Research and Technology Support Resources

INTRODUCTION
We have compiled a range of resources, on and off campus, that team leaders can use to aid team collaboration or to help team members accelerate their learning curve on certain research skills that the project may require. We encourage you to explore these resources, or invite your team members to take responsibility for setting up an infrastructure that works for the team. To help you navigate this list, we've divided it into four sections:

- Online Collaboration Tools
- Research Support
- Duke University Libraries
- Online Research Resources

ONLINE COLLABORATION TOOLS

Sites@duke (https://sites.duke.edu/)
Duke’s WordPress service provides an easy way for Duke faculty, staff, and students to set up a website or blog using predefined design templates (themes) and plugins. There is no charge to users. Many Bass Connections teams create their own site to inform others about their work and/or to share information amongst themselves about their project.

Slack (https://slack.com)
Slack is an online project management tool that enables teams to collaborate online and discuss project work all in one place.

Box (https://box.duke.edu/)
Box is a cloud-based storage and collaboration service for all Duke University faculty, staff, and students. With Box, users can access, store, and share content securely with Duke and non-Duke users.

Pebble Pad (https://pebblepad.com/login/duke)
PebblePad allows students, faculty, and staff to create websites, blogs, and reflections to share privately or publish for public audiences such as potential employers.

Asana (https://asana.com/)
Asana is a web and mobile application designed to help users plan and manage projects online without the use of email. In each task users can add notes, comments, attachments, and tags. Users can follow projects and tasks and when the state of a project or task changes, followers get updates about the changes in their inboxes. Asana is free for teams of up to 15 people.

Join.me (https://www.join.me)
Join.me is an online web conferencing tool that includes audio, screen sharing, and file sharing. Join.me is free for up to ten participants.
**Zotero** ([https://www.zotero.org/](https://www.zotero.org/))

Zotero is a free tool that can be used to create a collaborative reference library of research sources.

**Doodle** ([http://doodle.com/](http://doodle.com/))

Doodle is a free online tool to help schedule group meetings without a lot of email traffic.

**Basecamp** ([https://basecamp.com/](https://basecamp.com/))

Basecamp is an online project management tool that includes file sharing, scheduling, task management and tracking, and communication tools. Basecamp offers a free 60-day trial and every month after that is $20 for up to 10 active projects (unlimited users per project).

**Google Docs** ([http://www.google.com/docs/about/](http://www.google.com/docs/about/))

Google Docs allows users to create, edit, and share documents through one accessible site. Multiple users can also work together in the same document at the same time.

**RESEARCH SUPPORT**

Depending on the requirements of your project and the background of your team members, some or all of the team may need some support getting up to speed on the research methods that the team will use, as well as on the project topic. In fact, survey feedback from both faculty and students who participated on previous Bass Connections teams shows that the more a team can do to accelerate the learning curve on the front end, the better for all parties.

While each team’s focus is different, we’ve provided a list of resources below that cover basic research and lab skills. We’d encourage you to consider whether these, or other resources that you are aware of, can be provided to students before, or during, the project to accelerate the team’s progress and ensure that all students have a solid baseline of understanding.

**ModU** ([https://modu.ssri.duke.edu/](https://modu.ssri.duke.edu/))

ModU is a site of the Duke Social Science Research Institute (SSRI) that provides short video modules, featuring experts from Duke, on basic methodological skills including survey methodology, research ethics, causal inference, social network analysis, and writing and research tips. Team leaders can use this site to create custom playlists to provide students with background on research methodologies. Although framed in the context of the social sciences, the topics covered in these videos are broadly applicable across fields.

**The Connection Bar @ SSRI** ([https://ssri.duke.edu/connection/connection-bar](https://ssri.duke.edu/connection/connection-bar))

SSRI's Connection Bar, open 10 a.m. to 6 p.m. on weekdays during the academic year, is staffed by advanced graduate students and postdoctoral scholars with expertise in using both quantitative and qualitative methods and tools. Students, faculty, and staff, can drop by to get assistance with a research project, schedule an appointment via email, or chat online with a consultant to get quick answers to their questions. You can also request for a consultant to visit a group meeting. A list of help topics covered by SSRI can be found here: [https://connect.ssri.duke.edu/education/help-topics](https://connect.ssri.duke.edu/education/help-topics).

**ResearchMobile @ SSRI** ([https://ssri.duke.edu/about/facilities/researchmobile](https://ssri.duke.edu/about/facilities/researchmobile))

The Duke University ResearchMobile is a mobile research laboratory funded by a grant from the National Science Foundation. The 37-ft. air-conditioned trailer is equipped with four soundproofed
cubicles, each capable of holding up to two participants for studying either individuals or dyads. Each cubicle has a writing surface, computer, monitor, and two cameras for audio-video recording. In addition, equipment is available for measuring physiological responses such as heart rate, blood pressure, respiration, and galvanic skin response.

Faculty members and other researchers who are interested in using the ResearchMobile should contact Mark Leary, Faculty Director of the Interdisciplinary Behavioral Research Center (IBRC), leary@duke.edu.

DUKE UNIVERSITY LIBRARIES
Duke’s libraries are also available to support Bass Connections project teams. Librarians provide expert guidance in locating and using information for all phases of research projects, including helping your team map out its project, identify and incorporate tools and approaches, locate resources to meet its project goals, and communicate your results to wider audiences. A description of services offered by the library can be found below.

For more information, or to ask about specific help for your project team, contact asklib@duke.edu.

Collect and Organize Your Research
We can assist your team as you locate or create materials (from searching databases to finding datasets) and manage citations. We also advise teams on ways to collectively manage their research for current and long-term use. Our content and language specialists can help you identify sources and support for research outside your team’s areas of familiarity or expertise. Schedule an individual or group consultation by contacting your library liaison (listed above) or asklib@duke.edu.

Analyze and Visualize Data
Specializing in data visualization, data analysis, data management, mapping (GIS), and research computing, consultants in the Libraries’ Data and Visualization Services consult on a diverse set of data-driven research methods and tools and also provide both in class and workshop-based training. Visit our lab to receive hands-on advice and assistance in using specialized computers and software, from ArcGIS to Rstudio. Locate data resources, prepare data for analysis, use a statistical package, visualize your results, and manage your data for future use. Consult with us at askdata@duke.edu or visit us online at http://library.duke.edu/data.

Locate Project and Event Space
We offer a range of technology-enabled and team-centered workspaces, for ad hoc or persistent use:

- Small groups (4-8 people): http://library.duke.edu/using/room-reservations
- Larger groups (18-30 people), ongoing meetings, or special events: asklib@duke.edu

You can browse our study spaces online, to locate the space that best meets your team’s needs. The Edge at Bostock Library also provides a collaborative space for interdisciplinary, data-driven, digitally reliant or team-based research, and includes a digital studio, team space, and presentation rooms. Research and visualization experts are on-hand at The Edge to provide support to teams. Teams can also access a range of data software on site.

Learn on the Fly
We offer regular workshops on a range of research tools and practices as well as just-in-time training on all aspects of the research lifecycle. Request customized individual or group training via your library liaison (listed above). Some examples of topics include:

- Citation management (Endnote, Refworks, Mendeley and Zotero)
- Data management best practices (metadata, archiving, repositories)
- Copyright and fair use in research
- Introduction to data visualization and communicating research

**Publish and Archive Your Research**
Extend the reach of your research! We can suggest an appropriate venue or platform for online publishing (websites, journals, repositories); advise on copyright, open access and fair use; and help develop plans to promote the longevity and impact of your work. Read about our services and link to more information on our website, [http://library.duke.edu/research/publish-archive](http://library.duke.edu/research/publish-archive). You can also send us questions or set up a consultation at scholarworks@duke.edu.

**ONLINE RESEARCH RESOURCES**

Lynda.com is an online training library that includes more than 3,300 short, video-based courses. Duke students, faculty and staff can access lynda.com for free through Duke’s university-wide license. To log-in, go to: [http://www.lynda.com/default.aspx](http://www.lynda.com/default.aspx); on the right, under “Log in through your organization or school,” type www.duke.edu. The site will then re-direct you and prompt you to log-in using your NetID.

Topics of interests to Bass Connections teams may include:


**YouTube** ([https://www.youtube.com/](https://www.youtube.com/))

YouTube offers videos on any topic that you can imagine. While not all videos on YouTube are high-quality, we have pulled out several quality videos below that may be useful to teams.

**Videos on Research Methods**

**Research Methods in Social Sciences.** This YouTube channel by Professor Graham Gibbs from the University of Huddersfield includes many videos covering a range of research topics and methods
including: surveys and sampling, reliability and validity, interview practices, grounded theory, case studies, question types, questionnaire design, and research ethics. 
https://www.youtube.com/channel/UCafkV40656nWz9Jc129ZCFA

**Introduction to Research Methodology** (14 minutes). This short video provides a high-level overview of the research process and research methods. It would be most informative for individuals with minimal research experience. 
https://www.youtube.com/watch?v=1LGuNn9Q0bl

**Developing a Quantitative Research Plan: Choosing a Research Design** (46 minutes). This video reviews different quantitative research methods (including surveys, observations, comparative, and experimental) and when to use which methods. 
https://www.youtube.com/watch?v=UywO2XuFuBA

**Videos on Statistics**

**Introduction to Statistics**. This playlist from the Khan Academy includes many videos covering a range of statistical methods such as variance, standard deviation, distributions, confidence tests, hypothesis testing, etc.  
https://www.youtube.com/playlist?list=PLGcvh64d5a4HfGkm8O4SlqbrSS5HFaaM3B

**Statistics Learning Center**. This channel offers numerous videos covering statistical methods such as variation, sampling error, confidence intervals, hypothesis testing, and p-values. The videos are geared towards individuals who are newer to statistics.  
https://www.youtube.com/channel/UCG32MfGLit1pcqCRXyy9cAg

**Introduction to Statistics: What are they, and how do I know which one to choose?** (40 minutes). This video reviews different statistical methods and which methods to use when conducting research. This video is recommended for individuals with a basic understanding of statistical methods. 
https://www.youtube.com/watch?v=HpyRybBEDQO

**Videos on Basic Lab Skills**

**Fisher Science Education**. This channel includes 22 short videos on laboratory skills for beginners including how to use a pipette, prepare gels and buffers, and properly clean a flask. 
https://www.youtube.com/user/FisherScienceEd/videos

**Basic Biotechnology Techniques**. This playlist includes 30 short video tutorials for beginners on how to use basic laboratory equipment such as a micropipette, a pH meter, an electronic balance, as well as how to perform laboratory procedures such as making an agarose gel, gram staining, and dilution. 
https://www.youtube.com/playlist?list=PLrAEgIY86l6wYJgx3iE-KnyaRFzwuuixr

**Using a Micropipette** (9 minutes) 
This video provides a detailed tutorial on how to use a micropipette for beginners. 
https://www.youtube.com/watch?v=uEy_NGDfo_8&list=PLeFIW6y4Xf0nfKpc89AaNKwE28NxFyHDM

**General Background Topics**

**Khan Academy**. Depending on the topic of your project, the Khan Academy may have videos that can provide participants with basic information in your field of research. A complete list of the topics
covered by the Khan Academy can be found here: 
https://www.youtube.com/user/khanacademy/playlists