Research Article

Ecological Perspective on Self-advocacy Skill Acquisition: Insights from Higher Education Students with Disabilities

Unita Werdi Rahajeng^{1,2*}, Wiwin Hendriani¹, and Pramesti Pradna Paramita¹

ORCID

Unita Werdi Rahajeng: https://orcid.org/0000-0002-7230-2492

Abstract.

Self-advocacy is essential for students with disabilities (SwDs) because it facilitates access to necessary support and accommodations tailored to their individual needs. The environment significantly influences the acquisition of self-advocacy skills among these students. This study explores the ecological factors pivotal in this process, specifically examining how environmental elements impact students' self-advocacy and how these factors interact to shape their experiences. Using a qualitative research approach, we conducted in-depth interviews with three students with various disabilities—physical, visual, and auditory. Data were analyzed using constructivist grounded theory methods, including initial coding, focused coding, and theoretical building, supported by Atlas.ti software. The analysis revealed three main themes: (1) The environment as a source of knowledge, (2) Changes and demands of academic life, and (3) A disability-friendly environment. The key ecological actors identified include family, peers—both typical peers and persons with disabilities—and campus communities. These findings highlight the importance of multiple ecological factors in self-advocacy skill acquisition. Integrating support from these actors can enhance self-advocacy training programs and improve support systems for SwDs.

Keywords: ecological factor, higher education, inclusive education, self-advocacy, skill acquisition, student with disabilities

1. Introduction

Self-advocacy is crucial for students with disabilities (SwDs) in higher education. While institutions must foster inclusive environments, students also need to advocate for their needs to access necessary services and support. Effective self-advocacy helps SwDs assert their needs and rights, potentially improving campus inclusivity and their educational experience [1–3].

Research links self-advocacy with better academic performance, persistence, and a sense of belonging for SwDs [4–6]. Furthermore, it encourages active participation in education, fosters independence, and facilitates collective engagement on campus,

Corresponding Author: Unita Werdi Rahajeng; email: unita.werdi.rahajeng-2021@psikologi. unair.ac.id

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¹Faculty of Psychology, Universitas Airlangga, 60286, Indonesia

²Psychology Department, Faculty of Social and Political Sciences, Universitas Brawijaya, 65145, Indonesia

while also contributing to the reduction of stigma [3,7]. Grounded in the social model of disability, self-advocacy emphasizes overcoming societal barriers and creating supportive environments [8].

In Indonesia, the enactment of Law 8/2016 and Ministerial Regulation No. 46/2017 mandates support for SwDs in higher education; however, implementation remains inconsistent. Many institutions lack the necessary facilities and awareness to support these students effectively [9,10]. This situation highlights ongoing challenges in providing adequate accommodations and support.

To navigate these challenges, Indonesian students often seek help from peers, instructors, and Disability Support Units (DSUs). Rahajeng et al. [11] emphasized that actively requesting support reflects the spirit of self-advocacy, which is aligned with disability inclusion policies in Indonesia. By engaging with available resources and advocating for their needs, SwDs can better connect their support with institutional services. Therefore, self-advocacy is a vital skill for success in higher education, especially in Indonesia.

The capacity to cultivate and practice self-advocacy is significantly impacted by the social context in which SwDs are situated [4]. Studies indicate that interventions designed to enhance self-advocacy can enhance self-awareness and self-knowledge, empowering students to assert their needs confidently [12]. By examining the interaction between self-advocacy and social elements, this study aims to elucidate how establishing a supportive ecological factor can empower SwDs to advocate effectively for themselves in higher education environments. Ecological factors are defined here as elements within the environment that shape self-advocacy behaviors, and how the environment itself can foster such advocacy efforts. Yeager et al. [13] argues that understanding the ecological factors surrounding self-advocacy is crucial for practitioners, as it enables them to design personalized and culturally responsive self-advocacy development programs.

2. Method

This study serves as an initial phase of a larger investigation into self-advocacy skill acquisition among higher education SwDs. Adopting a constructivist grounded theory (CGT) approach, the research aims to construct substantive theory, shaped by interactions between researchers and participants [14]. In social justice research, CGT

is instrumental in developing theoretical categories while maintaining awareness of participants' situational contexts, including political and cultural social structures [15].

The research question guiding this study is: "How do ecological factors impact the acquisition of self-advocacy skills among students with disabilities?"

ID	Age	Sex	Disability type	Cause of disability	Educational background before HE	Living arrangement	Year of study	Type of HE	HE Disability Inclusion Policies & Unit
Alana	23	Female	Blind	Acquired	Special school	Boarding house	2nd year	Public	Yes
Sedhah	28	Female	Physical Disability	Congenital	Public school	Lives with dis- abled father	3rd year	Private	No
Sancaka	20	Male	Deaf	Congenital	Public School	Boarding house	2nd year	Public	Yes

TABLE 1: Participant's Sociodemographic Background.

In this study, three SwDs were selected to initiate a broader investigation into the acquisition of self-advocacy skills. Participants were chosen based on two criteria: (1) enrollment in higher education, having completed at least their freshman year, and (2) possessing substantial experience in self-advocacy. The selected participants exhibit diverse disability experiences, educational backgrounds, and types of institutions attended, as summarized in Table 1. To maintain confidentiality, pseudonyms are used throughout the paper to protect their identities while allowing for a detailed exploration of their experiences and perspectives.

The data collection process for this study utilized one-on-one semi-structured interviews, guided by an interview protocol developed collaboratively by all three authors (UWR, WH, and PPP). The protocol aimed to encourage participants to discuss their self-advocacy experiences on campus, the contextual factors influencing these experiences, and the individuals who supported their self-advocacy efforts. Prior to implementation, the interview protocol underwent review by two young persons with disabilities, who provided valuable feedback to refine the language and ensure clarity, particularly for young individuals, including those with disabilities. The protocol was designed to be flexible, allowing for probing and deeper exploration during the interviews. UWR conducted all interviews in Bahasa Indonesia. Each participant was interviewed for an average of 144 minutes, divided into two or three sessions.

Before commencing the interviews, the study's purpose and participants' rights were explained verbally and in writing, and informed consent was obtained from all participants. To ensure data credibility, participants were given the opportunity to review their

interview transcripts for accuracy and provide any additional information or corrections. Overall, these methodological approaches were implemented to gather comprehensive insights into the self-advocacy experiences of students with disabilities, respecting their communication preferences and ensuring inclusivity throughout the research process.

The data analysis for this study adhered to the Constructivist Grounded Theory (CGT) methodology, structured around three iterative stages: initial coding, focused coding, and theory building [14]. To begin the data analysis process, we thoroughly familiarized with the data by reading and transcribing verbatim transcripts. In the initial coding stage, we applied process coding (or in vivo coding) to label each line of the transcripts. This coding process helped to identify and categorize initial concepts and themes emerging from the data. Moving to the focused coding stage, we refined and synthesized the initial codes, sorting them into broader categories based on similarities and differences. This stage aimed to deepen understanding by integrating related codes and identifying core themes relevant to the research question. In the theoretical building stage, we further developed these categories and mapped out relationships between them. This final stage of coding aimed to construct the answer of the research question comprehensively. This process ensured data saturation, where no new significant information or themes emerged from the data.

Atlas.ti, a computer-assisted qualitative data analysis software [16], was utilized to manage and analyze the data efficiently. This software facilitated the organization of codes, memos, and data segments, enhancing the precision and rigor of the analysis. Importantly, Atlas.ti supported the iterative constant comparison process, enabling it to systematically compare data segments and refine emerging themes.

This research is part of UWR's doctoral studies and is supervised by WH and PPP. Although we do not have personal experience with disabilities, we possess extensive expertise in researching and providing psychological services to disability communities and in managing campus disability services. To mitigate potential issues of marginalization, discrimination, and barriers during data collection, we involved persons with disabilities in reviewing the research protocol and providing feedback after data collection.

Additionally, we ensured that we did not make assumptions about the needs and preferences of participants with disabilities. Instead, we directly asked them about their specific accommodations requirements for participating in the study. This approach

acknowledged and respected the unique habits and needs of persons with disabilities, promoting inclusivity and accessibility throughout the research process.

3. Result and Discussion

3.1. Results

The aim of this study is to explore the social factors that impact self-advocacy among students with disabilities. Social factors are defined here as elements within the environment that shape self-advocacy behaviors, and how the environment itself can foster or hinder such advocacy efforts. Through CGT analysis, three primary categories have been identified: a) social environment as a source of knowledge, b) social changes and demands in a college, and c) disability-friendly environment. In the following section, we will delve into the mechanisms and dynamics of each category, providing a comprehensive understanding of how these social factors interact and impact the self-advocacy experiences of students with disabilities.

3.1.1. Social environment as a source of knowledge

The social environment plays a crucial role in acquiring knowledge about self-advocacy, particularly regarding how to engage effectively in advocacy efforts. This knowledge can be actively cultivated through various forms of training, including guidance from parents, caregivers, and mentors within the environment. During childhood or prior to college, participants often acquired knowledge through formal teaching and guidance provided by family and older individuals with disabilities. For instance, Sedhah's grandmother, who serves as her primary caregiver, informed her about her special condition. She also instilled in her the value of equality and taught her effective ways to seek assistance from others.

"You are different from your friends, you can't walk anywhere, but what should be underlined is not the difference but that you have the same abilities as your friends" (Sedhah's grandmother said) (2:243 in Sedhah).

At that time, if I asked for help, I had to communicate because I had been taught that if I asked for something, I had to say.... (2:248 in Sedhah)

In college, the social environment expands, providing more opportunities for interaction with peers, both with and without disabilities. These peers became valuable

discussion partners, fostering a supportive atmosphere where everyone freely contributed advice and support. Alana gave an example of how she talked to her senior and received advice on how to stand up for herself.

I am more often with the peer-buddy ma'am. It means that it is rare, but the suggestions are often. Like, "Hey, I think if it's like this, it's better to say it, communicate it to the lecturer that you are like this", so it's more like suggesting (1:412 in Alana)

It was in statistics ma'am and then the application doesn't have access to screen readers ...SPSS, JASP doesn't access, and then the only thing is Excel. He said that time, "Try to tell the lecturer that for example you can only access Excel, like that!" (1:413 in Alana)

Knowledge acquisition for participants sometimes occurs through observation of their environment rather than through direct interaction or guidance. Participants may be inspired to engage in self-advocacy after witnessing the actions of family, caregiver, or other person with disabilities who advocate for themselves. In this way, the process of observation within the environment plays a significant role in shaping participants' understanding of self-advocacy and their willingness to actively participate in advocating for themselves.

Sancaka recalls his elementary and high school experience, where his mother consistently provided a guidebook for his teachers. This resource contained specific guidelines on teaching deaf students and accommodating Sancaka's individual needs.

I never asked the teacher directly because Mama helped me. So Mama gave the guidebook and then the homeroom teacher connected it to the subject teacher. It turned out that the teacher spoke slowly and then, for example, explaining the material was not just preaching but (they) could use writing, projectors. (3:171 in Sancaka).

During her high school, Alana initially participated passively in public hearings. However, after observing the perspectives of other individuals with disabilities, she was inspired to actively voice her own opinions.

I never want to go first so I listen to other people first. Then it's like, oh I agree. Then it's like, oh, "I agree (with them)". But after a while I really want to try too" (1:176 in Alana).

These examples illustrate the role of observation and external guidance in developing effective self-advocacy skills.

3.1.2. Social change and demands of academic life

Entering higher education presents new experiences for SwDs, often placing them in a minority within a diverse environment. Alana, who previously attended special schools, found it challenging to advocate for her needs in university.

"The environment in college is directly interacting with many people, interacting with non-disabled friends too, like that. So new experiences, new challenges" (1:449 in Alana).

Entering higher education also marks a significant milestone of maturity for participants, bringing with it new demands, particularly concerning independence. During their earlier education, participants often received support from their environment or advocacy from others. However, upon entering college, they felt the expectation to handle matters independently and take responsibility for themselves. This experience mirrors a natural developmental process also observed in typical students. Adjusting to new circumstances often demands personal adjustment, making it conducive for participants to be motivated towards self-advocacy.

For instance, Sedhah realized she could not always rely on others for advocacy.

Of course, people are busy or experiencing obstacles so they cannot accompany me for the advocacy process (2:391 in Sedhah).

Similarly, Sancaka shared that during his college years, he had to become more independent as he could no longer rely on others. As a nomad student, Sancaka encountered particular challenges because his parents, who were initially his primary advocates, lived far apart. Sancaka also felt that his mother had placed trust in him by no longer communicating with the campus about his special needs.

"When I was studying from semester 1 to 5, Mama never communicated with campus again" (3:200 in Sancaka).

Participants expressed a desire for independent and proactive self-advocacy, encouraged by changes in their situations. Therefore, the changing situation brought new demands related to maturity and independence that encouraged participants to engage more in self-advocacy.

3.1.3. Disability-friendly environment

Inclusive and accommodating environments promote self-advocacy by fostering comfort and safety, facilitating the practice of self-advocacy and the development of advocacy strategies. The supportive attitude of such environments is evident through proactive interactions with participants, reflecting inclusivity towards individuals with disabilities. For example, Sedhah explained how her peers took the initiative to start conversations, which helped the interactions flow smoothly and created a familiar atmosphere.

They start the conversation first, so I don't feel awkward. (2:279 in Sedhah)

Alana also experienced this. A peer approached her and inquired about her condition. This interaction led to a friendship where asking for help or advocacy became easier.

So what's easy is if a friend asks first, usually, "Alana, what do you usually do when you're like this or like that?". Like there are some of my friends who are curious, "What do you do with the laptop? How do you access this?" Like that. Then it's easier for me to tell stories or convey self-advocacy. (1:342 in Alana)

In lectures, self-advocacy thrives in a supportive classroom environment, particularly in how lecturers approach students with disabilities. All participants were comfortable disclosing their special conditions to their lecturers when lecturers are proactive in seeking accommodations for students. Alana emphasized these points based on their experiences.

Usually when there is an opportunity at the end of the class. The lecturer asks, "Are there any questions or do you have anything to say?" Well, I usually say it right there. If there's no opportunity there, outside the class, eee... then I approach the lecturer (1:221 in Alana)

Formal advocacy becomes more accessible to participants when they are given the opportunity to speak and express their aspirations. An environment that encourages open discussion serves as a safe space for participants to address obstacles and contribute ideas for improving services. Sancaka had this chance when he was invited to share their perspectives at a campus hearing organized by a student organization as part of their activism efforts. During the hearing, Sancaka shared their college experiences and offered suggestions for fostering an inclusive campus environment. The event was attended by faculty members and other stakeholders from the university.

Then I represent deaf friends (in a campus hearing forum) to argue, oh...to complain about the campus environment (3:79 in Sancaka).

3.2. Discussion

Based on the study's results, three primary categories emerge regarding how ecological factors influence the acquisition of self-advocacy skills: (a) the social environment as a source of knowledge, (b) social change and the demands of academic life, and (c) a disability-friendly environment. These categories illustrate how the environment shapes self-advocacy by providing essential knowledge, acting as a driving force, and creating opportunities for practice and development of self-advocacy.

The process of acquiring self-advocacy skills involves both learning and task experience, similar to other skill acquisition processes [17]. Knowledge building is fundamental to self-advocacy, as emphasized by Test et al [18]. Students with disabilities (SwDs) develop an understanding of the importance of self-advocacy and the strategies for effective advocacy through their experiences from childhood [19]. Thus, it is crucial for SwDs to have opportunities to receive guidance and observe significant others advocating for their needs since childhood.

Prior to being able to practice self-advocacy effectively, SwDs require extra support. According to this study, SwDs become more supportive when they acknowledge their personal agency and responsibilities. SwDs are initially supported by their families, but as students become older—particularly when they enter university—that obligation fully depends on them. This realization is similar to the phenomena that typical learners generally feel, who see entering in higher education as a significant step toward adulthood [20].

Universities provide a vital platform for SwDs to practice self-advocacy. However, whether SwDs may engage in self-advocacy depends on the roles and situations in higher education. Typically, SwDs need assurance to start defending themselves, such as having an open, friendly, and safe environment. An atmosphere like that facilitates their ability to express needs and preferences with confidence [21]. Positive experiences in advocacy not only reinforce this behavior but also help SwDs develop specific strategies over time [13]. Ultimately, self-advocacy can become automatic and habitual in their interactions.

As highlighted by Yeager et al., [13] positive experiences in self-advocacy are closely linked to the availability of both formal and informal support at the university. Formal support includes disability inclusion policies on campus, which primarily involve Disability Support Units (DSUs) and programs designed to engage SwDs in various campus activities. This formal support is complemented by informal support, which fosters

disability awareness and cultivates a culture of respect for persons with disabilities. In cases where formal support is lacking, informal support becomes essential [21], with open and willing peers serving as the most accessible source of assistance.

The findings indicate that family—particularly parents or primary caregivers—along with older and more experienced persons with disabilities, typical peers, and the campus community play crucial roles in supporting the acquisition of self-advocacy skills among SwDs. Support from family and caregivers can manifest through guidance, teaching, modelling behavior, and encouraging self-advocacy attempts. Furthermore, the support from typical peers and the campus community is vital, expressed through acceptance and a sense of kinship. Participants who engage with actors fulfilling these roles reported greater ease in mastering self-advocacy skills. This aligns with previous research that emphasizes the importance of social support networks in fostering advocacy skills among SwDs [13,19].

Based on the study's findings, support from the social environment—both formal and informal—is crucial for developing self-advocacy skills among SwDs. Therefore, families, peers, and the broader campus community play integral roles in providing the ongoing encouragement and guidance necessary for SwDs to navigate their academic environments effectively. Families, especially parents and primary caregivers, are often the first advocates, instilling a sense of agency and self-advocacy from an early age. As students transition to higher education, the responsibility for advocacy increasingly shifts to them, necessitating a supportive backdrop where they can practice and refine these skills.

Higher education institutions must prioritize the creation of inclusive and safe environments that foster self-advocacy. This can be achieved by implementing policies that not only encourage SwDs participation in various campus activities but also actively promote awareness and understanding of disability issues among the entire student body. Such initiatives can include training for faculty and staff on disability inclusion and the development of peer support programs that facilitate connections among SwDs and typical students. When SwDs feel accepted and supported within their campus communities, they are more likely to engage in self-advocacy and seek the necessary accommodations to succeed [22].

Future research should investigate the specific roles of various actors within the support network, such as family members, peers, and university personnel, and how

these roles can be optimized to enhance self-advocacy skills among SwDs. Exploring the dynamics of these relationships could provide valuable insights into effective strategies for fostering self-advocacy and improving educational outcomes for persons with disabilities. Additionally, studies could examine the impact of specific interventions aimed at increasing awareness and support within the university setting.

One notable limitation of this study is the small number of participants involved, which may affect the generalizability of the findings. The focus on a limited range of disabilities, excluding individuals with psychosocial, intellectual disabilities, or learning difficulties, restricts the diversity of experiences and perspectives represented in the study. Future research should aim to include a broader spectrum of disabilities, employing diverse methodologies that capture the nuanced experiences of all SwDs. This comprehensive approach would contribute to a more thorough understanding of the ecological factors influencing self-advocacy skills, ultimately leading to more effective support systems and policies within higher education.

4. Conclusion

This study identifies three key categories—(a) the social environment as a source of knowledge, (b) social change and academic demands, and (c) a disability-friendly environment—that illustrate how various contexts influence the acquisition of self-advocacy skills among students with disabilities. These findings underscore the vital roles of family support, peer interactions—including those with both typical peers and persons with disabilities—and inclusive campus communities in fostering self-advocacy. By highlighting these dynamics, the research contributes to a deeper understanding of how supportive ecological factors enhance advocacy skills, informing educators and policymakers about the importance of creating inclusive educational settings. Future research should focus on specific interventions that strengthen these supportive networks and evaluate their long-term impact on self-advocacy skills.

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