

DIGITAL SEED GRANT WINNERS AND FINAL PROJECTS 2021-2022

ABOUT

Walker Library *Digital Scholarship Initiatives* supports individual and collaborative digital projects in research, teaching, and public outreach from any discipline on campus. The Digital Seed Grant is an annual award for start-up funds, developed to encourage and create opportunities for faculty, staff, and graduate students to use digital technologies in their research, service, or teaching.

The Digital Seed Grant (dsi.mtsu.edu/dsgrant) had impressive applications for its fifth year (award period 2021-2022), which initially launched in 2016 for the award period of 2017-2018. The Digital Seed Grant Review Committee and Library Dean decided to award three grants for the 2021-2022 academic year.

The AY 21-22 awardees were announced on the website at <https://dsi.mtsu.edu/dsgrant21-22>. Below is a summary of the **three winning projects** and resulting outcomes.

Revisiting the Thematic Apperception Test (TAT) with Computerized Linguistic Analysis

Primary Investigator (PI): Cindi Brown, graduate student in the Department of Psychology

PI's Project Description: The purpose of our project was to locate narrative responses to the Thematic Apperception Test (TAT), a projective assessment that played an important role in the history of psychology, and then archive these narratives, transcribe them to a digital format, and make them available for interested researchers who wish to apply modern interpretive techniques. The research also explored using *Linguistic Inquiry and Word Count* (LIWC) software to interpret these narratives. Developed by Dr. Henry Murray in the 1930's, the TAT was used extensively by psychologists between the 1930s and the 1970s. Given that the TAT has been administered extensively for decades, many TAT narratives are in existence. Some of these have been previously published in books or on the internet, and others can be found in the papers and records of clinicians and researchers, some of which are included in larger collections, such as the History of Psychology Archives at the University of Akron or the Murray Research Archive Dataverse at Harvard. However, prior to our efforts, no comprehensive collection of TAT narratives from these multiple sources had ever been archived in a convenient repository for researchers, teachers, and students to access.

The Digital Seed Grant has enabled us to take on this important task by providing funding for LIWC software and for a research assistant to help locate, transcribe, and organize TAT narratives. Additionally, the MTSU Walker Library hosts the published archive in the institutional repository (JEWLScholar). At present, the archive contains 665 TAT narratives, collected from 303 subjects. Additional narratives have been collected, but not yet added to the archive. It is our hope to update the archive with these additional narratives in the summer of 2023.

Purpose and Audience: This grant enabled the creation of the TAT Archive, a resource beneficial to psychology researchers, teachers, and students. It is our hope that the archive will be used extensively, both in research and in the classroom. Two studies using the archived data are already planned by the research team. The first of these studies is an exploration of whether or not computerized linguistic analysis can yield useful interpretations of projective tests. In order to explore this question, the researchers will utilize the TAT narratives from the archive. Each narrative will be interpreted using Dr. Henry Murray's original guidelines and again with the aid of LIWC software. A comparison of the results of the two interpretive schemas should yield interesting insights. The second project involves comparing the narratives generated by males with those generated by females, in order to explore gendered differences in language use.

There are quite a few additional projects that could be taken on by future researchers using the archived data. One fruitful area might involve analyzing the narratives using any of the many extant TAT interpretive schemas. New schemas could be developed and tested using the collected narratives. Since the archive will contain both older narratives (dating back as far as pre-1947) and newly collected ones from 2022, an interesting analysis of how societal change over time has affected the responses could be undertaken.

It is our hope that the archive will be of use to both established and beginning researchers, and we can imagine it forming the basis of multiple doctoral dissertations, masters' theses, and undergraduate research projects. The archive can also be used at the classroom education level. Instructors introducing the TAT to students learning about projective assessment techniques will be able to do so using authentic TAT narratives. In a broader sense, students will be able to learn about research using archival data.


Project News:

The TAT Archive was published online on August 10, 2022. Visit: <https://jewlscholar.mtsu.edu/handle/mtsu/6767>. The archive describes the development and contents of the archived narratives through an Archive Overview and the Narrative Collection (dataset).

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Thematic Apperception Test Narrative Archive



Thematic
Apperception
Test
Archive

Files
Archive Overview_8-8-22.pdf (181.53 KB)
TAT Narrative Collection.xlsx (215.56 KB)
TAT Archive logo.png (2.37 KB)

Date
2022-08-10

Authors
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Parker, Heather
Brinhaupt, Thomas M.

Publisher
Digital Scholarship Initiatives, Middle Tennessee State University

Abstract
We describe the development and contents of an archive of narratives collected in response to the Thematic Apperception Test (TAT), to be shared with psychology researchers, teachers, and students. This archive holds demographic data of respondents as well as the complete text of the narratives themselves. Some of the included narratives are historical, archived from previously published sources and from the records of clinicians; others will be newly collected from introductory psychology students at Middle Tennessee State University. We discuss possible uses and the strengths and weaknesses of the archive. This document describes the creation of an open-data archive of narratives collected in response to the Thematic Apperception Test (TAT), and illustrates some of the archive's potential uses for researchers, teachers, and students. **KEYWORDS:** open science, archival data, Thematic Apperception Test, narratives

Description
Files included: 1) TAT Archive Overview and 2) TAT Narrative Collection (dataset)

Keywords
Research Subject Categories--SOCIAL SCIENCES--Social sciences--Psychology, Research Subject Categories--SOCIAL SCIENCES--Statistics, computer and systems science--Informatics, computer and systems science--Data processing

Citation
Brown, Cindi, Heather Parker and Thomas M. Brinhaupt. (2022). Thematic Apperception Test Narrative Archive Overview. Middle Tennessee State University. <https://jewlscholar.mtsu.edu/handle/mtsu/6767>

URI
<https://jewlscholar.mtsu.edu/handle/mtsu/6767>

Voices From the Amazon: *Translating Three Brazilian Films*

Primary Investigator (PI): Professor Paul Chilsen, MTSU Department of Media Arts

PI's Project Description: The Digital Seed Grant was used to fund translations of three films produced. These short films were shot in native languages of the Brazilian Amazon. Some of the projects are in an Indigenous language and others are in Portuguese. Because of the nature of the projects, the nature of the languages, and owing to the lack of travel because of the pandemic, I pursued new remote strategies to get the texts for these films translated into English, and in some cases, from English to Portuguese. I applied for a Digital Seed Grant to support the remote translation work, collaborating with colleagues in the Amazon and here in the U.S.

From process to product, these films are developed within an organic, evolving process of multifaceted international collaboration, maintaining cultural authenticity and contextual continuity through the stories being told. The translated films will make them more broadly available and accessible to a larger audience. Of course, there is also the interim critical step, where the translations are used to help edit the films correctly. The original intent was to work side-by-side on translations with individuals in Brazil, hashing out what was said by interviewees, etc. and then piecing together rough edits in the field, to be refined later. When Covid disallowed regular travel for some time, in that void, I started working on alternative pathways to complete these films, including working with individuals remotely to complete the translations. I requested financial support for the remote translation work, collaborating with colleagues in the Amazon and here in the United States. The methodology varies depending on each situation, but generally involves sending clips and transcripts back-and-forth to known individuals, who then provide translations over several exchanges. This is a laborious, time-consuming task and translations are still in process.

In summer 2022, we were able to take students on international travel again and I was able to return to Brazil. There, I was able to work directly with some of the people that I had started working with remotely (thanks to the Digital Seed Grant). This made summer 2022 a very productive time. The fact that I was able to work with people remotely, and then work with them face-to-face this last summer, helped move the work forward precipitously. There is still more work, but largely because of the Digital Seed Grant, the translations are in a much better and much more advanced place. The translations will make the films accessible to broader audiences, with subtitles and overdubs as appropriate, but they also ensure the films' veracity and accuracy.

Purpose and Audience: Once the films are completed, I plan to release them to as broad an audience as possible. I will enter them in international film festivals for the first year after their completion. After that, I will work with educational distributors and libraries to distribute and share the works to their furthest potential. All of these projects will also be used in academic settings, here at our university and in classrooms and conferences around the world.

This group of projects, and my work in the Brazilian Amazon in general, is a central component of my current research and creative work. Additionally, these films have been completed as an adjunct component to an MTSU International Signature Program in the Brazilian Amazon. The student component adds an important educational aspect to the creation of these films, offering students unprecedented access and experience to advanced, international coproduction. This is an important benefit to our department, college, and university, while offering one of the few truly interdisciplinary experiences for students at MTSU. The program and the projects also draw students from other universities and walks of life, bringing a good number of students to MTSU who would not otherwise be involved with our university.

The translated film texts will be available both here at MTSU and globally, thus encouraging broader understanding of Indigenous and Subaltern contexts and cultures in the Brazilian Amazon. At MTSU, the film texts could be used in the anthropology and archaeology programs, as well as in the Media Arts programs. As with our critical involvement in a recent Indigenous National Geographic grant, these kinds of projects have already raised the global awareness of our university. Once completed, I will pursue a number of distribution angles to give the films their best shot at reaching the broadest audience, including online resources, streaming services, and educational avenues. I also intend to present the films, along with the contexts and methods of their creation, through conferences, screenings, invited presentations and festivals. The hope is that the films can support and help expand a growing understanding of Amazonian cultures, history, and current affairs, thus broadening the world's understanding of the areas and people contained in the films. Additionally, the films provide ready context and content in the area of on-location, international co-production. They offer solid and insightful examples of how filmmakers can work together across borders, expanding not only their knowledge of creative work in this discipline, but also trending away from a more "outsider" approach to cultural exploration, and ushering in a more symbiotic cultural exchange through art and creative production.

Project News:

The PI took three College of Media and Entertainment students to Brazil over the summer to shoot a documentary film. The three films are tentatively scheduled for release over the next year 2022-2023, with staggered releases as they finish. Check back for updates at <https://dsi.mtsu.edu/dsgrant21-22projects>.



Tissue Culture of American Ginseng

Primary Investigator (PI): Ethan Swiggart, MTSU Department of Agriculture

PI's Project Description: The goal of this project was to increase the understanding of the *American ginseng* (*panax quinquefolius*) seed germination and emergence. Seeds from American ginseng have double dormancy, meaning they require two years (18 months) to begin the germination process. Seeds require two winters at very cold temperatures, known as cold stratification, and will germinate in the spring. They are quite small, around 6 cm and very difficult to see. The resulting output of the grant was the creation of a timelapse video, showing the emergence of American ginseng and illuminates another interesting fact about the elusive plant: American ginseng has hypogeous germination! This is a somewhat rare occurrence where the cotyledon (seed leaves) remains underground. The hypocotyl (stem) is quite short, and the cotyledons force the radicle

and epicotyl to elongate. This results in the plant producing true leaves capable of photosynthesis right from the time of emergence.

The Digital Seed Grant enabled the purchase and equipment loan of GoPros, tripods, microphone, and memory cards to create educational videos about the ginseng plant. Additionally, the MTSU Walker Library hosts the published video in the institutional repository (JEWLScholar).

Purpose and Audience: Because it takes 18 months just to start the germination process, this video will aid viewers in understanding the time and effort it takes to produce an American Ginseng plant. This adds to the understanding of why the cost of the root and root products is often quite expensive. Conserving American Ginseng remains an uphill battle, understanding how long these processes take will increase the public's understanding of the difficulty of the task.

Hypogeous germination is uncommon among plants. The video illustrates the process of hypogeous germination and may be used in the classroom as a teaching aid to visually show the emergence of true leaves directly from the soil. American ginseng belongs to the genus *Panax* which shares the same Greek origin as panacea, which means all healing or cure all. Humans have been using plants in this genus for thousands of years as a medicine, so there is also a wider audience that can benefit from this video production.

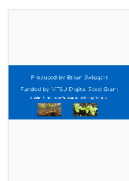
The video will later be uploaded to the [International Ginseng Institute's](#) webpage for our regional growers and enthusiasts to view. It will also be used in BIO 1110 and Plant and Soil Science classes as a unique visual aid at MTSU. It will be possible to use this video to also spark discussions on growth requirements (shady and cool) soil composition (well drained and high in calcium) as well as its cultural significance.

Project News:

The one-minute video showing the time-lapse for American ginseng seed germination and emergence is downloadable from at <https://jewlscholar.mtsu.edu/handle/mtsu/6770> (82 MB). Plays with time-lapse images, background music, and text annotation of growth description.

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American Ginseng Germination and Emergence



Files
ginsenggermination720p.mp4 (82.18 MB)
Ginseng logo.PNG (210.14 KB)

Date
2022-09-07

Authors
Ethan M Swiggart

Abstract

American ginseng (*panax quinquefolius*) seed germination and emergence. Seeds from American ginseng have double dormancy, meaning they require two years (18 months) to begin the germination process. Seeds require two winters at very cold temperatures, known as cold stratification, and will germinate in the spring. They are quite small, around 6 cm and very difficult to see. This timelapse video shows the emergence of American ginseng and illuminates another interesting fact about the elusive plant. American ginseng has hypogeous germination! This is a somewhat rare occurrence where the cotyledon (seed leaves) remains underground. The hypocotyl (stem) is quite short and the cotyledons force the radicle and epicotyl to elongate. This results in the plant producing true leaves capable of photosynthesis right from the time of emergence. KEYWORDS: American Ginseng, Ginseng, hypogeous, germination

Description

One minute video showing the time-lapse for American ginseng seed germination and emergence. 82 MB file size download. Plays with time-lapse images, background music, and text annotation of growth description.

Keywords

Research Subject Categories::FORESTRY, AGRICULTURAL SCIENCES and LANDSCAPE PLANNING

URI

<https://jewlscholar.mtsu.edu/handle/mtsu/6770>

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FUNDING AND SUPPORT

The Digital Seed Grant is made possible by generous funding and support from the Library Dean and the Digital Scholarship Initiatives team. For many, this is a starter grant, which can lead to national grant opportunities in the future and Walker Library wants to encourage and support such creativity activity.

As a competitive grant, evaluation of applications and assessment of digital lifecycles of selected projects takes time. The Digital Seed Grant is indebted to the time of the Review Committee, comprised of digital project experts from Walker Library and the Digital Partners (a rotating member from the Department of History, Center for Historic Preservation, Center for Popular Music, Albert Gore Research Center, and the University Archives). The Walker Library also thanks those that help promote the grant and encourage participation. Since 2017, the library has jumped-started campus research by funding 15 digital seed grant projects across various academic disciplines.

The 2022-2023 call for proposals closed, and those projects are running from July 1, 2022, to June 30, 2022. As those projects are completed, the following website will be updated: <https://dsi.mtsu.edu/dsgrant22-23>.

For more information on the Digital Seed Grant and access the application, visit <https://dsi.mtsu.edu/dsgrant>.