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Applying a Neuroinclusive Lens to the Salient Practices Framework for Undergraduate Research Mentoring

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Introduction
Mentored undergraduate research has been shown to be a transformative experience for college students, improving outcome measures spanning from institutional retention to student development (Kinzie, 2012; Kuh, 2008; Lopatto, 2010). In addition, literature has highlighted that students from minoritized backgrounds have amplified gains in outcomes when engaging in undergraduate research experiences (Finley & McNair, 2013; O'Donnell et al., 2015). Often the mentoring relationship is targeted as a major component that leads to meaningful outcomes.

High-quality mentoring does not just happen, and in the last decade, research has focused on professional development for mentors (Hall et al., 2018; Vandermaas-Peeler, et al., 2018). The 10 Salient Practices of Mentoring Undergraduate Research (Shanahan et al., 2015) have been implemented across disciplines (Allocco & Pennington, 2022; Moore et al., 2020; Shawyer et al., 2019) and mentoring contexts (Allocco et al., 2022; Hall et al., 2021; Ketcham et al., 2017; Ketcham et al., 2018), demonstrating that a focus on the practices of mentoring positively impacts the experience for both students and faculty. However, mentoring across identity differences is something that mentors need to consider and directly address in their mentoring practices (Osman and Gottlieb, 2018; Ketcham 2021a; 2021b; Li et al., 2018).

Gender, race, and culture are aspects of identity that are commonly considered in conversations about mentoring across differences. Neurodiversity intersects with all of these identities, but it is not often considered in identity focused mentoring practices (Ketcham 2021b; Li et al., 2018). Neurodivergent individuals are an identity population that is growing in higher education settings and is not often recognized as an underrepresented group (Pino & Mortari, 2014; White et al., 2017; Dwyer et al., 2023). Neurodivergent identities often include diagnostic labels of autism, dyslexia, attention deficit hyperactivity disorder (ADHD), and dyspraxia, but can include other labels that describe neural function that is outside of what society considers 'normal or neurotypical' (Fig. 1; www.exceptionalindividuals.com; APA, 2023; Spaeth & Pearson, 2023; Rosqvist et al., 2020; Walker, 2021). Understanding and providing mentors with common accommodations and practices that offer a supportive environment for individuals with this identity can be valuable and support students beyond neurodivergent identities.

A strategic focus in higher education has been on Justice, Equity, Diversity, and Inclusion (JEDI) initiatives. JEDI initiatives have evolved in complex ways, and the conversation has moved away from how a college education can 'bring diversity' to the student experience and acknowledging that students bring cultural wealth to these spaces (Longmire-Avital, 2019; Yosso, 2005). Colleagues

from diverse backgrounds and experiences, particularly around race, have rightly highlighted that applying a templated experience to all students may do harm to students from a breadth of race, gender, and economic identities (Longmire-Avital., 2022; Perez Ortega, 2023). Thus, literature around faculty development in these spaces is beginning to emphasize that centering cultural awareness training is essential to supporting students in higher education spaces (Black et al., 2022; Perez Ortega, 2023).

Although not necessarily intentionally excluded in the JEDI spaces of higher education, neurodiverse and disabled populations do not receive significant attention (Cook-Sather, A. & Cook-Sather, M., 2023; Schmulsky et al., 2021). Additionally, neurodivergent identities intersect all identities, thus for students from historically excluded and systematically marginalized identities (e.g., Black, indigenous), the barriers to access and participation become more pronounced (Kryger & Zimmerman, 2020). While the primary aim of implementing neuroinclusive and neuroaffirming practices is to support students with neurodivergent identities, such practices have the potential to benefit all students. Centering inclusive pedagogy and practices for populations who need them is important to promoting a climate of inclusion (Addy et al., 2021; Hogan & Sathy, 2022). We see this discussion similarly in more recent JEDI conversations around race identities. Specifically, building programs, initiatives, and policies that intentionally center structured supports for populations historically excluded in education emphasizes that removing barriers to access is an actionable priority and not performative lip service (Gorski, 2019; Longmire-Avital, 2022).

The goal of this paper is to highlight neuroinclusive actions for implementation of the Salient Practices of Mentoring to support neurodivergent individuals in the undergraduate research process. We are optimistic that readers will find that centering neuroinclusive mentoring practices for undergraduate research removes barriers for neurodivergent students and likely support students from a breadth of identities.

Defining Neurodiversity

Defining associated terms (APA, 2023; Alumbaugh, 2023; Rosqvist et al., 2020; Chellappa, 2023; Crewes & Holmes, 2022; www.exceptionalindividuals.com; Spaeth & Pearson, 2023; Vollmer, 2023; Walker, 2021).

> **Neurodivergent:** refers to an individual with an identity from a neurodiverse category (e.g. autism, dyslexia, dyspraxia, dyscalculia, dysgraphia, Tourettes, ADHD). An individual would be referred to as neurodivergent.

> **Neurodiverse:** describes a population of individuals with neurodivergent identities.

> **Neuroinclusive:** creating spaces where a diversity of learning, thinking, processing, executing styles are celebrated and neurodivergent identities can thrive.
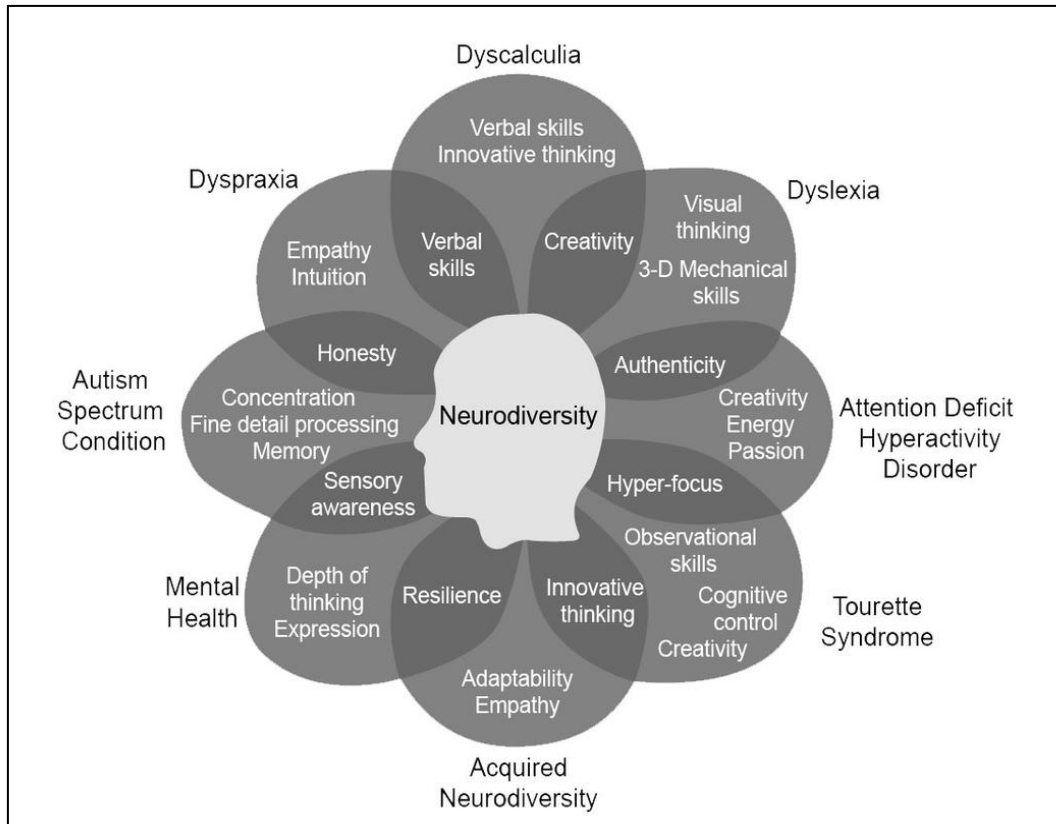
> **Neuroaffirming:** asserting and affirming that all variations of thinking, learning, processing, and execution are valuable and valued. Differences are not considered deficits that need to be 'fixed.'

Neurodivergent identities make up an estimated 15-20% of the world population, and in higher education settings, it is estimated that 11% of graduates and 30% of current students are neurodivergent (Sachs, 2021). The undiagnosed rates are unknown and diagnosis in adulthood is

becoming more and more common, so these numbers are likely higher. The drop-off numbers in retention in neurodivergent identities are significant, emphasizing why fostering neuroinclusive spaces and pathways to engaging and impactful experiences is not only important but urgent. Institutions must continue sustained initiatives and programs which promote belonging and well-being in intentional ways to support all students across identities (Hall & Ketcham, 2021; 2022; Hall, Ketcham & Walkington, 2023; Walkington & Ommering, 2022).

Neurodiversity does not include a singular definition or list of disabilities, differences, or identities that it encompasses (APA, 2023; Rosqvist et al., 2020; Spaeth & Walker, 2021). Figure 1 shows examples of common neurodivergent identities and the overlapping skills and strengths. Neurodiversity acknowledges the spectrum of cognitive functioning broadly and is often used to describe people who have defined variations in cognitive functioning, including autistic, dyslexic, or dyspraxic people, or people with ADHD or less common learning differences (LD). Neurodiversity includes a non-linear spectrum of identities with supports and challenges that are not universal. It may or may not include a disability because the disability usually is related to ableist structures and processes inherent in the environmental context. In one environment, an individual may need accommodations that are not needed in a totally different setting (e.g., extra time when writing, but not needed if typing). With this said, there are supportive practices that may help across contexts and can remove common barriers for neurodivergent individuals. Supports that prioritize clear and direct communication, provide structure and organization to support executive functioning challenges, and reduce social language jargon and paradigms that assume implicit knowledge of a context or situation can be a good starting point (Kudar et al., 2022).

Figure 1. *Examples of overlapping Skills and Strengths of Neurodiversity,* credited to Nancy Doyle, based on work by Mary Colley (https://dceg.cancer.gov/about/diversity-inclusion/inclusivity-minute/2022/neurodiversity)

Dyscalculia

Verbal skills
Innovative thinking

Dyspraxia

Empathy
Intuition

Verbal
skills

Creativity

Dyslexia

Visual
thinking

3-D Mechanical
skills

Honesty

Authenticity

**Autism
Spectrum
Condition**

Concentration
Fine detail processing
Memory

Neurodiversity

Creativity
Energy
Passion

**Attention Deficit
Hyperactivity
Disorder**

Sensory
awareness

Hyper-focus

Observational
skills

**Mental
Health**

Depth of
thinking
Expression

Resilience

Innovative
thinking

Cognitive
control
Creativity

**Tourette
Syndrome**

Adaptability
Empathy

**Acquired
Neurodiversity**

Neuroinclusive Focus

The focus of this paper is to help readers consider neuroinclusive and neuroaffirming actions when engaging in mentoring relationships (Alumbaugh, 2023; Rosqvist et al., 2020; Chellappa, 2023; Spaeth & Pearson, 2023; Vollmer, 2023; Walker, 2021). We specifically apply the Salient Practice Framework (Shanahan et al., 2015) to exemplify neuroinclusive actions to support a high-quality mentored undergraduate research experience. Neuroinclusive actions, settings, and spaces can foster resilience by infusing and integrating diversity of perspectives and experiences into the ideation and design process. Practices, policies, and processes that support neurodiverse identities lead to increased opportunities for innovation, which is a goal for many industries, including education (Crewes & Holmes, 2021). This presentation of ideas and actions applied to mentoring undergraduate research is meant to be a starting point of conversations and not a template of how to mentor neurodivergent students. Mentors may or may not be aware that they are working with a neurodivergent student, and thus we hope these neuroinclusive practices will be part of their mentoring ethos and become common practice. We cannot emphasize enough the importance of setting a climate and providing the space to engage in vulnerable conversations around needs, accommodations, supports, and actions that facilitate authentic engagement. Asking about preferred modes of communication, accountability, feedback, and personal check-ins can model flexibility and respect, demonstrating how valuable the individual is to you and to the work (Multani, 2022). Asking and listening is only the beginning of building trust, but this beginning is formative to students who may have been marginalized, medicalized, and taught to mask their challenges (Cavanagh et al. 2018; Miller, Rees, & Pearson, 2021). Presume competence, but do not mistake competence for confidence. Providing space and opportunity to practice, to make mistakes, to get multiple modalities of feedback (i.e., written, verbal, big picture, detail), to engage in reiterative and

supportive processes is foundational to building a positive relationship and the expectation that these actions should not be considered a luxury. From our experience as learners and mentors who do not identify as neurodivergent or disabled, asking, listening, and leading with vulnerability has made us stronger mentors. Our students and colleagues who have trusted us to disclose their experiences as neurodivergent and disabled individuals have been an integral part of our professional development.

Additionally, we lead our mentoring relationships with two important considerations that we consistently come back to throughout our mentoring process. First, the individual is an expert on themselves and has likely, through extensive trial and error, found ways of learning and engaging that are successful for them. Second, leave the work of the medical and mental health professionals to the professionals. Engage in conversations with the intention of being flexible, respectful, and accommodating as this information is shared or with the information you have (Rajkamur, 2022).

Salient Practices
The Salient Practices Framework is an evidence-based set of actions that have been identified in the literature as foundational to support high-quality mentoring in undergraduate research (Shanahan et al., 2015; Walkington et al., 2018; 2020). These practices are what award-winning mentors do and can be beneficial for student and faculty development (Walkington et al., 2020). This study also demonstrated the importance of tailoring mentoring practices to the needs of the individual student. While the framework identifies 10 practices and starts from early in the process (preplanning, setting expectations) to more advanced stages (disseminate work, build networks), they are also meant to be reiterative and parallel practices (See Table 1). Table 1 outlines the 10 Salient Practices with some tips for neuroinclusive application. The implementation of these practices is where the art of mentoring occurs. As we and several colleagues have worked with this framework across multiple contexts (e.g., global context - AAC&U, forthcoming; Allocco et al., 2022; virtual mentoring - Hall et al., 2021), using different mentoring models (Ketcham et al., 2017; 2018), and considering the changing needs of students (Hall & Ketcham, 2022; Hall et al., 2023), we find it to be a powerful tool in the relational research process. However, building the relationship between mentor and mentee is fundamental and is not a transactional process when it works well.

Table 1. *The Salient Practices Framework of Mentoring Undergraduate Research and Neuroinclusive Application*

Salient Practice	Neuroinclusive Application and Tips to Consider
1. Strategic Pre-Planning	Identifying and listing student and mentor goals and expectations as well as the abilities, skills, and experiences each bring to the project can set the stage for valuing differences among mentors and researchers. Additionally, identifying supports or accommodations the student may know they will need and emphasizing how they can ask for additional help/accommodations as needed. Learning contracts might be one way to help accommodate this and other salient practices (Abdel-Qadar, 2004). ***Tip: Make this a shared document you can revisit as needed. Have a template starter or let the student design. This may also include timelines and expectations. For resources related to creating learning contracts, readers may want to look at the Virtual Research Mentoring Model*** (CAA Academic Alliance, 2024).

2. Set Clear and Well-Scaffolded Expectations	Setting explicit expectations (or goals) puts all involved on the same page throughout the process of the project. We recommend starting with semester goals and potentially working backwards to weekly goals. Ask questions in this process that help the student examine their load and responsibilities and build research time into their schedule. This helps lay out how research goals and expectations fit into their responsibilities. Discussing strategies to support self-paced tasks and accountability may be valuable to incorporate (e.g., shared Google doc and timeline of tasks). *Tip: Revisit this often to encourage students to keep it up and to model that adjustments to timelines, expectations, and goals is part of the collaborative process. Be explicit on what expectations and goals are set out for you as a mentor as well.*
3. Teach Technical Skills Necessary To Do Research In The Discipline	Identify skills needed to support the project and build in opportunities to develop and practice those skills. For example, if working with human participants, building a script for the data collection process may be valuable. Design clear step-by-step instructions to support the different components of research set-up, data collection, and data analysis. The student may lead the development of these documents with support. This will benefit all members of research teams and labs! This may be their strength; identify and utilize their strengths. Maybe this becomes a visual guide, for example. *Tip: Build in time and space to practice in low risk, guided settings and let them build autonomy as they feel comfortable. Consider accommodations that may be needed and brainstorm processes to facilitate success and confidence. Have honest conversations with the student about what is realistic and be flexible when there may be pushback or tension with the expectations created.*
4. Balance Challenging Expectations With Emotional Support	Checking in on students, their progress, their other responsibilities, their stress, and any parts of their identity they have disclosed can be instrumental in building trust and a supportive culture. Explicitly stating expectations to reach goals and identifying where mentor support is important and valuable helps the student recognize that needing help is normal in the research process. *Tip: Building in time for students to share and get affirmation of stress and excitement of their lives is important. Talk about ways to be flexible with goals and expectations but keep some on the radar so research doesn't fall off their plate. Maintain that this is also a very important component of their responsibilities.*
5. Build Community Among Scholars	Setting aside space for journal clubs, practicing presentations, and learning skills together gives students a place to build community. It also provides a space to highlight the strengths and learning differences across scholars. This provides resources for each other and normalizes needing different supports. One example of this is journal clubs or engaging in discussions about research articles where different people have different roles so that they can engage in the practice in different ways.

	Tip: Creating space for building community is valuable for all but can have significant impact on individuals that find group spaces challenging to navigate. Talking about expectations to support each other by helping with data collection or analysis when appropriate and supporting social engagement activities that span a variety of event types (e.g., bowling, book club, other institution lab visits, summer baseball game) gives people a place to engage that feels possible and builds comfort with colleagues.
6. Dedicate Time To One-To-One Mentoring	This is a space to build a mentoring relationship that often extends beyond research to career conversations and other support that the student may need. Explicitly and directly asking students about components of their neurodiverse identity, strengths, and challenges and providing resources to support is instrumental. Engaging in professional development workshops that discuss inclusive practices in teaching and learning are great resources to support mentor development. *Tip: Find conversation starters that fit you as a mentor, but steer toward asking direct and meaningful questions (for examples, see CAA Academic Alliance, 2024; Hall, Ketcham, & Walkington, 2023). Small talk can be a challenge to navigate for some neurodivergent individuals as the implicit rules of what to disclose or not disclose can be vague and context dependent. Building trust in these spaces can positively benefit the research and the experience for students and mentors (see Felten, Forsythe, & Sutherland, 2023 for discussion about trust moves in higher education).*
7. Increase Student Ownership Over Time	Multi-semester projects allow students time to gain and practice skills. As students gain confidence, directly identify when and how you will encourage them to lead and take more ownership of their project. Reinforce that they are the expert of their research topic and project as you simultaneously give them tools of how to be the research expert. *Tip: Explicit modeling of expectations of how to increase ownership should be prioritized. This may include the mentor not being around during data collection (if appropriate) or asking students to take on responsibilities previously done by mentor (e.g, creating agenda for meetings, leading discussions about research, etc.). Implicit understanding of what a mentor 'expects' can lead to tensions in these spaces that can be circumvented with direct communication.*
8. Support Students' Professional Development	Partner with the student on their strengths and challenges and provide resources to help them develop. Help students identify and articulate transferable skills they learned as part of the research experience and support they need to be successful in what they seek out next (e.g., jobs, graduate schools, etc.). Talking about the process and context of their next steps for career development can be helpful. *Tip: This space can impact careers and trajectories of neurodivergent students in awesome ways. For example, many doctoral programs include extensive self-directed progress that is likely challenging for some neurodivergent individuals. It is more than a 'these are the hurdles we all jumped to get here' challenge, to be blunt. Helping students advocate for*

	their needs and helping them match the context they will thrive in is valuable (e.g., identify salient program, lab, and mentor characteristics that will support them holistically rather than just the "best" program).
9. Create Opportunities To Learn Mentoring Skills	To support community, productivity, and professional development, providing structure for students to mentor each other is valuable for them to gain mentoring skills as part of their development. Lean on student strengths and then center mentoring around specific areas such as learning technical skills, co-writing, or talking about career preparation. *Tip: Creating specific mentoring roles will provide structure and expectations that will lead to positive outcomes. Expecting open-ended outcomes can be challenging to navigate for all involved.*
10. Encourage Students To Find Opportunities To Disseminate Research	Identify a range of opportunities for students to disseminate research in a public forum and prepare them to be fully informed by stepping through what these opportunities entail. Provide reinforcement around the strengths, expertise, and experiences the student brings to these spaces and clarity on expectations of engagement. Partner to identify meaningful and clear expectations of engagement (e.g. what sessions or events to attend at conference). Lean on strengths and acknowledge challenges. *Tip: Prioritize students' authentic selves in these spaces. This is a gentle reminder for all of us that students do not need to be or do things just like their mentor and to give them space in these venues to find their voice and engage with colleagues that will respect their work and their perspective.*

Neuroinclusive Framing of Some Common Components of the Salient Practices
It should be noted that these topics are common challenges for neurodivergent individuals, but take care not to overgeneralize the nature of a diverse group. Each person will have different challenges and strengths, and some of these may be related to their neurodivergent identity. It is always best to ask the individual directly what their challenges and strengths are and how you can best support their personal and professional development. Please do not assume all individuals with neurodivergent identities encounter the same challenges.

Social Challenges
One common challenge for some neurodivergent individuals is engaging in large group and social settings (APA, 2023; Rosqvist et al., 2020; Kudar et al., 2022; Walker, 2021). These challenges may result in lack of understanding social cues, social withdrawal, lack of eye contact, and 'awkward' conversations. This does not mean individuals 'do not want to' or 'cannot' be social, it is rather the environment and context is not supportive of their needs and therefore engagement is challenging. For example, it may be the sensory setting and sensory overload that is not allowing them to hear or process conversation. It may be unclear what the social rules or expectations are and therefore unclear how they should engage. These are common challenges; if we put a neuroinclusive lens on the Salient Practices, we can often engage in ways for individuals to thrive. Salient Practices (SP) 5, 8, 9, 10 have the potential to have high social interactions, while all practices at some level have a social interaction with the mentor at minimum. Thinking through ways to support students in knowing and practicing social expectations can be valuable.

Let's take SP 5 (Build Community Among Scholars) to illustrate an example of neuroinclusive processes we have put in place. In our lab and department, we engage in journal clubs, lab meetings, professional development workshops, writing times, and social events (see Hall et al., 2021 for how these are often used to build community between student scholars). Being mindful of the settings for these events and offering a variety of opportunities to engage gives space for students and colleagues to enter where it is most comfortable. We have intentionally scaffolded journal clubs in a way that supports and models the social process. This models disciplinary norms and provides students with a guided process. Traditionally, a journal club invites all participants to read a research paper related to their project and then convene for discussion. There often is one student tasked with leading the discussion. Then we may expect the conversation to just dynamically happen with all students being invited to share what they interpreted or saw valuable in the paper. In our department, we have embraced a model where students are given jobs for each meeting. The model used was inspired and adapted from a 5th grade book club structure that one of the authors learned about from their children. The benefit of this structure is that it includes specific jobs which are assigned prior to the meeting so that all participants have time to prepare (Table 2). Students are given clear roles and rotate these to learn the components of journal article reading we want them to attend to. This helps define expectations, provide accountability, and builds in opportunities to practice critically reading journal articles. It provides social scaffolding, and while supporting students from neurodivergent identities, it provides a norm of expectations for all in the room. It gives clear, structured expectations of what to contribute and when students can and should engage in the conversation. This structured experience is a good example of taking a common practice and breaking it down to set clear and direct expectations and rules of engagement (Karalunes et al., 2018; Shmulsky et al., 2022).

Table 2. *Example Roles for Journal Club*

JOURNAL CLUB JOBS

Discussion Director
- Provide a brief introduction about the authors of the study and their research.
- Your job is to create a list of at least three questions for your group to discuss about your assigned reading. The questions should be open-ended to create a discussion, not be questions that can be answered with a "yes" or "no, or simple fact recall.

Insightful Illuminator
- Your job is to choose at least three sections from your reading that you enjoyed and be able to explain why to your group. These can include an important, interesting, or conflicting part, or an example of excellent writing such as a good point made or description

Creative Connector
- Your job is to find at least two connections between the journal article and the outside world. This means connecting the reading to some of the following:
  - ➔ Your own life
  - ➔ Other people or problems
  - ➔ Other writings on the same topic
  - ➔ Practical application to certain populations
  - ➔ Happenings at school or in your neighborhood
  - ➔ Other writings by the same authors

Methods Maker
- Your job is to choose at least three interesting things in the methodology, including strategies used to increase the validity of the study and what the researchers were trying to control. Anything they could have done better? What did the researchers do well?

Words Wizard
- Your job is to choose at least three technical terms in the study, that everyone most likely may not know, and define and explain them to everyone.

Precise Predictor
- Your job is to identify at least three ideas for future studies that the authors state and at least two ideas for future studies of your own.

Limitations Leader
- Your job is to identify at least two limitations of the study that the authors state and at least two limitations that you can identify on your own.

Executive Functioning

A common challenge for some neurodivergent identities is related to aspects of executive functioning. Organizing, prioritizing, managing time, and planning can be overwhelming and confusing for many. Research inherently requires a lot of self-initiative from students to manage progress of the project. Salient Practices 1, 2, and 3 are directed at providing structure, planning, and organization of expectations. However, there can be some concrete scaffolding that can support most students but especially neurodivergent students. Creating documents (e.g., learning contracts or syllabi; Abdel-Qader, 2004; Mabrouk, 2003) with clear expectations of how much time to spend on research a week as well as specific goals for that time use can be valuable. It keeps students and mentors on the same page and teaches process components that may often be assumed in more broad conversations. For example, with most of our students, we have a shared document for an annotated bibliography. We encourage students to read papers and keep notes especially at the beginning of the process while they are learning about the topic to develop research questions. In our work with students over the years, we have noticed different styles, and this has helped us give students more ideas of providing structure when helpful. Similar to the jobs of journal club, we can work with students to build a spreadsheet identifying components of the paper they can focus on. This may be identifying theories, methods, population, references, limitations, and more. Building those together and using them to frame meeting conversations give students a starting point of organization, planning, and expectations. Using similar framing can help with drafting scripts of subject interaction for data collection, scripts of doing sample analysis, documentation of data and file organization and more. Providing a starting place and identifying this as a place where students have autonomy to build what works for them has given us as mentors lots of excellent models of

supportive structures and processes for executive functioning. We are more neuroinclusive mentors in these spaces because of the trust our neurodivergent students had in advocating for ways that supported their success in the research process and the way their engagement supported their sense of belonging in our spaces (Daly-Cano, Vaccaro, & Newman, 2015).

Networking and Building Bridges to What Students Pursue Next

As mentioned previously, neurodivergent mentees may have trouble navigating social environments. A common method that mentors often use to help disseminate research and to help students develop professionally is through attendance and participation in academic conferences (SP 8 and 10). Previous research has found that Salient Practice 8 is a hidden challenge for mentors (not a strength or a weakness) and probably needs intentional development for mentors (Walkington et al., 2018).

Presenting research findings at a conference is often seen as the pinnacle of achievement for an undergraduate student and can help them see how scholars engage in their discipline. However, this is a social environment, and it may be difficult for some neurodivergent students to engage or know how to engage. Therefore, the mentor needs to think about the best possible venues to present and adequately help students prepare for the conference. When considering venues, faculty may want to think about possible virtual options to present research or consider regional conferences which may be smaller and be less overwhelming to navigate. Mentors may also want to think about the different formats in which they can present. Based on the needs of the students, would they feel more comfortable presenting an oral or poster presentation (e.g., social or executive functioning)? Some possible additional accommodations could be to look at alternative presentation types such as shorter Pecha Kucha (20 slides for 20 seconds per slide) or lightning presentations (3-5 minutes). Other options could be to possibly co-present with a mentor or another student who might be able to help navigate the experience and make the student feel more comfortable.

Conferences are also a place where students and faculty can help build their professional network and learn about disciplinary norms (Salient Practice 8). For some neurodivergent students, it may be helpful to be more intentional and plan for these interactions. Prior to attending the conference, it is helpful to discuss the different ways in which conference attendees may interact with one another (e.g., informal conversation at posters or between sessions and how people may interact with various presentations). Additionally, faculty may plan and think about specific people that they may want to interact with neurodivergent students and possibly make these interactions happen in places that minimize distractions to help with the quality of engagement that can happen in these settings.

Finally, undergraduate research students often leverage their experiences into future graduate and professional schools. As mentors, it is important that we help students identify the school that is the right fit for them. This could be helping students identify schools that might have resources that may be helpful for them, but also thinking about the classroom environment at schools (e.g., size of classes). For more traditional graduate schools where selection of a mentor is important, it may be helpful to think with students about what their needs will be in that specific context and environment. Encouraging students to have conversations with other graduate students to determine mentor style and the student experience may be beneficial. Some things to consider would be whether the mentor is interested in the student as a whole person (SP 4) and provides developmental opportunities as opposed to more transactional interactions. It once again may be helpful for students to seek out mentors who are good at scaffolding the research experience and help create clear expectations to help keep the student on track and know what is expected of them (SP 1 and 2).

Conclusion

Identity development has been shown to be a significant part of student development and well-being (Schmulsky et al., 2021). Creating processes, pathways, and practices that center neuroinclusive and neuroaffirming cultures will support neurodivergent students and spaces of welcome and belonging. Furthermore, neuroinclusive practices have the potential to support all students as centering direct communication, scaffolded processes, and clarifying responsibilities and expectations can make the 'rules' of engagement in higher education transparent. This is not about applying accommodations, but rather reframing mentoring practices to be neuroinclusive and provide built-in supports in the system so that the diversity of thinking, processing, communicating, and learning is all welcome and positioned to thrive. Being instructors and mentors who build, foster and champion systems and spaces that create inclusive environments is affirming to students about who they are and what they bring to our institutions. These are the types of institutions professionals want to work in and students want to attend.

Throughout this paper, we have highlighted peer-reviewed research as well as websites that center neurodivergent voices in the advice given. Similar to research in teaching and learning space, we expect there will be continued interest by scholars to implement research-informed practice into educational systems. As inclusive pedagogy continues to be implemented across settings, researchers need to highlight what practices benefit students across identities and what practices might need to be tailored to specific identity populations. We encourage readers to visit and revisit The Center for Engaged Learning's Resource Pages, which includes information about both Salient Practices and Inclusive and Affirming Engaged Learning Practices (www.centerforengagedlearning.org).

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