DESIGNING SERVICES THAT EVERY STUDENT CAN USE: UNIVERSAL DESIGN AND ACCESSIBLE TOURISM FOR INTEGRATED GUIDANCE AND COUNSELING IN BANDUNG

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ABSTRACT

Integrated guidance and counseling (GC) services may be formally available yet practically unusable when students encounter barriers in information, mobility, sensory access, language, scheduling, digital systems, or staff attitudes. This community service program introduced universal design and accessible-tourism principles to GC teachers from schools across Bandung on 18-21 August 2026. The four-day workshop used fictional student personas, access-journey audits, accessible-information redesign, multimodal counseling simulations, accommodation planning, referral mapping, and school action planning. Evaluation was descriptive and drew on workshop products, facilitator notes, simulations, reflections, and action plans; verified attendance totals and standardized pre-post data were not available. The principal output was RAMAH: recognize access needs, audit barriers, modify communication and the service environment, activate reasonable accommodation and support, and hear feedback for improvement. Accessible tourism contributed a whole-journey view linking pre-visit information, wayfinding, staff assistance, participation, and dignity. Participants redesigned common service touchpoints to offer multiple ways to obtain information, request help, communicate, and follow referrals. The approach reframed inclusion from a special-case response to anticipatory service design. School pilots with student participation and longitudinal evaluation are required before effectiveness claims can be made.

Keywords: Universal Design, Accessible Tourism, Inclusive Counseling, Integrated Student Services, Community Service

1. INTRODUCTION

A student service can exist on an organizational chart and still be inaccessible in practice. A counseling room may be reached only by stairs; an appointment may be requested only through a form that is difficult to read; a student with hearing differences may receive spoken information without a visual alternative; a student experiencing anxiety may be expected to explain a sensitive concern at a crowded desk; and a referral may require repeated retelling to several adults. These are not marginal inconveniences. They shape whether students can enter, understand, trust, use, and continue an integrated guidance and counseling (GC) pathway.

Inclusion therefore requires a distinction between availability and usability. The United Nations Committee on the Rights of Persons with Disabilities (Republic of Indonesia, 2016) treats inclusive education as a systemic transformation involving content, methods, structures, strategies, and reasonable accommodation. (UNESCO, 2020) like wise argues that barriers to participation and learning should replace deficit-oriented labels. Applied to counseling, the question is not only whether a student has a diagnosed condition, but which feature of the service interaction obstructs equitable participation and what can be changed before exclusion occurs.

Indonesia provides a rights-based foundation for this shift. Law No. 8 of 2016 concerning Persons with Disabilities requires equal opportunity, accessibility, and reasonable accommodation. Regulation of the Minister of Education, Culture, Research, and Technology No. 48 of 2023 specifies reasonable accommodation for students with disabilities and the establishment of Disability Service Units across formal education. Regulation of the Minister of Primary and Secondary Education No. 6 of 2026 adds the contemporary framework of Safe and Comfortable School Culture, including physical protection, psychological well-being, sociocultural safety, and digital civility and security. Together, these instruments support services that protect dignity and participation rather than waiting for a student to fail within an inflexible procedure.

Universal Design for Learning (UDL) offers a practical design logic. (CAST, 2024) organizes UDL around multiple means of engagement, representation, and action and expression, while emphasizing learner agency and barriers rooted in exclusionary systems. Although UDL was developed for learning environments, its design principles can inform student services. Information can be represented in plain text, visual, audio, and demonstration formats; help

can be requested in person or through a private digital channel; counseling can permit speech, writing, drawing, or assisted communication; and action plans can provide choices that preserve the same counseling objective.

Research supports the promise of UDL while cautioning against treating the label as proof of effectiveness. Reviews identify growing but methodologically varied evidence, with implementation quality and context shaping outcomes (Al-Azawei et al., 2016; Capp, 2017; Fauziridwan, 2024). The practical implication for community service is to teach observable design behaviors rather than abstract endorsement: identify a barrier, offer a common flexible option, determine when individualized accommodation is still required, and evaluate whether the intended user can actually complete the service journey.

Accessible tourism supplies a second and distinctly service-oriented lens. Darcy et al. (2020) describe accessible tourism through a whole-of-life and whole-journey approach rather than isolated facilities. Tourism accessibility includes information before travel, booking, transport, arrival, orientation, movement, communication, participation, amenities, staff assistance, and feedback. (International Organization for Standardization, 2021) similarly frames accessibility as requirements and recommendations across the tourism service chain. The relevance to GC is direct: a student also passes through a chain of touchpoints, and failure at any one point can make the complete service unusable.

Accessible tourism further shows why access is broader than ramps. Information may be missing or unreliable, staff may lack confidence, assistance may undermine autonomy, and technically accessible facilities may not connect into a coherent experience (Buhalis & Darcy, 2011; Cassia et al., 2020). For counseling, comparable barriers include unclear eligibility, stigmatizing language, sensory overload, inaccessible documents, inflexible time, assumptions about family support, digital data costs, and referrals with no accessible handover. A whole-journey audit makes these connections visible.

The author's recent tourism publications add locally relevant bridges. Generation Z non-visitors formed favorable symbolic and emotional images of rural tourism while rating facilities and accessibility relatively lower, suggesting that appealing communication can coexist with unresolved functional uncertainty (Bongsoikrama & Pinontoan, 2026). Community-based tourism research shows that experiences differ in autonomy, participation, reflection, and social engagement (Pinontoan et al., 2025). Cross-cultural tour-guiding research emphasizes audience-sensitive communication and adaptive behavior (Rusmiati et al., 2025). These findings support integrated student services that disclose practical access conditions, respect different participation styles, and adapt communication without lowering service goals.

The community service program was conducted for GC teachers from schools across Bandung on 18-21 August 2026. It aimed to translate universal design into counseling practice, use accessible-tourism journey thinking to audit integrated services, strengthen reasonable-accommodation planning, and produce a compact school implementation model. The resulting model was RAMAH: Rekam kebutuhan akses, Audit hambatan, Modifikasi layanan, Aktifkan akomodasi dan dukungan, and Himpun umpan balik dan perbaiki.

2. METHOD

The program used a practice-based community service design and was delivered face to face in Bandung from 18 to 21 August 2026. The four-day sequence combined short conceptual inputs, guided observation, collaborative design, simulation, peer review, and school action planning. It did not train teachers to diagnose disability. Instead, it trained them to notice mismatches between a student and a service environment, provide flexible common options, request consent before arranging support, and activate individualized accommodation when common design was insufficient. Participants were GC teachers from schools across Bandung. Verified attendance totals and demographic characteristics were not supplied for this manuscript, so no numerical participant profile is reported. No identifiable student records or medical information were collected. The workshop used fictional composite personas representing varied access situations, including mobility and fatigue, low vision, hearing differences, neurodivergent sensory and communication preferences, limited literacy, language differences, anxiety, caregiving responsibilities, economic constraints, and inconsistent digital connectivity. Personas described tasks and barriers rather than assigning deficit labels.

Each exercise followed a service-journey structure: discover the service, understand its purpose, request access, arrive or connect, communicate a concern, agree on an action, move through referral, and provide feedback. Teachers audited both routine counseling and an educational-tour scenario because unfamiliar settings make information, wayfinding, mobility, sensory conditions, group communication, and staff coordination especially visible. The tourism scenario

was not used as an analogy alone; it provided concrete accessibility questions that could be translated to school services.

Evaluation was descriptive. Evidence sources consisted of access-journey maps, redesigned announcements and forms, multimodal counseling scripts, reasonable-accommodation plans, referral pathways, facilitator observation notes, participant reflections, and school action plans. Products were reviewed against five criteria: barrier specificity, preservation of dignity and autonomy, availability of more than one usable access route, clarity of support and referral responsibilities, and a method for obtaining user feedback. Because standardized pre-post measures, verified participant totals, and post-program school observations were unavailable, the report presents learning processes and products without causal or numerical effectiveness claims.

Ethical safeguards were built into the design. Fictional scenarios prevented exposure of real students. Teachers were asked to collect the minimum information needed for support, explain confidentiality limits, avoid public disclosure of accommodations, and separate access planning from judgments about motivation or ability. Reasonable accommodation was presented as a means of equitable access, not an easier counseling goal. Students were positioned as partners who can describe what helps, decline non-essential assistance, and request review when an arrangement is ineffective.

Table 1. Four-day community service program, 18-21 August 2026

Date	Focus	Main activities	Output
18 August	From availability to accessibility	Rights framework; fictional persona analysis; service-entry barrier audit	Initial access-journey map
19 August	Accessible-tourism service chain	Pre-visit information; wayfinding; sensory and mobility audit; assistance protocol	Accessible touchpoint checklist
20 August	RAMAH counseling practice	Multimodal communication; consent; simulation; accommodation and referral planning	Revised script and support plan
21 August	School implementation	Peer review; minimum indicators; risk review; 30-60-90 day action planning	School pilot plan

3. RESULTS AND DISCUSSION

Reframing inclusion as service usability

The first design shift was from identifying special cases to identifying predictable variability. In the initial fictional scenarios, an access problem could easily be interpreted as reluctance: a student did not complete an online form, missed an appointment, remained silent, or left an activity early. Journey mapping required a different inquiry. Was the form compatible with a small screen? Did the appointment conflict with transport or caregiving? Was the room private and sensory-tolerable? Could the student communicate without speaking continuously? Was the referral explained in language the student understood? This shifted attention from presumed attitude to observable service conditions.

The distinction did not eliminate individualized support. Universal design creates a flexible baseline, while reasonable accommodation responds when the baseline does not provide equitable access. For example, sending both a text and audio explanation may benefit many students; a sign-language interpreter or human reader may still be required for a particular student and purpose. Offering a quieter waiting option is a common design improvement; a modified appointment duration or assistive technology may require individual planning. This layered logic is consistent with inclusive education as systemic reform plus specific accommodation (Committee on the Rights of Persons with Disabilities, 2016).

Participants' products showed that access barriers occur before, during, and after the counseling conversation. Before contact, students need to know what the service does, who can use it, how privacy works, and how to request help. During contact, they need physical and sensory access, comprehensible communication, choice of response mode, and predictable sequencing. After contact, they need an accessible action summary, a usable referral, clear responsibility, and a feedback route. A strong counseling technique cannot compensate for a broken entry or referral stage.

Table 2. Access dimensions translated into universal and individualized responses

Dimension	Typical service barrier	Universal response	When individualized support may be needed
Information	Dense notice, unclear eligibility, no privacy explanation	Plain language, short visual summary, audio option, examples	Braille, human reader, interpreter, supported decision-making
Physical and sensory	Stairs, glare, noise, crowded waiting area	Step-free route information, seating choice, reduced sensory load	Mobility assistance, accessible transport, specialized equipment
Communication	Speech-only interview and rapid questioning	Extra processing time; writing, drawing, chat, or speech options	Sign-language interpreter, communication partner, augmentative device

Dimension	Typical service barrier	Universal response	When individualized support may be needed
Procedure and time	Single booking channel, rigid duration, repeated retelling	Multiple request routes, agenda preview, coordinated handover	Extended or split sessions, priority scheduling, advocate presence
Digital and economic	High-data form, inaccessible file, device assumption	Low-bandwidth and offline options; accessible document format	Device loan, connectivity support, assisted submission
Relational and attitudinal	Public questioning, stereotypes, help imposed without consent	Private contact, ask-before-helping, autonomy-respecting language	Trusted companion, alternative counselor, cultural mediation

The accessible-tourism contribution: audit the whole journey

Accessible tourism made the service chain tangible. A destination cannot claim meaningful access because one entrance has a ramp if the website lacks reliable access information, transport is unusable, signs are unclear, staff provide inconsistent assistance, or an activity excludes participation. Darcy et al. (2020) whole-journey view and (International Organization for Standardization, 2021) support continuity across touchpoints. The workshop translated this logic into GC: discovery, request, arrival, interaction, decision, referral, follow-up, and feedback must work as one pathway. Pre-service information was a major translation point. The Generation Z rural-tourism study found that authenticity and affective appeal were stronger than perceptions related to facilities and accessibility (Bongsoikrama & Pinontoan, 2026). For student services, a reassuring poster such as "we are here to help" is not sufficient unless it also states how to book, whether walk-ins are possible, where the accessible route is, what communication options exist, what confidentiality means, and what happens next. Trust is produced by usable detail as well as welcoming tone.

Wayfinding was interpreted physically, procedurally, and socially. Physical wayfinding concerns routes, signs, landmarks, lighting, seating, and quiet waiting. Procedural wayfinding concerns the sequence of steps and the person responsible at each stage. Social wayfinding concerns whether a student can identify a safe adult and ask for help without public exposure. In educational tourism, these three forms converge: students need route and venue information, a schedule that can be anticipated, accessible transport and rest arrangements, staff roles, and a private help method during movement. Tour-guiding research contributed adaptive communication. (Rusmiati et al., 2025). describe guides as cultural mediators and group facilitators who adjust communication to audience characteristics. In counseling, adaptation similarly requires checking comprehension without infantilizing the student, explaining unfamiliar terms, using more than one medium, and inviting correction. Community-based tourism research also shows varied participation styles (Pinontoan et al., 2025). Some students may engage immediately in dialogue, while others communicate more effectively after previewing questions or using writing. Equitable participation does not require identical performance.

The RAMAH Inclusive Integrated-Service Model

The principal workshop product was RAMAH, an Indonesian word associated with friendliness and welcome. The model converts a welcoming intention into five observable service-design stages. It starts before the counseling session and continues after referral, while preserving the distinction between flexible common design and individualized reasonable accommodation.

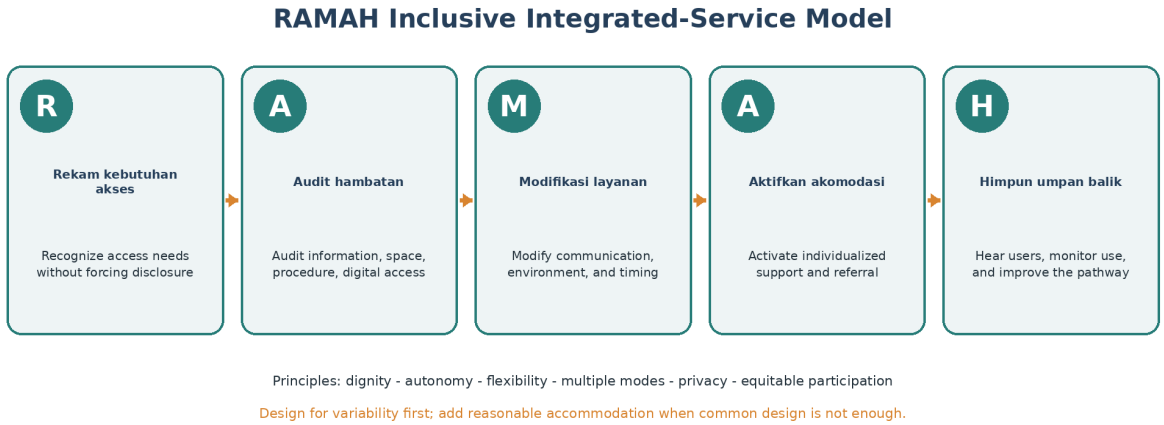

Figure 1. RAMAH Inclusive Integrated-Service Model

Recognizing access needs begins with a respectful invitation rather than a demand for diagnosis. Teachers can ask, "What would make this conversation or activity easier to use?" and describe available options. The student decides what relevant information to share. Existing support records may be used only according to authorization and necessity. Access needs are treated as task- and context-specific: a student may require no support in one setting and substantial support in another.

Audit hambatan (audit barriers) locates the mismatch in the service journey. The teacher examines information, route, room, sensory conditions, timing, booking, communication, documentation, digital tools, fees or data costs, attitudes, and referral steps. The audit distinguishes a barrier from a personal characteristic. "The form is image-only and cannot be read by assistive technology" is actionable; "the student cannot manage forms" wrongly transfers responsibility to the user.

Modifying the service applies flexible options that can become part of ordinary practice. Examples include plain-language information, a visual agenda, several booking routes, low-bandwidth files, a quiet waiting choice, shorter question sequences, extra processing time, and written or audio action summaries. Modification should preserve the same counseling purpose and avoid singling out one student when the improvement can benefit many users. The teacher and student clarify the task, preferred support, responsible person, privacy conditions, start date, review point, and referral if specialized expertise is required. Assistance is offered, not imposed. An accommodation plan should be specific enough to implement but should not circulate more sensitive information than others need to perform their roles.

Himpun umpan balik dan perbaiki (hear feedback and improve) verifies use rather than assuming success. The question is whether the student could obtain information, participate, make a decision, complete the referral, and retain dignity. Feedback can be offered verbally, in writing, anonymously, or through a trusted representative. Repeated barriers should trigger a system change; a one-off workaround should not become a permanent substitute for an accessible service.

Learning demonstrated through redesign and simulation

Redesign exercises exposed how ordinary materials can be excluded without hostile intent. Dense announcements were converted into layered information: a short purpose statement, clear eligibility, access options, confidentiality limits, contact routes, location cues, and a longer explanation for students who wanted detail. Forms were reviewed for plain language, keyboard navigation, print readability, low-bandwidth access, and the necessity of each requested data item. This aligned accessibility with privacy: removing unnecessary fields made the service both easier and safer to use.

Multimodal simulations changed the rhythm of counseling. Teachers previewed the session structure, offered a choice of response mode, used one question at a time, allowed silence and processing, summarized tentatively, and asked the fictional student to confirm or correct the summary. The purpose was not to create a separate counseling method for each persona. It was to build a flexible interaction repertoire and to recognize when an interpreter, assistive technology, trusted companion, health professional, or Disability Service Unit should be involved.

Accommodation planning added operational detail. A vague note such as "give extra help" was treated as inadequate because it does not specify the task, method, privacy, responsibility, timing, or review. More usable plans identified the barrier, the agreed adjustment, who would arrange it, how the student would signal difficulty, what information could be shared, and when effectiveness would be reviewed. This supports accountability without turning accommodation into excessive surveillance.

Referral simulation also revealed that access can fail during handover. A referral directory is not an integrated service unless the receiving service is reachable, the student understands the purpose, necessary information can be transferred safely, accessibility has been checked, and someone follows up. The RAMAH handover therefore includes consent and safety checks, an accessible explanation, a named coordinator, minimum-necessary documentation, confirmation of receipt, and a fallback when the first service is unavailable.

Table 3. Minimum indicators for a school-level RAMAH pilot

Indicator domain	Practical indicator	Suggested evidence
Information access	Purpose, entry routes, privacy, location, communication options, and next steps are understandable	Accessibility-reviewed service notice
Choice and communication	Students can use more than one appropriate way to request help and communicate	Simulation rubric and student feedback
Environment and procedure	Physical, sensory, scheduling, digital, and cost barriers are reviewed across the journey	Completed journey-audit checklist
Accommodation	Agreed support specifies task, responsibility, privacy, timing, consent, and review	De-identified accommodation-plan audit
Integrated referral	Access is checked before handover; receipt, coordinator, follow-up, and fallback are defined	Current referral pathway and test log
Continuous improvement	User feedback is accessible and repeated barriers trigger a service change	Quarterly barrier register and action record

Implementation, limitations, and sustainability

Implementation can begin with one high-frequency pathway, such as individual counseling intake or preparation for an educational visit. A school team can recruit a small and diverse student advisory group, map the journey, remove obvious barriers, test information and communication options, and establish a route for requests that require individualized accommodation. The pilot should include students who do not identify as disabled because literacy, language, anxiety, connectivity, temporary injury, family responsibility, and unfamiliarity can also shape access. A 30-60-90 day sequence can keep the pilot manageable. During the first 30 days, the school inventories touchpoints and verifies legal, referral, and accessibility responsibilities. By day 60, it redesigns the selected materials and procedure, runs fictional simulations, and checks provider access. By day 90, it gathers student feedback, reviews accommodation and referral completion, fixes recurring barriers, and decides whether to expand the model. Indicators should measure usability and dignity, not only the number of contacts.

The program has important limitations. Verified participant totals and demographic data were unavailable. No standardized pre-post instrument, comparison group, direct student evaluation, or independent follow-up observation was used. Descriptive evidence was limited to workshop products, simulations, facilitator notes, reflections, and action plans. The program therefore cannot establish that RAMAH improved counseling outcomes, inclusion, attendance, or well-being. Nor can the framework replace an accessibility assessment by qualified professionals or the legal review required for particular cases. Sustainability depends on governance. Accessibility responsibilities should appear in service procedures, educational-tour procurement, digital-content practice, and staff induction. Referral contacts and access conditions require scheduled verification. Student feedback must be safe and acted upon. The school should coordinate with the relevant Disability Service Unit and the local Safe and Comfortable School Culture structure, while retaining a clear route for urgent protection concerns. Universal design is a continuing improvement process, not a one-time compliance checklist.

4. CONCLUSION

The Bandung community service program on 18-21 August 2026 approached integrated GC services from an accessibility and universal-design perspective. Its central proposition is that a service is not inclusive merely because it is formally open to every student. Students must be able to discover it, enter it, communicate, make choices, use referrals, and provide feedback without avoidable loss of dignity or autonomy. Accessible tourism strengthened this argument by showing that inclusion depends on the continuity of an entire service journey. RAMAH organizes this practice into five stages: recognize access needs, audit barriers, modify the common service, activate reasonable accommodation and support, and hear feedback for improvement. The model translates UDL, disability rights, accessible-tourism service chains, and adaptive guiding communication into observable counseling practices. Its practical strengths are anticipatory design, multiple participation routes, clear accommodation planning, and accessible referral handover. Its current evidence is descriptive. Student-informed school pilots, accessibility expertise, legal and privacy review, and longitudinal evaluation are needed before the model can be regarded as an effective inclusive-service intervention.

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