

Rural Definition Triangulation: Improving the Credibility and Transferability of Rural Education Research in the United States

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In this article, we introduce a novel framework called Rural Definition Triangulation (RDT) to enhance the categorization of rurality in educational research. This approach leverages the credibility component from Tracy's "Eight 'Big Tent' Criteria for Excellent Qualitative Research," applying it across qualitative, multimethod, and mixed methods research paradigms. RDT serves as a guide for scholars to authenticate definitions of rurality. We present RDT as a matrix with a vertical axis that represents the continuum of site-centric to participant-centric definitions. The horizontal axis represents the continuum of positivist leaning to interpretivist leaning definitions. We detail the matrix-based structure of RDT, which encompasses four distinct definitional approaches: definition reliance, site definition checking, participation definition checking, and personal description definition. To demonstrate the applicability and effectiveness of RDT, we also provide examples of these four approaches in already published research.

As a field, rural education is entering its fifth decade (Cobb et al., 1989; Coladarci, 2007; DeYoung, 1987; Nachtigal, 1982; Thier et al., 2021). Despite its relative youth, there has been significant discourse among scholars, policymakers, media, and other stakeholders on the quality and yield of rural education research (Biddle & Azano, 2016; Drescher & Torrance, 2022; Parks, 2021;

Williams, 2021). Much of that discourse has focused on rural definitions (Coladarci, 2007; Thier et al., 2021), quantitative rigor (Koziol et al., 2015), and how power manifests across rural space (Biddle et al., 2019). Scholars are especially concerned with how "rural" is defined. For example, Coladarci's (2007) influential piece on improving rural education research called for adequate descriptions of research sites to ensure that studies are appropriately situated within a rural context. We were inspired and influenced by Coladarci's (2007) work to better understand how scholars define rural within their work in peer-reviewed journal articles (Thier et al., 2021). We found that only 30% of our

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The groundwork for this manuscript was formed in 2017 when we began working on the Thier et al. (2021) article that appears in this journal. We would like to thank everyone who supported that work and continues to use our article to explain rural definitions and geographic areas of need in our field. We would also like to thank Karen Eppley, the editor of the *Journal of Research in Rural Education*, for her willingness to expedite the review process for the current article. We also thank the peer reviewers of this manuscript, as key edits have vastly improved the final product. We thank Maureen Flint, assistant professor in the Mary Frances Early College of Education at the University of

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relatively large sample of rural education studies provide any definition of rurality whatsoever. Moreover, studies from both quantitative and qualitative research traditions lacked a definition, with quantitative studies being more likely to rely on a government-created definition.

Noting quantitative scholars' reliance on government-created definitions, Koziol and colleagues (2015) provided specific guidance for defining rural areas in research studies based in the quantitative tradition. They advocated for improving scholarly rigor by operationalizing rural as a construct with theoretical and operational levels across all phases of inquiry. We agree that in quantitative research, rurality as a construct must receive as much attention as other variables in an analysis. Outlining similar guidelines for researchers in the qualitative tradition is complicated, however. Quantitative researchers typically seek to generalize their findings to the population from which they have sampled. In contrast, qualitative researchers often seek transferability by extracting more data from a smaller sample size (Tracy, 2010). When working with a large sample size and in the quantitative tradition, it makes sense to employ Koziol and colleagues' technique of multilevel modeling. In qualitative research, the setting of a study can be described in much more detail to enhance the transferability of the work beyond the original research site. Different standards are needed for scholars engaging in qualitative, mixed, or multimethod inquiry.¹

In this article, we address Koziol and colleagues' request to "advise the field on rural definition issues in the context of qualitative and mixed methods [*sic*] research" (p. 2). Moreover, by providing this guidance, we align this manuscript with the recent rural education research agendas of the National Rural Education Association (NREA, 2023) and Ascendium Education Group (AEG, 2021). Both organizations seek to expand spatial and education equity to rural students by encouraging research across the educational spectrum to improve the understanding of opportunities for rural students. We believe that the NREA and AEG research agendas coupled with increased grant funding for rural projects from federal agencies will yield more scholars, who are not necessarily steeped in the rural education literature, to engage in work in this field. Therefore, having explicit guidance for these scholars will lead to more high-quality work in our field.

¹ The *International Journal of Multiple Research Approaches* (<https://ijmra.org/>) usefully distinguishes mixed method research, which combines or integrates data collected using qualitative and quantitative methods, from multimethod research, which meaningfully combines or integrates data collected using either (a) more than one type of qualitative technique or (b) more than one type of quantitative technique.

One important goal of our work is to support rural education scholars in disseminating their work more broadly and speaking more lucidly to colleagues in other fields and policymakers. Rural education scholars aiming to publish in nonrural-focused journals or to pursue interdisciplinary research require guidance that is peer-reviewed and tailored for potential reviewers who may lack familiarity with the rural education discipline. In this article, we present our guidance in the form of a new concept for the field: rural definition triangulation (RDT). RDT is a conceptual tool used to improve the credibility and trustworthiness of qualitative, multimethod, and mixed methods rural education research by identifying multiple data points to contextualize the study. We discuss the conceptual framework we used to create RDT, present RDT, and review how some scholars have already achieved RDT in their work.

Conceptual Framework

Our conceptual framework consists of two qualitative concepts (transferability and triangulation) and Tracy's (2010) "Eight 'Big Tent' Criteria for Excellent Qualitative Research," which is widely cited as a foundational model of evaluating qualitative research (Braun & Clarke, 2022; Gioia et al., 2013; O'Brien et al., 2014). Tracy's criteria are:

- topic worthiness
- rich rigor
- sincerity
- credibility
- resonance
- significant contribution
- ethics, and
- meaningful coherence.

At the time of this writing, Tracy's piece had received 8,748 citations on Google Scholar, 2,648 Scopus citations, and was *Qualitative Inquiry's* most-read article. Tracy's criteria are not without controversy, as some believe the criteria are too subjective (Morse, 2015). Though imperfect, Tracy's criteria are the most used to establish trustworthiness in qualitative research (Braun & Clarke, 2013; Rose & Johnson, 2020). Therefore, we used Tracy's criteria to conceptualize the trustworthiness of rural education research as it relates to the overall quality of the study.

Of Tracy's eight criteria, our framework is most concerned with credibility. This criterion includes thick description, triangulation, multivocality, and member reflections. It is important to note that these concepts are often combined and are not mutually exclusive; researchers may use one or more of these concepts to ensure the credibility of their study. First, *thick description* is a concept used to make detailed accounts of ethnographic observations, interview responses, and other observable

data researchers interpret (Maxwell & Mittapalli, 2008). Because the researcher is the instrument of analysis in qualitative inquiry, thick description allows the reader to understand the researchers' interpretations of data better. For example, Casto's (2016) qualitative analysis of a rural school-community partnership includes large blocks of quoted text bounded by their analysis, which shows the reader how Casto arrived at their conclusions.

Second, *triangulation*, as described in the qualitative methodological literature, is an essential element of credibility.² As a concept, triangulation is inspired by land surveying techniques where multiple measurements are taken to ensure geographic data are collected reliably (Rothbauer, 2008). In quantitative research, measures of internal consistency or its related concept, reliability, are used to improve the validity of interpretations made from individual studies' findings. Triangulation is a method for improving the credibility of qualitative research, similar to internal consistency measures in quantitative research, by gathering data from more than one data source (Golafshani, 2003). For example, using qualitative methods, Hlinka (2017) studied traditional-aged community college students from a rural area of Kentucky's Appalachian Mountains region. To achieve triangulation, Hlinka interviewed students, faculty members, and administrators, rather than solely student participants. Goforth and colleagues' (2017) multimethod inquiry of rural school psychologists included survey participants from suburban and urban areas to achieve triangulation. Finally, Badger and Harker (2016) analyzed participant reflections in a traveling museum exhibit, along with observations, focus groups, and a survey to achieve triangulation in their mixed methods study. These three examples show how scholars use triangulation in their participant recruitment and data collection strategies. In practice, triangulation in qualitative research can be used for methods, data collection, theory, and data sources (Maxwell, 1992; Merriam & Tisdell, 2015). In other words, triangulation is a powerful tool for qualitative researchers, as it reinforces findings or builds nuance to their understanding of some phenomenon. We contend that thoughtful triangulation of rural definitions will help scholars build the credibility of their conclusions.

Third is *multivocality*, the use of multiple voices in an inquiry to ensure the inclusion of more than one perspective (Tracy & Hinrichs, 2017). Some qualitative inquiries include as few as one participant, thus not all qualitative studies use multivocality. Like all aspects of qualitative

research, every concept in Tracy's (2010) framework is not necessary to improve the quality of the work. In fact, scholars should lean on their inquiry's strengths to report on its credibility. Increasing the number and variety of participants means increasing the multivocality of the inquiry. For example, Stull and Ng's (2016) qualitative case study of a public school district in Kansas used a total of 90 participants, including teachers, administrators, and school board members. Similarly, Brown's (2016) mixed methods study of principals in North Carolina included interviews with over 200 participants. By widening the number of participants, these scholars were able to show their reader that they are quite confident that their findings were accurate. When working with many participants, multivocality can hoist credibility in instances where thick description may not be possible. The careful reader will note that both Hlinka (2017) and Goforth and colleagues (2017) used multivocality to achieve triangulation. As previously mentioned, these concepts are not mutually exclusive and can be used in the service of each other.

Finally, *member reflections*, also known as member checks or member validations, are a strategy researchers use to confirm their perception of their participants, data, and findings (Sandelowski, 2008). Researchers use member reflections to confirm whether the participant's meaning was captured in their interview or, during the final analysis, to confirm that the findings represent the participant's experience, among other purposes. Essentially, member reflections are a tool scholars use to confirm what they have heard and believe to be true or to protect a participant's anonymity. For example, if a participant tells a story that could reveal their identity, it is a good idea to explain to the participant how they write about the story. However, member reflections are controversial because a researcher is not obligated to make changes based on the feedback they receive from participants (Cho & Trent, 2006). Moreover, member reflections at the end of a study may be more difficult for the participants to comment on, as the researcher is more steeped in the literature and theoretical framework than the participant. As with the other aspects of credibility, member reflections should be used as the researchers see fit to improve their study. For example, in their qualitative study, Avery and Hains (2016) engaged in informal conversations with participants to confirm themes while "immersing [themselves] in the community" (p. 143). With ethnographic immersion, member reflections during the analysis process are more readily available as the researchers are consistently around participants. Similarly, in their mixed methods multiple case study, Wilcox and colleagues (2014) shared completed reports with school administrators at each research site. The authors reported that they made changes to their final reports based on what they described as "inaccuracies" identified by the

² The mixed methods literature employs "triangulation" as its most common approach to gather complementary data on the same topic, offering compensatory strengths to offset their distinct weaknesses (Creswell & Plano Clark, 2017; Morse, 1991; Patton, 1990).

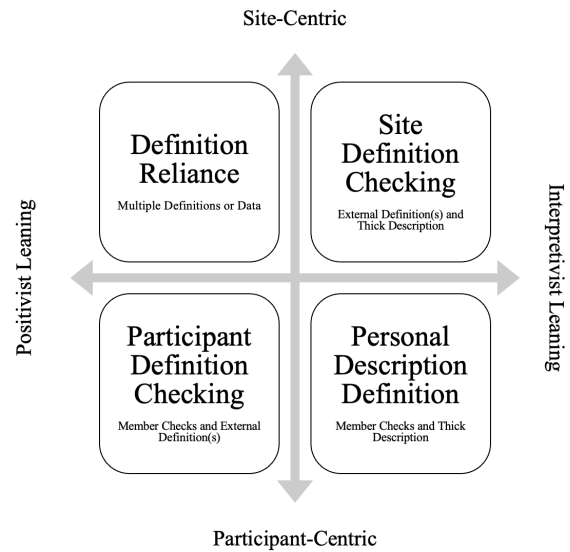
administrators (p. 6). Together, these segments of credibility enhance the trustworthiness of qualitative research and serve as a means for rural education researchers to establish RDT in their inquiry.

Our conceptual framework also includes the concept of transferability (Tracy, 2010). Like quantitative researchers, researchers who use qualitative methods often seek resonance in areas beyond the data-collection site. Many quantitative researchers seek generalizability through sampling techniques to determine whether a single study's findings apply to a larger population from which they selected the sample (Shadish et al., 2002). By contrast, researchers who use qualitative methods tend to seek transferability, potentially allowing secondary researchers to apply lessons learned from one study to another research site (Merriam & Tisdell, 2015). As a result, transferability requires sufficient descriptive data from the original qualitative research site. For example, Coady and colleagues (2023) conducted a three-year study of place-conscious educator professional development. In their study, they dedicated around 564 words of the roughly 10,500-word manuscript (about 5%) to describe the rural context of their study, which included a demographic profile of the community, the spatial geography of the research site, and other key information. One key piece of information was the number of McDonald's franchises in the county, which they described as critical during the COVID-19 pandemic because it offered free Wi-Fi at a time when schools were closed, and many homes were not wired for high-speed internet. Using this information, another scholar, education leader, or stakeholder could compare this context with their own and customize the professional development appropriately.

Implementing Rural Definition Triangulation

We have described Tracy's (2010) conceptualization of credibility above and illustrated each of its four elements. RDT highlights triangulation as having particular relevance to the work of rural education researchers. Making the case that a study is, in fact, rural is more complicated than it may seem on the surface. RDT can help with that challenge. Using Tracy's (2010) credibility segment and the concept of transferability, we created RDT for scholars who engage in qualitative, mixed methods, and multimethod research. As discussed in our conceptual framework, when qualitative scholars seek to increase the credibility of their studies, they engage in thick description, triangulation, multivocality, and member reflections. When approaching a study situated in a rural area or with people who consider themselves rural, we recommend engaging with these concepts to increase the credibility of their definition of rural. To crystalize RDT, we have also created a matrix of options with which scholars can engage as they define rural space (Figure 1).

Figure 1
Rural Definition Triangulation Matrix



The purpose of this matrix is not to provide the only means to achieve RDT, but it should provide scholars with a place to begin as they plan their studies. There are likely other ways to establish rurality, and we welcome further inquiry into these concepts.

Our previous work gave us unique insight into how rurality was being defined in rural education research (Thier et al., 2021). While reading and categorizing the extant rural education literature at the time, we noticed that qualitative researchers tended to define rurality based on descriptions of the participants or the research site. As a result, the vertical axis represents definitions that tend to rely on the site and at the bottom definitions that focus more on the participant. Similarly, we noticed that qualitative researchers often relied on government definitions, which are typically preferred by quantitative researchers (Kozziol et al., 2015). We think using government definitions in qualitative research makes sense, especially if the researcher is communicating their findings to an audience that prefers deference to a legal body. Therefore, the left side of our matrix is positivist leaning and the right is interpretivist leaning. In the field of scientific inquiry, positivists view reality as objective and independent of the observer (Aliyu et al., 2014). Therefore, definitions set by some government or nongovernmental organizations, like the National Center for Education Statistics (NCES) locale codes, are more valid for positivist-leaning studies than those created from a more grounded approach. Many qualitative researchers will opt for these grounded definitions, however. We have put these types of definitions on the right side of the matrix along the "interpretivist" axis, as they emphasize the observer's

location in the world (Denzin & Lincoln, 2005). Moreover, interpretivist definitions are created by the observers in the field and are emergent and evolving rather than being predetermined (Marshall & Rossman, 2015). Therefore, these definitions are fundamentally different from those created by a governing body and should be categorized differently in RDT. Our matrix includes four possibilities for scholars to use to achieve RDT along the site-centric/participant-centric and the positivist-leaning/interpretivist-leaning axes, which will be explained in this section. These four possibilities include definition reliance, participant definition checking, site definition checking, and personal description definition (Figure 1).

Our RDT matrix begins with definition reliance (Figure 1). Roughly 17% of rural education studies use federal definitions when establishing the geography of their research site (Thier et al., 2021). Federal definitions, such as the NCES locale codes or census codes, are an effective first step in establishing how rural a space is. These definitions are imperfect, however. Helge (1985) was among the first to modify federal definitions to better fit the “tremendous diversity in rural schools and communities in the United States” by including only populations with no more than 5,000 people or in school districts with fewer than 10,000 students (p. 296). This early effort effectively eliminated quickly suburbanizing areas of the Midwest but excluded consolidated school districts in the Northeast and sprawling counties in the Western region of the United States. Later, Coladarci (2007) recommended that a measure of rurality should be established with an explicit comparison to a non-rural space; these comparisons are possible using qualitative, mixed methods, and multi-method approaches. However, qualitative work does not require comparisons, so this advice may not apply directly. If scholars can locate two government definitions (local, state, or federal) or access public government data to contextualize the rural space, they can be reasonably confident that the space under investigation is rural and that RDT has been achieved. Using multiple government definitions or data sources falls on the site-centric side of our matrix, meaning that the definition of rural comes specifically from a site description. Multiple government agencies or data have defined the research site in this case. This segment is also on the positivist leaning side of our matrix, meaning that those who rely heavily on quantitative methods in their mixed methods or multimethod research may prefer this approach to defining rural space (Paley, 2008).

Government definitions are included in three of the four segments of the matrix. While government definitions can be flawed, they serve the practical purpose of standardization and are easy for scholars to lean on when attempting to classify spaces with clarity. That said, more than a singular definition is needed because RDT is based on the concept

of triangulation. Besides using more than one definition, scholars may conduct member checks as they collect data. As previously mentioned, member checks confirm that the researcher captured the essence of the participant’s experience. In RDT, scholars can use member checks to confirm whether the participant considers themselves rural, either previously or currently. We call using member checks in addition to a government definition to achieve RDT “participant definition checking.” Using member checks in addition to a definition is considered participant-centric because the information about the research site’s rurality comes from the participant’s experiences. Like definition reliance, participant definition checking is positivist leaning, as a savvy multimethod or mixed methods scholar could develop an item on an instrument that quickly assesses a participant’s or site’s rurality.

The third segment of our matrix is called “site definition checking.” Like definition reliance and participant definition checking, site definition checking relies on a government definition. Unlike the previous segments, however, site definition checking relies on a thick description of the research site. As previously mentioned, thick descriptions are rich accounts of the research site as interpreted by the researcher (Maxwell & Mittapalli, 2008). These thick descriptions aid in grounding the inquiry in the research site. As a result, this segment exists on the site-centric side of our matrix. Thick descriptions aid in the transferability of rural qualitative work, as external scholars, practitioners, and stakeholders can compare the study’s setting with their own to understand how findings may be adapted for local use. Unlike the previous segments, site definition checking exists on the interpretivist leaning side of our matrix. Scholars conducting pure or primarily qualitative work might be more likely to use this method of achieving RDT, as they would likely tend toward qualitative description of the research site.

The fourth and final segment of our RDT matrix is called “personal description definition.” This segment includes both thick descriptions and member checks. This segment is the only one of the four that does not rely on a government definition. It is also the most “grounded” method of achieving RDT (Charmaz & Thornberg, 2021). Rather than relying on an external body to define a rural space, scholars can generate their own definitions from their observations and participants’ experiences. As a result, personal description definition falls on both the participant-centric and interpretivist-leaning sides of our matrix; it is participant-centric because the definition comes, in part, from the participants’ observations. It is interpretivist because it also relies on the researcher’s site description. We pose that qualitative researchers will likely use this segment more often than mixed methods researchers, as it requires more time in the field than the other segments.

The four segments of our matrix are not mutually exclusive, nor are they definitive. We acknowledge that there are other ways to define rurality and many ways to combine these definition methods. The purpose of RDT is not to establish the only means of achieving triangulation in defining rurality. Rather, RDT aims to provide scholars with a starting point to better establish their rural research's credibility and transferability. To illustrate how RDT can be used, we have included four examples of studies that have triangulated their definition of rurality and who, we believe, have achieved RDT.

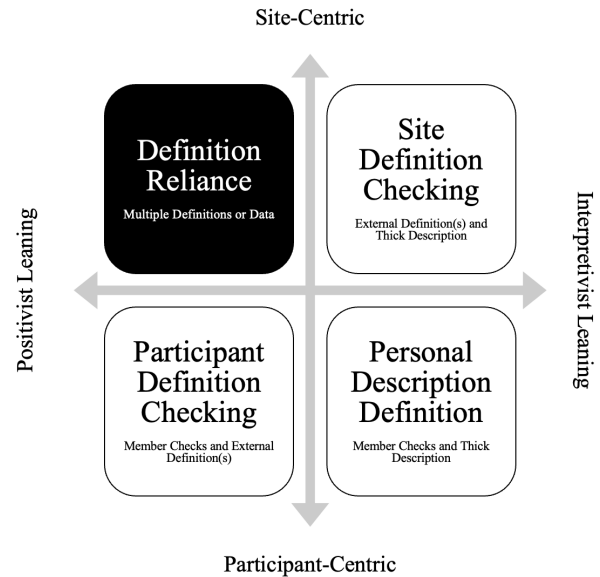
Rural Definition Triangulation in Action

Though in this article we are coining RDT as a new concept, we acknowledge that some studies have already triangulated their definitions of rural. In this section, we will provide the reader with an example of a study that has achieved each of the four segments of our RDT matrix. Examples include two of our own studies and two external studies. These examples do not outline how scholars should design their studies to achieve RDT. Rather, these studies show how RDT has been achieved, with the caveat that scholars should seek to achieve RDT in the best ways that fit their research designs. We choose to include our own work because we can explain why and how we decided to define rurality.

LeCompte et al. (2022) – Definition Reliance

LeCompte and colleagues (2022) used multiple external definitions to achieve RDT, thus improving the credibility and transferability of their study. The authors conducted a qualitative analysis of the implementation of a week-long civics curriculum in two rural fifth-grade classrooms. In the methods section of their article, they tell us that the research site is a rural school district, according to the NCES locale codes. Providing an NCES code is the most common form of defining a rural area, and we expect that most rural education studies will pass peer review with only this designation (Thier et al., 2021). However, triangulating the NCES codes with an additional layer of confirmation provides readers with a more detailed description of the research site. LeCompte and colleagues showed that researchers do not necessarily need to establish RDT with participant-centric forms of checking; they used publicly available information external to the research design to establish RDT (Figure 2). The authors provided the number of residents in the school district, the population density, the demographic breakdown of the school district, and the economic background of the students in the district. Though the reader does not receive a thick description of the site as we will see with the Coady and colleagues (2023) study, the reader can confirm that

Figure 2
Definition Reliance Segment



the school district is coded as rural according to the NCES locale codes.

Coady et al. (2023) – Site Definition Checking

Coady and colleagues (2023) studied place-conscious professional development (PD) for educators of rural English learners. Because the PD was intended to be contextualized within the rural space in which it occurred, the authors provided readers with a thick description of the research site. As previously mentioned, Coady and colleagues described the research site using about 5% of more than 10,000 words in the manuscript. Dedicating so much space allowed the authors to provide specific details only a researcher on site could provide. What follows is an excerpt of the site description.

Driving across the county-centric school district, which consisted of five main towns each separated by about 20 miles, one encountered farms with tall metal silos, packing houses for peanut processing, cattle grazing on lush fields, and cylindrical bales of hay that dotted the low rolling hills. In addition to peanuts, smaller farms consisted of first crop blueberries, late-summer [*sic*] watermelons, and year-round palm trees. One of the five towns had a sizable McDonald's, which proved essential during the COVID-19 pandemic when students sat in the parking lot to access high-speed [*sic*] internet and complete schoolwork. Other chain

stores, such as Dollar General and Walmart, were located in two of the four larger towns. Two of the main towns also housed local businesses such as family-owned daycare centers, an ice cream shop, thrift stores, and several family restaurants. Flanking the north side of the county on one of the three major crossroads was a county detention center, and about a 90-minute [*sic*] drive from the county was one of the four large federal deportation centers in the state. (Coady et al., 2023, p. 3)

Here, Coady and colleagues described the research site’s geography and economy. For example, they showed us that agriculture was a major economic feature of the area, and the environment supported the growth of various crops, from peanuts to palm trees, emphasizing the need for migrant labor, creating a need for more resources for multilingual families. Moreover, they told us that the broadband infrastructure is underdeveloped, as a McDonald’s franchise provides internet access for residents. Menacingly, Coady and colleagues ended the paragraph by mentioning that federal deportation centers are only a 90-minute drive from the research site, emphasizing the danger of deportation migrant workers and their families face by their existence in the community.

Though Coady and colleagues provided a thick description of the site, they also acknowledge the need to situate their study with governmental data supporting

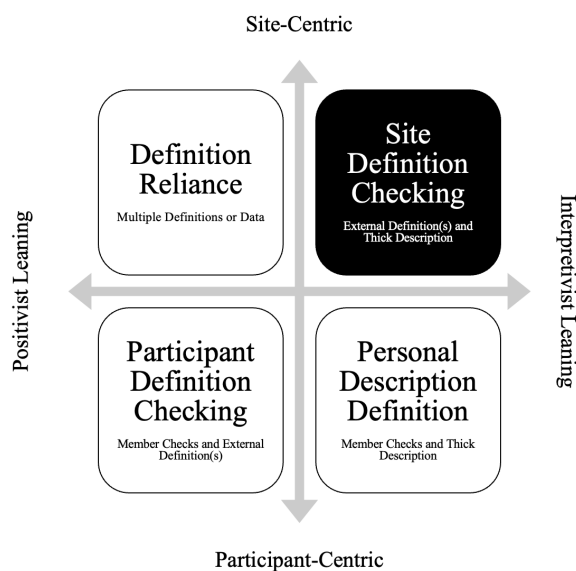
a rurality definition. They used census data to tell us that the population of the area the school district serves is 40,000. Moreover, they state the racial, ethnic, and financial demographics of the area. Though they provided a thick description, they also provided objective quantitative data about the area, which boosts the work’s credibility and transferability (Figure 3). Therefore, the reader can feel more confident that the area that is being described is, in fact, rural. Moreover, a stakeholder who might want to emulate the PD in the study can compare the demographics with their own context. This combination is precisely why RDT elevates rural education research so that it may be consumed and used by a wider audience.

Grant (2022) – Participant Definition Checking

Grant (2022) used qualitative methods to understand how undergraduate students at a high-research activity university in the southeastern United States leveraged their socioeconomic status and social and cultural capital to access higher education. Studying rural students in higher education is difficult because Federal Education Right to Privacy Act (FERPA) regulations prevent the noncommercial public from accessing a student’s academic records, including where they attended high school (Rhoades, 2020). Recruiting participants with adequate inclusion criteria can be challenging as a result (Goldman, 2019). Therefore, Grant created recruitment materials that emphasized the rural nature of the study. Grant created a flyer and posted it at frequently trafficked locations around the university where the study was conducted. The primary text of the recruitment flyer asked, “Are you from rural [state]?” Because of specific state scholarship policies, Grant was interested in learning about students considered “in state.” Grant also posted the flyer virtually on the Reddit community associated with the university and sent the flyer as an email attachment to several student organizations that were registered with the dean of students’ office. Using a recruitment flyer that listed inclusion criteria was the first means of establishing that the study was conducted with participants who considered themselves rural.

Grant also was interested in establishing rurality using a government definition, at the suggestion of a mentor, so that policymakers who use these definitions would find the study legitimate. After exploring the rural higher education literature, Grant hypothesized that the NCES classification system was the most commonly used definition. Later, Thier and colleagues (2021) confirmed this hypothesis. As potential participants emailed Grant, he requested the name of their high school. He then matched the potential participant’s high school with its NCES code. Some potential participants attended schools coded as Town: Distant, Town: Fringe, and Suburban: Small (Provasnik et

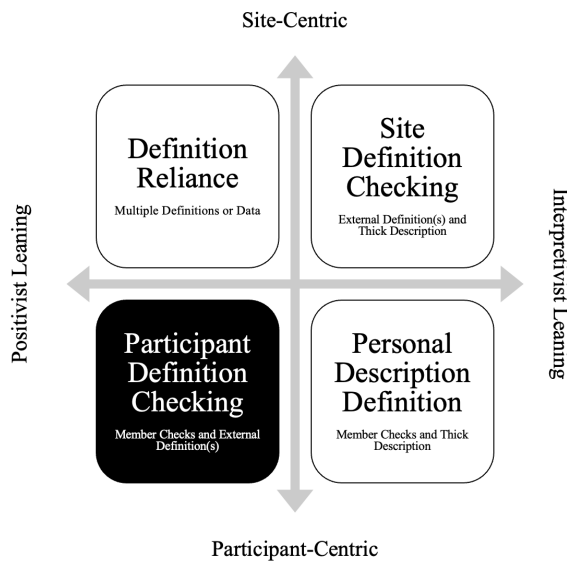
Figure 3
Site Definition Checking Segment



al., 2007). Grant decided not to include these participants, as the school they attended was at least 10 to 35 miles from an urbanized area, which some scholars do not consider to be rural (Manly et al., 2019). Once the final list of participants was finalized and appointments for interviews were filed, Grant engaged in member checks by asking each participant in the interview if they considered themselves rural and why. Each participant identified as rural, except for one, whose data were removed from the final analysis.

Ultimately, Grant (2022) achieved RDT by engaging in member checks (both in the initial recruitment phase and in the interview phase) and establishing inclusion criteria in the form of a governmental organization (Figure 4).

Figure 4
Participant Definition Checking Segment



This version of RDT fits into the participant definition checking segment of our matrix. Grant does not consider himself to be a positivist but chose to lean on the positivist side to establish credibility with policymakers by using a government definition. At the same time, Grant was interested in the unique experiences of students from rural areas, so it was more important for him to establish the participants' identities than spend time in their hometowns to engage in thick description. Moreover, providing thick descriptions would have added months of fieldwork as the participants' hometowns ranged from 20 to 300 miles from the research site. Furthermore, even if feasible, a journal with strict word count limits would likely have excluded these thick descriptions.

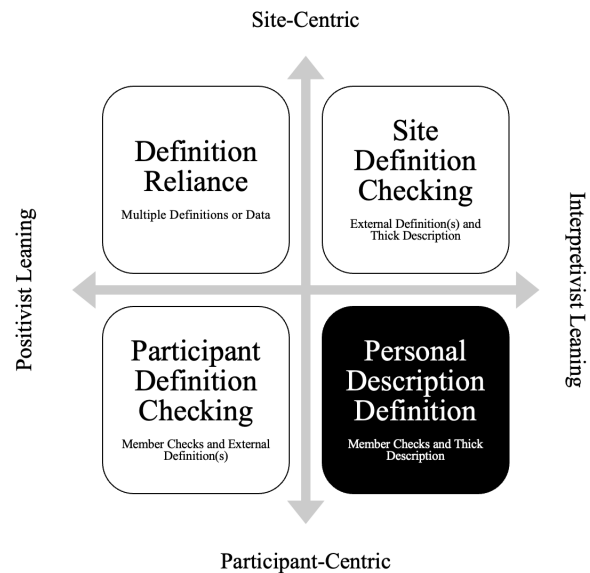
Longhurst (2017) – Personal Description Definition

Longhurst (2017) conducted qualitative research about rural community college students in southern Oregon who chose to stay close to home rather than leave for a more urban higher education experience. Longhurst used purposeful sampling (Creswell, 2007) to form a group of research participants. Students were recruited via an email campaign sent to all students attending the most rural of the community college's three campuses. Participants were asked to self-identify as living rurally and as being at least the second generation to live in the local area. Consequently, at the time of the study, some participants had local family members, and all had spent most of their lives in rural Oregon.

Data collection included surveys, semi-structured interviews, focus groups, and photo elicitation. In each research stage, Longhurst conducted member checks and asked questions about rurality and identity. The participants were asked to reflect on what they believed made their home rural, what they valued, and what they wished might be different. They all shared photographs of their homes and images that represented how they saw themselves. All participants spoke about rurality and remoteness as essential to their identities.

This study falls within the personal description definition segment of RDT because it does not rely on a government definition to establish rurality (Figure 5).

Figure 5
Personal Description Definition Segment



First, Longhurst engaged in purposeful sampling to ensure that all their participants lived in a nearby area; were at least the second generation to live there; and considered themselves rural, which serves as a member check. Additionally, the participants shared photographs of their homes and the surrounding area, which provided a thick description of the research site. By using photo elicitation, Longhurst was able to review the research site without having to travel there themselves. They could understand the figurative lens of the research participants by viewing the research site through the literal lens of a camera. We believe Longhurst's article is an example of how a qualitative researcher can use creative means to establish RDT. Indeed, personal description definition is the only segment of the RDT matrix that does not include a government definition, leading the study toward a more grounded approach that some qualitative researchers tend to prefer.

Discussion and Conclusion

In this conceptual article, we have explained the need for increased credibility and transferability in rural education research, introduced rural definition triangulation (RDT) as a solution to that need, presented the RDT matrix as a practical means to implement RDT in future studies, and given an example of how RDT was achieved in each of the four segments of the matrix. We have created RDT as a resource, rather than a definitive guide, for defining rurality in qualitative, multimethod, and mixed methods research. As a result, we hope that scholarly authors, journal editors, and stakeholders will use RDT to guide our field's growth and development. Previous conceptual articles have called on rural education scholars to provide enough data for nonrural comparison (Coladarci, 2007). In the past, this advice was instructive to the field of rural education as it was much less developed compared to today. With the growth of qualitative research over several decades, we felt it was time to expand what could be considered "best practices" in defining rurality, particularly for research that does not fit the quantitative paradigm. Therefore, RDT is our effort to democratize rurality definitions rather than gatekeeping how they should be included.

We make special note throughout this article that government definitions of rurality are those most frequently used. As we found previously, education researchers use NCES codes most frequently to define rural spaces (Thier et al., 2021). As a result, government definitions are included in three of the four segments of RDT. Though qualitative research does not necessarily need to depend on objective measures of rurality from government agencies, they provide scholars with several benefits, such as ease of comparison, convenience, and external confirmation. Government definitions provide scholars with an instrument

by which two schools can be reasonably compared, which is incredibly important if they are far apart, and a visit is impossible. Moreover, NCES and other agencies can provide scholars with quantifiable data, such as population counts, demographic profiles, and student-to-teacher ratios. All this information falls under our "government definition" category in RDT. LeCompte and colleagues (2022) showed how government data can contextualize a research site without member checks or thick descriptions. They provided readers with the NCES definition and included demographic information about students within the school district. These data allowed scholars and stakeholders to compare the institutions under consideration in a study beyond what would be possible with only the NCES code.

Government definitions work well in concert with other means of defining rurality. For example, Grant (2022) asked potential participants for the name of their high school so that the NCES code could be identified before data collection began. Moreover, Grant asked participants to self-identify themselves as rural as a form of member-checking to ensure that both the school was considered rural by a governmental definition and that rural is qualitatively grounded by the participant's admission. Similarly, Coady and colleagues (2023) used quantifiable government-based data to support their position that their research site was rural. Rather than depending on a government definition, Coady and colleagues provided their readers with a thick description of the research site, which painted a picture of the local geography and economy. This combination of strategies effectively grounded the study within the research site and provided external readers with a sense of the community's demographic makeup, which enhanced the transferability of the study. Finally, Longhurst (2017) showed that a government definition is not mandatory for performing a study in a rural setting. Longhurst improved the credibility of their study by having participants self-identify as rural; they improved the transferability of the study by using photo elicitation so that participants could show what they believed to be rural.

As we were constructing RDT, we returned several times to the juxtaposition of government definitions and grounded definitions. Government definitions and data are an excellent means in which to define rurality. However, we highly recommend that scholars engage in RDT and support their definition with additional data. For example, LeCompte and colleagues (2022) provided readers with the NCES definition. The addition of quantifiable data along with the NCES code makes the study credible and transferable. This strategy aligns with previous advice for trustworthy rural education research (Coladarci, 2007). However, we are excited to also provide scholars with an option in RDT that does not include any government definition or data (personal description definition). Triangulating the definition of

rurality with member checks and a thick description of the site may be the most appropriate, especially for those who align themselves with a critical, postmodern, or postcolonial epistemology. By eliciting a member check, scholars can bolster the credibility of their study. With a thick description, they enhance the transferability of their study by providing essential details about the research site that would be difficult for any governing body to create. Therefore, what is of utmost importance when establishing RDT is attending to the study's credibility and transferability. Peer reviewers, editors, and readers need to know that a scholar has performed some check that what they are studying is, in fact, rural by some definition or description. Moreover, scholars must provide some means of establishing a study's rural context, whether in a government definition that can be used to compare two research sites or through thick descriptions. While we have provided these practical guidelines for establishing credibility and transferability, and RDT as a result, scholars should be creative in approaching these concepts. Indeed, we encourage our colleagues to break the four boxes we have created in the RDT matrix to improve upon them.

Finally, we encourage editors of all related journals, especially rural education journals, to allow additional space within their manuscripts for site descriptions. While thick site descriptions are not mandatory to achieve RDT, two of the four methods we have outlined require them. Moreover, as transferability is a critical concept in qualitative research, thick description is currently the most effective way to richly describe a research site, its economic realities, the people who live and work there, and the resources afforded to any rural area. There is no universal rural area. Any definition of rurality that is constructed will fail to include relevant locations. Therefore, as a field, we must do more to contextualize our research sites.

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