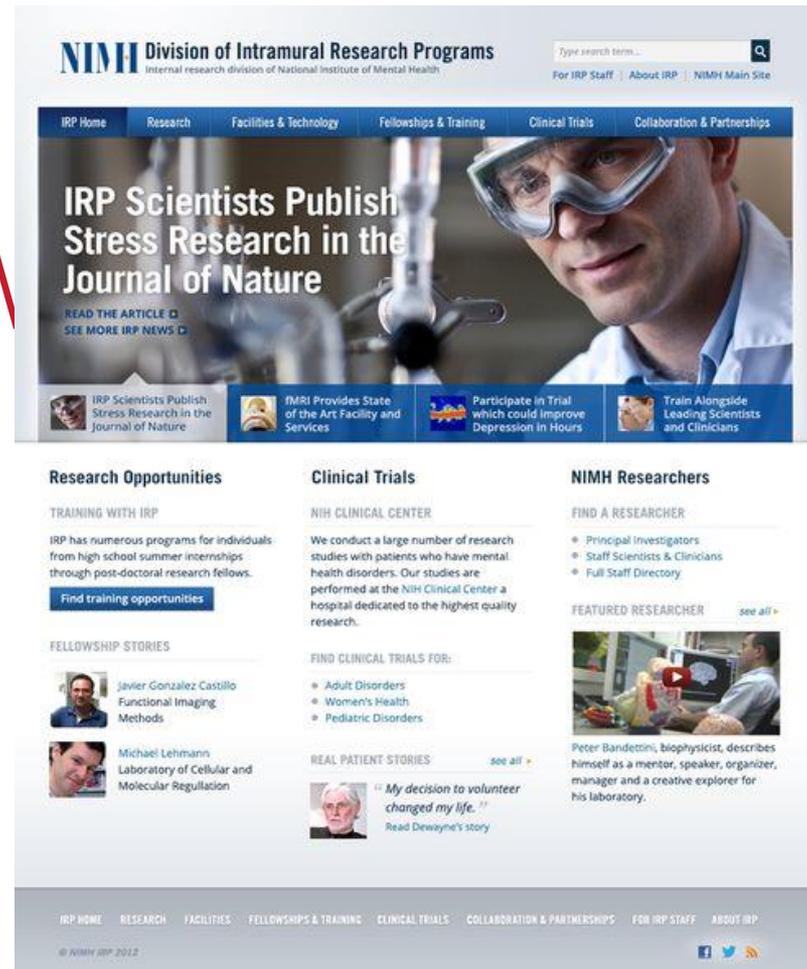
Feature Box Blocks Too Much of the Photo

Participants did not like that the feature box blocked a significant portion of the photo.

The visual treatment of the box also made it difficult for some participants to associate the feature box content with the photo.

Revised Prototype Design

Removed the feature box from the prototype's home page.

DIRP Is an Unflattering Acronym

Some participants suggested using IRP instead of DIRP when referring to the program

Some participants were familiar with the term "DIRP" (also pronounced derp) being used in an unflattering context.

According to the Urban Dictionary, the term "derp" refers to, "A simple, undefined reply when an ignorant comment or action is made".

Opportunities for improvement

Provide the complete name of the Program, "Division of Intramural Research Programs" in the page header, but consistently refer to the program simply as IRP.

Navigation

Getting from here to there

Confusing Secondary Navigation

Participants did not always understand how the navigation was organized

Participants reported that the right navigation was not always clear and did not help them to complete certain tasks.

Participants would sometimes miss navigation items that would have helped with task completion.

Participants were confused by the label "Information for Staff" and were unsure whether they would find useful information within this category.

The Prototype Simplifies the Secondary Navigation

Participants found the secondary navigation easy to use

Participants reported that they liked having the associated description and images for each navigation item.

Secondary Navigation Lacked Sufficient Contrast

Some participants reported that the left navigation was a little difficult to see.

There was not a sufficient amount of contrast between the color of the text and the background color used in the navigation.

Enhanced Design

Enhanced the contrast by changing the hue to a bluish-gray color.
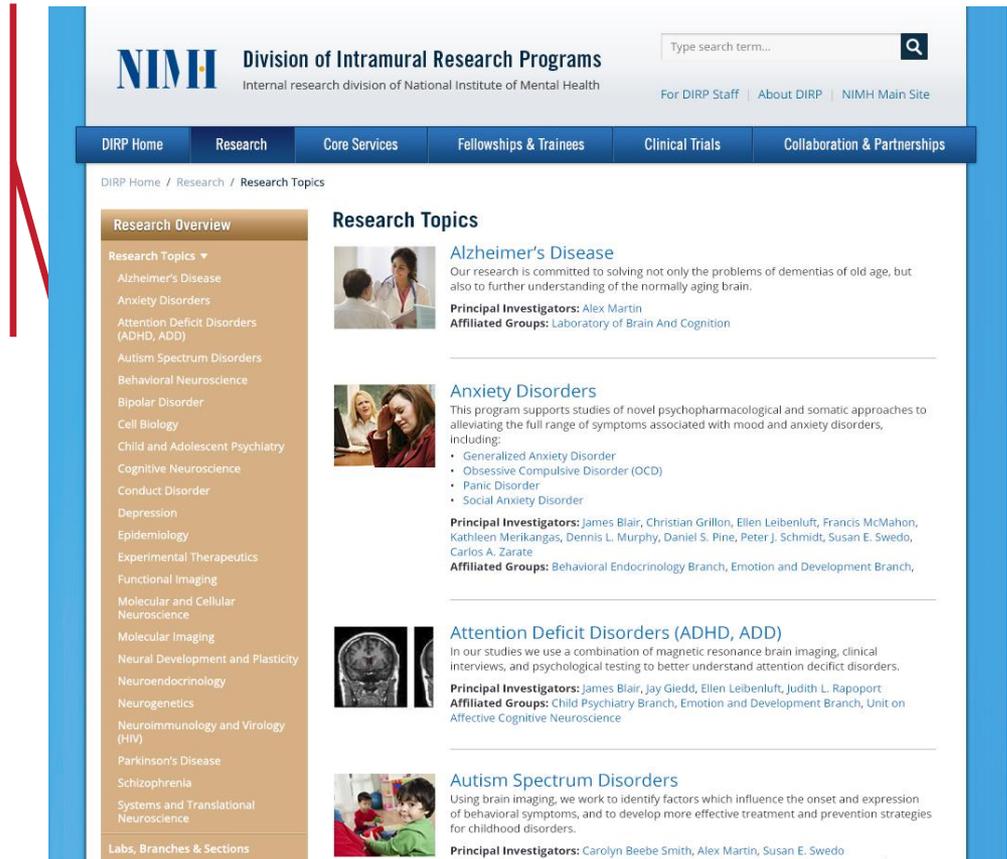
The Term "Core Services" Was Unclear

Most participants were unsure what they would find under Core Services

Participants thought that services referred to the types of activities performed at NIMH, and not equipment or technology offered by IRP.

Opportunities for improvement

Reposition this content as a subcategory and include a brief description that helps users understand that this is about the facilities and equipment available to IRP researchers.

Difficult to Find Research Information

Participants often struggled to find information about research

Most participants were disappointed to see a list of PI's when they clicked on Research Areas.

They had expected to see some initial information about the research topics, and were frustrated that they had to click on one or more PI profiles to gain an understanding of current research.

The Prototype Makes It Easy to Find Research

Participants easily found information about research at IRP

Participants were quick to find the research topics and found it easy to scan the list for the area that they were interested in.

They liked the formatting of the research topics and that it also made it easy to find associated PI's and affiliated groups.

Fellowship Information is Difficult to Find

Information is not written for potential research fellows

The only information about fellowship placement is located within the Office of Fellowship Training, which is located under the Information for Staff section.

This page does not aid students in understanding which type of program would be best suited for their situation.

The Prototype Guides Users to Opportunities

Participants easily found information for potential fellows and trainees

Participants quickly noticed the featured content on the home page and the link to fellowship and trainee information in the primary navigation.

Participants liked that the website guided them through the steps of finding programs that would be most applicable to them. **Note: The business data does not currently exist in IRP to support this functionality.**

Opportunities for improvement

In addition to finding programs by education status, participants also wanted to browse by research area.

Finding Programs That I am Eligible For

To determine which NIMH DIRP research training programs you are eligible for, please answer the following questions using information concerning your current educational and citizenship status.

I am currently a:

- ○ High School Student
- ○ Undergraduate Student (B.S., B.A.)
- ○ College Graduate (I received a bachelor's degree)
- ○ Master's Student (M.S., M.A.)
- ○ Pre-Doctoral Student (Ph.D., M.D.)
- ○ Recent Post-Doctorate (Ph.D, M.D. within 2 years)
- ○ Post-Doctorate (Ph.D, M.D. over 2 years ago)

Next

Clinical Trials Are Not Easy to Find

Participants did not immediately notice a way to access clinical trials

Participants often scanned the home page looking for the term "clinical trials", and were uncertain where to go to find this information. During the task, most eventually found a link to Participate in Research.

They were initially disoriented by arriving at a different website with a very different navigation structure and look and feel.

Some participants did not initially notice the list of clinical trial categories because they are located at the bottom of the page.

The Prototype Makes it Easy to Find Clinical Trials

Participants quickly noticed clinical trial information on the home page

Participants were able to locate information about the clinical center as well as where to find current clinical trials.

Participants quickly found this information either by referring to the featured area on the home page or by clicking on Clinical Trials in the primary navigation.

Opportunities for improvement

Integrate the active lists of NIMH clinical trials into the IRP website.
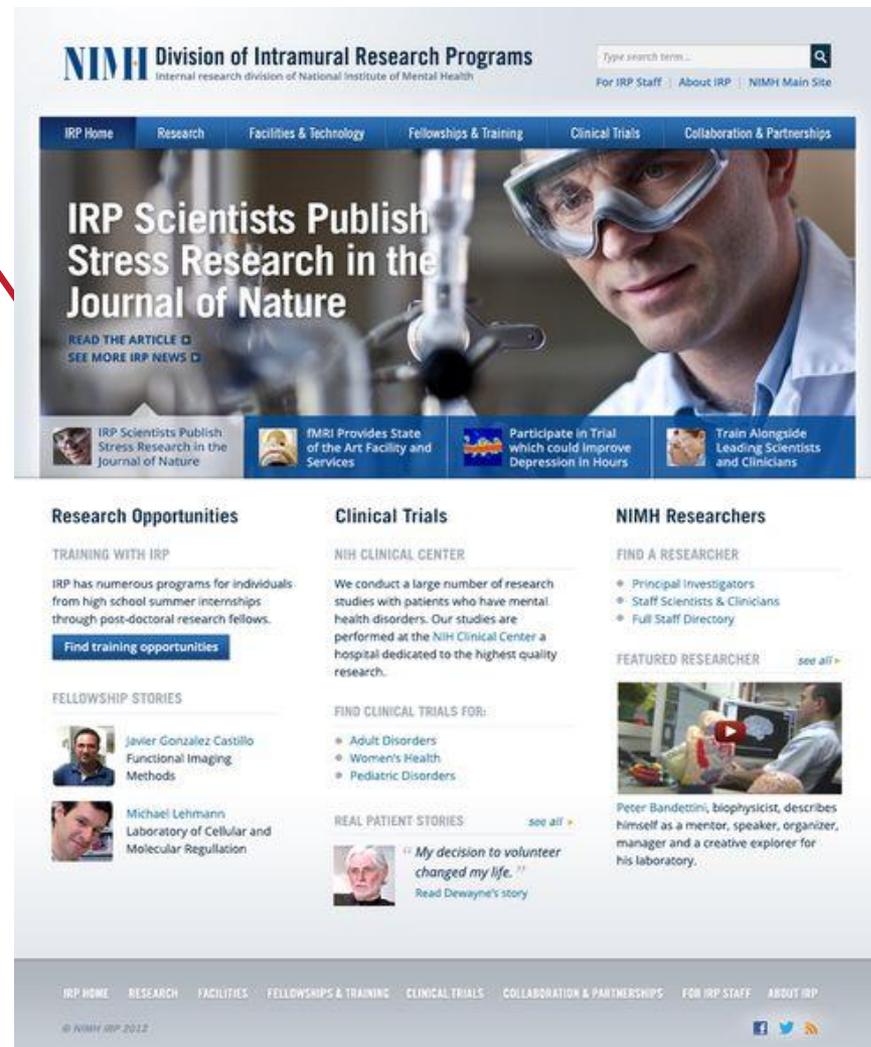
Collaboration Process is Concealed from Users

Participants could not find any information on how to collaborate with NIMH researchers

None of the participants could find out how to collaborate with NIMH researchers, or even to find out if this is possible.

Participants did not expect this information to be under "Information for Staff" and assumed this was for internal personnel only.

Collaborations are Promoted & Encouraged

Participants easily found information about potential collaborations

Participants easily found the link in the primary navigation to Collaborations & Partnerships and were pleased that this information was being promoted.

They found detailed information about the collaboration process and were impressed with a description of a current collaboration with an outside institution.

Content

Information that users need

The Pages are Not Skimmable

Participants often did not take the time to read the paragraphs of text

Participants often failed to gain an understanding of the content because they were discouraged by the amount of text that they were required to read.

Participants reported that there was a lot of "fluff" content that did not help them and made the pages appear wordy.

The Prototype Pages are More Engaging

Participants found page content engaging and easy to read

Participants said that the photography and concise text encouraged them to engage with the content.
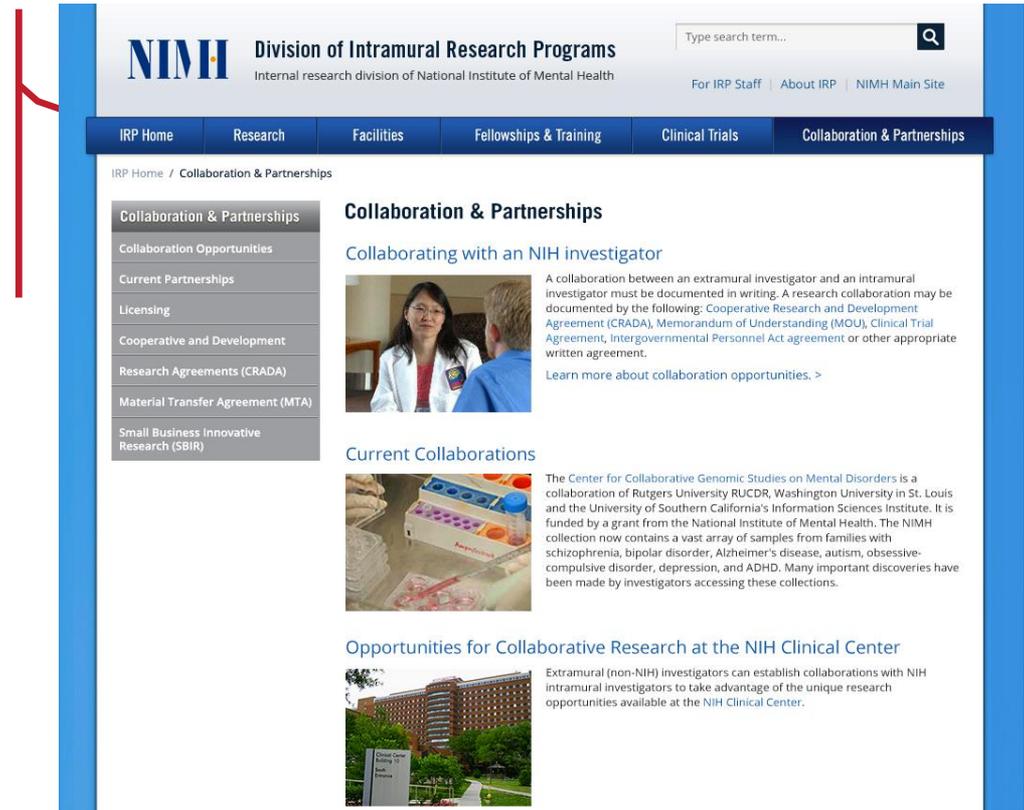
Limited Research Information

Participants were dissatisfied with the research information that they found

Participants were expecting each research area to have a dedicated page with information about latest research, but instead had to extract this information from PI bio pages.

The Prototype Promotes Research

Participants were able to get a quick overview of the research activities

Participants liked that each research topic had a dedicated page that highlighted the research projects, opportunities for fellowships, and related clinical trials. **Note: Developing and maintaining pages for each IRP area of research will require a staff resource whose primary focus is IRP communications.**

Integration Strategy

A seamless integration of the NIMH Public & IRP Content

Micro Sites Lack Association with NIMH

Current IRP micro sites
(aka The Wild West)

Unifying Content Under One Design

All labs, programs, branches, etc. should be seamlessly integrated into the new design

Users will experience content across all aspects of IRP with a consistent and visually-appealing design. This will add to the credibility of the organization as a whole, as well as each individual program.

Principal investigators and program directors will have a dedicated home for their content and will still maintain the freedom to include information about their research, publications, training opportunities and open research studies.

Revise the Information Architecture

Revise the NIMH Public Website IA to incorporate IRP under the heading "Research at NIMH".

| Home | Health & Education | Outreach | Research & Funding | Research at NIMH | Clinical Trials | About NIMH | News |

IRP Overview   NIMH Researchers   Our Research   Fellowships & Training   Collaborations & Partnerships

For IRP Staff | About IRP | Contact IRP

Changes reflected above

NIMH Public Site:

- Added Clinical Trials to the primary navigation
- Added a link to the IRP called "Research at NIMH"

IRP navigation:

- Removed the navigation link to Clinical Trials
- Relocated "Core Services" to a sub category under "Our Research"
- Promoted "NIMH Researchers" category

Revise and Augment Labs & Programs Content

Create new content
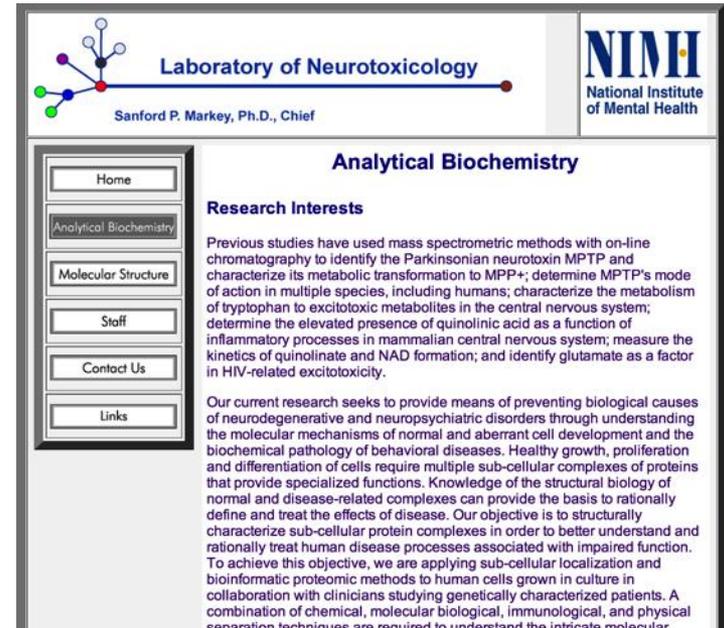Many programs do not yet have a web presence.

Re-write for the Web
Content needs to be re-written to order to be easily skimmed.

Include multimedia
Incorporate photos and graphics related to the research topic.

Integrate content into new site template
Programs should adopt the new consistent look and feel including the new navigation scheme.

Thank you

SPARK Experience Design
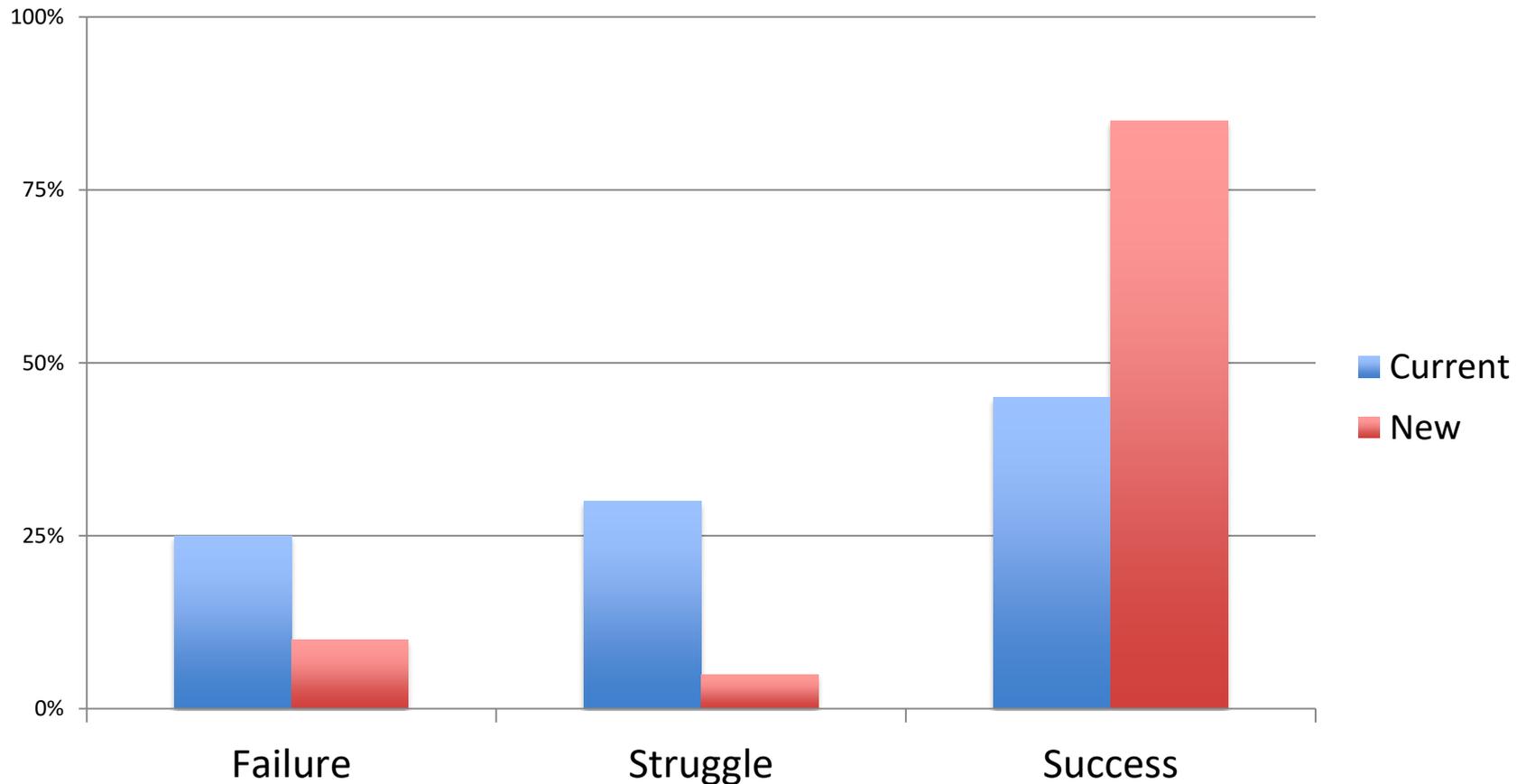www.sparkexperience.com
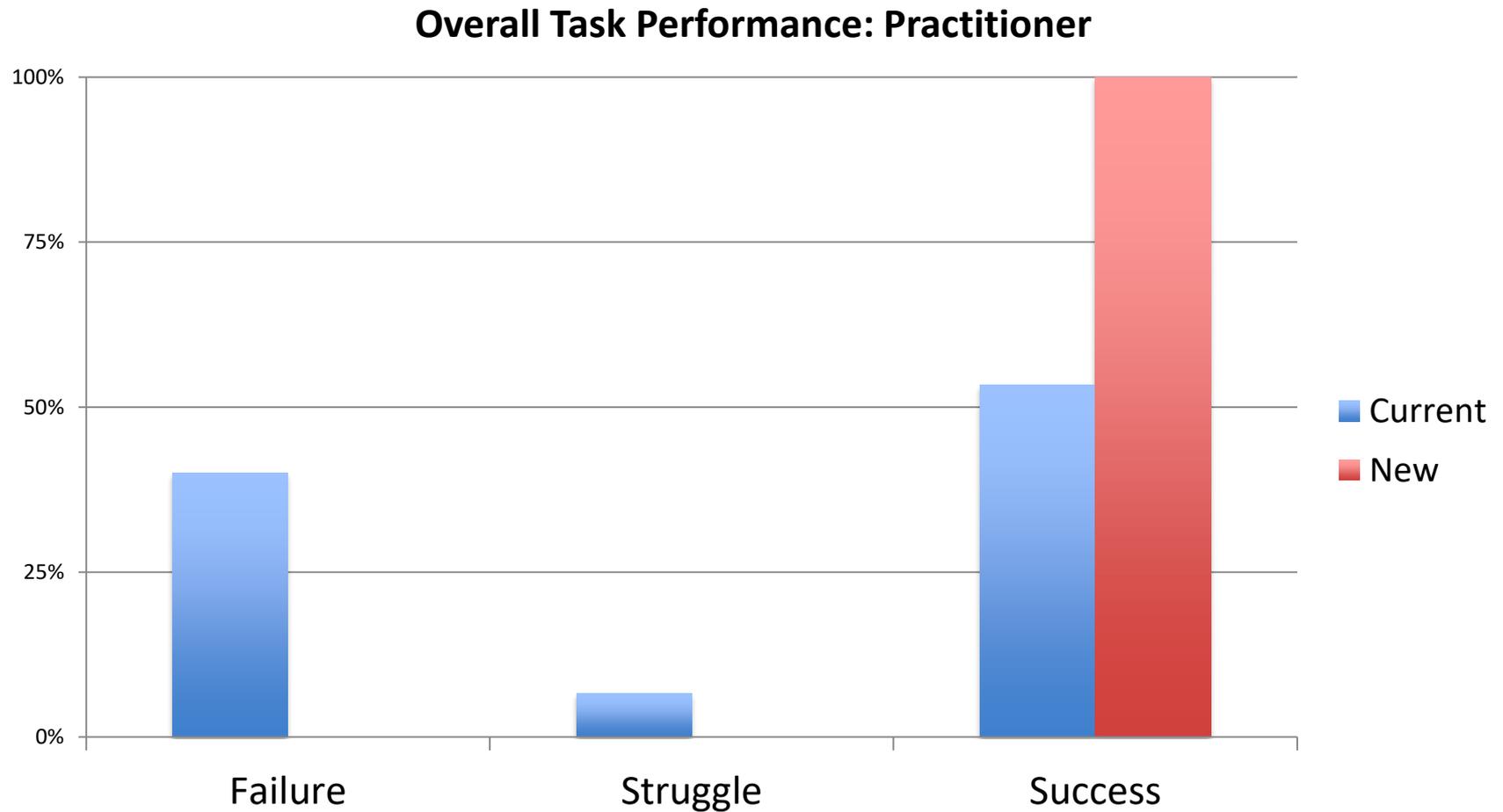51 Monroe Street
Suite 1601
Rockville, MD 20850

spark

Appendix

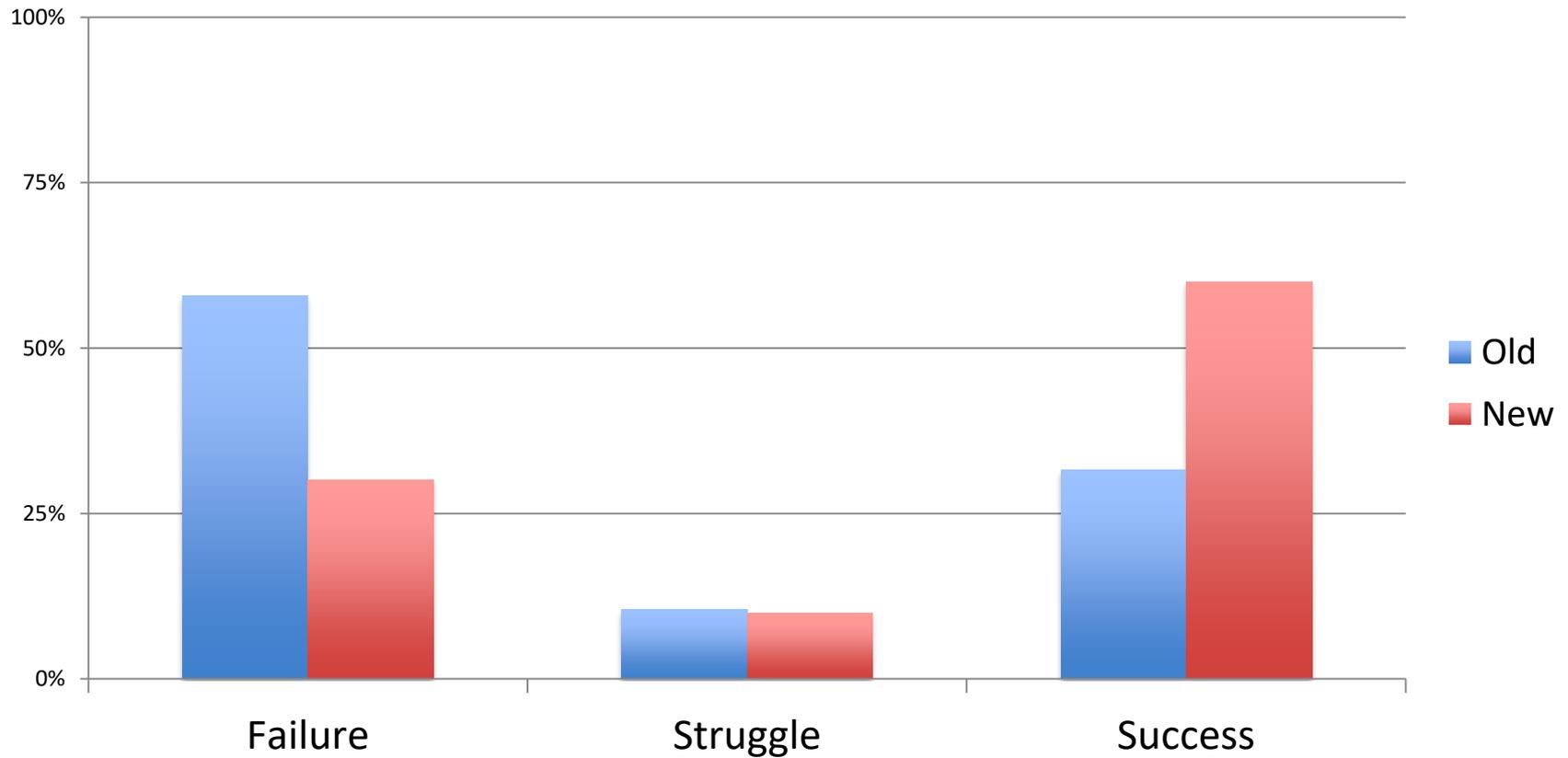# Task Performance by Audience: Student

Overall Task Performance: Student

Task Performance by Audience: Practicioner

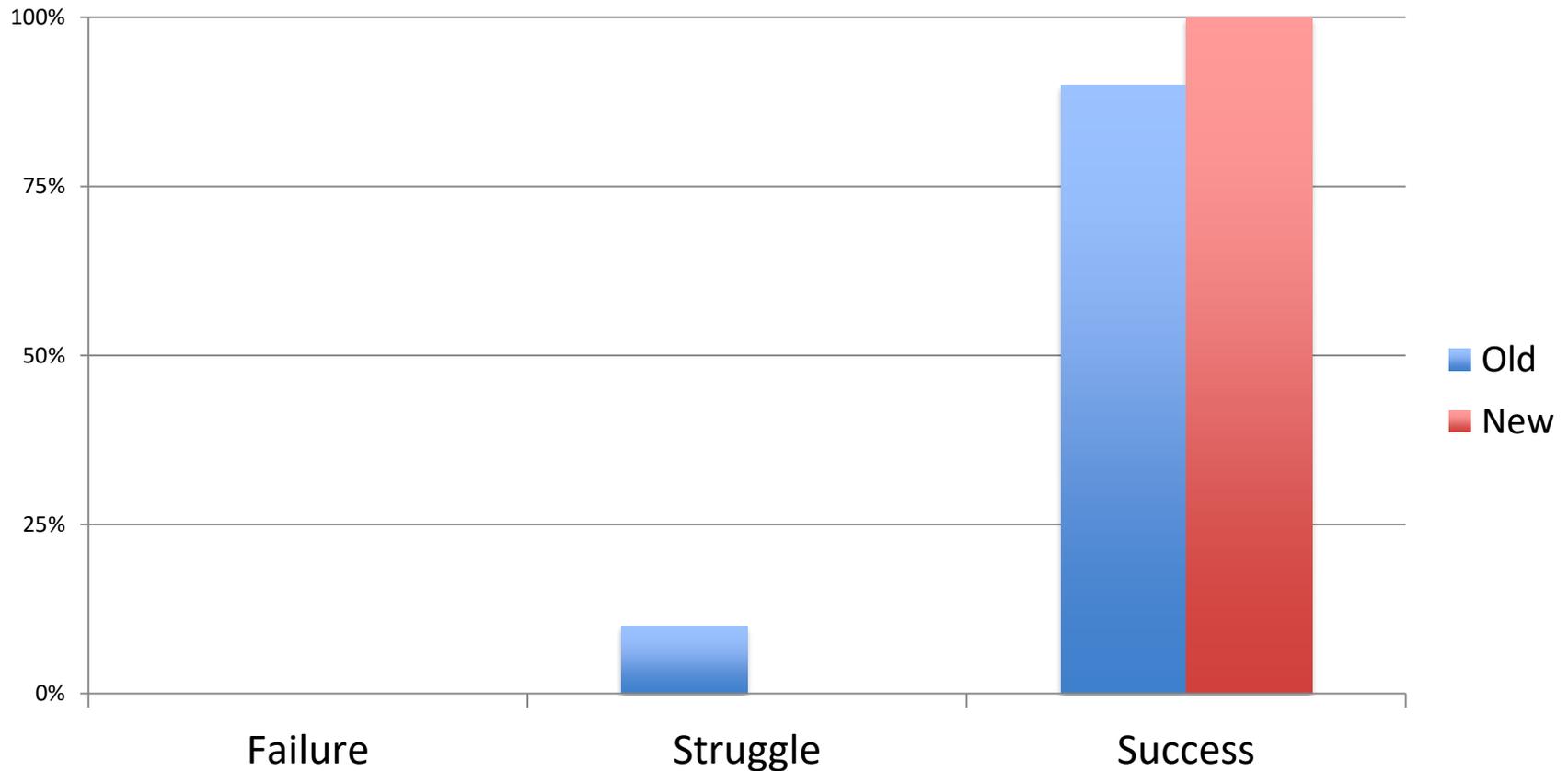**Overall Task Performance: Practitioner**

Task Performance by Audience: General Public

Overall Task Performance: General Public

Task Performance by Audience: Faculty

Overall Task Performance: Faculty

Post Experience Responses

All Post Experience Responses