TRIO STUDIO: How do we enable study teams to use all the available TRIO resources?
By Drew Simon
Rush University Medical Center

At Rush University Medical Center
Authors: Santosh Basapur, MS, Sherry Robison, MBA, Raj C. Shah, MD, and Prof. Keiichi Sato
Email for questions: basapur@id.iit.edu, srobison@bsd.uchicago.edu and/or raj_c_shah@rush.edu
July 24, 2019
TRIO STUDIO: How do we enable study teams to use all the available TRIO resources?

TABLE OF CONTENTS

TRIO STUDIO: Recruitment and Retention for the PrecISE Asthma Trial ........................................... 3
Attendees: ................................................................................................................................................ 3
Summary.................................................................................................................................................... 3
Top 3 Actions Proposed by the Design Science Studio Participants....................................................... 3
Top 3 Actions Proposed by the Quality Science Studio Participants: .................................................. 4
TRIO Studio Problem Description: ......................................................................................................... 5
Main problem for the studio participants to solve: ................................................................................... 7
Studio Methodology ................................................................................................................................... 7
Design Science Method ............................................................................................................................. 7
Quality Science Method ............................................................................................................................ 7
Design Thinking Based Solutions: ............................................................................................................. 8
Problem visualized with Insights ............................................................................................................. 8
High level insights: ....................................................................................................................................... 10
Solutions Generated by Design Science Approach Team: ...................................................................... 10
Quality Science Based Solutions: ............................................................................................................. 12
Problems Analysed to Identify and Define Issues................................................................................... 12
Analysis of Issues and Causes ................................................................................................................. 12
Solutions Generated by Quality Science Approach Team: ................................................................... 13
Appendix 1.................................................................................................................................................. 15
Appendix 2.................................................................................................................................................. 15
TRIO STUDIO: How do we enable study teams to use all the available TRIO resources?

by Drew Simon

Rush University Medical Center

Facilitators: Santosh Basapur, ITM and Sherry Robison, ITM

Research Assistants: Wanshan Wu and Renjie Li (IIT Institute of Design MDes Students)

Attendees: Ilse Salinas, RUMC; Dom Tucker, RUMC; Corey Woods, RUMC; Raquel Garcia-Cano, RUMC; Raj Shah, RUMC; Veronica Fitzpatrick, Advocate; Abby Goerge, RUMC; Mahendra Shah, RUMC; Tiffany Lewis-Collins, RUMC; Charlene Gamboa, RUMC; Jessica Shore, Loyola; Sigi Zhang, RUMC; Solomon Adelowo, RUMC; Pamela Manning, RUMC; Denise Voskuil-Marre, RUMC; and Ashley Lopez, ITM.

Summary

Drew Simon, Rush University Medical Center (RUMC) gave background information and introduced the Trial Recruitment Innovation Office (TRIO) within the Institute for Translational Medicine (ITM) to research personnel at Rush University Medical Center and visitors from Loyola and Advocate. She gave background information and introduced the goal of the office.

Drew is looking to increase enrollment in research studies by engaging study teams with TRIO resources.

Design Science Methodology and Quality Science Methodology were both used to solve the problem faced by RUMC. Many suggestions, based on experiences within different departments at RUMC, were made.

Top 3 Actions Proposed by the Design Science Studio Participants to Drew:

1. Define Honest Broker’s role more clearly and segregate confusion of Data broker vs Study-independent recruiter. Study teams can get confused so this clarification is important.

2. Marketing materials has to be in all formats – short videos, write ups, one pagers, flyers, as well blurbs.

3. Social Media – campaign using the above created video and other materials to educate everyone about the role and resources.
TRIO STUDIO: How do we enable study teams to use all the available TRIO resources?

Top 3 Actions Proposed by the Quality Science Studio Participants to Drew:

1. More Presentations: Focus on department presentations, smaller departments have fewer research support, research leadership support meetings, Compliance and Portal Training, LEAP meetings, and Scientific Leadership Council meetings. Feed people and they will come.

Update Rush Research Portal: Add a checkbox in the renewal asking if they can be put in contact with ITM/TRIO to help with recruitment.

3. Clinical Coordinator Training: Work with Cherese to present at the clinical coordinator training and pass out flyers to participants.
TRIO Studio Problem Description:

Drew Simon explained the goal is to increase enrollment in research studies by engaging study teams with TRIO resources.

Drew explained that the Trial Recruitment Innovation Office (TRIO) is available to all departments within the ITM. There are TRIO Studios where someone can present a research problem and personnel from all six ITM institutions will give suggestions on how to solve the problem. She also explained the Honest Broker role; the Honest Broker can call potential research participants to see if they are interested in a study. If they are interested, the Honest Broker will let the study team know so they can follow up with recruitment. The current problems are:

1. Not being able to engage research teams
2. Difficulty keeping momentum of the research community
3. What do study teams need to succeed?

Current efforts by TRIO at Rush include:

1. Meeting one-on-one with study teams
2. Distributing flyers at Rush Research Portal Training and Research Compliance Training
3. Presenting at research meetings which include the Research Administrators Forum and Monthly education sessions

Drew is looking for innovative ways to enable study teams to use all the available TRIO resources.
TRIO STUDIO: How do we enable study teams to use all the available TRIO resources?
TRIO STUDIO: How do we enable study teams to use all the available TRIO resources?

Main problem for the studio participants to solve:
How do we enable study teams to use all the available TRIO resources?

Studio Methodology
Design Science approach as well as Quality Science approach were used as part of the studio to solve the problem.

Design Science Method
We used the Design Science approach with four steps:

1. Created a free form mind map of the problem and identification of issues – Mind Mapping technique
2. Actionable insights were identified
3. Generated ideas to address issues
4. Synthesized solutions from the smaller ideas – Creative integration of smaller ideas led by Design Thinking Expert facilitator was done using white boards.

Solutions were proposed and were rated by the team on implement-ability (0-4 scale)

Quality Science Method
The Six Sigma Quality Science approach was used which consisted of four steps:

1. Problem definition and mapping of actual structure of the process
2. Identify issues and analyze causality using Fishbone analysis
3. Generated ideas to address to issues – Brainstormed using SCAMPER method
4. Merged smaller ideas and scale ideas to create bigger solutions

Actionable insights and solutions were proposed and solutions were rated by the team on implement-ability (0-4 scale)
Design Thinking Based Solutions:

Problem visualized with Insights
The group first discussed the problem and its context yielding the following context diagram as well as the stakeholder map:

Figure 1. Mind map of Issues with context
TRIO STUDIO: How do we enable study teams to use all the available TRIO resources?

Figure 2. Stakeholder Map
TRIO STUDIO: How do we enable study teams to use all the available TRIO resources?

High level insights:
Following the context discussions, insights were generated as follows:

Figure 3. Insights discussed included need for advertising, clarifying Honest Broker Role as seen above

Solutions Generated by Design Science Approach Team:
Eight implementable solutions were created to solve the issues. The ideas were discussed to be of importance and deeper impact and hence made into these 6 solutions. The other ideas discussed but parked as being either too narrow or too light in impact have also been listed in the figure below.

The eight solutions are as follows:

1. **Define Honest Broker’s role** more clearly and segregate confusion of Data broker vs Study-independent recruiter. Study teams can get confused so this clarification is important.

2. **Marketing materials** has to be in all formats – short videos, write ups, one pagers, flyers, as well blurbs.

3. **Social Media** – campaign using the above created video and other materials to educate everyone about the role and resources.

4. **Need Honest Brokers at all six ITM institutions.** Even multiple Honest Brokers at each institute to scale work.

5. **Design an application** on mobile phones to enable better access to resources of ITM.

6. **Conduct more initial TRIO studios** at each ITM institution and introduce TRIO more effectively.
7. **Set up process at each ITM institution** to handle Honest Broker role.

8. **Enable Honest Broker** and participants connections and better management of connections.

---

**Figure 4.** Design Science solutions discussed.
Quality Science Based Solutions:

Problems Analysed to Identify and Define Issues.

Figure 5. Problem Definition
**Solutions Generated by Quality Science Approach Team:**

Five solutions were created to solve the issue of innovative ways to enable study teams to use all the available TRIO resources. They are as follows in the list below and the diagram digitized from whiteboard:

1. **More Presentations:** Focus on department presentations, smaller departments have fewer research support, research leadership support meetings, Compliance and Portal Training, LEAP meetings, and Scientific Leadership Council meetings. Feed people and they will come.

2. **Update Rush Research Portal:** Add a checkbox in the renewal asking if they can be put in contact with ITM/TRIO to help with recruitment.

3. **Clinical Coordinator Training:** Work with Cherese to present at the clinical coordinator training and pass out flyers to participants.

4. **City Wide Campaign New Normal:** Communications support. Ask communications to share TRIO information at their presentations and educate other institutions and departments on TRIO.

5. **Community Education:** Community cluster educate about studies and TRIO services.
TRIO STUDIO: How do we enable study teams to use all the available TRIO resources?

### Solutions: Quality Science Approach

<table>
<thead>
<tr>
<th>#</th>
<th>Solution</th>
</tr>
</thead>
</table>
| 01 | *More Presentations/ Workshops/ Forums*  
- Larger Departments  
- Smaller Departments  
- Research Leadership Support - ITM knowledge  
- Compliance Portal Training  
- Scientific Leadership Forum  
- Feed people in the workshop  
- "Leap" Program |
| 02 | *Rush Research Portal - Renewals-Check Box*  
Connect with ITM/TRIO |
| 03 | *Clinical Coordinator Training*  
Collaborations between ITM institutions |
| 04 | *City Wide Campaign New Normal*  
Communications Support |
| 05 | *Community Education* |

Figure 6. Quality Science Solutions created and discussed along with solution ideas.

<End of Document. Thank you.>
TRIO STUDIO: How do we enable study teams to use all the available TRIO resources?

Appendix 1.
Slides used by Drew Simon RUMC, for the studio kick off.

Appendix 2.
Actual pictures of white board from the studio session.

Design Science
Solutions

(No particular order)

1. Case Studies to show effectiveness of TRIO

2. Clone DREW (DREW 2.0s) (Support and SCALE)

3. Define Drew’s role - Data Broker
   - Participant Broker
   - Multi Broker

4. Video defining the role/examples: ≥ 5 min videos
   Too much work gets well organized.

5. Social Media - LinkedIn/Fb/Twitter
   Sol. #3

6. Send marketing materials to Research Admin/Coordinators
   Residents/Specific groups
   Sol. #2

7. Travel Studios but send why/where info

8. Apps for TRIO resources utility
   Access friendly
   - Study List
   - Can be institute specific
TRIO STUDIO: How do we enable study teams to use all the available TRIO resources?

Quality Science

Who is experiencing this problem?
- ITM
- Nurse leaders
- Study coordinators
- Patients
- Clinical staff

Why does this problem exist?
- Awareness
- Affordance
- Process (protocol)
- People don’t know about Drew (master tracker)

What is the scale of the problem?
- Institutions
  - Chicago
  - Department to Department
  - Internal
  - Community outreach
TRIO STUDIO: How do we enable study teams to use all the available TRIO resources?

1. More Presentations
   - Larger departments
   - Smaller departments

2. Research Leadership Support
   - Compliance/Policy training
   - CRF
   - IRB

3. Clinical Coordinator training
   - Onsite

4. City Wide Campaign: New Normal
   - Communications Support

5. Rush Research Portal
   - Renewals: Check Box
   - Connect w/ ITM/TRIO

6. ITM Knowledge/Community Education
**TRIO STUDIO: How do we enable study teams to use all the available TRIO resources?**

---

**About the Institute for Translational Medicine (ITM)**

The ITM is a partnership between the University of Chicago and Rush in collaboration with Advocate-Aurora Health Care, the Illinois Institute of Technology (Illinois Tech), Loyola University Chicago, and NorthShore University HealthSystem that’s fueled by about $35 million in grants from the National Center for Advancing Translational Sciences at the National Institutes of Health through its Clinical and Translational Science Awards (CTSA) Program.

We’re part of a network of more than 55 CTSA Program-supported hubs across the country working to slash the time it takes to develop and share new treatments and health approaches. We work with you and for you to make participating in health research easy, so that together we improve health care for all.

Join the movement and learn more about how we help researchers, physicians, community members, industry, government organizations, and others. Visit us at chicagoitm.org and connect with us on Facebook, Twitter, Instagram, YouTube, and LinkedIn @ChicagoITM.

TRIO is supported by the National Center for Advancing Translational Sciences (NCATS) of the National Institutes of Health (NIH) through Grant Number UL1TR002389 that funds the ITM. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH. Please cite the grant in your publications to ensure TRIO can continue helping researchers like you.