THINGS TO CONSIDER WHEN DESIGNING A CONFERENCE POSTER

Center for Student Research
Dr. Jenny O,
Director, CSR
CONFERENCES ARE A GREAT DEVELOPMENT AND NETWORKING OPPORTUNITY FOR UNDERGRAD AND GRAD STUDENTS!
RESEARCH POSTER SESSIONS

• At most professional meetings.
• Each poster summarizes someone’s research project.
• Each “presenter” stands in front of their poster.
• Goal: Get people to talk to you about your research.
WHAT TO EXPECT...

- Organizers will let you know what time you will present and the # for your poster (where it will be hung).
- You usually put your poster up in advance of your session (organizers will tell you exactly when, via email).
- Other presenters will be standing all around you. They’ll feel awkward, too, so chat them up to make you both more comfortable.
WHAT TO EXPECT…

• People will walk by, some stop and read/stare at your poster. They may ask you a question, or not!

• Try to look approachable, offer to answer any questions they may have, but let them read in peace.

• Questions may be related to any aspect of your project, and are usually related to something the question asker has a personal interest or expertise in.
WHEN YOU ARE VIEWING POSTERS AT A SESSION...

- Maximize your time and minimize feeling overwhelmed by checking out the poster “menu” (conference program) and picking posters you specifically want to see, in advance.
- Visit posters that have topics you’re interested in, but also posters from schools you are interested in as well as researcher/faculty you want to meet or learn more about.
- Ask a question or two at each of these posters! Can be about the research, the researcher, the school/program, or the faculty member!
DESIGNING YOUR POSTER
ON THE POSTER, LESS IS MORE.

• A poster “shows” your work; you are supposed to talk about your work.
• Use pics, simple tables & figures, images, etc. – “visual grammar” as much as possible.
• Minimize text as much as possible (without losing basic understanding of your work).
• The poster is supposed to be an aid to get what you are SAYING to people about your work across more clearly.
GENERALLY, ON YOUR POSTER…

• Provide context for your work. Explain the big picture and why the problem is important.

• Use plain language to present your work. Avoid excessive jargon and acronyms, as much as possible.

• Interpret your findings so that readers can understand how your work helps solve the problem you've described.
SPECIFICS ON POSTER FORMAT

• Use PowerPoint, set slide size to 48” x 36” tall.
• You must acknowledge the CSR Scholar’s Program and any other funding you get for your research at the bottom of your poster.
• Work with your faculty mentor to create your poster!
• If you already have a poster that you presented at another conference, it is OK to use that one for the CSUEB Student Research Symposium (no need to print another one).
SPECIFICS ON TEXT

• Align text left (do not center or justify).
• Totally fine to use bullet points rather than full sentences.
• Use a serif font (e.g., Times New Roman) for most text - easier to read when there is a lot of text.
• Sans-serif font (e.g., Helvetica) OK for titles and headings.
• Text should be at least 24+ point in text, 36+ for headings; large enough to read from 3-5 feet away.
• Main title should be at least 2-2.5” tall on your poster. Author line 1-1.5”.
POSTER FLOW
LET’S CRITIQUE SOME POSTERS!
Pigs in Space: Effect of Zero Gravity and Ad Libitum Feeding on Weight Gain in Cavia Porcellus

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ABSTRACT:
One ignored benefit of space travel is a potential elevation of obesity, a chronic problem for a growing majority in many parts of the world. In theory, when an individual is in a condition of zero gravity, weight is eliminated. Indeed, in space one could conceivably forgo ad libitum feeding and never gain an gram, and the only side effect would be the need to upgrade one's steady potty-exercise pants. But because many diet schemes start at very good theories only to be found to be rather harmful, we tested our predictions with a long-term experiment on a colony of Guinea pigs (Cavia porcellus) maintained on the International Space Station. Individuals were housed separately and given unlimited amounts of high-calorie food pellets. Fresh fruits and vegetables were not available in space so were not offered. Every 30 days, each Guinea pig was weighed. After 3 years we found that individuals, on average, gained weight. An additional finding was that those pigs who appeared to have gained weight actually had gained fat. Indeed, early astronauts and cosmonauts had to secure themselves to their ships with seat belts and sticky boots. The potential application to weight loss was noted immediately, but at the time travel to space was prohibitively expensive and thus the issue was not seriously pursued. Now, however, multiple companies are developing cheap extra-terrestrial travel options for normal consumers, and potential travelers are also creating new ways to pay for products and services that they cannot actually afford. Together, these factors open the possibility that moving to space could cure overweight syndrome quickly and permanently for a large number of humans.

INTRODUCTION:
The current obesity epidemic started in the early 1980s with the invention and proliferation of elastastics and related technology, which released wearers from the rigid constraints of clothes and permitted mobile weight gain without the need to buy new outfits. Indeed, exercise today for hundreds of million people involves only the act of wearing stretchy pants in public, presumably because the constriction of cloth forcesthe molecules to adopt a more compact conformation (Kazier, 1955).

Luckily, at the same time that fabrics became stretchy, the race to the moon between the United States and Russia yielded a useful fact: gravity is much lower on Earth than in space, so our bodies are not designed to have it. Indeed, early astronauts and cosmonauts had to secure themselves to their ships with seat belts and sticky boots. The potential application to weight loss was noted immediately, but at the time travel to space was prohibitively expensive and thus the issue was not seriously pursued. Now, however, multiple companies are developing cheap extra-terrestrial travel options for normal consumers, and potential travelers are also creating new ways to pay for products and services that they cannot actually afford. Together, these factors open the possibility that moving to space could cure overweight syndrome quickly and permanently for a large number of humans.

RESULTS:
Mean weight of pigs in space was 0.0000 < 0.0002 g. Some individuals weighed less than zero, some more, but these variations were due to reaction to the duct tape, we believe, which caused them to be aliened push briefly against the force plate in the balance.

A similar control cohort, gained about 240 g/month (p < 0.0002). Males and females gained a similar amount of weight on Earth (no main effect of sex), and size at the beginning of the study was related to starting size (which was used as a covariate in ANCOVA). Both Earth and space pigs developed substantial oedema (double chins) and were anorexic at the conclusion of the study.

CONCLUSIONS:
Our view that weight and weight gain would be zero in space was confirmed. Although we have not replicated this experiment on larger animals or primates, we are confident that our result would be mirrored in certain organisms. We are currently in the process of obtaining necessary human trial permissions, and should have our planned experiment initiated within 60 years, pending expedited review by local and Federal IRBs.

ACKNOWLEDGEMENTS:
I am grateful for generous support from the National Research Foundation, Black Hole Diet Plans, and the High Fructose Sugar Association. Transport flights were funded by SPACE-EXES, the consortium of agencies from the newly wealthy spaceflight startups. I am also grateful for comments on early drafts by Yaquina Athletic Club, Corpus Christi, USA. Finally, sincere thanks to the Cuy Foundation for generously donating animal care after the conclusion of the study.

LITERATURE CITED:
Parasite Spillback Effects on Native Communities in New Zealand Streams and Lakes

Landscape Research
Rachel Paterson, The University of Otago Department of Zoology
Bridging Disciplines Program Evolutionary and Ecological Parasitology Group
Environmental Studies
The University of Texas at Austin Marine Science Institute

What is parasite spillback?
Parasite spillback is a process that describes the feedback of native parasites from new host species to native hosts.
- First, native parasites infect introduced or invasive host species.
- With a new host, parasites flourish.
- Now, parasites return to native species with increased infection and disease rates.

Salmonids: Brown trout Salmo trutta (originating from Europe) and rainbow trout Oncorhynchus mykiss (North America) were first introduced to New Zealand waters in the late 19th century. Their effects on local and native stream communities as non-indigenous species include lesser-studied effects such as parasite spillback and dilution.


Could parasite spillback be a cause of native species loss and local level extinction?

Methods
- Analyze freshwater fish communities in lakes and streams
- Field surveys
- Host autopsies
- Infection trials
- Mathematical modeling

My Experience
I spent five months working on this project, conducting various lab and field tasks. In the laboratory, I counted the invertebrates from lake benthic sediment samples. I also conducted lipid analysis on galaxiids, brown trout, and bullies. In the field, I helped as we set nets and traps for fish. We also collected benthic sediment and zooplankton samples.

Discussion
Native species loss is a critical issue throughout the world in many different environments. This map from Conservation International shows biodiversity hotspots where over 75 percent of native species are already lost. The most biodiversity regions, including New Zealand, are also among the ones most at risk.

Competition and predation are the traditional impacts of invasive species on native species, but disease-driven impacts are becoming more widely recognized and researched. Whereas parasite spillback is already an accepted form of disease-driven impact, parasite spillback can potentially be more widely used as a tool for describing and understanding impacts of invasive species and native species loss.

A parallel study with similar methods is currently being conducted by the same team of researchers in Argentina. Other areas of the world where parasite spillback has been researched include a study of competing native and invasive grasshopper populations in California. (Settle and Wilson 1990) With more awareness of this issue, more research and studies will hopefully begin and consider parasite spillback as a potential cause for native species loss, potentially helping to reverse the trends in global hotspots.


Acknowledgments
Professor [Name], The University of Otago Department of Zoology
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International Overtures: American Symphonic Diplomacy in the 21st Century

- The University of Texas at Austin

RESEARCH QUESTION
Why do the U.S. government and private organizations continue to use orchestras as ambassadors in the 21st century?

BACKGROUND
- Symphonic diplomacy: the use of orchestras as national ambassadors, dating back to the Cold War
- Goals of American cultural diplomacy:
  - Inform foreigners about American culture and values
  - Build lasting relationships between Americans and foreigners
  - Post-9/11 priorities: reaching youths, the Arab world
  - Current precarious state of American orchestras:
    - Financial troubles due to aging, declining audiences
    - Audience-orienting traditions of concerts cannot compete with other forms of entertainment

METHODOLOGY
- Case studies chosen based on timing, government involvement, and perceived level of success
- Analysis of pre-concert and post-concert official announcements, news reports, and editorials focused on tone, dictum, content, and context
- Combination of historical and musical analysis of the works performed and the historical, social, and political context of the performers, venue, and date
- Particular focus on the organizers’ intentions and how the concert was received

CASE STUDIES
- The Iraqi National Symphony Orchestra at the Kennedy Center, December 2003
- The New York Philharmonic in Pyongyang, North Korea, February 2008
- The Simón Bolívar Youth Orchestra of Venezuela at the Kennedy Center, April 2009

CONCLUSIONS
- Although its actual effectiveness is almost impossible to measure, symphonic diplomacy is perceived to fulfill both goals of American cultural diplomacy:
  - By bringing people together to appreciate common cultural heritage
  - By showcasing national culture in a supposedly international language
- Both perception and reality depend on:
  - Level of government involvement
  - Musical program
  - Audience and orchestra demographics
  - Extent and tone of press coverage
  - Deviations from the traditional concert ritual
  - Outreach activities and follow-up exchanges
  - Timing (contemporaneous events)
- The more political a concert appears to be, the less effective it will be politically
- This is a way for a national government to declare its country civilized, educated, and enlightened

SIGNIFICANCE
- Post-9/11 reports called for renewed public diplomacy efforts (including cultural diplomacy)
- Other countries currently using symphonic diplomacy include Iran, Syria, Iraq, China, Russia, India, and Israel
- There is little to no scholarly work on symphonic diplomacy, particularly on 21st-century examples
- The search is still on for a more commercially viable central model

REFERENCES

ACKNOWLEDGEMENTS: Thank you to my supervisors, [Musicology], and to my second reader, [Economics] for their advice and encouragement.

QUESTIONS AND COMMENTS
UT Liberal Arts Honors Day Reception and Dean's Reception, April 2014
Bridging the Gap: Improving Access to Local Food in Austin Elementary Schools

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Acknowledgments: Office of Undergraduate Research Studies

Research Questions:
What are the current barriers and affordances to local food access in Austin area elementary schools? What points in the phases of production and distribution of local food from farm to cafeteria could be altered to allow local farmers to supply products to school lunch programs?

Purpose:
To identify the barriers and affordances for incorporating local foods into school lunch programs and propose a plan for a future program model.

Background:
With over 20% of Texas’s children suffering from obesity, we are in crisis mode to find a way to become healthier and ensure positive outcomes for future generations (CDC, 2016). For many children, school lunches are their most nutritious meal—sometimes the only meal of the day (Larson, 2006). The presence of the benefits to local food, why do schools continue to serve food items to vendors instead of purchasing from farmers in their communities? Local food is less processed and usually grown using fewer pesticides, it is fresher because it has spent less time traveling (540 miles, 2006), it supports the local economy, it travels a shorter distance, reduces waste, is eco-friendly, and is more environmentally friendly; it is less susceptible to biosecurity (Associated Press, 2008), and it helps to ensure positive futures for similar farms.

Affordances
For Choosing Local Food:
- School Food Service staff training
- Supportive legislation and public policy
- Teachers and school staff support
- Community and parent interest
- Wide availability of local farms and gardens
- Partnership with local NGOs

Barriers
To Getting Local Food In Schools:
- Cost
- Knowledge and Equipment
- Awareness and Information
- Legal Issues
- Leadership and support
- Student Preferences
- Provided commodities by the USDA
- Logistics
- Produce growing season
- Incentives, revenue from FMNs

Proposed Methods:
- Non-Governmental Organizations
- Local Farmers
- School District Staff
- Educators
- Public Policy

Vegetables, Fruits & Herbs
- Johnson’s Landscape
- Winds of the Farm
garden
- Our Produce Farm
- Pickensville Market Farm
- Southside Farmers Market

Eggs
- Green Gate Farms
- Urban Patchwork Farm
- New Leaf Farm
- Willow Farm
- Onion Creek Farm

Meat & Dairy
- Austin Farms
- Buzzard Bay Farm
- Central Texas Farm
- Hill Country Farm
- Southside Farmers Market

Obstacles Between Farms & Schools

Emerging Results:
My emerging research suggests the complexity and difficulty of the school food system in the Austin area and around the United States. The most prevalent barriers that occur across one or more different areas in the cycle of food from farm to school are related to money and larger support—politics, farmers, educators, school district offices. While these barriers to proper access to local food in schools, the afforances may be able to serve as an aid to “bridge the gap” and make this an option in our schools.
Experiencing Representative Design in an Image Speed Intervention

Frank O. Ely, Oddessa A. Tapia, Jennifer Huffman, & Jenny O; Cal State East Bay

INTRODUCTION

What good is an innovation research if real-world applications of its methodology are too impractical to translate to the real world environment? Applied researchers need to be deliberate in their focus on bringing the gap between research and practice in order to increase the likelihood of adoption of evidence-based practice in sport (Breuer, 2010; Gould, 2016; Funder et al., 2014). In line with this notion, Breuer (2010) emphasized the importance of representative design (RD) in applied research: constructing experimental designs which accurately represent, both the phenomenon under scrutiny and the real world in which the phenomenon is intended to be applied.

Recent imagery intervention work by O'Connell and colleagues (O'Connell, O'Lively, & Magill, 2016; O’Lively, O’Connell, & Magill, 2018) has attempted to examine changes in baseball batting technique following interventions constructed with consideration of RD. Results of those relatively few RD imagery intervention have demonstrated positive changes in batting technique, following intervention as well as during retention testing. The work in O’Lively and colleagues is promising, however, when considered in the context of reducing the research to practice gap, further examination through a more thorough approach to intervention methods can be streamlined to include RD but maintain reasonable degrees of intervention control and intervention efficacy are needed.

The present study examined changes in baseball batting technique following a relatively high RD imagery intervention that included multiple imagery speeds (i.e., striking real-world practice structure was transplanted as little as possible). Consistent with previous RD flexed imagery intervention research, a single-subject multiple baseline intervention design was used. No prior hypothesis were offered given the novelty of many of the methodology.

METHODOLOGY (cont’d)

Participants: Fifteen collegiate softball players (14 = 18-14, 16 = 10-16) participating in pre-season training.

Test: Vertical batting, performed in a batting cage at the team’s home field. The team’s standard batting practice methods were adhered to. Batters hit real softball pitches from approximately 6 feet away, thrown by either a coach or a teammate. All batters were recorded and scored by the same researcher.

Measures: The Movement Imagery Questionnaire-Revised (MI-Q; Hall & Martin, 1997) was used to assess imagery ability prior to intervention. Imagery trial lines were recorded using a stopwatch to ensure adherence to assigned image speeds. All batters were recorded using a GoPro® camera mounted on a tripod spaced approximately 6 feet from the batter (back the fence). Batting technique was evaluated using standardized and validated analysis formatted in consultation with the lead softball coach.

RESULTS

All batters met or exceeded minimum imagery ability guidelines (e.g., O’Connell-Chandler, Hall, & Hall, 2014) and all participants imaged at their assigned image speeds.

DISCUSSION

The results showed participants demonstrated minimal changes in vertical batting technique following the relatively high RD imagery intervention. This is contrary to recent findings of C and colleagues (C. Ely, & Magill, 2010; C. Ely, & Hall, in preparation) who observed positive changes in baseball batting technique following a relatively low RD imagery intervention. This may suggest that relatively low RD imagery intervention designs sacrifice too much experimental control (e.g., Becker, 2001; Schmidgall, 2011). If so, having relatively low RD imagery intervention designs may be less efficacious and experimental control is important for applied researchers hoping to design intervention methodology intended for real-world applications.

In addition, it is possible that increases in RD rate (i.e., rate of dose is important to the control of overgeneralization) is too much of an intervention target. For example, to design an effective coaching/therapy methodology intervention, it is not necessary to have every participant at a rate of imagery production. Given the goal of reducing the research to practice gap, applied imagery researchers need to be mindful of skillfully designing imagery RD, experimental control, and evidence-based design elements to future imagery intervention research.

REFERENCES


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SPECIFICS ON POSTER SECTION CONTENT
SECTIONS WITHIN THE POSTER

1. Title & By-line
2. Introduction
3. Methods
4. Results
5. Discussion/Summary
6. References
7. Acknowledgements
Examining Representative Design in an Image Speed Intervention

Frank O. Ely, Oddessy A. Tapia, Jennifer Huffman, & Jenny O; Cal State East Bay

INTRODUCTION

The goal is to examine intervention if real world application of its methodology is not currently possible to recreate in the real life environment. Applied researchers need to elaborate the focus on bridging the gap between research and practice in order to increase the likelihood of adoption evidence-based practices in sport (Blevins, 2010, Crall, 2010; Freuder et al., 2011) in line with this notion, Brunsen (2000) emphasized the importance of representative design (RD) in applied research; constructing experimental designs which accurately represent, both, the phenomenon under study and the real world in which the phenomenon is intended to be applied.

Recent imagery intervention work by Crall and colleagues (O. Ely & Magola, 2016, Ely, O. & Hall, in preparation) has attempted to examine changes in baseball batting technique following interventions constructed with consideration of RD. Results of these relatively low-RI imagery intervention have demonstrated positive changes in batting technique, following intervention as well as during retention testing. These findings were consistent in previous work, which has been the focus of our research and intervention. In this study, our intent was to determine if combining imagery with verbal and visual feedback during practice would result in improved batting performance. We hypothesized that participants would demonstrate improved batting performance following the intervention based on our findings from previous work.

The present study examined changes in softball batting technique following a relatively high RD imagery intervention involving multiple image speeds (i.e., clinical and real world practice structure was represented as little as possible). Consistent with previous studies, high realism imagery intervention, a single subject multiple baseline intervention design was used. No prior hypothesis was advanced given the novelty of many elements of the methodology.

METHODOLOGY

Participants: Fifteen collegiate softball players (Mage = 18.14, SD = 1.07) participating in pre-season training.

Task: Softball batting, performed in a batting cage at the team’s home field. The team’s standard batting practice methods were adapted: hitters hit real softball pitched from approximately 8 feet away, thrown by either a coach or a teammate. All swings were video-recorded and scored by the lead researcher.

Measures: The Movement Imagery Questionnaire-Revised (M-OIQ; Hall & Martin, 1997) was used to assess imagery ability prior to intervention. Image trial times were recorded using a stopwatch to ensure adherence to assigned image speeds. All scores were recorded using a follow-up 3-item questionnaire, which was administered to the participants on a report card approximately 7 feet from the fence (back the fence). Batting technique was evaluated using a standardized and scoring framework created in consultation with the lead softball coach.

RESULTS

All subjects met or exceeded minimum imagery ability guidelines (e.g., O. Murray-Chandler, Hall, & Hall, 2014) and all participants imaged at their assigned image speeds.

DISCUSSION

The results showed participants demonstrated minimal changes in softball batting technique following the relatively high RD imagery intervention. This is contrary to recent findings of O and colleagues (O. Ely & Magola, 2016; Ely, O. & Hall, in preparation) who observed positive changes in baseball batting techniques following relatively low RI imagery interventions. The results suggest the relatively high RD imagery intervention design is not much more experimental (e.g., Brunsen, 2000). Our study data suggests that the crossover relationship between RD and experimental control is important for applied researchers hoping to design intervention methodology intended for real world applications.

In addition, it is possible that increases in RI might have also resulted in decreases in evidence-based design elements in the current experiment. For example, it isdesigned with a more coachable/less methodology in the current study. Even while evidence-based imagery intervention elements, such as higher frequency of imagery practice, were not included.

This may have negatively affected the efficacy of the Imagery intervention. Future RD research should pay close attention to the cost of inclusion of any given RI element, relative to potential advantages of evidence-based design.

The current experiment constitutes in the knowledge base regarding the DI and/or imagery intervention is in sport. Given the different findings of the preliminary RD investigations, it is clear that some degree of RD is trainable (O. Ely & Magola, 2016; Ely, O. & Hall, in preparation). However, “more” is not necessarily “more.” There appears to be some upper threshold for the amount of RD that can be incorporated into an intervention design. Given the goal of modeling research to practice gap, applied imagery researchers need to be mindful of deliberately incorporating imaging RD, experimental control, and evidence-based design elements into future imagery intervention research.

REFERENCES


