

Strengthening Staff Capacity on GEDSI and Web Accessibility for Mainstreaming Disability-inclusion in Higher Education

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Abstract - This community services held by The i-Dea Hub aimed at the critical need for strengthening staff capacity in Gender Equality, Disability, and Social Inclusion (GEDSI) and web accessibility within higher education institutions (HEIs). As the landscape of education evolves, it is imperative to mainstream disability-inclusion to foster an equitable learning environment. This initiative built upon previous i-Dea Hub's activities that highlights the current gaps in knowledge and practice among staff regarding GEDSI principles and the implementation of accessible digital resources. The activity took place in Bandung, collaborating with experts form Unjani, Telkom University, and CAI Foundation. The targeted participants were 16 universities under LLDIKTI IV area in Bandung City. Through targeted training and development programs, this initiative aims to equip educators and administrative personnel with the necessary skills and understanding on GEDSI, interaction ethics with individuals with disabilities, and accessible university websites. By addressing these challenges, this activity advocates for a holistic approach to disability-inclusion, ultimately enhancing the educational experience for all students, particularly those with disabilities.

Keywords: Disability-inclusion; GEDSI; Higher Education; WCAG

Abstrak – Kegiatan pengabdian kepada masyarakat yang diselenggarakan oleh i-Dea Hub ini dilatarbelakangi oleh kebutuhan mendesak untuk memperkuat kapasitas staf perguruan tinggi dalam memahami Gender Equality, Disability, and Social Inclusion (GEDSI) serta aksesibilitas web di lingkungan pendidikan tinggi. Seiring dengan perkembangan ekosistem pendidikan, pengarusutamaan inklusi disabilitas menjadi penting untuk menciptakan lingkungan belajar yang adil, setara, dan aksesibel. Kegiatan ini merupakan kelanjutan dari program i-Dea Hub sebelumnya yang menunjukkan masih adanya kesenjangan pengetahuan dan praktik di kalangan staf perguruan tinggi terkait prinsip GEDSI dan penerapan sumber daya digital yang aksesibel. Kegiatan dilaksanakan di Bandung dengan melibatkan kolaborasi antara Universitas Jenderal Achmad Yani, Telkom University, dan Cahaya Inklusi Indonesia Foundation. Sasaran kegiatan ini adalah perwakilan dari 16 perguruan tinggi di bawah wilayah LLDIKTI IV Kota Bandung. Melalui pelatihan yang terarah, kegiatan ini bertujuan membekali dosen dan tenaga kependidikan dengan pemahaman dan keterampilan terkait GEDSI, etika interaksi dengan penyandang disabilitas, serta pengelolaan website perguruan tinggi yang aksesibel berdasarkan prinsip Web Content Accessibility Guidelines (WCAG). Dengan menjawab tantangan tersebut, kegiatan ini mendorong pendekatan holistik terhadap pengarusutamaan inklusi disabilitas di perguruan tinggi, sehingga dapat meningkatkan pengalaman pendidikan bagi seluruh mahasiswa, khususnya mahasiswa penyandang disabilitas.

Kata Kunci: Inklusi Disabilitas; GEDSI; Perguruan Tinggi; WCAG

I. INTRODUCTION

As the fourth most densely populated nation globally (U.S. Census Bureau, 2025) (U.S. Census Bureau, 2025), Indonesia was inhabited by over 280 million individuals in 2024, with roughly 8% (approximately 22.97 million individuals) classified as Persons with Disabilities (Badan Pusat Statistik, 2025; BPS-Statistics Indonesia DKI Jakarta Province, 2023). Empirical data indicates that the population of Persons with Disabilities in Indonesia exhibits an upward trend on an annual basis (Abdillah et al., 2025).

To this day, individuals with disabilities in Indonesia continue to face inequalities in multiple areas, especially in education. In 2020, merely about 6.58% of individuals with disabilities achieved higher education (Direktorat Statistik Kependudukan dan Ketenagakerjaan, 2020). In contrast, the 2024 National Economic Survey indicated that the gross enrollment rate for individuals with disabilities in higher education in Indonesia was only 9.64%. This stands in stark contrast to a rate of 32.19% for those without disabilities (Badan Pusat Statistik, 2024). This inequality is undoubtedly linked to the various challenges encountered by individuals with disabilities in higher education. These include physical barriers, as many Higher Education Institutions (HEIs) lack sufficient infrastructure to meet their diverse requirements (Riswari et al., 2022; Sari et al., 2022).

Regulation of the Ministry of Education and Culture No. 44 of 2015 and Regulation No. 48 of 2023 stipulate that all HEIs are obligated to implement accommodations for individuals with disabilities and establish Disability Service Units (ULD). Nevertheless, Directorate of Learning and Student Affairs (Belmawa) has observed that only 114 HEIs in Indonesia had established ULDs; and 274 documented their acceptance of individuals with disabilities (Kemdiktisaintek, 2025). While these statistics denote some advancement, the circumstances remain far from satisfactory when contrasted with the total number of HEIs in Indonesia, which exceeds approximately 4,000. Moreover, this data provides limited understanding of the availability of provisions for individuals with disabilities at each HEI. Such limitations do not furnish adequate information for individuals with disabilities and their families.

Through the preceding investigations and community service initiatives undertaken by i-Dea Hub (Indonesian Disability-Inclusion for Education and Accessibility) at Telkom University in 2024 (Arifputri et al., 2025; Vincent et al., 2024), our team has derived several significant conclusions. Firstly, a systematic examination of the official websites of HEIs listed on the Kemdiktisaintek Inclusive University portal indicated that a substantial number of HEIs in Indonesia do not furnish sufficient information on their official websites pertaining to the services available for students with disabilities. Specifically, only 55% indicated the presence of a University Unit for Disability Assistance (ULD), 55% reported having accessible campus infrastructure, and merely 36% disclosed the availability of academic accommodations. This suggests that, despite the efforts made by HEIs to provide suitable accommodations for students with disabilities, their dedication to ensuring the provision of comprehensive and accessible information concerning the availability of such services appears to be deficient. Indeed, HEI websites function as the primary access point for students, faculty, and stakeholders (Manzoor et al., 2012). The majority of prospective students consult websites prior to enrollment, as these digital platforms serve as a critical decision-making resource, not only by disseminating essential information but also by influencing perceptions (Taufiqurokhman et al., 2021). Consequently, HEI websites may serve as a mechanism for shaping perceptions regarding the institution's preparedness for disability-inclusion.

Second, we conducted interviews with 23 students with disabilities across several universities in Bandung City, and a literature review revealed that students with disabilities often experience negative experiences, discrimination, and poor academic performance. Among the

main barriers we identified for students with disabilities were: (1) Limited number of trained staff, which limits the ability of students with disabilities to fully engage in higher education; and (2) Negative attitudes from educators and peers, often stemming from a lack of understanding of disability, can lead to discriminatory or exclusionary behavior. and (3) The lack of accessible educational technology, such as screen readers, accessible learning materials, or sign language interpreters, limits participation in the learning environment. This prevents students with disabilities from having equal access to the educational opportunities available to their non-disabled peers.

Additionally, the marginalization of individuals with disabilities is frequently intensified by the pervasive nature of gender inequality. Individuals with disabilities, particularly women, are disproportionately susceptible to both discrimination and acts of violence (Nur & Ihsanti, 2025; Prasetyaningsih et al., 2024). In the context of Indonesia, the matters of gender and disability are commonly addressed in isolation from one another. Notably, in the realm of activism, advocates for gender issues and disability rights often function independently without the application of an intersectional framework (Bakhtiar et al., 2025). Furthermore, within the domain of higher education, the discourse surrounding Gender Equality, Disability, and Social Inclusion (GEDSI) has not been prioritized (Rokhmah et al., 2024). Despite the gradual incorporation of gender equality principles and human rights into educational curricula, the actualization of these principles remains unevenly distributed across Indonesia, attributable to deficiencies in teacher training, insufficient educational resources, and a lack of comprehensive monitoring and evaluation mechanisms (Adib & Nurwahidah, 2024). In light of this, a website serves as a platform that can mediate access to information (Sihotang et al., 2023), enabling students with disabilities to access details regarding the availability of accessible and disability-friendly facilities.

Based on the insights presented, there is a distinct necessity to enhance inclusivity in higher education by increasing staff awareness regarding GEDSI matters and the Web Content Accessibility Guidelines (WCAG), referred to as "Awareness to Action: HEI Staff Capacity Building for Inclusive Education." This is essential to eradicate the stigma associated with students who have disabilities and to improve their abilities in engaging with them, thus elevating the standard of higher education services, particularly the accessibility of HEI's website. This heightened awareness and capability is anticipated to lessen the obstacles faced by individuals with disabilities during their educational journey and foster equality and inclusion within higher education. Through this initiative, inclusivity is expected to be embraced as a commitment by all organizations, particularly HEI. Additionally, this effort is expected to play a role in advancing the Sustainable Development Goals (SDGs), particularly SDG 4 "Quality Education," SDG 10 "Reduced Inequalities," and SDG 17 "Partnerships for the Goals."

Several community service programs focused on website management assistance and enhancing the competence of website administrators in educational institutions have been carried out in various regions of Indonesia (Anraeni et al., 2024; Irawati et al., 2024; Sahria et al., 2023; Syahputra et al., 2025). However, most of these programs have remained focused on the technical management of websites, such as content creation and management, and alignment with institutional identity, and generally cover only a single HEI. Unlike previous programs, this program was carried out not to provide training in website management, but to build knowledge of inclusivity in both the physical and digital environments of higher education, through an integrated approach of staff capacity building in both GEDSI principles and web accessibility through separate but complementary training sessions. Through this model, the program positioned web accessibility as part of a broader institutional commitment to inclusive higher education. Moreover, this program was not directed at a single higher education institution alone, but targeted 17 higher education institutions within the LLDIKTI IV region.

There are over 4,000 universities in Indonesia, including both public (PTN) and private (PTS) institutions. West Java has the highest number of universities, totaling 420, with most located in Bandung City (79 universities) (DirektoriPT, 2025). Some universities in Bandung City, regardless of having ULD or not, have been noted for enrolling students with disabilities. Bandung City stands out as a major hub for higher education in Indonesia, hosting many universities and a diverse mix of students, including those with disabilities. Nevertheless, our research and interviews show that numerous institutions in Bandung still struggle to provide inclusive services due to issues like staff knowledge, infrastructure, and support processes. Hence, training programs specifically targeting university staff in this area are essential as a starting point to close the gap between guidelines and actual practices. Concentrating on Bandung City enables the program's effects to be tracked more efficiently and sustainably, while also offering a model that can be replicated in other Indonesian cities.

II. METHOD

This community service program was conducted as a capacity-building activity for higher education staff in Bandung City and surrounding areas. The program was organized by the Faculty of Communication and Social Sciences, Telkom University, through i-Dea Hub, in collaboration with relevant partners and experts in disability inclusion, GEDSI, and web accessibility. The activity was held on Tuesday, 25 November 2025, at Telkom University Landmark Tower (TULT), 16th floor, Bandung, West Java.

The program applied a parallel training model consisting of two separate but complementary sessions: the GEDSI session and the WCAG-based web accessibility session. The GEDSI session was conducted in Room 1601, while the WCAG session was conducted in Room 1604. Although both sessions were implemented in different rooms, they were designed to support the same objective, namely strengthening staff capacity to mainstream disability inclusion in higher education. The GEDSI session focused on disability awareness, inclusive higher education, ethical interaction with students with disabilities, and gender equality in higher education. Meanwhile, the WCAG session focused on inclusive university website management, Web Content Accessibility Guidelines (WCAG), self-audit of institutional websites, and the development of disability-friendly digital content.

The participants targeted in this program were representatives from higher education institutions in Bandung City and surrounding areas. Based on the program document, 20 higher education institutions were listed as invited participants. The participants included representatives from universities and other higher education institutions who were considered relevant to inclusive education services, website management, academic services, and student support. A total 19 participants attended the GEDSI session, while 20 participants attended the WCAG session.

The implementation consisted of three main stages: preparation, implementation, and evaluation. The preparation stage included identifying target institutions, preparing training materials, coordinating with speakers and facilitators, arranging the venue, and preparing evaluation instruments. The implementation stage was carried out through two parallel training sessions. In the GEDSI room, participants completed a pre-test, received material on disability inclusion in higher education, participated in practical training on ethical interaction with students with disabilities, received material on gender in higher education, and joined a Focus Group Discussion (FGD) on GEDSI. The session ended with a post-test. In the WCAG room, participants received material on WCAG concepts and related regulations, conducted an internal self-audit of their respective university websites, discussed case studies of disability-friendly websites, and participated in a workshop on developing WCAG-based accessible digital content.

The evaluation of the GEDSI session was conducted through pre-test, post-test, Focus Group Discussion (FGD), and direct practice. Training materials covered disability rights, ethical interaction with persons with disabilities, and gender issues in higher education. The evaluation indicators included participants' understanding of disability rights, ethical interaction with persons with disabilities, inclusive communication, non-discriminatory services, and gender sensitivity in higher education. During the practice session, participants took part in a role play to simulate ethical communication and inclusive service provision for students with disabilities.

In the WCAG session, the evaluation was conducted through an internal self-audit of each participant's university website. The self-audit used a self-evaluation instrument adapted from Web Content Accessibility Guidelines (WCAG) 2.1. The instrument categorized accessibility indicators into three conformance levels: Level A, Level AA, and Level AAA. Level A consisted of basic and fundamental accessibility criteria, such as text alternatives for non-text content, captions for prerecorded videos, semantic content structure, meaningful content sequence, use of color, audio control, keyboard accessibility, page title, and logical focus order. Level AA covered intermediate accessibility criteria that address common accessibility barriers, including live captions, audio description, minimum color contrast, text resizing up to 200%, multiple ways to access pages, descriptive headings and labels, visible keyboard focus, consistent navigation, and error prevention. Level AAA covered advanced accessibility criteria aimed at maximizing accessibility, including sign language interpretation for prerecorded content, extended audio description, enhanced color contrast, keyboard access without exception, reduced animation from interaction, location information such as breadcrumbs, appropriate target size, explanation of unusual words and abbreviations, reading level, and contextual help.

The results of the WCAG self-audit were categorized based on the three conformance levels. Each website component was reviewed using pass/fail indicators to identify whether the website had fulfilled, partially fulfilled, or had not yet fulfilled the selected accessibility criteria. The analysis was conducted descriptively by summarizing the number and types of accessibility barriers found in each level.

III. RESULT AND DISCUSSION

3.1. Description of the Participants

This activity was attended by staff from 17 universities in the LLDIKTI IV Bandung region. The university staff come from various units in the HEIs, including lecturers, IT staff, system development, public communications (PR), student affairs, admissions staff, marketing and the Disability Services Unit (ULD). This reflects the diversity of roles involved in providing inclusive campus services.

Table 1. Participants Profile^a

No	University Name	Gender	Unit of Origin
1	Telkom University	Female	Lecturer
2	Telkom University	Female	ULD
3	Telkom University	Female	ULD
4	Telkom University	Male	Lecturer
5	Telkom University	Female	Lecturer
6	Telkom University	Male	Lecturer
7	Telkom University	Female	Students Affair
8	Telkom University	Male	IT

No	University Name	Gender	Unit of Origin
9	Telkom University	Male	Students Affair
10	Telkom University	Male	Students Affair
11	Telkom University	Female	ULD
12	Deakin Lancaster University	Female	MarComm
13	Institut Seni Budaya Indonesia	Male	Public Relations
14	Institut Seni Budaya Indonesia	Male	Public Relations
15	Langlangbuana University	Female	did not mention
16	Langlangbuana University	Male	did not mention
17	Universitas Informatika dan Bisnis	Male	IT
18	Universitas Informatika dan Bisnis	Female	Students Affair
19	Universitas Informatika dan Bisnis	Female	Students Affair
20	Universitas Islam Bandung	Male	did not mention
21	Universitas Jenderal Achmad Yani	Female	IT
22	Universitas Padjadjaran	Female	ULD
23	Universitas Padjadjaran	Male	IT
24	Universitas Pendidikan Indonesia	Male	did not mention
25	Universitas Sangga Buana	Male	IT
26	Universitas Sangga Buana	Male	MarComm
27	Universitas Muhammadiyah Bandung	Female	Students Affair
28	Universitas Muhammadiyah Bandung	Male	Lecturer
29	Universitas Komputer Indonesia	Male	IT
30	Universitas Komputer Indonesia	Male	Students Affair
31	Institut Teknologi Nasional	Female	Lecturer
32	Universitas Logistik dan Bisnis Internasional	Male	IT
33	Universitas Logistik dan Bisnis Internasional	Male	Students Affair
34	Sekolah Tinggi Hukum Bandung	Female	did not mention
35	Sekolah Tinggi Hukum Bandung	Male	did not mention
36	Sekolah Tinggi Hukum Bandung	Male	did not mention
37	Universitas Widyatama	Male	IT
38	Universitas Widyatama	Male	MarComm
39	Universitas Terbuka	Female	did not mention

The table above shows the number of participants in this activity. Participants were predominantly university staff responsible for providing academic and non-academic services to students. In addition, participants also come from various HEIs, namely from State Universities (PTN) and Private Universities (PTS). Meanwhile, in this activity, some participants are lecturers. Both lecturers and staff interact with students, including students with disabilities. Therefore, it is important for both lecturers and staff to understand the concept of GEDSI and the ethics of interacting with individuals with disabilities. Of the 39 participants, 23 were male and 16 were female.

3.2. Changes in HEI staff knowledge regarding GEDSI and ethics of interacting with Individuals with disabilities pre and post intervention

The training offered seeks to enhance the knowledge and comprehension of HEIs' staff concerning GEDSI and the ethical considerations when interacting with individuals with disabilities in campus services. Materials focusing on the ethics of interaction with disabilities have been presented by CAI. This content encompasses an overview of fundamental concepts of disability, the principles surrounding disability, distinctions in accommodation and accessibility, along with various suitable accommodations for individuals with disabilities in a university setting. Following this, the training progressed with the presentation of GEDSI-related materials by an expert. The topics covered include: the distinction between gender and sex; the mindset, processes, and outcomes associated with GEDSI; effective practices for implementing GEDSI in higher education; as well as the associated challenges and strategies.

This training not only provides participants with conceptual and theoretical materials, but it is also enhanced with simulation exercises, gamification, and focus group discussions (FGD). CAI offers a simulation experience that centers on interacting with individuals with disabilities, aimed at enhancing the skills of HEI staff in supporting students with disabilities. The simulations include greeting and conversing with blind students, accompanying blind students while walking, and assisting and guiding wheelchair students. At the same time, GEDSI speakers introduced gamification by encouraging participants to envision an ideal "house" using matches, followed by presenting and discussing their concept of an ideal "house" from GEDSI's perspective.



Figure 1. Training through simulation for ethical interactions with individuals with disabilities

To assess the influence of the training intervention, data from pre-test and post-test assessments comprising 20 items were gathered. The pre-test was completed by N=19 participants; however, during the post-test phase, it was only completed by N=15 participants. Both assessments were administered in an anonymous format. Prior to the training intervention, the mean score (M) reflecting participants' knowledge concerning GEDSI was recorded at 39.7 out of 50, which translates to 79%, whereas the mean score pertaining to the ethical understanding of interactions with individuals with disabilities was M = 43.4 out of 50, equating to 87%. These findings indicate a superior level of comprehension regarding the ethics of interactions with individuals with disabilities compared to GEDSI. This suggests that a significant proportion of HEI staff possess knowledge on how to engage with individuals with disabilities but lack a thorough understanding of the concept of equality as it pertains to the intersectionality of gender and disability issues.

Subsequent to the completion of the training session, there was an observable enhancement in the mean GEDSI score, which reached $M = 43.3$ out of 50, equating to 87%. Concurrently, the ethical comprehension regarding interactions with students who possess disabilities exhibited a tendency towards stability, also achieving $M = 43.3$ or 87%. When the scores are aggregated (combining GEDSI and ethical interaction scores), the overall mean score demonstrates an increase from $M = 83.1$ to $M = 86.7$. These empirical findings suggest a positive, albeit modest, advancement in participants' knowledge and comprehension of GEDSI principles and ethics related to engaging with individuals with disabilities, which is anticipated to enhance practices related to inclusive higher education.



Figure 2. Gamification in the GEDSI training

To ascertain whether there existed a statistically significant disparity between pre-test and post-test scores, an independent t-test was conducted for each individual aspect as well as the cumulative score. An independent-samples design was used, rather than a paired-samples test, because both instruments were administered anonymously and individual responses could not be matched across the two time points. The findings from the independent t-test indicated the absence of significant differences in pre-test and post-test outcomes regarding knowledge of GEDSI, with a p-value exceeding 0.05, specifically 0.07, and a p-value of 0.96 in relation to knowledge concerning the ethics of interaction with individuals with disabilities. This suggests that although there is an observable enhancement in participants' comprehension of the GEDSI concept and a consistent understanding of the ethical considerations in interactions with persons with disabilities, these variations are insufficiently robust to be deemed statistically significant. Concurrently, the extent of the effect attributable to this training intervention was evaluated through the computation of Cohen's d , yielding a result of $d = -1.95$, which signifies a very large effect size. This finding implies that the training exerted a substantial influence on augmenting participants' understanding of inclusivity within the realm of higher education.

It is important to interpret this effect size with caution because of the notably limited sample size (fewer than 20 participants), and the fact that the pre-test and post-test were collected anonymously with no means of linking individual respondents across the two time points. As a result, the pre-test and post-test groups should be treated as two independent, only partially overlapping cross-sections of participants rather than the same individuals measured before and after the intervention. Under these conditions, a large nominal effect size combined with non-significant p-values is more likely to reflect sampling variability and design limitations than a robust, individually-tracked change in knowledge. Nevertheless, taken together with the non-significant but consistently positive mean-score changes, the results offer tentative, rather than conclusive, evidence of a favorable impact on participants' understanding of inclusive higher education principles.

Moreover, the success of training programs like the one implemented in Bandung City can be further enhanced by integrating community engagement and collaboration with local disability advocacy groups. By fostering partnerships with organizations such as the CAI Foundation, universities can create a more robust support network that not only empowers staff but also actively involves individuals with disabilities in shaping inclusive practices. This collaborative approach aligns with findings that highlight the necessity of inclusive policies being informed by the lived experiences of individuals with disabilities, thereby ensuring that educational frameworks are responsive to their unique needs (Nur & Ihsanti, 2025; Prasetyaningsih et al., 2024). Such initiatives can also serve as a model for other regions in Indonesia, demonstrating the potential for scalable solutions that address the systemic barriers faced by individuals with disabilities in higher education, ultimately contributing to the broader goals of the SDGs concerning equality and access to quality education (Adib & Nurwahidah, 2024).

3.3.Ability to identify the level of accessibility of university website content

Training sessions focused on the creation of accessible website content for individuals with disabilities are executed concurrently with presentations from Telkom University. This educational initiative equips personnel at HEIs with essential knowledge regarding the WCAG, which are technical standards designed to facilitate the accessibility of the digital landscape for individuals with disabilities, encompassing a series of criteria that must be implemented by IT professionals to eliminate barriers to access in digital environments (W3C Web Accessibility Initiatives, 2026). Websites that are deemed accessible must adhere to several foundational principles, which include: (1) perceivable, indicating that content and information should be delivered in a manner that users can perceive; (2) operable, signifying that the user interface and navigational components should be functional for all users; (3) understandable, denoting that the information and functionality of the interface should be straightforward and comprehensible; and (4) robust, asserting that the content must be sufficiently resilient to be accurately interpreted by a diverse range of user agents, including assistive technologies.

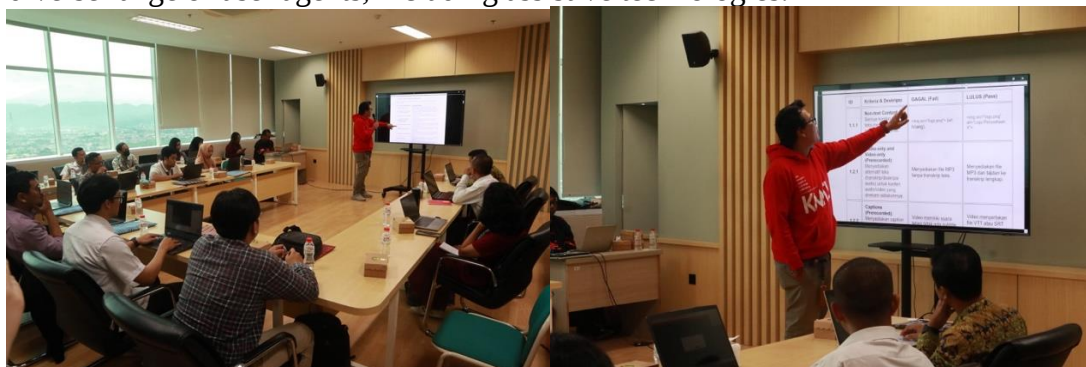


Figure 3. Training on WCAG Standards for accessible university website

The most recent iteration of WCAG, specifically WCAG 2.1, delineates three distinct tiers of compliance, identified as A (fundamental), AA (intermediate), and AAA (advanced). The presenter elucidates the specific criteria that the attendees must fulfill regarding perceivable, operable, understandable, and robust components. Subsequently, the participants engaged in self-evaluations of their individual HEI websites utilizing automated assessment tools such as Accessibilitychecker.org.

Table 2. Participants WCAG Level

No	University Website	Accessibility Score (%)	WCAG Level A	WCAG Level AA	WCAG Level AAA
1	dli.ac.id	71	Pass	Partial	No
2	www.unikom.ac.id	83	Pass	Pass	Indicative
3	isbi.ac.id	65	Pass	Partial	No
4	ulbi.ac.id	65	Partial	Fail	No
5	new.unla.ac.id	59	Partial	Fail	No
6	sthb.ac.id	59	Partial	Fail	No
7	www.widyatama.ac.id	53	Partial	Fail	No
8	www.unjani.ac.id	59	Partial	Fail	No
9	telkomuniversity.ac.id	47	Fail	Fail	No
10	usbypkp.ac.id	35	Fail	Fail	No
11	umbandung.ac.id	23	Fail	Fail	No
12	unpad.ac.id	17	Fail	Fail	No
13	bandung.ut.ac.id	17	Fail	Fail	No
14	unisba.ac.id	10	Fail	Fail	No
15	unibi.ac.id	32	Fail	Fail	No
16	upi.ac.id	43	Partial	Fail	No
17	itenas.ac.id	39	Partial	Fail	No

To operationalize the WCAG 2.1 conformance levels described above, the HEIs' website was evaluated URL against WCAG success criteria across Levels A, AA, and AAA. The tool inspects each page for common technical barriers, including missing or non-descriptive alternative text for images, insufficient color contrast between text and background, unlabeled form fields, missing or incorrect attributes, improper heading structure, and broken or ambiguous links. Based on the number and severity of issues detected, the tool generates an aggregate accessibility score ranging from 0 to 100, which was interpreted using its standard classification: 0–49 (poor accessibility, indicating major barriers), 50–69 (needs improvement), 70–89 (fair accessibility, with most key issues addressed), and 90–100 (highly accessible, having passed all automated checks). It should be noted that, as an automated instrument, AccessibilityChecker.org can detect the presence or technical validity of accessibility features (for example, whether alternative text exists) but cannot evaluate more qualitative aspects, such as whether that alternative text is contextually meaningful; such aspects typically require manual review. In this activity, the automated scan results were therefore used as an initial, structured indicator of each institution's website accessibility status, rather than as a substitute for a full manual audit.

As shown in Table 2, the self-audit involved 17 higher education institution websites. The accessibility scores ranged from 10 to 83, with an average score of 45.71. This indicates that most participating HEI websites still had considerable accessibility gaps. At WCAG Level A, only three websites (17.65%) achieved a Pass status, while seven websites (41.18%) were categorized as Partial and seven websites (41.18%) failed to meet the basic accessibility requirements. These results show that even fundamental accessibility criteria were not consistently fulfilled across the evaluated websites.

The findings became more critical at higher conformance levels. At WCAG Level AA, only one website (5.88%) achieved a Pass status, two websites (11.76%) were categorized as Partial, and fourteen websites (82.35%) failed. At WCAG Level AAA, only one website (5.88%) showed an indicative achievement, while the remaining sixteen websites (94.12%) did not meet the advanced accessibility criteria. Common issues identified during the self-audit included missing accessible labels on buttons and navigation elements, poor color contrast, weak page structure, limited keyboard accessibility, and insufficient accessibility support for multimedia or downloadable content..

These findings indicate that basic digital accessibility requirements are still not consistently fulfilled among higher education institutions in Bandung. This condition is concerning, given that Government Regulation No. 13 of 2020 requires educational institutions to provide reasonable accommodation, including access to information and communication. In line with Article 24 of the Convention on the Rights of Persons with Disabilities, universities are responsible for ensuring inclusive access to digital services. Therefore, inaccessible websites reflect not only technical shortcomings but also the need for stronger institutional commitment to digital accessibility as part of inclusive higher education.

3.4. Participants' feedback on the activity

A survey on participants' satisfaction regarding the delivery process indicated that a significant majority of participants from diverse HEIs perceived that these activities corresponded well to their needs in varying degrees (64.3%). Additionally, a total of 67.9% of participants concurred that the time allocation afforded during this event was optimal, as the training was conducted over the course of a full day, mindful of the time constraints faced by HEIs' staff. Almost all participants expressed that the content presented during this event was comprehensible (46.4% agreed and 50% strongly agreed), which suggests that the presenters demonstrated considerable proficiency in mentoring and training endeavors. This was further facilitated by simulation and gamification exercises that engaged participants actively and introduced diversity into the training activities. The Focus Group Discussion (FGD) conducted also motivated participants to engage actively in the proceedings, rather than merely occupying the role of a passive audience. Participants additionally expressed the desire for the continuation of similar activities, with 60.7% strongly endorsing the notion that this initiative should be repeated in the future.

To further enhance the effectiveness of inclusive education initiatives, it is crucial to integrate the voices and experiences of individuals with disabilities into the training programs for staff. Engaging these students in the design and delivery of training not only empowers them but also provides staff with invaluable insights into the real challenges faced in academic settings. This participatory approach aligns with the findings of (Nur & Ihsanti, 2025), which emphasize the importance of incorporating the lived experiences of individuals with disabilities to inform policy and practice. Additionally, fostering partnerships with local advocacy groups can create a more supportive environment, allowing for the development of tailored resources that address specific needs and barriers identified by students themselves. Such collaborative efforts can significantly contribute to the sustainability of inclusive practices within HEIs and ensure that the commitment to inclusivity is not merely a formality but a genuine effort to foster an equitable academic landscape for all students (Artaria et al., 2025; Dirgantara et al., 2024). This community service initiative constitutes one component of the i-DEA Hub program, which is dedicated to promoting disability-inclusion within Indonesian universities. Given the favorable feedback from participants, this provides valuable insights for the execution of analogous activities with an enhanced scale or level in the future.

IV. CONCLUSION

Raising awareness about including disabilities in higher education is crucial for creating an inclusive educational environment. In this initiative, staff and lecturers from 17 HEIs in the LLDIKTI IV region received training to enhance their understanding of the intersection between disability and gender, along with skills for providing inclusive website content. This initiative aims to boost HEI staff awareness and ability to foster inclusivity in higher education, starting from their own institutions. The training took place over a single day, featuring lectures, gamification, and simulations led by resources from the CAI Foundation, as well as experts from Telkom University and General Ahmad Yani University. The effectiveness of this initiative was assessed by gathering participant feedback, pre-tests, and post-tests, along with self-assessment. The evaluation results indicated that this initiative improved participants' knowledge about GEDSI issues and the ethics of interacting with individuals with disabilities. Furthermore, this initiative engaged 39 participants from 17 HEIs across Bandung region. Additionally, through training on inclusive website content, participants learned about website accessibility standards based on WCAG 2.1 and effectively evaluated website accessibility at their respective institutions. Feedback from participants reveals that most are satisfied and hope to see this initiative continue in the future. The i-DEA Hub is dedicated to ensuring the ongoing success of this initiative to promote disability-inclusion in HEIs across Indonesia.

As a recommendation for future community service programs, similar initiatives should be continued through a more sustained mentoring scheme rather than a one-day training format. Follow-up assistance is needed to help HEIs translate GEDSI awareness and WCAG-based accessibility knowledge into concrete institutional practices, such as improving website accessibility, developing inclusive service procedures, and strengthening the role of staff in supporting students with disabilities. Future programs should also involve more HEIs, include technical teams and decision-makers, and conduct periodic evaluations to monitor changes before and after implementation. In this way, community service activities can produce not only short-term capacity improvement, but also long-term institutional transformation toward disability-inclusive higher education.

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Conflict of Interest

None of the authors have financial, personal, or professional relationships that could inappropriately influence or bias the content of this article. The funders had no role in the design of the study, data collection, analysis, decision to publish, or preparation of the manuscript.

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