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 colleges' (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


Comments:

Don’t limit to repeated measures a priori without making sure this doesn’t exclude most of the literature. Either focus on one study type, or include multiple types but think carefully about how to code the methodological factor as a potential moderator. Pop characteristics: age, location, time, PPE, parent income, language, gender, race/ethnicity. Study
characteristics: level of evidence or measurement, interventions (concrete, pictorial, pattern, memory, kinesthetic, dynamic)
Johny 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.
Doctoral Candidate
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.

Comments: Study characteristics: nature of comparison, environment (ed or not), pub type, type of virtual environment, private vs public, funding source, outcome type, study design. Pop characteristics: the usual suspects, location, access to education, charter school status, familiarity with gaming, disabilities, control mechanisms.

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

Comments: Study characteristics: measure, field in which published, (almost all correlational), pub type, characterization of attachment, time of study. Population characteristics: cultural (location, ethnicity), age (always college students), gender, SES, design type, clinical pop?, therapy?, relationship/social status, year in school, time of year, climate?

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.

Comments: study characteristics: location, funding source, epidemiological data?, cohort studies, study design, “evidence pyramid”, study duration / season, comorbidity / masking. Population: location, SES, access to care, age, is population prone to other disease, education (esp. re malaria), water access, prevalence of malaria in area.

Butovens Mede

For this class I would like to investigate the factors related to singing accuracy.

My question would be “What are the factors that influence pitch accuracy in singers and non-singers?”
References:

**Pitch-Matching Accuracy in Trained Singers and Untrained Individuals: The Impact of Musical Interference and Noise**
by Julie M Estis; Ashli Dean-Claytor; Robert E Moore; Thomas L Rowell

**Children's Pitch Matching, Vocal Range, and Developmentally Appropriate Practice**
by Jinyoung Kim

**Neurological and developmental approaches to poor pitch perception and production**
by Psyche Loui; Steven M Demorest; Peter Q Pfordresher; Janani Iyer; et al

**Children's Matching of Melodies and Their Visual Representations**
by Nisbet, Robert Stevenson; n/a

This topic interests me because in addition to touch on some of my interests in music, it is directly linked to one of my research
experiments in which I investigate the role of the cerebellum in pitch matching.


Michelle Turitz Mitchell

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.

Comments: (study): how is reading ability defined? (possible MV analysis), task type (semantic, phonological), measures, look within Woodcock-Johnson structure (cog vs skills), [question: which measures capture trends best], usual suspects. (population): covered under ADA or rehab act,
special ed./gifted, comorbidity, “twice exceptional”, interventions in addition to study, age of onset of formal ed in reading, usual suspects (esp. gender), musical experience (play an instrument?), visual acuity, other extracurricular exposure (self expression), multi-lingual / language specific?, nature of language (combination of morphemes), character system. Reading level, age. Age of / time since diagnosis. Type of 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:

Comments: Perhaps narrow and update previous MA (definitions of religiosity partially obsolete). Study characteristics: operationalization of religiosity and of sexual orientation, community, acceptance vs openness of community, sexual orientation of authors, gender/culture interaction of authors, local govt policy on homosexual
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

Comments: Study characteristics: academic discipline, operational definition of pollution, how is activity
operationalized, sector (private, govt), funding source, usual suspects, involvement of nonprofits, operationalization in terms of approach vs avoidance. Population characteristics: age, environment, occupation, location, urban/rural, fatalism, change over time, education / ses, related diseases, govt environmental policy.

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 (Michaeksson et al. 2014).


Comments: update existing MA. Kyle suggests adding Chinese literature. Look at other factors associated with calcium absorption. Study characteristics: funding source, publication date, fracture type, milk type, field of study. Population
characteristics: activity level, age, occupations, gender, ses, number of kids, vices, racial makeup of sample, price of milk based on location, percent lactose intolerant, comorbidities.