

REPRESENT CSD:

REsearch Participants' Race, Ethnicity, and Sex/gender Equity & iNclusivity Throughout Communication Sciences & Disorders

CODING MANUAL V. 2.5

Hello! And welcome to the coding manual for this project, which aims to characterize the diversity and degree of representation in communication sciences and disorders research, and to evaluate the reporting practices thereof in ASHA journals for the past several years. This manual will help clarify the process of identifying eligible studies and extracting the relevant information with a limited number of subjective decisions on the part of individual coders.

For each study, we recommend starting by reading the title and abstract in full to get oriented to the study. You do not otherwise need to read the article in full (please don't!), so long as you are thorough and rigorous in searching for the relevant information. Be sure to examine participant demographic tables and appended survey materials/questions for additional information. In addition, you may wish to search for key terms using the [ctrl + F] or [Cmd + F] function.

Some articles may refer to other texts for expanded information about participants or studies—in all cases, ONLY extract info based on what is provided within the primary research article that you have been assigned to code. You should NOT consider other publications when coding, even if the authors cite or direct the reader to related work. This decision has been made for the purpose of increasing coder reliability on the project.

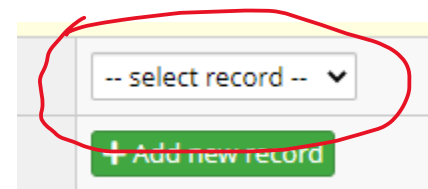
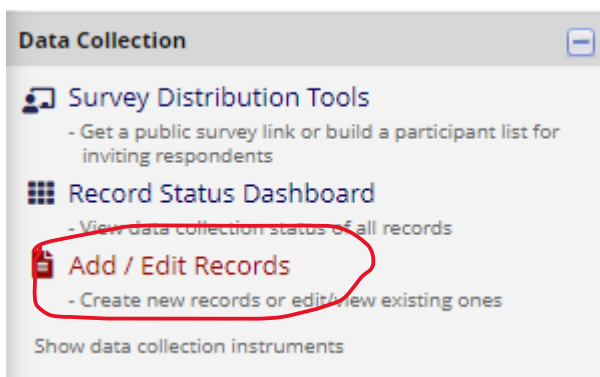
If any questions or issues come up at any point in this process, please email ryan.a.millager@vanderbilt.edu and make a note in the MASTER STUDY SPREADSHEET if appropriate.

PRELIMINARY STEP: select a study

First, find a study assigned to you by going to the CODING ASSIGNMENTS SPREADSHEET. Use either your ASHA or Vanderbilt Library login to search for the article and download it in PDF format.

In a separate tab or browser, log onto our REDCap project page and select:

“Add / Edit Records” → “-- select record --”



→ Select the record ID that corresponds with your article from the MASTER STUDY SPREADSHEET

CODING IN REDCAP: notes and clarifications for each item

Note: Article ID is fixed and cannot be changed.

Upload the article file (in PDF format) when prompted at the top of the REDCap survey before moving on to the following questions (secondary/reliability coders do not upload article PDFs). To keep naming of files consistent, use the APA in-text (short) citation format with no punctuation. Examples include:

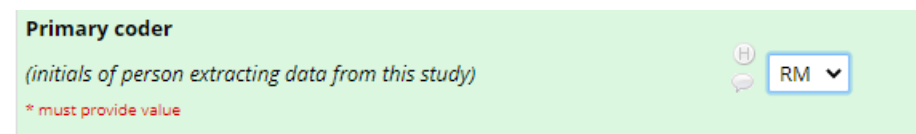
stark et al 2016.pdf

romanoff and barton 2012.pdf

banner 2020.pdf

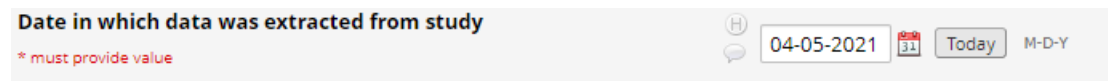
Article Info and Inclusion Criteria

Ideally, most of this section can be determined quickly from the abstract and first page of any given article. Note: if the study violates any of the following inclusion criteria, once you have confirmed your selection **go ahead and scroll to the bottom of the page to change “Form Status” to “Complete” and move on to the next study.**



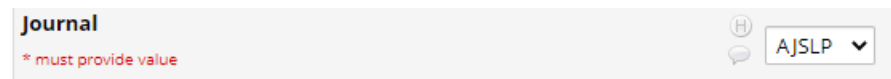
Primary coder
(initials of person extracting data from this study)
* must provide value

This is you! Select your initials from the drop-down menu. If your initials are not an option, contact ryan.a.millager@vanderbilt.edu.



Date in which data was extracted from study
* must provide value

Select “Today” to autofill today’s date. If you work on coding one article across more than one day, this field should represent the first day of extraction.



Journal
* must provide value

Select the journal from the drop-down list:

AJA = *American Journal of Audiology*

AJSLP = *American Journal of Speech-Language Pathology*

JSLHR = *Journal of Speech, Language, and Hearing Research*

LSHSS = *Language, Speech, and Hearing Services in Schools*

Perspectives = *Perspectives of the ASHA Special Interest Groups*

If your article is not from one of these four journals, select “other” and stop coding after inputting the full article citation in the pop-up field, as this violates an inclusion criterion. Please also let a team member know so we can ascertain why this article is erroneously in the review corpus.

Author(s)
(provide in APA 7 format as in reference section)

Confirm (or add if not already completed) author information with APA 7 formatting, as it would appear in a reference section. Examples include:

Stark, T.

Stark, T., & Rogers, S.

Stark, T., Rogers, T., Banner, B., Odinson, T., Romanoff, N., & Barton, C.

Article Title

Confirm (or add if not already completed) full title information with APA 7 formatting.

Year in which study was published and paginated
** must provide value*

Select year of publication. This should be derived from the final published and paginated version of the study. If the article is not published in 2020, 2018, 2016, 2014, or 2012, select “other” and stop coding after inputting the full article citation in the pop-up field, as this violates an inclusion criterion. Please also let a team member know so we can figure out why this article is erroneously in the review corpus.

Confirmed primary empirical research?
** must provide value*

Yes
 No

To be included in our study, the article must document original empirical research with human participants. This includes case studies and other examples of weak scientific evidence (including some clinical focus articles) that nevertheless contribute to scientific literature. Click “no” and cease further coding if the article is a meta-analysis, review, opinion, commentary, or other non-research publication. If there is a situation in which an opinion or tutorial article provides information about human participants as case studies or other new data, select “yes.”

Confirmed at least one human participant?
** must provide value*

Yes
 No

Click “no” and cease further coding if the article documents research exclusively on animals or otherwise does not involve human participants. Click “yes” if the research involves human participants (including research that involves human participants interacting with animals in some way, for example, humans communicating with animals

or a study related to pet therapy) or synthetic derivative, derived from human participants or otherwise based on human participant data (e.g., de-identified IEPs, medical records, genetic data, or test/diagnostic results).

Confirm study can reasonably be assumed to involve only US-based participants?

Yes
 No

* must provide value

The construction of race and ethnicity is different from country to country, so we are only including studies with participants recruited in the United States (US) and US territories. Click “no” and cease further coding if studies explicitly state inclusion of participants from other countries. If some participants are based in the US and others are international, this also violates inclusion criteria (so click “no”).

If a study does not specify but participants can reasonably be inferred to be from the US based on location of primary research institution or other study details, click “yes.”

If the study involves data from online surveys without specification of location and can reasonably be inferred to be exclusive to United States participants, click “yes.” If there is not sufficient detail to make an educated guess or there is evidence that the online study may involve non-US participants, click “no.”

Select “no” in all cases where there are no human participants (as noted in previous items).

THIS STUDY DOES NOT MEET INCLUSION CRITERIA.

IF YOU ARE SURE THIS IS CORRECT, STOP YOUR DATA EXTRACTION HERE.

SKIP DOWN TO THE BOTTOM OF THIS SURVEY, SELECT "COMPLETE," AND FEEL FREE TO MOVE ON TO ANOTHER STUDY.

THANK YOU.

After completing the above items, you should only get this warning if anything does not meet inclusion criteria. As mentioned above, if the study does not meet inclusion criteria, you can double check your selections thus far, make additional notes, and then skip to mark the study as “complete” at the bottom of the REDCap survey, leaving all other entries blank.

Background and Study Design

Information for the following items is most likely to be found in the abstract and method sections but may require some additional investigation.

What are the primary areas of research?
(select the option that most applies to the study)

- articulation/speech-sound disorders
- developmental language & learning
- neurogenic communication disorders
- voice and resonance disorders
- fluency and fluency disorders
- swallowing/feeding disorders
- augmentative and alternative communication issues
- audiologic/vestibular prevention and screening
- audiologic/vestibular evaluation and assessment
- AuD treatment (includes rehabilitation, counseling, and technology)
- general audiology and hearing science
- general speech science
- clinical training/education
- professional issues
- other

reset

This item is meant to characterize the article's research area within the field of communication sciences and disorders. Attempt to find the best fit (i.e., select one option) among areas listed here; if there is not a good fit here, or if two or more areas seem equally valid, click "other" and provide some detail in the pop-up item. Let [Ryan Millager](#) know if you choose the "other" category so we can keep track of the utility of our categories.

Clarifying each item:

Articulation/speech-sound disorders: includes developmental speech skills and childhood apraxia of speech.

Developmental language and learning: includes development and disorders of childhood language and reading, including development of prelinguistic skills (e.g., gestures and vocalizations), social/pragmatic language skills, and signed or spoken language.

Neurogenic communication disorders: includes most acquired speech-language disorders such as aphasia, dysarthria, and deficits associated with traumatic brain injury.

Voice and resonance disorders: includes studies of vocal function and disorder, as well as communication associated with craniofacial anomalies.

Fluency and fluency disorders: includes stuttering and cluttering.

Swallowing/feeding disorders: includes both pediatric and adult dysphagia and/or feeding challenges, as well as dysphagia assessment techniques.

Augmentative and alternative communication issues: often abbreviated as AAC, this can include both high- and low-tech tools for children and/or adults.

Audiologic/vestibular prevention and screening: includes prophylactic studies; note that this category is not meant to capture studies of normal hearing and acoustics, which should be included in "general audiology and hearing science" below.

Audiologic/vestibular evaluation and assessment: includes assessment tools and technology for all populations.

AuD treatment: broad category for audiologic/vestibular treatment and rehabilitation, including cochlear implant and hearing aid intervention for all populations.

General speech science: broad category for studies examining speech/voice acoustics or other relevant science.

General audiology and hearing science: broad category for studies examining normal hearing, acoustics, or other relevant science. If the focus is on science of speech *production*, select the previous item (“General Speech Science”). If the focus is on hearing and perception, select this item.

Clinical training/education: broad category intended to capture studies looking at effectiveness of methods for training SLP/AuD students, continuing education for professionals, or other examinations of CSD professional student/learner populations. Includes studies on the effectiveness of clinical placements/education, clinical fellowships, and CSD student internships.

Professional issues: broad category intended to capture studies examining other professional issues in SLP and AuD beyond foundational science. May include examinations related to professional employment demographics, service delivery models, sites of service, and others. Only select this option if no other category is a better fit; for example, a study examining continuum of care in mild TBI would best fit the ‘neurogenic communication disorders’ category, but a study examining continuum of care regardless of the underlying communication disorder might best fit ‘professional issues.’

Other: clicking this box will open an open-ended dialogue box to include any other relevant categories to the study if there is not otherwise a clear “best fit” from the options above.

What is the target population for research?

(e.g., “preschoolers with autism,” “adolescents with TBI,” “adults with typical hearing”)



preschool children at high risk of autism

Use the open field to summarize the target population as clearly and concisely as possible; consider using language directly from article.

Consider the participant sampling method: was a clearly and explicitly described probability sample utilized in the study?

(a probability sample includes a random approach to sampling, including simple random, stratified random, proportionate stratified random, systematic, and clustered sampling)



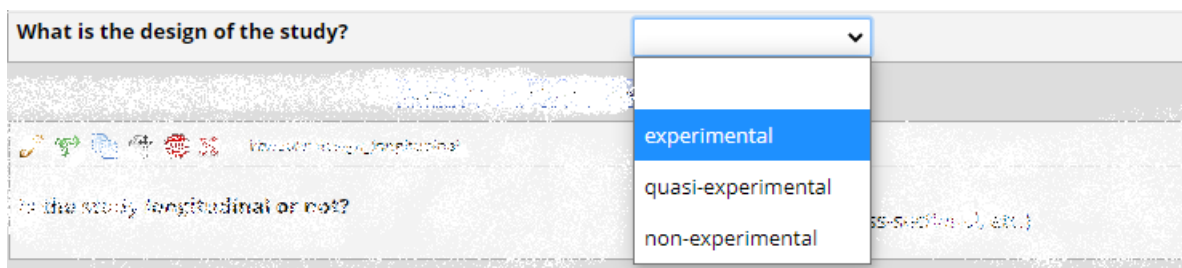
- Yes - the study made explicit use of probability sampling
- No - the study did NOT use or explicitly describe a probability sampling approach

reset

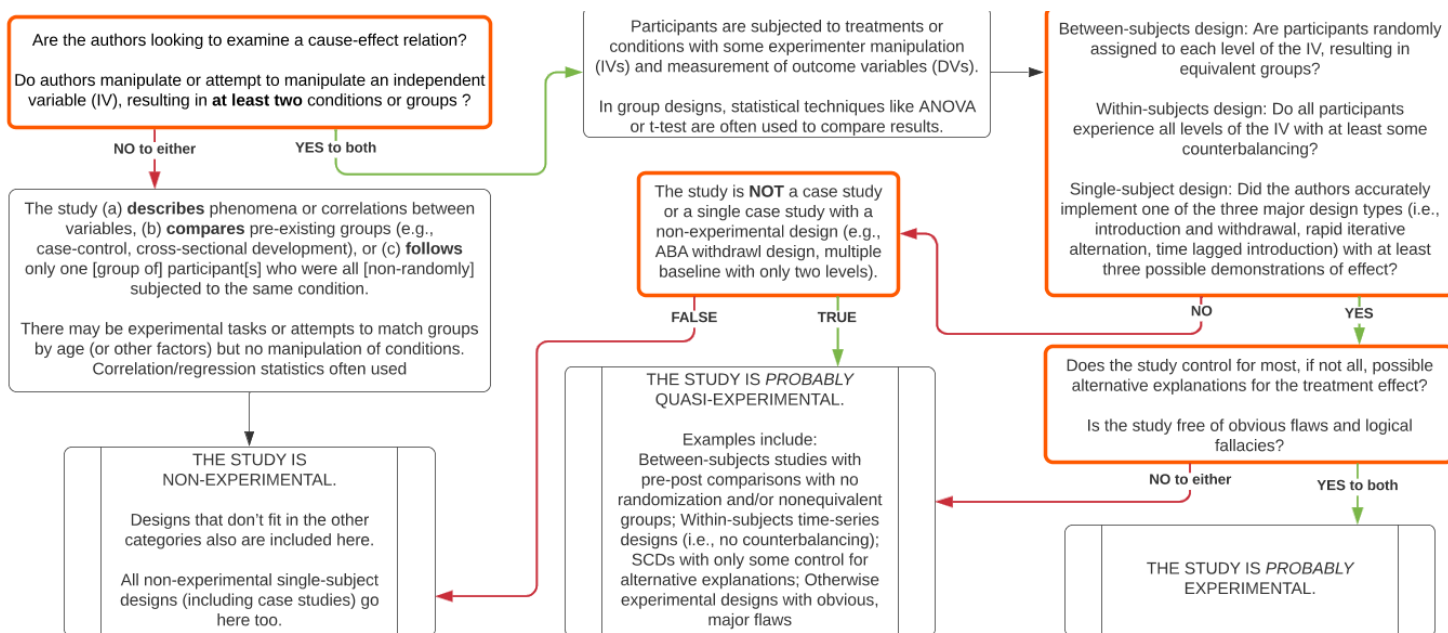
Probability sampling includes any random approach to sampling, including simple random, stratified random, proportionate stratified random, systematic, and clustered sampling. Note that this type of approach requires that the entire target population of interest to the research is known, each individual within the target population has a specifiable probability of selection, and sampling occurs by a random process based on

the probabilities. *This type of sampling is likely to be rarely used in our field.* However, if the study clearly and unambiguously utilizes a probability sampling method, select “yes.”

In all other cases, select “no.” This includes nonprobability sampling approaches and cases where the sampling method is unclear or ambiguous. Note that some studies will set “quotas” for factors such as sex, gender, race, ethnicity, socioeconomic status, etc., and may even refer to this as “stratified” sampling, but should still be coded as “no” for this item unless the aforementioned criteria for probability sampling are clearly met.



For a detailed decision tree approach to answering this question about study design, see this flowchart:



Select “experimental” if the study examines cause and effect by manipulating the variable(s) within or between groups and controlling for possible confounding variables (often by random assignment for groups or conditions, in particular in treatment studies). May also include rigorous single case designs, or non-treatment studies that systematically manipulate one or more independent variables (e.g., via randomized or counterbalanced presentation) and measure the effects on one or more dependent variables of interest (see Krueger & Storkel, 2020 as an example).

Select “quasi-experimental” if the study aims to examine hypothesized cause and effect relations but cannot ultimately do so because alternative explanations are not all accounted for (e.g., authors did not randomize group assignment in an intervention study).

Select “non-experimental” for all other studies. This category includes studies where there is no attempt to control for confounding variables, descriptive studies, qualitative studies, correlational studies, studies examining only pre/post change or change/development over multiple time points for a single group or multiple groups, studies examining differences between two or more existing, non-equivalent groups, and case studies.

If a study includes elements across multiple design types, select the “least rigorous” choice. For example, if the study summarizes two studies, one being experimental in design but the other being quasi-experimental, select “quasi-experimental” here.

Did the study design unambiguously involve multiple visits for one or more participants?

(i.e., more than one visit at a single time point and/or more than one time point)

Yes (multiple visits)
 No (zero or one visit, or unclear)

If the study examines and analyzes individuals or cohorts over multiple study visits or data collection days, click “yes.” This will include studies with multiple visits or data collection days at a single timepoint, longitudinal correlational designs, treatment studies with multiple assessment time periods, developmental studies exploring change over time, and pre-post designs.

If the study was completed in one or fewer participant visits (i.e., data collection days), or represents a cross-sectional study in which each participant participated in the study at only one time point and visit —select “no.”

Analysis of extant data should reflect the design of the original data’s collection. For example, if the data was originally collected longitudinally, select “yes.” Also select “yes” if there is clear indication that any participants needed more than one visit or day for data collection, even if some participants only required one visit.

If there is confusion or ambiguity over whether multiple visits were utilized, select “no.”

Participant Info & Demographics

Information for these items is also most likely to be found in the abstract and method sections but may require some additional investigation.

Generally, we aim to capture information on all participants initially recruited for a study, however this may vary depending on the study design and some participants may ultimately be lost to attrition or excluded from analyses for other reasons. If there is ambiguity regarding whom is included in a given study, **extract data for the group of participants that is most clearly described and consistently use that group for all questions below.** Some articles

report slightly different numbers in different sections, and there may be discrepancies between what is presented in the abstract, the methods, tables, or elsewhere. If presented with discrepancies, report what is given in tables, as this is most likely to be where demographic information is given with most detail. Otherwise, report what is given in the participants section of the methods.

Note that for some studies, demographic information may be provided for individuals or groups *other than the study sample*. In other words, authors may provide gender/sex or race/ethnicity data for individuals who play a supportive role in a study but who do not make up the sample that is analyzed with respect to research questions. Examples can include teachers, parents, laboratory assistants, raters/coders, actors or confederates who participate in the study design or contribute stimuli such as vocal recordings, or any others who provided support for the study design.

Studies involving hereditary data may include information in a pedigree figure. You are NOT expected to report information that is exclusively provided in a pedigree figure; for example, do NOT report participants' sex based exclusively on a pedigree figure; we will consider an author to have reported sex/gender only if it is tabulated elsewhere in a table or the body of the paper.

Note as well that some articles will report on more than one experiment. In these cases, report the total number of unique participants across both studies. If authors do not indicate whether samples represent unique, overlapping, or partially overlapping participants, code as though participants across all studies included in the report are unique.

What broad age groups are included in this study?

pediatric (ages 0-17)

adult (18+)

lifespan (mix of children/adults)

Select whether children (ages 0-17) or adults (ages 18 and up) were recruited for the study. Note that although some studies may define age groups differently (e.g., adults as ages 21+), you should use our definition for coding.

Select “lifespan” for studies that recruit a mix of children and adults, or studies which follow a cohort from childhood to adulthood.

Was this study designed to limit participant inclusion in any way based on sex, gender, race, or ethnicity?

For example, did the study exclusively recruit individuals assigned female at birth, or exclusively recruit African American children, etc.?

(select all that apply, or "none of the above")

sex and/or gender

race

ethnicity

none of the above

It is helpful for us to know if a study was intentionally limited by sex/gender/race/ethnicity according to the authors' purpose, research questions, and/or methods. Select the appropriate option if there are a priori exclusion criteria that limit the recruitment of participants *in any way* by sex, gender, race, or ethnicity (e.g., limiting inclusion to one or a few groups, excluding one or more groups). If this was not the case, be sure to select “none of the above” so that you do not leave this item blank.

Note that although *sex* and *gender* are distinct concepts, we have found that a lack of clear and purposeful use of terms by researchers makes this distinction difficult to reliably code. As such, we have combined the terms for this item, and any restriction of participant recruitment by sex and/or gender should prompt you to select “sex and/or gender.” Also select this item if a study specifically recruits or excludes transgender participants.

Distinctions between *ethnicity* and *race* may be more consistently found in the literature. Our default definition for ethnicity will follow NIH and US census guidelines, which operationalize ethnicity as an identity of “Hispanic/Latino” or “not Hispanic/Latino.” Thus, you should select “ethnicity” if a study limits inclusion to or explicitly excludes Hispanic or non-Hispanic participants; select “race” if other racial categories (e.g., “white,” “black”) are specified within inclusion/exclusion criteria for the study.

Select “None of the above” if inclusion/exclusion in the study was not limited by sex, gender, race, or ethnicity.

What is the total number of participants?

Include the final number (*n*) of unique participants reported in the article (across studies in the report, if relevant).

What are the reported location(s) of study participants?
(select all that apply)

- Online
- Northeast (CT, ME, MA, NH, RI, VT, NJ, NY, PA)
- Midwest (IL, IN, MI, OH, WI, IA, KS, MN, MO, NE, ND, SD)
- South (DE, FL, GA, MA, NC, SC, VA, DC, WV, AL, KY, MS, TN, AR, LA, OK, TX)
- West (AZ, CO, ID, MT, NV, NM, UT, WY, AK, CA, HI, OR, WA)
- Not specified (presumed US participants)
- Other

What other location information is provided?

Only select location(s) of participants as **explicitly** stated in the article – **DO NOT INFER** based on research institution alone. If the only information available is that participants were stated to have been “recruited locally” and the article’s authors are all identified with institutions in the same geographic region as summarized in author affiliations for the report, you should select the corresponding region. If location is otherwise not stated or unclear, select “Not specified.” If participants are recruited from US territories (such as Puerto Rico or the US Virgin Islands), select “Other” and provide specific information in the pop-up field. Note, this item is different from our “US participants” inclusion-criteria question.

This item requires at least one response – multiple regions can be selected if appropriate. If data was collected online from a specific region, **ONLY** select that region; choose

“online” also if there were additional participants from a broad, unspecified online source.

As with other demographic information, studies may provide conflicting location information. Where possible, select based on information as provided in the Method and Participant section if there is a discrepancy with other sections (e.g., abstract, intro, acknowledgments) of the article.

What is the gender reported for participants?

| | Males/men/boys reported | Females/women/girls reported | Gender-neutral, non-conforming or non-binary reported | Gender not disclosed or given |
|-------------------|-------------------------|------------------------------|---|-------------------------------|
| # of participants | 19 | 6 | 0 | 2 |

Input participants to this matrix as they are identified by gender.

Note that **sex** should refer to “biological” sex or sex as “assigned at birth,” and is typically categorized as either male, female, or intersex based on a person’s biological makeup (i.e., sex chromosomes and/or genitalia). **Gender** refers to a person’s socially enacted role and/or self-chosen identity and does not necessarily follow from a person’s sex. Gender is not a strictly binary concept; gendered terms include boy, girl, man, woman, father, daughter, etc.

****Although we initially sought to characterize research participants distinctly by both sex and gender, our pilot coding has revealed that this is not possible, as sex and gender terms have not been clearly operationalized and/or consistently utilized across much of the extant literature in the field. Therefore, for this matrix, even if a study uses the word “sex” or a “male/female” binary to describe participants, we will assume this information to reflect adult participants’ preferred gender identity for the vast majority of studies, unless reported otherwise. We will likewise assume that caregivers are reporting preferred gender identity on behalf of children; we recognize that this may not necessarily be a valid assumption, but the issue is beyond the scope of this particular study and coding scheme.****

In other words, you should record whatever sex/gender information is provided as a best fit for this matrix, although we cannot usually be certain whether the information summarized truly reflects *sex* or *gender* as defined here, due to common failure to operationalize and consistently utilize terms. This assumption should also increase inter-coder reliability. If appropriate, make a mental note for a later question that asks about distinct use of terms.

“Gender-neutral, non-conforming, or non-binary reported” refers to alternative gender identities that do not clearly align with majority masculine/feminine constructs; this may also include such terms as “agender,” “genderfluid,” and “genderqueer.” Please list all alternative terms used by participants in the subsequent pop-up entry box.

“Gender not reported” should include a count of any participants who did not disclose gender or whose information was otherwise not given. One notable exception is a case where authors provide only one sex/gender category, implying that all other participants

belong to another category (e.g., “45% participants were female” implies that 55% were male). To best reflect the representation in coded studies, in such cases you should assume the authors intended to report sex/gender with a binary. Make a note of this practice in the “other limitations” box below.

If the entries in this matrix of gender fields is less than your total participants, you will see an additional pop-up box asking to confirm that this is how you intend to enter the data. Barring unusual circumstances, all participants should be accounted for in the sex/gender matrix.

Note that transgender individuals should be classified by their chosen identity, e.g., “trans woman” or “transfeminine” should be counted under “females/women/girls reported,” and “trans man” or “transmasculine” should be counted under “males/men/boys reported.” In some cases, sex AND gender information will be provided (e.g., “participant was a transgender man, assigned female at birth”). You should only tabulate participants’ *gender* data here.

Note: here and for all participant number fields, you can leave the field blank and it will automatically record a zero. Also, if percentages (rather than raw numbers) are reported, please convert to raw numbers and round to the nearest whole number. This may, in some instances, result in raw counts that do not sum to the reported total n, due to researcher error, imprecision in reporting, or other factors that are out of our control. Please follow these rules for derivation of raw counts even in such instances. We will summarize any such challenges encountered in deriving information of interest in our reports.

Does the article include language that explicitly frames *gender* (identity) as distinct from *sex* (biology) in description of participants?

Indicated with language such as:

- "sex assigned at birth"
- "trans-" or "transgender"
- "cis-" or "cisgender"
- "...identifies as [male/female/etc.]"
- nonbinary or nonconforming gender descriptives

Yes, the article includes language that overtly signifies "gender" as distinct from "sex"

No, language does not clearly and unambiguously signify "gender" as distinct from "sex"

reset

Although we were unable to summarize sex and gender distributions as desired, and may be unable to reliably assess whether researchers are purposefully using sex/gender terms and concepts, we hope to identify the few cases where researchers have *clearly and explicitly* utilized language that underscores gender as a distinct concept, reflecting identity and role, from biological sex. We anticipate that this will be most often done in cases where both gender *and* sex information is provided, although perhaps not always.

Choose “yes” if the authors use language that *overtly* frames *gender* as a concept distinct from *sex* through the use of language specifying that participants “identify as [male/female/etc.]” or with descriptive terms like “sex assigned at birth,” “transgender,” or “cisgender.” Also select “yes” if alternative gender categories are provided such as

“nonbinary” or “nonconforming.” Choose yes if authors otherwise explicitly define gender compared with sex. Provide some detail in the pop-up field.

If used, outmoded terminology such as “transsexual” or “male to female” would also be appropriate for “yes” in underscoring gender as a distinct concept from sex.

Choose “no” in all other cases. Even in publications where authors are consistently and/or appropriately using sex/gender terms (for example, describing the “gender” of participants as “boys” and “girls”), still select “no” if no further distinction or definition is explicitly given.

Is race reported for participants? Yes No reset

| Racial Category | # of Participants |
|---|-------------------|
| American Indian or Alaska Native | 0 |
| Asian | 2 |
| Black or African American | 4 |
| Native Hawaiian or Other Pacific Islander | 0 |
| White | 16 |
| Other | 1 |
| More than one race | 3 |
| Participant declined to report | 1 |

What other racial categories are provided? Expand

If at least some participant info is given by racial identity, select “yes.”

If “yes” is selected, a pop-up matrix will allow numbers to be input as found in the study. Options here follow the NIH categories; if a study reports race with a slightly different category name but with the same generally or historically accepted meaning (e.g., “Caucasian” instead of “White”, or “Native American” instead of “American Indian”), use that number instead. If there is not a good fit for the given category (e.g., “Mexican American”), count those participants under “Other.”

If participants have *race* given as only “Hispanic” or “Latino,” (i.e., ethnicity terms) also count them here under “other” and make a mental note for the next question that ethnicity has been conflated with race.

If participants have identified as multi-racial (as a separate category) or if they identify with more than one race, add them in “more than one race” and do not count them under

other race identities here. Participants should only be counted once for race, and once for ethnicity.

Note that, unlike the sex/gender matrix, some participants may not be accounted for here. If there is missing race/ethnicity data, do not assume that participants declined to report; only report data as given by the study author(s).

Is ethnicity reported for participants, separately from racial categories?

Only select 'yes' if the manuscript offers Hispanic/Latino categories as distinct from racial categories, or if the authors provide a clear and distinct definition for ethnicity.

Yes No

reset

| Ethnic Categories | # of Participants Reported |
|--------------------------------|-----------------------------------|
| Hispanic or Latino/a/x | 3 |
| Not Hispanic or Latino/a/x | 22 |
| Other | 1 |
| Participant declined to report | 1 |

What other ethnic categories are provided?

Sephardic (Jewish)

Expand

If Hispanic/Latino categories are presented separately from other racial categories, choose “yes.” For example, some studies may describe participants such as “non-Hispanic White” and “Hispanic American Indian.” This language would signal a distinct use of race and ethnicity, and the correct choice would be “yes.”

Choose “yes” if clear distinctions are made or if rationale/definitions for ethnicity are provided, even if the definition is different than the NIH definition provided here.

If only racial categories (provided above) are offered under the label of “ethnicity,” select “no.”

A choice of “yes” will open a pop-up matrix to extract numbers reported in the study. Other ethnic identities can be listed in an open field if needed.

Are race and ethnicity clearly presented as distinct concepts?

Yes, there is a clear distinction between the concepts of "race" and "ethnicity"
 No, "race" and "ethnicity" are not clearly distinct

reset

Provide a brief summary about how race and ethnicity are not clearly distinct.

participants given as "of Caucasian descent" in body of article; appendix asks for racial categories under "ethnicity" heading

Expand

This item is meant to capture whether the terms “race” and “ethnicity” are being used distinctly by researchers.

Choose “yes” if the authors appear to clearly, consistently, and unambiguously align the concept of *race* with socially-defined racial groups, and *ethnicity* to align with a variation of “Hispanic/Latino” vs. “Not Hispanic/Latino.” Also select “yes” if the authors provide their own clear definition of race and ethnicity, even if that definition is not identical to ours. Even if only one of the two terms is reported or used throughout the study, still select “yes” if the term seems to be used purposefully and accurately.

Choose “no” if there is any ambiguity regarding the use of “race” and “ethnicity” terms; this includes using the terms interchangeably, or providing racial categories under the term “ethnicity,” or including “Hispanic/Latino” options in conjunction with racial categories. Provide some detail in the corresponding pop-up field.

Are any measures of socioeconomic status (SES) reported? Yes No reset

Can include education, income, qualification for school/government aid programs, or employment information for participants or parents.

What measures of SES are reported? Expand

Choose “yes” if additional demographic information is provided that captures other aspects of income, wealth, social class, or privilege. This may include level of education, occupation, income, homeownership status, qualification for government aid programs, or scored indices like the Hollingshead Four-Factor Index of SES. If none of these measures are used, choose “no.”

Were participants excluded if they (and/or their parents):

- are bilingual or non-English speakers, and/or
 - have a dialect other than "standard American English"
- Yes, participants WERE excluded in this way
 No, participants were NOT excluded in this way

Choose “yes” if participants were excluded for non-English speaking or multilingual statuses, or if they were excluded based on their dialect varying from “Standard American English” or a similar normative dialect. Also select “yes” if these exclusion criteria were applied to parents or other family members.

Note that if there is reasonable suspicion that a decision regarding language/dialect was made a priori (e.g., authors state that participants were recruited from monolingual families), that is sufficient to answer ‘yes.’ **Similarly, if a participant sample of $n > 1$ includes only English-language speakers, we can assume that participants were excluded in this way (‘yes’).**

Is primary language information reported? Yes No reset

Can include language of origin, primary language at home, mono- vs. multi-lingual status, or inclusion/exclusion criteria.

What type(s) of primary language information is reported? Expand

This question is a slight variation on the previous -- choose “yes” if anything is reported pertaining to the primary language (or language of origin) of participants. Some studies may report “English-language learner” status, or “second language” history. Other studies may include language background as part of inclusion/exclusion criteria.

Note that “English-speaking” alone is NOT sufficient to mark “yes,” but “mono-lingual English speaker” IS sufficient.

Is a start date (or earliest date) for recruitment of participants reported in this study? Yes No reset

What is the earliest date provided for recruitment? Expand

(provide max info available -- Month-Day-Year, or Month-Year, or just Year)

Select “yes” if any earliest year of participant recruitment is reported. A pop-up field will allow for input of as much information is provided.

Select “no” if no recruitment dates are provided, or only general time windows are given (e.g., “for a period of two months...”).

Are recruitment strategies reported? Yes No reset

Make special note of strategies to recruit diverse/representative participants.

What recruitment strategies are reported? Expand

Select “yes” if recruitment techniques are indicated with any degree of specificity. Note that “participants were recruited from a larger ongoing study” is *not* sufficient information unless information about the larger study’s recruitment techniques are also provided. Also select “no” if the author(s) note that no incentives were provided.

If you select “yes,” a pop-up field will open to delineate strategies. If the methods specify techniques to obtain diverse participants, make a special note of them; examples of efforts to recruit diverse participants might include partnerships with community

organizations and local partners, outreach to specific sectors of the community, inclusive advertising materials, etc.

Are retention strategies reported? Yes No reset

What retention strategies are reported?
Make special note of any considerations to retain diverse/representative participants.

Financial incentives (gift cards) provided for ongoing participation.

Expand

Select “yes” if any retention strategies are indicated with any degree of specificity. Retention strategies may include flexible scheduling of study visits, provision of services such as child care for family members not participating in research activities, coverage of travel costs for participants who move outside the immediate study area, active participant follow-up communication (e.g., electronic or conventional mailers, phone calls, birthday or holiday cards from research staff), and additional compensation (e.g., gift cards, cash/check, or other small thank you gifts or incentives) for completing multiple visits, among other possible strategies.

If you select “yes,” a pop-up field will open to provide strategies. If the methods specify techniques to retain diverse participants, make a special note of those.

Other limitations or concerns regarding the participant sample in this study?

Expand

Any other issues or limitations, either directly mentioned in the study or from your review of the abstract and methods, can be entered into this open field.

Analyses

These items are most likely to be found in the method and/or results section.

| Analyses | |
|--|---|
| Is sex or gender considered in the study's statistical and/or qualitative analyses? <i>(e.g., between-group differences by gender)</i> | <input type="radio"/> Yes <input checked="" type="radio"/> No |
| Is race or ethnicity considered in the study's statistical and/or qualitative analyses? <i>(e.g., between-group differences among racial groups)</i> | <input type="radio"/> Yes <input checked="" type="radio"/> No |

It is one thing to report sex/gender/race/ethnicity, but another to consider such factors in analysis and interpretation of data. These questions ask whether demographic variables are considered in study analyses. Note that analyses can be statistical/quantitative or descriptive/qualitative, depending on study design.

Select “yes” if sex/gender or race/ethnicity are in any way (with or without justification and/or focused interpretation) considered (i.e., included in the analytic plan or results). For example, authors may include the demographic variables of interest in statistical tests or models as a (quasi)independent variable, moderator, or covariate; run analyses in groups defined by demographic variables; summarize findings relevant to descriptive aims or research questions according to demographic subgroups, etc.

Select “no” if there is no apparent analysis of sex/gender or race/ethnicity in the study. Note that an article may describe participants by sex/gender/race/ethnicity (usually in the participants section or elsewhere, such as a table, within the Methods section) but not run any analyses or report any results with consideration of such variables, in which case you should select “no.”

Strictly follow the above guidelines, even in cases where recruitment is limited in some way by sex/gender/race/ethnicity as coded above, because limited recruitment by some demographic variable does not necessarily imply or preclude analysis by related variables. Consider the following examples:

- A study may focus on under-represented minority groups, excluding White participants by design and in accord with research questions, but still run analyses that consider race/ethnicity of the included groups (e.g., comparing Black and Native American participant groups). In these cases, select “yes” for the corresponding item.
- Alternatively, a study may focus on or be quite thoughtful regarding demographic variables, but not technically meet the above criteria for considering any such variables in analyses. For example, if authors conduct a study and run analyses focused on a sample of pre- and post-menopausal females and compare traits of such subgroups of females, select “no” because sex/gender is not the focus of these analyses (that is, even though participants are restricted by sex, the variable considered in analyses comparing these non-equivalent groups is actually pre- vs post-menopausal status rather than sex/gender).

Discussion

These items are most likely to be found in the discussion section.

| Discussion | |
|---|--|
| Is sex or gender mentioned in the study's discussion section? <i>(can include implications of findings, limitations of study, suggestions for future study, etc.)</i> | <input checked="" type="radio"/> Yes <input type="radio"/> No |
| Is race or ethnicity mentioned in the study's discussion section? <i>(can include implications of findings, limitations of study, suggestions for future study, etc.)</i> | <input type="radio"/> Yes <input checked="" type="radio"/> No |

For each of these items, any text in the article’s discussion section involving sex/gender or race/ethnicity should result in selecting “yes.” Discussion topics can include direct implications of findings, mention as a limitation of the study, references to other literature, a suggestion for future research, or other speculation related to sex/gender/race/ethnicity.

Select “no” if there is no mention in any form of sex/gender or race/ethnicity in the discussion section.

Acknowledgements & Comments

These last few items consider the “acknowledgements” section for funding source and invite any additional comments about the paper that might be important for the researchers to know.

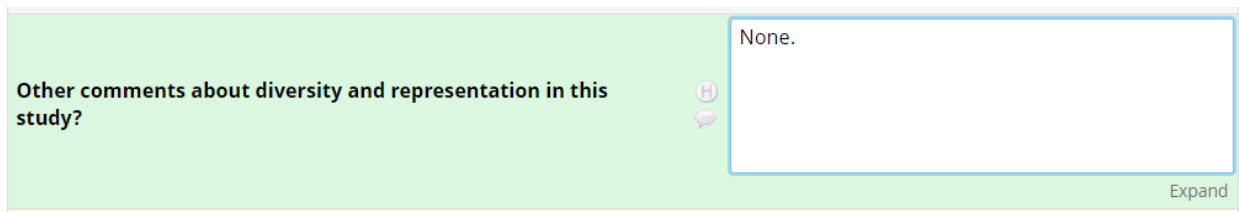
| | |
|---|--|
| What funding sources are reported? <i>This information is typically located in the "Acknowledgements" section just before references.</i> <i>(choose all that apply)</i> | <input checked="" type="checkbox"/> NIH (National Institutes of Health, includes NIH sub-agencies NIDCD, NCATS, NIMH, NICHD, NINDS, Institute on Aging) <input type="checkbox"/> IES (Institute of Education Sciences) <input type="checkbox"/> DOE (Dept. of Education) <input type="checkbox"/> NSF (National Science Foundation) <input type="checkbox"/> ASHA (American Speech-Language-Hearing Association) <input type="checkbox"/> ASHFoundation <input type="checkbox"/> other internal (university or other institutional) funding <input type="checkbox"/> funding from a private corporation <input type="checkbox"/> funding from another non-profit organization <input type="checkbox"/> no funding sources reported <input checked="" type="checkbox"/> other funding source(s) |
| What other funding sources are reported? | <input type="text" value="Veterans Affairs"/> |

Select as many funding sources as apply. If “other funding source(s)” is chosen, an open field will appear to add other organizations or individuals as needed.

Note that there are many sub-agencies under the NIH, all of which are counted under the first option. Funding sources that are summarized according to an identifier that begins with a letter such as “R”, “F”, “U”, “P”, “K”, and/or “T” also likely reflect an NIH-funded study and should be coded as such.

Funds that are summarized as “start-up” funds should be coded as “other internal”.

Be sure to select “no funding sources reported” if none are reported.

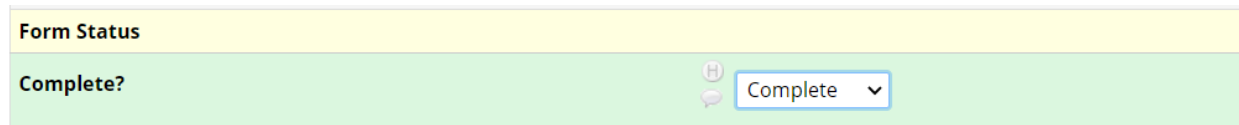


Other comments about diversity and representation in this study?

None.

Expand

This last item is an open text field to add any additional comments, concerns, or observations about this study that might be useful for the research team.



Form Status

Complete? Complete ▾

Finish extraction by selecting “Complete” from the final drop-down list. If you intend to save and come back to an unfinished extraction for an article, select “Incomplete” instead.

Next steps:

Once you have completed this pass for coding, you are welcome to repeat the process by selecting a new article that you have been assigned in the [CODING ASSIGNMENTS SPREADSHEET](#).

DEALING WITH DISCREPANCIES BETWEEN CODES

Ryan or another senior project manager will identify discrepancies between primary and secondary coders between batches of assignments.

Discrepancies in the following fields will trigger an automatic “resolution discussion” between the two original coders:

[empirical]
[human]
[us_participants]
[sampling]
[design]
[design_longitudinal]
[participants_limited]

[participants]
[gender_] (all gender_ categories)
[sexgender_conflate]
[race_reported]
[race_] (all race_ categories)
[ethnicity_reported]
[ethnicity_ } (all ethnicity categories)
[raceethnicity_conflate]
[sex_analysis]
[race_analysis]
[sex_discuss]
[race_discuss]

Discrepancies in any other entries will either be unilaterally judged by Ryan (or another senior project manager) on a case-by-case basis, with preference for the primary code responses.

The Discrepancy Resolution Discussion

Coders will get a message indicating if they need to conduct a discrepancy resolution discussion, with some detail on what needs to be resolved. Depending on the nature of the discrepancy, the two coders should meet, either in-person or virtually, synchronously or asynchronously, to achieve agreement on all discrepancies. If agreement is not achieved within a reasonable period of discussion, let a senior project manager know to act as a final judge on the discrepancy.

Resolved, final codes should go into the third “Discrepancy Resolution” instrument in REDCap.