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From Scale to Image: An Arts-Based Research Design for Acculturative Stress among In-School Adolescents in Yunnan

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Abstract

This article proposes a research design that combines the Draw-a-Person-in-the-Rain, an acculturative stress questionnaire, and participant-led interpretation in Yunnan schools. Approximately 320 students from four schools would complete questionnaires and drawings; about 30 would be interviewed. An eight-session extension would run in one school. Analysis distinguishes medium, narrative, and relation, examining associations between drawing indicators and reported stress while documenting how students' explanations alter researchers' readings. Local scholarship informs the cultural context and measurement choices. No fieldwork has been conducted. The article offers collection and interpretation procedures, without claiming diagnostic accuracy or therapeutic effectiveness. Their usefulness remains to be tested.

Keywords:

acculturative stress; drawing; arts-based research; adolescents; acculturative stress measurement; Yunnan

1 Introduction

School expectations may differ from those students know at home. In Yunnan, these differences can concern language, ways of speaking with classmates, or the recognition of community knowledge. They may bring difficulty, opportunities, or both. This study asks students which differences matter to them, without assuming that minority status establishes acculturative stress.

China's 2023–2025 student mental health action plan situates the study within a national concern for school support [1]. The 2025 undergraduate catalogue also includes dance therapy [2], signalling an institutional place for an arts-related helping profession. Neither policy validates DAPR or authorises school research to be called therapy. They provide a policy context for examining expressive activities while retaining clear limits on assessment and intervention.

Questionnaire studies in Yunnan have examined cultural identity, adjustment, and school life satisfaction. Hu[3] linked dimensions of Hani students' ethno-cultural identity with their satisfaction with school life. Hu et al.[4] later investigated a multiethnic cultural identity questionnaire. More recently, Liu et al.[5] studied coping with acculturative stress and mental health among minority students in Yunnan and Guizhou. The studies concern overlapping aspects of adolescent life, but their measures address different questions. A mea-

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sure of cultural identity cannot be treated as a measure of stress, nor can either be taken as a direct account of psychological symptoms.

Questionnaires offer a common basis for comparison, but students must fit experience into predetermined responses. A student may understand an item yet find none of its answers suitable; another may more readily discuss a familiar scene through drawing. These possibilities do not invalidate scales. They justify collecting additional material and asking what it contributes.

Drawing opens another route into conversation. Researchers may agree that a figure is small or an umbrella present, yet disagree about its significance. A fixed psychological reading can reflect the researcher's expectations. The design therefore retains a common task for comparison while inviting students to explain which features matter to them.

DAPR asks participants to draw a person in the rain. Published approaches rate stress and protection features, but rater agreement does not establish that a score measures acculturative stress. Willis et al.[6] reported uneven associations with self-report measures. Here, indicators remain hypotheses to investigate alongside questionnaire responses and students' accounts.

This article specifies a proposed study in four secondary schools in Kunming. A common drawing task supports comparison; a separate extension programme permits broader material choices and social observation. No fieldwork has been conducted. The contribution concerns collection and interpretation procedures, without claiming that drawings are inherently more truthful than words or that activities have improved mental health.

RQ1 asks how students describe cultural adjustment or stress and give it visual form. RQ2 examines associations between DAPR stress and protection scores and questionnaire scores, including minority–Han differences. RQ3 follows changes in researchers' initial readings after students' explanations become available. The questions require thematic analysis, quantitative comparison, and paired interpretation records respectively; conclusions from one strand cannot simply be transferred to another.

2 Research Background

2.1 Acculturation and the school context

Redfield et al.[7] described acculturation in terms of changes arising through sustained contact between cultural groups. Berry[8][9] distinguishes the maintenance of a heritage culture from participation in the wider society, yielding the familiar strategies of integration, assimilation, separation, and marginalisation. Acculturative stress refers to difficulties associated with adaptation [10]. It does not cover every stressful experience of a minority student. These concepts guide the study, but their application depends on how contact takes place in particular schools and on the relationships through which students experience it.

Berry[9] includes cultural contact within plural societies as well as international migration. Applying the framework to Yunnan thus requires attention to context. Village-to-boarding-school transitions may differ from local day schooling or urban schooling. Educational and residential histories will help establish what

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adjustment means in each student's account.

School relationships may turn a language difference into embarrassment or make a cultural practice a source of pride or obligation. These are possibilities to investigate, not observations reported here. Accounts of continuity and ease will be retained alongside accounts of difficulty.

Schwartz et al.[11] distinguish practices, values, and identification within acculturation. A change of name cannot automatically indicate assimilation; declining to discuss home cannot establish marginalisation. Either may have practical, interpersonal, or cultural reasons. Berry's strategies are sensitising concepts, and the coding remains open to accounts that do not fit them.

2.2 Evidence from Chinese adolescent research

The Chinese literature develops this question across educational stages and populations. Zhang's study of southwest minority university students [12] provides an earlier point of reference, though university findings cannot be transferred directly to grades 7–9. Hu and Li studied Hani school life satisfaction [13], Han–Hani primary-school adaptation [14], and the connection between school adjustment and ethnic cultural identity [15]. These distinct outcomes locate cultural adjustment in everyday school experience, without making identity, stress, and symptoms interchangeable.

Hu[3] examined ethno-cultural identity and school life satisfaction among Hani elementary and secondary students. Hu et al.[4] subsequently investigated a multiethnic questionnaire with ethnic cultural identity and mainstream cultural identity in school as higher-order factors. The later instrument extends the population and measurement structure; it is not simply an English version of the earlier questionnaire.

Wang, Hu and Li examined ethnic cultural cognition across five Yunnan groups [16]; Hu, Li and Xun investigated Hani adolescents' acculturation and psychological experience [17]. Work on Jingpo adolescents [18], Yao junior high students' identity, self-esteem and life satisfaction [19], and minority students' national identity, prosocial tendency and school adjustment [20] broadens the regional picture. Appendix G restores this lineage. Differences in samples and instruments limit direct comparison, but make a combined account of school context and individual expression worth investigating.

Liu et al.[5] surveyed 1,562 minority middle school students in Yunnan and Guizhou. Their stress measure covered language pressure, discrimination and prejudice, and cultural loss. It provides an adolescent application from which to identify a candidate questionnaire. Their coping dimensions are distinct from Berry's acculturation strategies; neither should be interpreted as fixed identity positions or causal explanations of mental health.

These studies support further inquiry without establishing that all aspects of experience have been measured. The gap addressed here concerns integration within individual cases: how a score, drawing, explanation, and interaction relate. Connecting these sources makes it possible to examine convergence, disagreement, and what a drawing adds to a questionnaire response.

Minority and Han students may both encounter unfamiliar expectations through boarding or rural-to-urban transitions. Minority students may also experience strong continuity between home and school. The compar-

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ison examines how measures and interpretation work across backgrounds, without assigning either group a presumed stress status. Residence, boarding, and home language will be recorded to examine variation within the groups.

2.3 Drawing assessment and arts-based inquiry

Naumburg[21] emphasised images within a therapeutic relationship; Kramer[22] attended to making and the creative process. These traditions inform research on expression but do not license untrained teachers to deliver therapy. The proposed activities are educational, with professional psychological support arranged separately from participation.

Meng and Li[23] reported positive painting-intervention effects with substantial heterogeneity. Fanian et al.[24] examined Indigenous youth arts programming; Oepen and Gruber[25] reviewed migrant interventions. These studies inform participation and cultural responsiveness. Intervention outcomes cannot establish DAPR's measurement accuracy in Yunnan or predict the effects of this programme.

Chinese DAPR applications include adolescents with antisocial personality dysfunction [26], university students' stress and defence mechanisms [27], university stress assessment [28], and civil aviation pilots [29]. Li's study of perceived stress and coping [30] offers a Chinese-language scoring reference to compare with the selected approach. These are sources for adaptation, not evidence that the same indicators measure acculturative stress in Yunnan adolescents. The pilot will examine terminology and observable features without treating an adult or clinical scoring convention as a validated school norm.

DAPR scoring commonly treats rain-related elements as indicators of stress and protective elements as indicators of coping. The proposed meanings remain open to validation [31][32]. In Willis et al.'s[6] clinical sample, raters agreed reasonably well, but stress scores did not correlate with either self-report measure examined. Protection scores correlated with one coping-resource subscale, and their association with perceived stress reached only the level of a trend. This pattern is a reason to examine stress and protection separately. It provides no clear basis for adding them together into a single score.

Negative evidence matters. Paull's study of 30 children and adolescents found no correlation between DAPR and the Resilience Scales in Children and Adolescents [33]. Its small convenience sample limits generalisation, but prevents a blanket claim that drawing-based coping scores track resilience. Sun's school expressive-arts discussion [34] and Huang's painting psychotherapy account [35] offer practice-oriented context. Their relevance to facilitation must remain separate from evidence of scoring validity or treatment effectiveness.

Arts-based inquiry attends to how participants use a medium and bring a work into an account of experience [36][37][38]. It supports collecting material choices, explanations, and contextual observations together. The shared task permits comparison, while participant inquiry allows students to qualify researchers' readings. Neither the image nor its meaning is assumed to be self-explanatory.

Motta-Ochoa et al.[39] is a scoping review protocol, not a completed outcome synthesis. Its attention to cultural consultation informs planning. Local advisers can identify unsuitable prompts and participation barriers, but cannot determine an individual student's meaning. Familiar motifs may serve different purposes;

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omitting one does not establish cultural loss.

3 The Analytical Framework

3.1 Medium narrative and relation

The framework starts from the possibility that cultural stress may take visual or material form. Whether it does so, and in what ways, remains a question for the proposed study. A work contains choices about line, scale, placement, and materials; the process may include pauses, revisions, or exchanges with others. Researchers can document these without immediately attributing a psychological significance to them. Students' explanations then provide another record: which choices they recognise as meaningful, which were incidental, and which they prefer not to discuss. The three layers organise these records without requiring them to tell the same story.

The medium layer concerns the work and its production. Standard DAPR records include placement, shelter, rain, revisions, and drawing time. Only paper and pencil are offered, so absent colour cannot indicate avoidance. Material preference is studied in the extension, where offered options and actual choices will both be recorded.

The narrative layer follows spoken, written, or image-based explanations. Students may challenge a reading, tell another story, or decline to explain. Preferred-language accounts will be supported where feasible. Brief answers will not automatically receive less weight. Changing explanations and their circumstances will be retained; isolated phrases or gestures will not determine cultural orientations.

The relational layer concerns showing, concealing, and responding to works. Bronfenbrenner[40] helps locate these exchanges within connected home and school settings. Repeated observation is available mainly in the one-school extension; testing elsewhere provides shorter encounters. Records will distinguish them because brief exchanges cannot support equivalent claims about relationships.

Table 1 separates observed features, students' explanations, and others' responses before examining their connections. Some works may support all three layers; others may yield description alone. Unresolved meanings will remain unresolved, rather than being supplied by the researcher.

Table 1 The three analytical layers

Layer	Evidence	Interpretive boundary
Medium	Works, process notes, materials offered	Describe features before attributing personal meaning.
Narrative	Inquiry, interviews, participant explanations	Preserve the creator's account and any refusal or revision.
Relation	Session observations and audience responses	Separate repeated extension observations from brief testing encounters.

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3.2 Participant interpretation and the limits of dual evidence

Visible description, participant-attributed meaning, and researcher inference will remain distinct. Students need not confirm every feature for it to be recorded, but claims about their personal meanings require their evidence. Other readings may be proposed as inferences and assessed against alternatives. Silence will not count as support for an interpretation.

An umbrella may be recorded and scored without explanation. Calling it family support requires evidence from its creator. If the student says it was easy to draw, the interpretation changes while the scored feature remains. This hypothetical example illustrates the procedure; it is not a participant account.

Students may not remember a choice, may protect privacy, or may revise an explanation. Their accounts do not guarantee complete access to intention. Researchers will record potentially leading questions and reasons for their readings. The aim is to make claims examinable, rather than to eliminate interpretation from qualitative research [41].

4 Proposed Research Design

4.1 Sites and sampling

Regional reports describe terrace-related education in Yuanyang [42], dance and craft activities in Menglian [43], and incorporation of ethnic cultural education into Menghai curricula [44]. They show settings in which cultural expression enters education. All concern places outside the proposed Kunming schools, however, and cannot document the four sites or establish their suitability. Site access, facilities, language support, and actual cultural programmes will be checked directly before selection.

The proposed sites are an urban secondary school, a suburban junior high school, a near-suburban nine-year school, and a boarding school with substantial minority enrolment. Together they would offer variation in student backgrounds and educational settings, rather than a representative sample of Yunnan schools. Recruitment has yet to begin and depends on school agreements and ethical approval. Within-school comparisons hold some institutional conditions in common. Differences in residence, language experience, family resources, and school choice remain, however, and need to be considered when interpreting group patterns.

The initial target is about 320 students in grades 7 to 9, aged approximately twelve to fifteen, with roughly equal numbers of minority and Han students. Classes will be selected within the participating schools, and recruitment monitored to avoid concentrating either group in a single classroom. School selection and classroom clustering are thus part of the design; individual ethnicity will be recorded after recruitment. The number is a feasibility target, not a guarantee of precision. Sample planning must consider clustering before enrolment, and comparisons involving small subgroups will be treated as exploratory.

Students in the participating grades may enrol with the required consent and assent, regardless of drawing ability. A consistent assistance procedure may help them understand questionnaire wording, but facilitators will not suggest responses. The language and type of assistance will be recorded. Where feasible, students may decline one component and still contribute to another. This matters because requiring fluent completion

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of every task could exclude students whose experiences the study hopes to understand. Unpaired materials may support qualitative work, although they cannot enter analyses that require a questionnaire score and drawing from the same participant.

Interviews are planned with about 30 students, approximately twelve to fifteen from each broad ethnic grouping. Selection will seek variation in grade, school, language background, questionnaire responses, and the amount of drawing material produced. Elaborate or technically accomplished drawings will not receive priority. As interviews proceed, the adequacy of the sample will be considered in relation to the specificity and quality of the accounts, following Malterud et al.'s[45] information-power approach. That reasoning applies to the interviews, not the quantitative sample. Membership of the one-school extension group, including any overlap with interviewees, will be recorded.

4.2 Measures and collection procedures

The starting candidate is the adolescent acculturative stress measure used by Liu et al.[5], with dimensions concerning language pressure, discrimination and prejudice, and cultural loss. Before collection, the team must obtain the complete instrument and establish its provenance and permission requirements. The item set, response options, scoring, and adaptations will be documented. These materials have not been supplied and are not reproduced here. Adaptation will examine comprehension and relevance, including how Han students understand the items. If comparable meaning cannot be established, ethnic-group mean comparisons will not be reported.

A background form will record age, grade, gender, self-described ethnic identity, home language, residence, boarding, and questionnaire language or assistance. Participants may decline questions. These describe data-production conditions, not causal explanations. Identity will not be inferred from appearance or drawings. Participant identifiers will connect materials, with identifying details held separately under controlled access.

Questionnaires and drawings will be scheduled separately, initially allowing around forty minutes for each group activity. For DAPR, each student will receive A4 paper and a pencil with the instruction 'Draw a person in the rain.' Facilitators will not show model drawings or suggest desirable features. Actual time will be recorded, and students needing longer may use an agreed continuation period. Notes will identify interruptions, assistance, and other departures from the procedure. Those circumstances need to accompany any analysis of time, rather than allowing a slow or interrupted drawing to acquire a psychological meaning on its own.

A brief individual conversation will follow the drawing. Small-group scheduling or separate appointments will provide enough time and privacy to ask what is happening in the image and whether the student wants to explain anything. Participants will not be asked to disclose distress or find a symbolic meaning for each mark. Audio recording requires separate agreement; consented notes offer an alternative. The pilot will determine how many appointments the facilitators can manage. A forty-minute class drawing period will not be expected to accommodate recorded individual conversations with every student as well.

Longer interviews will follow the participant's own material and use the guide in Appendix B. Questions about colour and material selection will apply only to extension works where such choices were available. The eight-session outline in Appendix A broadens the media and provides repeated opportunities to observe

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responses among participants. Those works will remain distinct from standard DAPR drawings. They will not receive DAPR scores or enter the primary questionnaire–drawing association analysis. Attendance, offered materials, and changes to activities will be logged, allowing uneven participation to be considered during qualitative interpretation.

4.3 Quantitative analysis

Quantitative analysis will use separate stress and protection scores from one documented DAPR rating approach, with Willis et al.[6] as the starting reference. The team will obtain the precise rules and any necessary permissions, then fix the version before main collection. Two trained raters will score independently, without questionnaire results or interview accounts. Counting both pressure and protection features does not justify combining them into a total. Any extra visual variables will be listed as exploratory measures, so readers can distinguish them from the published scores.

Initial analysis will examine score distributions, missing data, floor and ceiling patterns, and agreement between raters. Intraclass correlation estimates will specify the model, the form of agreement, and whether the estimate concerns an individual rater or the average rating. Independent scores will be retained even if raters subsequently resolve disagreements. Questionnaire reliability will also be examined in this sample. Reliability reported elsewhere offers useful background, but cannot establish how the measure works across the languages, groups, and assistance conditions represented in the proposed schools.

Associations with the questionnaire will be examined separately for DAPR stress and protection scores and reported with uncertainty intervals. Analyses of the overall questionnaire score will be distinguished from dimension-level and exploratory comparisons. Group patterns will be considered alongside residence, boarding, grade, gender, and home language where the sample permits. The specification must also account for classroom clustering and school membership. Four schools offer little basis for estimating general differences among school types. Comparisons between them will therefore describe the participating sites rather than stand for urban, suburban, or boarding schools across Yunnan.

Sensitivity, specificity, and a diagnostic cut-off are beyond what this first study can establish. The questionnaire provides a comparison measure, not an unquestionable gold standard. A threshold study would need a defensible reference classification and validation beyond finding the best cut-off in the same sample. The present analyses can identify indicators worth pursuing, patterns that vary between groups, and measures that perform poorly. They cannot justify a mental health label or a clinical decision for a student on the basis of a drawing.

4.4 Qualitative analysis and comparison of interpretations

Qualitative analysis will follow the broad phases of thematic analysis described by Braun and Clarke[46]: familiarisation, initial coding, developing candidate themes, reviewing them, defining them, and producing an account. The three-layer framework provides an initial organisation of materials, while codes and themes can change during analysis. Published psychological categories will not operate as mandatory bins. Appendix C specifies the distinction between descriptive and interpretive coding. The researcher's role in constructing themes will be acknowledged, and participant agreement will inform interpretation without being treated as a

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mechanical validation test.

For RQ3, paired records will follow interpretation in the interview subsample. Before seeing the student's explanation, a researcher will describe the drawing and record any tentative reading in a separate file. That entry will remain unchanged. A later entry will document what happens to each reading after inquiry or interview: whether it is supported, revised, contradicted, or still unresolved, and which evidence informed that judgment. The comparison traces the contribution of the student's account. It does not test whether a researcher can uncover a hidden psychological truth before speaking with the creator.

A cross-case matrix will include every interviewee, including students whose works are sparse, whose answers are brief, or who report little cultural conflict. Cases that challenge an emerging theme will receive explicit attention. The analysis will also examine whether a theme depends mostly on one school or on students producing unusually elaborate work. Otherwise, striking images may come to represent the sample through the ease with which they can be discussed. Extension records will be linked to attendance and session conditions, distinguishing absence from an activity from absence of a particular behaviour.

Language mediation is part of how the account is produced. Key expressions will be retained in the original language where feasible, with notes on translation choices that affect meaning. A difficulty in translation may warrant further inquiry; it will not automatically count as cultural stress. Students will have opportunities to clarify important readings in an accessible form. Disagreement, refusal, and changing accounts will remain in the record. Peer discussion and reflexive notes will help make decisions traceable, while acknowledging that researchers continue to shape the analysis [47][48].

4.5 Integration and interpretation

Identifiers will connect questionnaires, DAPR ratings, image descriptions, and participant accounts in a joint case display. Table 2 identifies each question's analytical route. Convergence may strengthen a bounded interpretation; disagreement will prompt examination of meanings, task conditions, and measurement assumptions. Neither source will automatically become the final authority.

Table 2 Research questions and analytical routes

Question	Sources	Principal operation
RQ1	Works, process records, interviews	Thematic analysis across the three layers.
RQ2	Questionnaires and standard DAPR ratings	Reliability, associations, and exploratory group comparisons.
RQ3	Initial readings and participant accounts	Paired records of supported, revised, contradicted, or unresolved interpretations.

Disagreement may reveal measurement limits. High questionnaire stress with few drawing indicators could reflect an insensitive drawing measure, different meanings of rain, or questionnaire limitations. A storm image alongside low reported stress could be an aesthetic choice. Participant accounts will inform consideration of these possibilities. Identifying an unhelpful indicator is also a useful outcome.

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4.6 Ethics and implementation

Ethical approval and school agreements will be required before recruitment. Guardians will provide consent and students will provide assent, with the right to decline individual questions or activities. Teachers will not use participation or non-participation in grading. Confidentiality arrangements will distinguish individual research records from information legitimately required for urgent safeguarding. A qualified local psychological practitioner will establish the response and referral procedure. Distress will be handled through that procedure rather than interpreted or managed by an arts facilitator acting alone. No ethical approval or participant consent is claimed to have been obtained for this design article.

Participants will retain ownership of their works. Permission to analyse a drawing will not imply permission to publish it. Publication requires separate, item-specific agreement covering the proposed image and caption, with guardian consent and student assent where required. Images that risk identification will be withheld or represented through clearly labelled descriptions; original research images will not be altered to disguise identity. Group members will be told that confidentiality cannot be guaranteed by the researcher outside the session. Access to raw material by school staff or advisers will be limited and require an appropriate basis.

Implementation will proceed from tool adaptation to a small pilot, revision, and collection across the four schools. The pilot will test comprehension, timing, recording, and whether facilitators can keep research inquiry distinct from assessment. For the extension, the initial plan allows six students and eight weekly sessions. Repetitive material may be informative, so repetition alone will not justify removing an activity; each change needs a recorded reason. During full collection, only one school will run the extension. The team will need arts facilitation, psychological safeguarding, and appropriate language support, without assuming that one researcher can supply all three.

5 Contributions and Limitations

For art and design research, recording materials, revision opportunities, and audiences situates the work within its making. The common task permits comparison; extension activities expose broader choices. Analysing both helps distinguish participant decisions from task constraints and asks what changing conditions of expression makes available for inquiry.

Paired interpretation records show which initial readings survive conversation and which require revision. If students repeatedly contradict an interpretation, the study can identify a problematic assumption rather than dismiss their accounts. Disagreement can therefore be informative, provided the record shows how it affected the analysis.

Schools could receive an aggregate report, educational materials, and a discussion of communication barriers. These returns must remain distinct from screening. Individual DAPR scores will not be supplied as clinical labels. Exploring expression and adult responses is a defensible practical aim before the measurement work has established any further application.

The framework and measures remain untested here. Four selected schools cannot represent Yunnan; combining minority groups may conceal differences, and small subgroups limit comparison. Item meaning and

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language may restrict score comparisons. The sample target will be reviewed against required precision and clustering before fieldwork, rather than assumed adequate for every proposed analysis.

Drawing still depends on communication, and some students may prefer neither drawings nor interviews. Meanings may remain private. Sustained relational observation comes from one school. School audiences and expectations may shape making. These constraints must enter any eventual findings; inviting interpretation does not remove unequal power or establish art as a universally accessible language.

6 Conclusion

This article presents a proposed design, not findings from adolescents. Questionnaires, DAPR indicators, inquiry, and process notes would address connected but distinct questions. The three layers keep visible features, personal accounts, and exchanges available for examination. Their usefulness depends on whether collection and analysis can make claims traceable to those materials while retaining uncertainty.

Adaptation and piloting precede ethically approved collection. Results could support some indicators, reject others, or show that participant accounts clarify context without improving measurement. The study would remain informative in each case. Its central question is how making and interpreting an image can contribute to knowledge about adolescent experience.

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References

[1] Ministry of Education of the PRC, et al. Special action plan for comprehensively strengthening and improving student mental health work in the new era (2023-2025) [Z]. Jiaotiyi [2023] No.1, 2023.
[2] Ministry of Education of the PRC. Catalogue of undergraduate majors in general higher education institutions (2025) [Z]. 2025.
[3] Hu F W. The relationship between ethno-cultural identity and school life satisfaction of Hani elementary and high school students [J]. Psychological Development and Education, 2009, 25(2): 86-90, 96.
[4] Hu F W, Wang P, Li L J. Psychometric structure of the Chinese Multiethnic Adolescent Cultural Identity Questionnaire [J]. Psychological Assessment, 2014, 26(4): 1356-1368. DOI: 10.1037/a0037690.
[5] Liu M, Yang T H, Liu P, Zhang Q L, Zhang J M. The relationship between acculturation coping and mental health among some minority middle school students in the Yunnan-Guizhou region [J]. Journal of Guizhou Medical University, 2023, 48(12): 1513-1520. DOI: 10.19367/j.cnki.2096-8388.2023.12.013.
[6] Willis L R, Joy S P, Kaiser D H. Draw-a-Person-in-the-Rain as an assessment of stress and coping resources [J]. The Arts in Psychotherapy, 2010, 37(3): 233-239. DOI: 10.1016/j.aip.2010.04.009.
[7] Redfield R, Linton R, Herskovits M J. Memorandum for the study of acculturation [J]. American Anthropologist, 1936, 38(1): 149-152.
[8] Berry J W. Immigration, acculturation, and adaptation [J]. Applied Psychology: An International Review,

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1997, 46(1): 5-34. DOI: 10.1111/j.1464-0597.1997.tb01087.x.
[9] Berry J W. Acculturation: Living successfully in two cultures [J]. International Journal of Intercultural Relations, 2005, 29(6): 697-712. DOI: 10.1016/j.ijintrel.2005.07.013.
[10] Berry J W, Kim U, Minde T, Mok D. Comparative studies of acculturative stress [J]. International Migration Review, 1987, 21(3): 491-511.
[11] Schwartz S J, Unger J B, Zamboanga B L, Szapocznik J. Rethinking the concept of acculturation: Implications for theory and research [J]. American Psychologist, 2010, 65(4): 237-251. DOI: 10.1037/a0019330.
[12] Zhang J M. A study of acculturation among southwest minority university students [D]. Chongqing: Southwest University, 2008.
[13] Hu F W, Li L J. The relationship between acculturation and school life satisfaction among Hani middle school students [J]. Chinese Mental Health Journal, 2010, 24(2): 144-148.
[14] Hu F W, Li L J. A comparison of psychological and social adaptive behavior between Han and Hani primary school students in border areas [J]. Chinese Journal of School Health, 2010, 31(3): 367-369.
[15] Hu F W, Li L J. The relationship between school adjustment and ethnic cultural identity among Hani middle school students [J]. Chinese Journal of Health Psychology, 2010, 18(10): 1214-1217.
[16] Wang P, Hu F W, Li L J. The current status and causes of minority adolescents' ethnic cultural cognition in school education: A survey of five indigenous ethnic groups in Yunnan [J]. Journal of Southwest University for Nationalities (Humanities and Social Sciences), 2012, 33(9): 8-15.
[17] Hu F W, Li L J, Xun L B. Acculturation and its psychological effects among Hani adolescents [J]. Guangxi Ethnic Studies, 2016(3): 94-104.
[18] Wang D, Wang T, Zhang J J. The acculturative status and its influencing factors among Jingpo adolescents [J]. Journal of Guiyang University (Social Sciences), 2018, 13(6): 36-41.
[19] Wang S. A correlational study of ethnic identity, self-esteem and life satisfaction among Yao junior high school students in the border areas of Yunnan [D]. Kunming: Yunnan Normal University, 2021.
[20] Pu K H, Yin K L. The influence of Chinese national identity on school adjustment of minority adolescents: The mediating role of prosocial tendency [J]. Ethnic Forum, 2022(2): 24-32.
[21] Naumburg M. Dynamically oriented art therapy: Its principles and practices [M]. New York: Grune & Stratton, 1966.
[22] Kramer E. Art as therapy with children [M]. New York: Schocken Books, 1971.
[23] Meng D N, Li J D. The effects of painting therapy on the mental health of middle school students: An RCT-based meta-analysis [J]. Theory and Practice of Psychological Counseling, 2023, 5(3): 162-184. DOI: 10.35534/tppc.0503016.
[24] Fanian S, Young S K, Mantla M, Daniels A, Chatwood S. Evaluation of the Kòts'iihtła ("We Light the Fire") project: Building resiliency and connections through strengths-based creative arts programming for Indigenous youth [J]. International Journal of Circumpolar Health, 2015, 74(1): 27672. DOI: 10.3402/ijch.v74.27672.
[25] Oepen R, Gruber H. Art-based interventions and art therapy to promote health of migrant populations: A systematic literature review of current research [J]. Arts & Health, 2024, 16(3): 266-284. DOI: 10.1080/17533015.2023.2252003.
[26] Chen T, Xiang J J, Pei H C, Wang P C, Xing Y L, Luo J. Stress coping characteristics of adolescents with antisocial personality dysfunction in Draw-a-Person-in-the-Rain drawings [J]. Chinese Mental Health Jour-

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nal, 2016, 30(3): 185-190.
[27] Sui Y Z. A study of the relationship between the Draw-a-Person-in-the-Rain projective drawing test and stress and defence mechanisms among university students [D]. Guangzhou: South China Normal University, 2011.
[28] Li Z Y. An application study of the Draw-a-Person-in-the-Rain drawing test in the stress assessment of university students [D]. Zhenjiang: Jiangsu University, 2018.
[29] Tao Y J. A research on civil aviation pilots' stress and coping effects based on DAPR [J]. Advances in Psychology, 2024, 14(12): 259-266. DOI: 10.12677/ap.2024.1412881.
[30] Li J N. An evaluation of the Draw-a-Person-in-the-Rain projective drawing technique for perceived stress and coping [J]. Journal of Preventive Medicine of the Chinese People's Liberation Army, 2020, 38(2): 28-31.
[31] Verinis J S, Lichtenberg E F, Henrich L. The Draw-A-Person in the rain technique: Its relationship to diagnostic category and other personality indicators [J]. Journal of Clinical Psychology, 1974, 30(3): 407-414.
[32] Oster G D, Crone P G. Using drawings in assessment and therapy: A guide for mental health professionals [M]. 2nd ed. New York: Brunner-Routledge, 2004.
[33] Paull M. Using Draw-A-Person in the Rain projective drawing assessment in measuring resilience and coping in children [D]. Belmont: Notre Dame de Namur University, 2012.
[34] Sun X R. A study of the application of expressive arts therapy in mental health education in primary and secondary schools [J]. Mental Health Education in Primary and Secondary Schools, 2023(15): 9-13.
[35] Huang Y W. Painting art psychotherapy: Being a spectator of life [J]. Theory and Practice of Psychological Counseling, 2023, 5(3): 268-276.
[36] Barone T, Eisner E W. Arts based research [M]. Thousand Oaks: Sage, 2012.
[37] Leavy P. Method meets art: Arts-based research practice [M]. 2nd ed. New York: Guilford Press, 2015.
[38] McNiff S. Art-based research [M]//Knowles J G, Cole A L. Handbook of the arts in qualitative research. Thousand Oaks: Sage, 2008: 29-40.
[39] Motta-Ochoa R, Patenaude D, Barbe-Welzel M A, et al. Evidence about art-based interventions for Indigenous people: A scoping review protocol [J]. BMJ Open, 2024, 14(6): e083448. DOI: 10.1136/bmjopen-2023-083448.
[40] Bronfenbrenner U. The ecology of human development: Experiments by nature and design [M]. Cambridge: Harvard University Press, 1979.
[41] Kapitan L. An introduction to art therapy research [M]. New York: Routledge, 2010.
[42] CPC Yunnan Provincial United Front Work Department. Yuanyang, Honghe: Terraces as veins, united hearts as the dream - Yuanyang County deepens education on forging a strong sense of community for the Chinese nation [EB/OL]. (2026-05-13). https://ynswtzb.gov.cn/info/27688.
[43] CPC Yunnan Provincial United Front Work Department. Menglian, Pu'er: Children jumping, united dance, heritage in the fingertips [EB/OL]. (2026-06-04). https://ynswtzb.gov.cn/info/28768.
[44] People's Political Consultative Conference Daily. The CPPCC of Menghai County, Xishuangbanna Dai Autonomous Prefecture, Yunnan: Promoting the incorporation of ethnic cultural education into the curriculum [EB/OL]. (2025-11-20). https://www.rmzxw.com.cn/c/2025-11-20/3822370.shtml.
[45] Malterud K, Siersma V D, Guassora A D. Sample size in qualitative interview studies: Guided by information power [J]. Qualitative Health Research, 2016, 26(13): 1753-1760. DOI: 10.1177/1049732315617444.

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[46] Braun V, Clarke V. Using thematic analysis in psychology [J]. Qualitative Research in Psychology, 2006, 3(2): 77-101. DOI: 10.1191/1478088706qp063oa.
[47] Lincoln Y S, Guba E G. Naturalistic inquiry [M]. Beverly Hills: Sage, 1985.
[48] Tracy S J. Qualitative quality: Eight "big-tent" criteria for excellent qualitative research [J]. Qualitative Inquiry, 2010, 16(10): 837-851. DOI: 10.1177/1077800410383121.

Appendix A Extension programme

The eight-session programme will take place in one school. It is an educational research activity, not a therapeutic intervention. Standard DAPR testing will be completed before the programme. Extension works will contribute to qualitative analysis only. Participants may decline a theme, use a personally meaningful alternative, or choose not to show a work. Facilitators will record materials offered, attendance, adaptations, and relevant interactions. Cultural performance or disclosure will not be required.

Table A.1 Eight session outline

Session	Theme	Media	Research focus
1	Giving oneself a mark	Drawing and markers	Entry and material preferences
2	The shape of home	Drawing and collage	Representing familiar places
3	Rules in different places	Drawing and writing	Continuity and difference
4	Where languages are heard	Drawing and sound map	Language use in context
5	Ways of moving	Movement and still images	Gesture and bodily experience
6	Making with the hands	Clay, textile, available craft materials	Technique and constraint
7	Imagining a future	Drawing and letter writing	Possibilities and preferences
8	One picture many hands	Optional collective mural	Collaboration and responses

Appendix B Interview guide

Open with 'Tell me what is happening in this picture.' Follow the student's account by asking what they did first and whether anything changed during making. With standard DAPR works, ask about size, placement, line, or revisions. Questions about colour and materials belong to extension works where choices were available. Ask 'Does this connect with anything at home, at school, or somewhere else?' If differences arise, explore whether and how they matter to the student. Ask whether anyone has seen the work, what happened, and which parts should remain private. Close by inviting corrections to the researcher's account. Students may decline any explanation.

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Appendix C Coding and evidence rules

Table C.1 Coding framework

Layer	Code families	Evidence rule
Medium	Placement, density, revisions, material choices	Descriptive record; specify offered options and task conditions.
Narrative	Participant explanations, language, contextual positions	Attribute meanings to the student; do not infer psychological defences from form.
Relation	Showing, concealing, recognition, disagreement	Record the interaction; do not infer a motive without further evidence.

Each entry will identify participant, source, session, evidence type, and analytical status. Descriptive entries remain available when participants offer no account. Personal meanings require participant-attributed evidence. Researcher hypotheses are stored separately and may be supported, revised, contradicted, or unresolved after inquiry. No single gesture or visual feature establishes a diagnosis or an acculturation strategy. Original-language terms and consequential translation choices will be retained where feasible.

Appendix G Yunnan minority adolescent research

This table maps the regional studies discussed above. Samples and principal instruments follow the supplied literature record; findings are concise study-level summaries, not pooled estimates. Differences in educational stage, constructs, and methods preclude treating the rows as interchangeable evidence.

Table G.1 Principal studies of acculturation in Yunnan

Year	Researchers	Sample	Principal instruments	Principal findings
2009	Hu[3]	Hani elementary and secondary students	Ethno-cultural identity; school life satisfaction	Associations between cultural identity and school life satisfaction.
2010	Hu and Li[13]	621 Hani students; five schools in three Honghe counties	Acculturation; school life satisfaction	Acculturation positively associated with school life satisfaction; variation across grades.
2010	Hu and Li[14]	Han and Hani primary students	Psychological and social adaptive behaviour	Differences reported in anxiety, social support, and school adaptation.
2012	Wang, Hu and Li[16]	2,750 Bai, Hani, Naxi, Jingpo and Jino adolescents	Ethnic cultural cognition	Generally low cultural knowledge; family, social and media contexts considered.
2016	Hu, Li and Xun[17]	869 Hani adolescents	Acculturation; psychological indicators	Uneven acculturation patterns and differences associated with schooling.
2018	Wang, Wang and Zhang[18]	540 Jingpo students; nine Dehong schools	Acculturation; cultural intelligence; stress; mental health	Marginalisation reported as predominant; contextual associations considered.
2021	Wang[19]	Yao junior high students in Yunnan border areas	Ethnic identity; self-esteem; life satisfaction	Associations among identity, self-esteem, and life satisfaction reported.

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Year	Researchers	Sample	Principal instruments	Principal findings
2022	Pu and Yin[20]	1,268 minority students; eight Yunnan schools	National identity; school adjustment; prosocial tendency	Positive identity–adjustment association; prosocial tendency examined as a mediator.
2023	Liu et al.[5]	1,562 minority students, Yunnan and Guizhou	Acculturative stress; coping; mental health	Coping and mental health associations examined; categories differ from Berry's strategies.

Glossary

Acculturative stress: difficulties associated with cultural adaptation, distinguished from general distress. DAPR: Draw-a-Person-in-the-Rain, a shared drawing task with published stress and protection scoring approaches. Participant-attributed meaning: an interpretation supported by the creator's own account. Relational layer: interactions involving a participant, a work, and its audience within the research setting.

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