Katie Butterfield

Good Afternoon,

Here is my response for Assignment 2:

I am interested in doing a meta-analysis using previous research on race, class, and food deserts (areas with limited access to healthy food like fruits and vegetables). My research question is: are there more food deserts in racially diverse and/or lower-class communities? I'm also interested in outcome variations based on the method of measuring food deserts. As Renee and colleagues' (2010) review article indicates, there are several existing studies focused on the effects of race and class on food desert locations. This analysis fits into my larger interest in food-related health inequalities, as food deserts are often associated with poor diet and negative health effects like malnutrition, diabetes, and high blood pressure.

References:

Thanks very much!

Comments: race and class, measures of food desert, location, type of journal (e.g., soc vs ph), authorship (department), race or ethnicity of authors, population density or area, access to bus lines, measures of health impacts, density of fast food restaurants, education, ses, immigration status, alternative sources (e.g., Meals on Wheels, community gardens), definition of food desert.

Search terms: food desert, food access, food insecurity, fast food, healthy food, food inequality, sustenance, availability, disparity, nutrition, affordability.

Raymond Feilner

The Effects of Visual-Spatial Mental Imagery on the Mathematical Performance

During Piaget's Concrete Operational Stage

How do different types of visual-spatial mental imagery affect mathematical performance amongst developmentally normal children in Piaget's concrete operational stage in terms of fact retention, problem solving abilities, skill transfer, and evaluation/justification tasks as measured by accuracy and speed in studies implementing within-subject designs?
Sample: Studies implementing within-subject design that analyze the mathematical performance of developmentally normal children of ages 7-11 years old

Interventions: Types of visual-spatial mental imagery; No visual-spatial mental imagery (control condition)

Comparisons: Grade level, mathematical proficiency, problem difficulty, level of assessment

Outcome Variables: Accuracy and speed in assessments of fact retention, problem solving abilities, skill transfer, and evaluation/justification tasks

Importance:

Appropriate early pedagogical intervention in mathematical education have profound impacts on one’s academic performance and professional life. Merely comparing the effectiveness of pedagogical interventions does not provide an explanation to why these interventions are more effective. Research in the cognitive sciences suggests that numerical cognition is spatially grounded and that mathematical cognition is based on metaphorical extensions of these fundamental spatial cognitions (Lackoff & Núñez, 2000). In turn, the current study aims to determine the effectiveness of various types of visual-spatial mental imagery on mathematical performance measures. In doing so, the current study hopes to provide a theoretical foundation from which to subsequently direct the assessment of different pedagogical interventions.

References


Johnny Felt

Greetings Jack,

I had a meeting with Sarah and Jitske and we decided that it would be best for me to not attempt a meta-analysis (small or large) while auditing the class. I will still be able to assist in other group assignments though (e.g., coding).

Many thanks,

John M. Felt, M.A.
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Psychoneuorendocrinology Lab
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Morgan Fleming

My question is simple: does training with information technology alone produce comparable outcomes to training in the presence of a teacher?

Currently there exist a number of meta-analyses that look at the impact of virtual training environments and traditional learning environments.


Ultimately the most interesting aspect will be to compare the types of virtual environments and their success based on the attributes of the students involved in the study.

This is particularly interesting to me as I have felt very lucky to have experienced fantastic instruction from a number of teachers, but have found that my experience is somewhat unique. Many of my contemporaries complain about the sheer number of teachers that did not appear to care about providing any sort of education to their students. Being able to “digitize” the educational process creates the opportunity to deliver consistent virtual “teacher” performance to a larger number of students than could have possibly been handled by a single successful human teacher. Basically, I would like to see if this is potentially a way to bring a higher-standard of education to more people.

Kyle Hamilton

Attachment Style and Depression.

I’m interested in doing a meta-analysis on attachment style and depression. Part of the reason this topic interests me is because I’ve been using attachment as a mediating variable and depression as an outcome variable for my PCT. Attachment can be thought of along two distinct dimensions; anxious and avoidant. Doing an electronic database search I found that there is quite a bit of published work on this topic.

1. PsycINFO
   a. Attachment and depression
      i. 3,765
2. Web of Science
   a. Attachment and depression
      i. 3,664
3. Google Scholar
   a. "Attachment" AND "depression"
      i. 1,070,000

Eunis Hernandez

The meta-analysis I am considering for this class would be on whether modern housing is associated with a lower risk of malaria than traditional housing. A search was done through PubMed that yielded 459 results. I am very interested in mosquito-borne diseases. Malaria, dengue, and yellow fever, together are responsible for several million deaths and hundreds of millions of cases every year. It is important to minimize our risk of infection.
Michelle Turitz

Topic: This Meta-analysis looks at reading ability in individuals with developmental dyslexia with a moderator for level of education and type of assessment.

Including level of education as moderator is important since reading ability is a developmental process and some differences may be due to delays in acquisition of skills rather than overall ability.

I am still trying to tease out what I mean by including assessment type as moderator, but different tasks can target different skills (decoding, comprehension, speed) and lead to different conclusions making the distinction between type of assessment important.

Background: Dyslexia is a developmental disorder where an individual’s reading ability is impaired. According to the DSM-V (2013), dyslexia is one of the most diagnosed specific learning disorders negatively impacting the acquisition and use of academic skills. Previous research on dyslexia has identified phonological processing as the core deficit (Bishop & Snowling, 2004). Research looking at adults with dyslexia has suggested that phonological processing deficits persist, but that individuals can develop strategies to compensate for reading difficulties (Cavali et al., 2016; Shaywitz et al., 2003).

Interests: My academic interests are mainly focused on methodology and statistical analysis. My interests in this particular topic stem from my personal interests growing up with a brother diagnosed with dyslexia.

Inclusion/exclusion criteria: Diagnosis in early childhood. Dyslexia is considered a developmental disorder. In my preliminary research into this topic I came across some studies looking at college students where group classification was based on a current testing. A concern I have with including these studies is the possible inclusion of students with acquired dyslexia.

Marcus Vadnais

Research Question (draft):
Does the relationship between religiosity and attitudes toward LGBT persons vary based on either (1) conceptualization/measurement of religiosity, or (2) the nature of the alignment of a person within the wider LGBT community (L vs G vs B vs T).

Interest:
Stems from past research on religiosity and LGBT-stigma.

Possible resource/evidence of studies:
David Veloz

I am contemplating a meta-analysis on environmental justice issues created by air pollution. I am interested in understanding the public’s perception of air quality and health impacts caused by air pollution. I have an interest in this topic since I grew up in the San Joaquin Valley and always been surrounded by individuals who did not understand the burden that bad air quality brings to our surrounding communities. Working outdoors in agriculture and landscaping growing up opened my mind to the risk that farm workers and those who work outdoors have from being exposed to pollution. Living near a highway or cannery or even working in construction may increase your risk of exposure to particulate matter that can affect your respiratory health. Another reason why I am interested in air quality and its impacts on human health is the fact that I gained experience working for the Forest Service as an air quality technician. I worked on monitoring air quality as well as maintaining air quality equipment and also conducted research on impacts of wildfires. I realized the risk that individuals who live nearby wildfires face being exposed to the smoke and particulate matter in the air however I recognized that there also exists a need to understand public perceptions on air quality and environmental justice issues created by air quality. I want to know if the public has a clear understanding/perception of poor air quality and the impacts it has on human health?

The following are links of preliminary evidence on this topic.


http://www.mdpi.com/1660-4601/8/6/1755/htm

Eric Zhang

Question: Is greater milk consumption associated with higher risk of bone fracture?

According to the TV commercial, dairy is one of the main sources of our calcium intake. And the calcium level determines the bone density. Bone fracture is one of the indicators of the bone health. Therefore, there should be a negative association between milk consumption between bone fractures. However, previous study showed that there was no such association in women. And for men, more data
are needed (Bischoff-Ferrari, et al. 2011). The meta-analysis I will conduct is an update of previous study. Firstly, previous study only included the studies up to June 2011. I will include the studies up to 2015. Secondly, more recent studies will be added to the meta-analysis in order to find the association between milk intake and bone fracture in men. Some studies that I found so far are: Holloway and her colleagues (2015) found that for men, humerus fracture was highly correlated with milk consumption. Moreover, consistent with previous meta-analysis study, high milk intake was associated with higher fracture incidence in women (Michaësson et al. 2014).

