

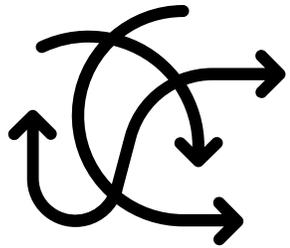
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# Building Bridges

A Case Study in Using Low-cost, Lightweight Data Tools to Increase Quality and Flexibility in Academic Program Assessment

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# Introduction



# Low-cost, Lightweight Tools



- Developed at Vanderbilt in 2004
- Original use case – Clinical Trials
- Free to non-profit organizations
  - NOT open source
- Secure and HIPAA compliant
- Active Community – REDCap Consortium

Power BI



- Included with Office 365
- Robust support
- Active community
- Wide use across industry
- Deep integration with MS apps

# Introductory Tour of REDCap Forms

**Data Collection Instruments**

Form options: PDF Snapshots, Form Display Logic, PDF (all instruments), Descriptive Popups

Survey options: e-Consent, Survey Queue, Auto Invitation options, Survey Login, Survey Notifications, Survey Settings

Instrument name	Fields	PDF	Enabled as survey	Instrument actions	Survey related options
PhD Committee Student Form	51			Choose action	Survey settings, Automated Invitations
Phd Committee Evaluation Chair Form	14			Choose action	Survey settings, Automated Invitations
Phd Committee Student Form Follow-Up	12			Choose action	Survey settings, Automated Invitations
PhD Committee Chair Approval	3			Choose action	Survey settings, Automated Invitations

# Introductory Tour of REDCap Forms

**Student Name:**

**Mentor:**

**Co-Mentor:**

**Committee Chair:**

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**Is student on a T-32 Grant?**

[reset](#)

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**Please indicate the relevant T32:**

[reset](#)

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**MSTP student?**

[reset](#)

**Please rate whether the student is meeting expectations for each item below based on the level of training.**

	Developing	Proficient	Accomplished	Mastery
<b>Develops hypothesis-driven research; articulates project rationale and goals.</b> <i>* must provide value</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Demonstrates breadth and depth of discipline-specific knowledge.</b> <i>* must provide value</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Mastery of experimental methods and their connection to project goal/hypotheses.</b> <i>* must provide value</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Exhibits effective oral communication skills.</b> <i>* must provide value</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Exhibits forward thinking and implications of research.</b> <i>* must provide value</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Exhibits independence as a researcher.</b> <i>* must provide value</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# Key Features in REDCap pt 1

## Piped Text & Embedded Fields

Field Name: cmte\_table

Student:

[stud\_name] ← Piping

{stud\_email} ← Embedded Field

Committee Chair:

[cmte\_chair]

{chair\_email}



Student:

**Samwell Tarly**

sam.tarly@nightswatch.ws

Committee Chair:

**Aemon Targaryen**

aemon.targaryen@nightswatch.ws

## Action Tags

Field Label

Open Sans Paragraph 10pt B I U

Student Name:

Action Tags / Field Annotation (optional)

@PLACEHOLDER='first last'

Action Tags / Field Annotation (optional)

@PLACEHOLDER='first last'

Learn about @ Action Tags or using Field Annotations



Student Name:

first last

# Key Features in REDCap pt 1

## Branching Logic

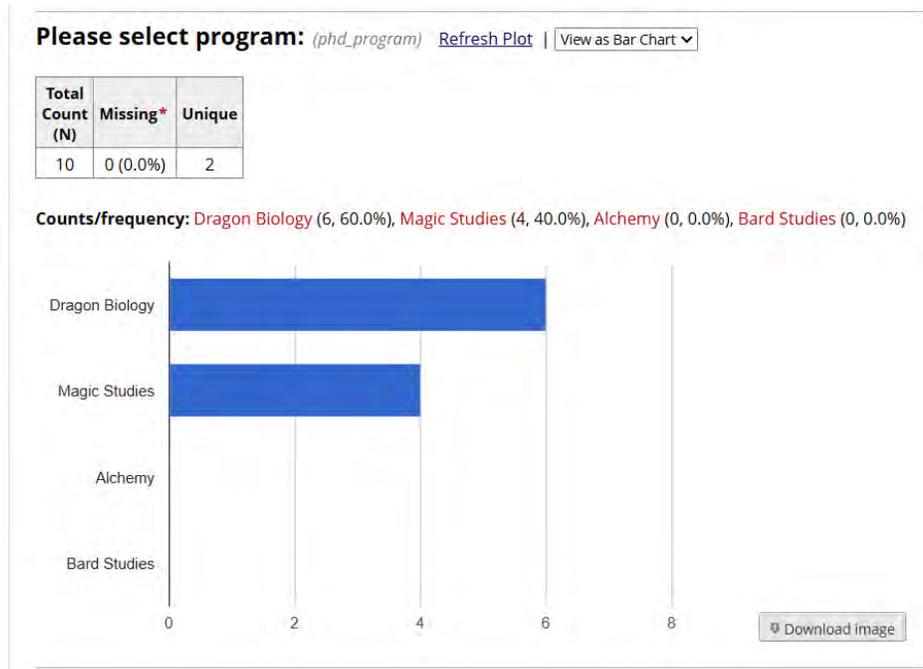
The image shows a screenshot of the REDCap form editor interface. The top section is the configuration area for a field named 't32\_status'. It contains a question: "Is student on a T-32 Grant?" with radio buttons for "Yes" and "No". Below this are buttons for "Add Field", "Add Matrix of Fields", and "Add Standardized Field (CDE)".

The second section is the configuration for a field named '32'. The "Branching logic" field is circled in red and contains the text "[t32\_status] = '1'". To the right of this field is a checkbox labeled "Contains embedded fields". Below the configuration are radio buttons for "Dragon Biology", "Magic Studies", "Alchemy", "Bard Studies", and "Other {t32\_other}".

A large red arrow points from the "Branching logic" field down to the preview section. The preview section shows the form as it would appear to a user. It includes text input fields for "Student Name:" (containing "Samwell Tarly") and "Committee Chair:" (containing "Aemon Targaryen"). Below these is the question "Is student on a T-32 Grant?" with the "Yes" radio button selected. The "Please indicate the relevant T32:" question has the "Dragon Biology" radio button selected. A text box below the "Other" option contains the text "click 'other' and use box to specify".

# Key Features in REDCap pt 1

## Reports (Views)



- Example of a pre-made chart
- Highly customizable

## Smart Variables

Name of Smart Variable	Description	Example of Usage	
		Example input	Example output
<b>User</b>			
[user-name]	The current user's REDCap username.	[user-name]	jane_doe
[user-fullname]	The current user's first and last name (as listed on their Profile page).	[user-fullname]	Jane Doe
[user-email]	The current user's primary email address (as listed on their Profile page).	[user-email]	jane.doe@example.edu
[user-dag-name]	The Data Access Group (the unique group name) to which the current user belongs (blank if not in a DAG).	[user-dag-name]	vanderbilt_group
[user-dag-id]	The group ID number of the Data Access Group to which the current user belongs (blank if not in a DAG).	[user-dag-id]	324
[user-dag-label]	The name/label of the Data Access Group to which the current user belongs (blank if not in a DAG).	[user-dag-label]	Vanderbilt Group

- Information other than data fields
- Information **about** the instrument
- Can be used in calculated fields, charts



# Power BI Tools

## Progress Tracker: Program Coordinator Workflow

TAIR Fictional Data Diss Comm REDCap Tracker | Data updated 2/24/26 | Search | Export | Share | Explore | Subscribe | Set alert | Monitor | Edit | Copilot

### Progress Tracker

#### Graduate School Dissertation Committee Assessment & Data Collection Process

This table provides a regularly updated tracker for forms completed as part of the Dissertation Committee process in the Graduate School of Magical Studies. Data refreshes nightly using a direct API from the REDCap database.

AcademicYear	Program	Chair
All	All	All

Record ID	Program	Student	Committee Chair	Qualifying Exams Pass Date	Student Pre-meeting Form	Committee Chair Assessment
1	Magic Studies	Test Test	Test4 Test4		●	●
15	Magic Studies	Harry Potter	Albus Dumbledore	Tuesday, November 19, 2024	●	◆
16	Dragon Biology	Hiccup Horrendous	Astrid Hofferson	Thursday, June 19, 2025	●	◆
12	Magic Studies	Steve Caballero	Lance Mountain	Wednesday, July 09, 2025	●	●
13	Dragon Biology	Mike McGill	Lance Mountain	Monday, October 06, 2025	●	●
14	Dragon Biology	Tommy Guerrero	Stacey Peralta	Monday, November 10, 2025	●	●
2	Dragon Biology	Samwell Tarly	Aemon Targaryen	Thursday, February 19, 2026	●	●
3	Magic Studies	Buffy Summers	Rupert Giles	Friday, February 20, 2026	●	●
4	Dragon Biology	Peter Parker	Otto Octavius	Friday, February 20, 2026	●	●
5	Dragon Biology	Arthur Pendragon	Merlin	Friday, February 20, 2026	●	●
6	Magic Studies	Luke Skywalker	Yoda	Saturday, February 21, 2026	●	●
7	Dragon Biology	Bilbo Baggins	Gandalf the Grey	Saturday, February 21, 2026	●	●
8	Magic Studies	Anakin Skywalker	Obi-Wan Kenobi	Saturday, February 21, 2026	●	●
10	Dragon Biology	Cirilla Fiona Elen Riannon	Geralt of Rivia	Monday, February 23, 2026	●	●
11	Magic Studies	Zuko	Iroh	Monday, February 23, 2026	●	●
9	Dragon Biology	Jon Snow	Jeor Mormont	Monday, February 23, 2026	●	●

Links: [Student Pre-meeting form](#) (starts the cycle); [REDCap backend data access](#) (for PCs)

UTSW Office of Institutional Effectiveness, Accreditation, and Assessment

# Power BI Tools

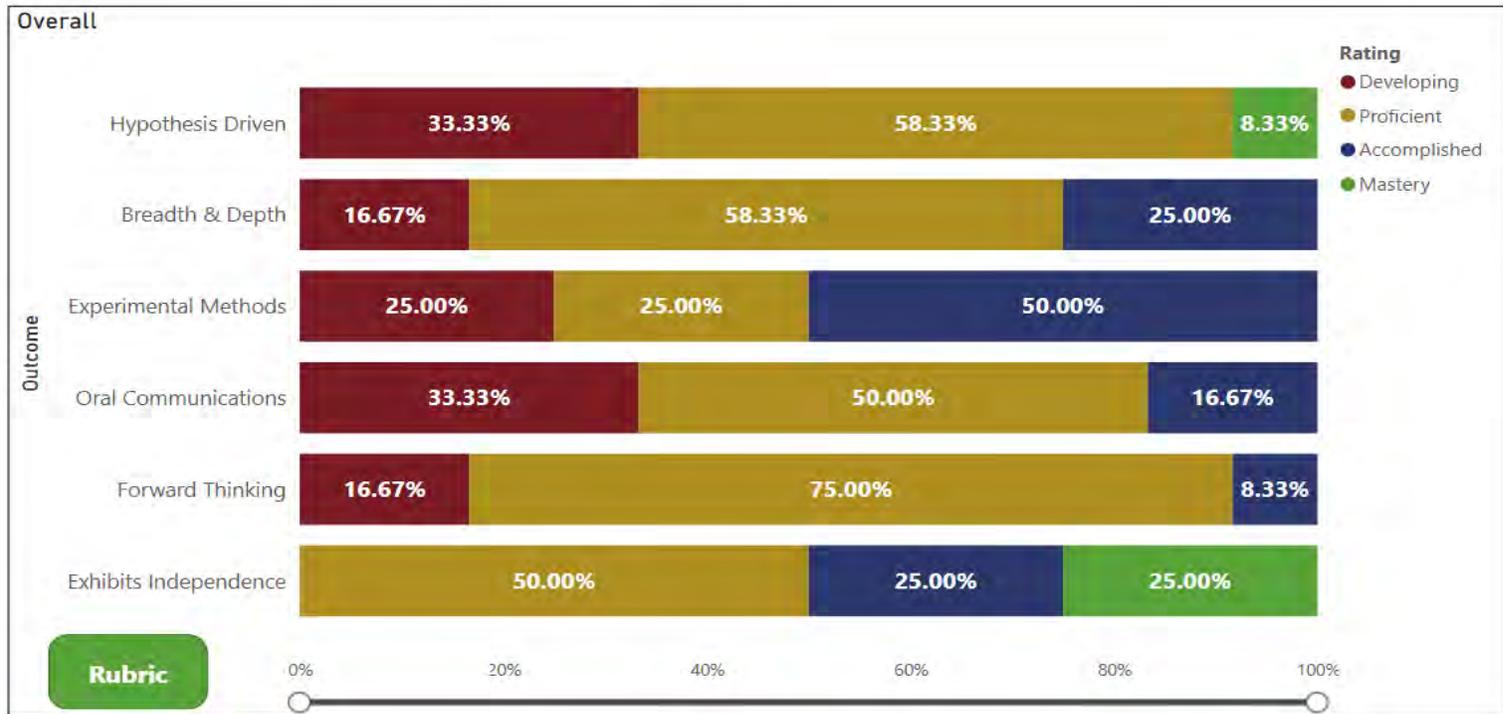
## Performance Tracker: Program Director Intelligence Tool

TAIR Fictional PhD Committee Assessment Data | Data updated 2/25/26 | Search | 56 | Copilot

Pages pane: Current page: Rubric Results | Explore | Subscribe | Set alert | Monitor | Edit

### PhD Program Evaluation Draft

Graduate School of Magical Studies Dissertation Committee Assessment



#### Customize the data

Academic Year: 2025-26

Student Program Year: Multiple selections

Program: All

T32: All

12

N of students visualized

100%  
% Overall (Satisfactory) Rating

# Deploying the data in program-level assessment plans

## Student Learning Outcome 1

Students demonstrate an extensive and intensive knowledge of Dragon Biology and related disciplines

As measured by:

Measure	Measure Description	Provided by	Target	2024-25	2025-26	2026-27	2025-2027 Sparkline
Percentage of early stage students rated "on track"	Each year, student complete a progress review with their dissertation committee and are rated across several learning outcomes using a four-point Likert scale supported by a detailed rubric. This metric evaluates the percentage of early stage students (program year 2-3) whose rating meets or exceeds the threshold target specified for their enrollment year (year 2 = developing, year 3 = proficient) for the item "Demonstrates breadth and depth of discipline-specific knowledge."	Program	70%	77%	71%	79%	
Percentage of advanced students rated "on track"	Each year, student complete a progress review with their dissertation committee and are rated across several learning outcomes using a four-point Likert scale supported by a detailed rubric. This metric evaluates the percentage of advanced students (program years 4-5) whose rating meets or exceeds the threshold target specified for their enrollment year (year 4 = accomplished, year 5 = mastery) for the item "Demonstrates breadth and depth of discipline-specific knowledge."	Program	85%	77%	83%	88%	

Scan the QR code to  
complete the session  
survey.

