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Research Article

Faculty Members' Mindset Profiles in Research Career Development: Preliminary Evidence for Positive Psychology-Based Mentoring in a Muhammadiyah-Affiliated University

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Abstract

Research engagement is constrained not only by skills and resources but also by how faculty members interpret feedback, failure, and capability development. This preliminary cross-sectional survey mapped research-career mindset profiles among 32 faculty members representing five faculties at Universitas Muhammadiyah Pringsewu, a Muhammadiyah-affiliated university in Indonesia. A structured questionnaire addressed beliefs about research competence, publication challenges, academic failure, and career growth. Descriptive analysis and Wilson 95% confidence intervals were used. Three faculty members (9.4%; 95% CI: 3.2%-24.2%) were classified as fixed-mindset, seven (21.9%; 11.0%-38.8%) as growth-mindset, and 22 (68.8%; 51.4%-82.0%) as mixed-mindset. The predominance of mixed profiles indicates openness to developing research competence alongside continuing doubts about revision, rejection, and methodological demands. Rather than treating research engagement as merely a technical deficit, the findings identify a human-factors need for mentoring that combines research-skill support with strengths-based feedback, mastery experiences, and psychosocial support. The results are descriptive and cannot establish causality or psychometric validation. They provide a baseline for developing and testing a positive psychology-based research mentoring model.

Keywords: Academic Career Development; Faculty Development; Growth Mindset; Human Factors.

INTRODUCTION

Faculty members' research engagement is central to academic-career advancement, institutional learning, and the capacity of universities to contribute credible knowledge to society. Research outputs shape professional opportunities, scholarly visibility, collaboration, grant competitiveness, and the developmental standing of higher education institutions [1], [2], [3]. Within a human-factors perspective, however, research productivity should not be reduced to the volume of publications. It is also shaped by how academic work is designed, how feedback is experienced, and whether the environment enables faculty members to sustain effort, learning, and well-being.

The research process is demanding because it requires time, methodological expertise, access to resources, iterative writing, and the ability to remain engaged after criticism or rejection. Studies across higher education identify workload, insufficient institutional support, limited methodological preparation, weak research infrastructure, and publication barriers as persistent constraints [4], [5], [6]. Evidence from Indonesian settings likewise indicates that research performance may vary with faculty and demographic conditions, while institutional systems can either enable or impede continuous scholarly work [7], [8]. These findings suggest that research-career development is simultaneously a capacity-building, organizational, and psychosocial challenge.

Research self-efficacy is one psychological resource that consistently matters in this context. Faculty members who believe that they can formulate problems, conduct analyses, communicate results, and navigate publication processes are more likely to initiate and persist in research-related activities [9], [10], [11]. Self-efficacy does not replace research training or material support; rather, it influences whether faculty members use available opportunities, recover from setbacks, and perceive complex tasks as learnable. Accordingly, interventions that focus only on technical writing or methods may leave an important motivational and interpretive layer of research work unaddressed.

Mindset theory provides a complementary lens for understanding this layer. A growth-oriented mindset refers to the belief that abilities can improve through effort, strategies, feedback, and experience, whereas more fixed beliefs construe ability as relatively stable [12], [13], [14]. In research careers, these beliefs are relevant because manuscript revision, peer review, unsuccessful grant applications, and methodological errors require repeated learning rather than one-time performance. The construct should nevertheless be applied cautiously: mindset effects are shaped by contextual cues and cannot be treated as a stand-alone solution to structural barriers.

Recent higher education work has strengthened the measurement and professional relevance of growth-oriented beliefs. Setiawan, Dewi, and Zainul developed a growth-mindset instrument for higher education in relation to performance and professionalism [15], while Chen, Ding, and Liu demonstrated the importance of explicit structural-validity evidence when interpreting mindset measures [16]. For the present study, the term mixed mindset is used descriptively rather than as a new psychometric trait. It denotes a profile in which a faculty member recognizes that research competence can develop but still expresses limiting beliefs when encountering particular research and publication demands.

Mentoring offers a plausible mechanism for addressing both the technical and psychosocial dimensions of research-career development. Research mentoring can supply modelling, feedback, professional networks, research socialization, and career guidance [17], [18], [19]. Broader mentoring scholarship further shows that supportive mentoring relationships can contribute to career development, social integration, and professional confidence [20], [21], [22]. Importantly, mentor development itself requires structure and competence rather than an assumption that experienced researchers automatically mentor effectively [23].

Positive psychology contributes an additional design perspective. Workplace interventions informed by strengths, positive resources, engagement, and well-being have been associated with beneficial individual and organizational outcomes [24], [25], [26]. Self-determination theory, the job demands-resources model, and psychological-capital research similarly show that motivation, autonomy-supportive environments, accessible resources, and psychological capacities help explain sustained work engagement [27], [28], [29]. Positive psychology coaching may therefore enrich research mentoring by moving beyond deficit correction toward strengths identification, realistic optimism, mastery experiences, and reflective goal-setting [30], [31]. Mentoring also has documented links with well-being and engagement in higher education, indicating that professional support may matter for both academic output and the quality of working life [32].

Despite this evidence, three gaps remain. First, research on academic productivity has often emphasized skills, outputs, and institutional constraints without mapping the belief profiles through which faculty members interpret research difficulty. Second, growth-mindset scholarship in higher education has concentrated on instruments, teaching, or broad professional development rather than on research-career decision-making [33], [34]. Third, meta-analytic evidence cautions that mindset interventions do not operate uniformly across individuals and settings, which reinforces the need for context-sensitive diagnostic work before any intervention is designed [35].

This study addresses these gaps through an initial mapping of faculty members' mindset tendencies in research-career development at Universitas Muhammadiyah Pringsewu, a Muhammadiyah Higher Education Institution (MHEI) in Lampung, Indonesia. For international readers, an MHEI is a faith-affiliated, community-oriented private university that combines academic development with the organizational values of the Muhammadiyah movement. The study is positioned in the human-factors and development dimensions of academic work: it examines how cognitive beliefs, feedback experiences, and social support may interact with research-career development. The aim is not to test the effectiveness of mentoring, but to establish a transparent descriptive baseline for a future positive psychology-based research mentoring model.

Specifically, the study maps faculty members' mindset tendencies in relation to research competence, publication challenges, academic failure, and research-based career growth. Its contribution is twofold. Empirically, it identifies whether fixed, growth, or mixed profiles dominate this preliminary sample. Conceptually, it treats the mixed profile as an actionable signal for mentoring design rather than as an individual deficit. This positioning recognizes that sustainable faculty development requires both personal learning resources and institutional conditions that make research participation feasible.

METHODS

Research Design

This study employed a quantitative, cross-sectional descriptive survey design. The design was selected because the objective was to map an initial profile of mindset tendencies rather than to estimate causal effects, compare interventions, or predict research productivity. The reporting structure was informed by principles for transparent observational-study reporting [36]. The survey treated research-career mindset as a descriptive profile constructed from faculty members' responses to research competence, publication challenges, academic failure, and long-term career-development prompts. Accordingly, the study reports the observed distribution of profiles and associated interpretive implications, not latent-variable estimates or intervention outcomes.

Participants and Sampling

The study involved 32 faculty members from Universitas Muhammadiyah Pringsewu in Lampung, Indonesia. Participants represented five academic units: the Faculty of Teacher Training and Education, Faculty of Health Sciences, Faculty of Computer Science, Faculty of Economics and Business, and Faculty of Sharia. Participants were purposively included because they were active faculty members whose professional responsibilities were directly connected to research and scholarly publication. The cross-faculty composition was intended to provide an initial institutional picture rather than to support faculty-level comparison. Faculty-specific counts, academic rank, sex/gender, age, and years of experience were not retained in the available preliminary dataset; therefore, no subgroup analyses are reported. Table 1 describes the study context and the scope of available participant information.

Table 1. Study Context and Available Participant Information

Component	Reported information
Institutional setting	Universitas Muhammadiyah Pringsewu, Lampung, Indonesia; a Muhammadiyah Higher Education Institution (MHEI).
Design	Quantitative cross-sectional descriptive survey; preliminary diagnostic mapping.
Participants	32 active faculty members (lecturers).
Academic-unit coverage	Teacher Training and Education; Health Sciences; Computer Science; Economics and Business; Sharia.
Sampling rationale	Purposive inclusion of faculty members directly connected to research-career development.
Analytical unit	Individual faculty member; all results reported in aggregate.
Available data for revision	Final three-category mindset classification and domain-level preliminary summary; no item-level response file or demographic breakdown.

Operational Definitions of Variables

The primary outcome was research-career mindset tendency. It was operationalized as a descriptive classification of faculty members' beliefs about the malleability of research competence and their responses to research-related challenges. Growth mindset referred to an

orientation that research competence can be strengthened through learning, practice, feedback, and experience. Fixed mindset referred to an orientation that research ability is largely stable or difficult to improve. Mixed mindset referred to concurrent endorsement of developmental beliefs and limiting beliefs in difficult situations, such as methodological uncertainty, extensive revision, criticism, or manuscript rejection. Mixed mindset is not treated as a universal or independently validated construct; within this preliminary study, it is an operational category that captures ambivalence in the documented survey classification. The four prompts/domains used to structure the mapping were research competence, publication challenges, academic failure, and research-based career development. Table 2 provides the operational definitions and analytical boundaries.

Table 2. Operational Definitions and Analytical Boundaries

Construct/Domain	Operational Definition	Analytical Boundary
Research-career mindset tendency	The overarching descriptive classification of beliefs about research competence and responses to research-related challenge.	Fixed, growth, or mixed profile.
Fixed mindset profile	Research competence is viewed as relatively stable or difficult to improve; challenges are more likely to be interpreted as evidence of limited ability.	Final category assignment retained in the source dataset.
Growth mindset profile	Research competence is viewed as improvable through effort, learning, feedback, practice, and experience.	Final category assignment retained in the source dataset.
Mixed mindset profile	Developmental beliefs are endorsed in principle, but limiting beliefs remain active in demanding situations such as rejection, revision, or methodological uncertainty.	Descriptive operational category; not claimed as an independently validated trait.
Research competence	Perceived capacity to conduct, learn, and improve research activities.	Mapped domain.
Publication challenges	Perceptions of manuscript preparation, revision, peer review, and rejection.	Mapped domain.
Academic failure	Interpretation of errors, revision, unsuccessful submissions, and setbacks.	Mapped domain.
Research-based career development	Perceived role of sustained research and publication in academic career growth.	Mapped domain.

Hypotheses Development

Although the study was exploratory and descriptive, two directional descriptive hypotheses were formulated to organize the profile mapping. Based on the literature showing that capability beliefs may be context-sensitive and co-exist with self-protective responses to failure [12], [14], [33], H1 proposed that the mixed-mindset profile would be the most prevalent category. Because fully growth-oriented beliefs require sustained confidence in learning from feedback and difficulty, H2 proposed that the growth-mindset profile would not constitute the

majority of the sample. These hypotheses were assessed only by observed category ordering and proportion; they were not subjected to null-hypothesis significance testing.

Data Collection Procedure

Data were collected through a structured preliminary survey administered to faculty members at the institution. The questionnaire elicited perceptions related to research competence, scholarly publication challenges, responses to academic failure, and the role of research in career development. The available study record supports analysis of the final three-category classification and the thematic domains summarized in the original preliminary report. It does not contain item-level response files, a complete scoring key, or an audit trail of missing responses. For that reason, the current revision does not reconstruct individual scores, create new item-level statistics, or infer demographic patterns that were not documented. Results are presented in aggregate form, with no identification of individual participants or comparisons across academic units.

Data Analysis

Frequency and percentage were used to summarize fixed, growth, and mixed mindset profiles. To communicate sampling uncertainty around the descriptive proportions, Wilson 95% confidence intervals were calculated for each profile. This addition does not transform the study into an inferential or causal design; it simply indicates the plausible range of the observed proportions in a small preliminary sample. The descriptive hypotheses were judged as supported when the observed rank ordering corresponded to the stated expectation. No t-test, analysis of variance, regression, structural equation model, or causal mediation analysis was conducted because the dataset contains neither a treatment variable nor item-level covariates.

Validity and Reliability Results

Measurement quality was evaluated against the evidence that can be supported by the archived preliminary data. The questionnaire domains demonstrate face and conceptual alignment with the study objective, but formal psychometric evidence cannot be estimated retrospectively because item-level responses, expert-review records, and repeated measurements are unavailable. This distinction is important: internal-consistency coefficients alone are not a sufficient substitute for a broader validity argument [37], and transparent reporting of measurement evidence is necessary to evaluate construct claims [38]. Table 3 therefore reports what can and cannot be concluded. The study deliberately avoids fabricating a content-validity index, Cronbach's alpha, McDonald's omega, factor structure, or test-retest coefficient. Consequently, the classifications should be interpreted as preliminary descriptive indicators rather than validated scale scores.

Table 3. Measurement Evidence and Reliability Boundary for the Preliminary Survey

Evidence Domain	Available Evidence	Result/Interpretive Boundary
Conceptual/face coverage	Documented alignment between four survey domains and the stated	Preliminary conceptual alignment only; no formal expert content-validity index was retained.

Evidence Domain	Available Evidence	Result/Interpretive Boundary
	objective of mapping research-career beliefs.	
Internal consistency	Item-level response matrix unavailable.	Cronbach's alpha and McDonald's omega not estimable.
Dimensionality	Item-level response matrix and item wording unavailable.	Exploratory/confirmatory factor analysis not estimable.
Classification reproducibility	Original scoring algorithm and item-level responses unavailable.	Final categories can be reported but cannot be independently re-scored.
Temporal stability	No repeat measurement was recorded.	Test-retest reliability not assessed.
Interpretive boundary	Small, single-site preliminary sample.	Profile percentages are descriptive indicators, not validated population estimates.

RESULTS AND DISCUSSION

Results

Study Context and Availability of Participant Information

The survey yielded 32 final category classifications from faculty members across five faculties. The available information supports an institution-level descriptive analysis but not a demographic or disciplinary comparison. This boundary matters because research engagement may vary by career stage, disciplinary convention, workload, and gendered organizational experiences; none of these factors can be examined validly from the retained data. The results that follow therefore answer a narrower but useful question: which research-career mindset profile was most common in this preliminary institutional sample?

Distribution of Mindset Tendency Profiles

Table 4 and Figure 1 present the profile distribution. The mixed-mindset category was the largest group, comprising 22 of 32 faculty members (68.8%; Wilson 95% CI: 51.4%-82.0%). The growth-mindset category comprised seven faculty members (21.9%; 95% CI: 11.0%-38.8%), while the fixed-mindset category comprised three faculty members (9.4%; 95% CI: 3.2%-24.2%). The descriptive pattern supports H1 because the mixed profile was clearly the modal category. H2 was also supported because the growth profile did not represent a majority of the sample.

Table 4. Distribution of Research-Career Mindset Tendency Profiles (n = 32)

Profile	n	%	Wilson 95% CI (%)	Interpretation
Fixed mindset	3	9.4	3.2-24.2	Small but actionable group; estimates are imprecise because of the small n.
Growth mindset	7	21.9	11.0-38.8	Development-oriented group, but not the majority.
Mixed mindset	22	68.8	51.4-82.0	Dominant profile; signals developmental openness with continuing vulnerability in difficult research situations.
Total	32	100.0	Not applicable	Descriptive sample total.

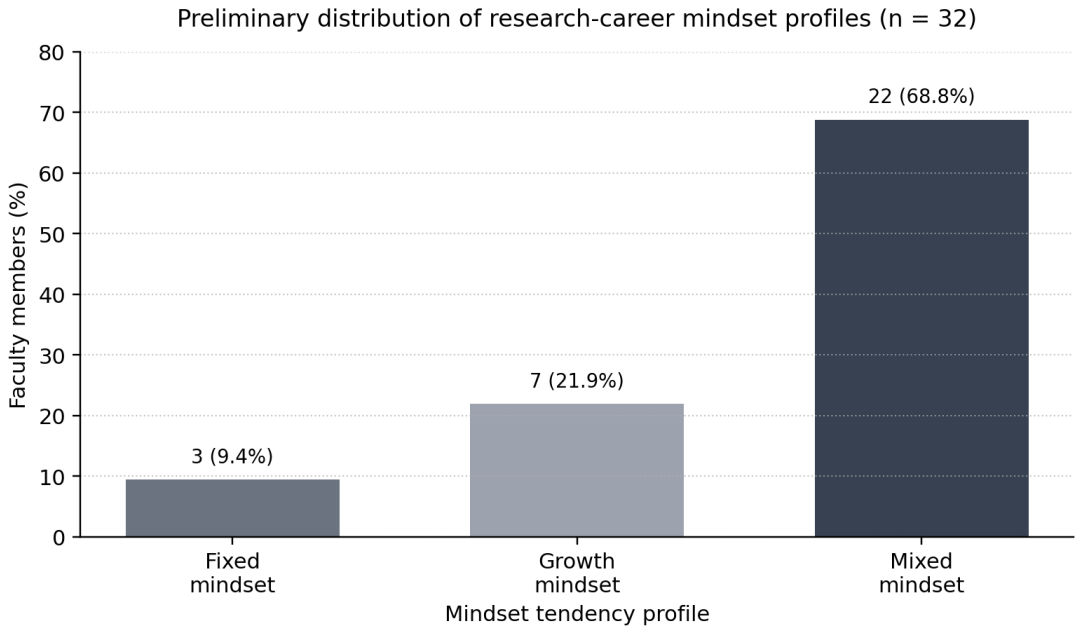

Figure 1. Preliminary Distribution of Research-Career Mindset Tendency Profiles

Research-Career Challenge Pattern

The profile distribution indicates that 29 of 32 participants (90.6%) were not classified in the fixed-mindset category. This result suggests that an explicitly immutability-oriented view of research competence was not dominant in the sample. At the same time, the large mixed category demonstrates that absence of a fixed classification should not be interpreted as stable growth orientation. In the source survey summary, publication pressure, methodological difficulties, academic criticism, revision, and rejection were identified as situations that could reactivate limiting beliefs. The preserved data do not permit item-by-item prevalence estimates for these situations. Table 5 therefore distinguishes between observed category evidence, documented qualitative indications from the preliminary mapping, and the level of inference that is justified.

Table 5. Evidence-Led Interpretation of Research-Career Challenge Patterns

Result Domain	Observed Category Evidence	Analytic Reading	Boundary Of Inference
Beliefs about research competence	29 of 32 participants (90.6%) were not classified fixed-mindset.	The sample was not dominated by a belief that research ability is immutable.	This should not be interpreted as stable confidence in all research tasks.
Response to publication challenges	Mixed mindset was the modal profile (22 of 32; 68.8%).	Publication processes are the most relevant context for examining conditional or fragile developmental beliefs.	No item-level prevalence for revision, rejection, or peer-review anxiety was retained.
Perceptions of academic failure	The original preliminary summary identified failure, revision, and rejection as domains requiring attention.	Setbacks were not uniformly framed as routine learning opportunities.	No numerical domain score is available; interpretation remains descriptive.
Research-career orientation	All profile categories were assessed in relation to research-based career development.	Research is recognized as professionally relevant, but readiness for sustained engagement varies.	No objective indicators of publication, grant, promotion, or collaboration were retained.
Psychological readiness	The mixed profile is the largest category.	Mentoring should address self-efficacy, feedback interpretation, and persistence alongside technical skill.	The survey does not identify causal mechanisms.

Implications for Follow-Up Mentoring Design

The results identify the mixed-profile group as the central design audience for a follow-up mentoring model. The relevant need is not remedial motivation alone; it is a structured learning environment in which research tasks are broken into manageable mastery experiences, feedback is timely and psychologically safe, and revision is normalized as part of scholarly work. The fixed-profile group requires accessible entry points that reduce threat and create early success experiences, whereas the growth-profile group may serve as peer collaborators, writing-group facilitators, or research champions. These implications are design propositions rather than evidence of intervention effectiveness. Table 6 translates the observed profile pattern into components that should be tested in a subsequent mentoring study.

Table 6. Proposed Design Requirements for a Follow-Up Positive Psychology-Based Research Mentoring Model

Component	Practical Specification	Rationale	Primary Profile Relevance
Mastery-oriented research cycles	Convert large research tasks into observable milestones (question, design, analysis, draft, revision, submission).	Builds self-efficacy through repeated mastery experiences.	Mixed and fixed profiles.
Psychologically safe feedback	Use structured reviewer-response sessions, feedforward, and error-normalization protocols.	Reframes revision as information for improvement rather than evidence of low ability.	Mixed profile, especially around publication challenges.
Strengths-based mentoring conversations	Identify existing analytical, disciplinary, pedagogical, or community-engagement assets and connect them to a feasible research agenda.	Links positive psychology to realistic research action.	All profiles.
Peer writing and accountability groups	Pair faculty members across experience levels for protected writing time, co-review, and milestone follow-up.	Creates relatedness, social learning, and accountability.	Growth-profile members can act as peer facilitators; mixed-profile members receive sustained support.
Institutional resource alignment	Protect research time, provide methods and language support, and clarify publication incentives.	Prevents mentoring from individualizing structural barriers.	All profiles.
Measurement for the next phase	Retain item-level data, scoring rules, demographic/contextual covariates, and longitudinal outcomes.	Permits validated measurement and intervention evaluation.	Future model-development study.

Discussion

The central finding is the predominance of the mixed-mindset profile: 68.8% of the faculty members in this preliminary sample simultaneously displayed developmental beliefs about research competence and continuing limiting beliefs when research work became difficult. This is a substantively different conclusion from simply stating that most faculty members have a growth mindset. It suggests that faculty members may accept the principle that they can learn research skills while still experiencing uncertainty when confronted with complex methods, reviewer criticism, repeated revision, or rejection. The result is consistent with scholarship that characterizes mindset as context-sensitive and linked to self-regulatory processes rather than as a universal personal asset that automatically produces higher performance [12], [14], [35].

The finding also provides a useful bridge to the research self-efficacy literature. Studies of faculty research productivity show that confidence in research capability is associated with productivity-related behavior and academic output [9], [10], [11]. The mixed profile observed here may reflect a gap between general endorsement of learning and situation-specific confidence. A faculty member can believe in the abstract that research competence develops, yet still hesitate to submit a manuscript, respond to reviewers, conduct unfamiliar analyses, or enter collaborative networks. For mentoring, the practical implication is that general encouragement is unlikely to be sufficient. Faculty members need repeated, observable experiences of progress and feedback that makes their developing competence visible.

This interpretation is also compatible with the documented barriers to research work. Workload, limited support, methods gaps, and publication barriers can create conditions in which adaptive beliefs are difficult to enact [4], [5], [6]. In other words, mindset is not a substitute for research time, access to training, data support, writing infrastructure, or clear incentives. The human-factors contribution of the study is precisely this interaction: faculty members' cognitive and motivational resources operate within a work system that can either protect or erode research engagement. Research-career development should therefore be conceptualized as an institutional-development issue as well as an individual-development issue.

A positive psychology-based orientation adds value when it is operationalized carefully. Rather than using positivity to minimize real organizational constraints, it can help mentors build strengths awareness, realistic optimism, self-efficacy, and meaning in research work [24], [25], [26], [29], [30], [31], [39], [40]. For example, a mentor can use a strengths-focused conversation to identify an early-career faculty member's analytical, pedagogical, or community-engagement assets and connect them to a feasible research agenda. This approach is compatible with self-determination theory: research engagement is more sustainable when faculty members experience competence, autonomy, and meaningful professional connection [27].

The mentoring literature strengthens this institutional interpretation. Mentoring can provide both career functions, such as sponsorship and research guidance, and psychosocial functions, such as confidence-building and belonging [17], [18], [19], [41], [42]. The results support a mentoring model in which mentors help faculty members turn ambiguous research demands into attainable tasks: refining a research question, selecting a method, co-reading reviewer comments, scheduling a revision cycle, and preparing a submission strategy. Mentoring relationships should be systematically supported rather than left to informal access, because unequal access to experienced researchers can reproduce differences in scholarly opportunity.

The novelty of this study lies not in claiming a new psychological construct or proving that a mentoring intervention works. Its contribution is the preliminary identification of a mixed profile as the dominant institutional pattern and the translation of that pattern into testable mentoring requirements. This is important because a single training workshop would likely overlook the ambivalence revealed by the data. A more responsive model should combine research-methods support, protected writing time, peer accountability, psychologically safe feedback, and follow-up monitoring. The growth-oriented group can be involved as peer

facilitators, but such participation should not replace institutional responsibility for mentoring quality and workload-sensitive research support.

The findings must be interpreted within important constraints. The sample comprised 32 faculty members from one MHEI, so the confidence intervals are wide and no generalization to other institutions is warranted. The original dataset did not retain item-level data, a scoring algorithm, psychometric validation records, or demographic covariates. This prevents reliability estimation, factor analysis, subgroup comparisons, and causal modelling. The term mixed mindset is consequently a transparent descriptive label for this survey, not a validated diagnosis. Future work should develop or adapt a psychometrically evaluated measure, retain raw responses, assess measurement invariance across career stage and sex/gender where ethically appropriate, and integrate longitudinal indicators of publication, grant, collaboration, professional well-being, and basic psychological needs [15], [16], [37], [38], [43].

A rigorous next phase should test the proposed mentoring model through a multi-institutional design involving several Muhammadiyah-affiliated universities and a pre-registered evaluation plan. Relevant outcomes should include research self-efficacy, completion of research milestones, manuscript submissions, publication status, mentoring quality, and well-being, while institutional conditions such as workload allocation and access to research support are measured concurrently. Such a design would allow the present diagnostic evidence to mature into a defensible intervention study and would respond to long-standing evidence that research productivity depends on both individual capability and organizational policy [44].

CONCLUSION

This preliminary study found that the mixed-mindset profile was the dominant research-career pattern among 32 faculty members at a Muhammadiyah-affiliated university in Indonesia. Twenty-two participants (68.8%) were classified as mixed-mindset, compared with seven (21.9%) growth-mindset and three (9.4%) fixed-mindset. The result indicates that most participants were not uniformly resistant to research development; instead, they appeared open to learning while remaining vulnerable to doubts in situations involving publication pressure, methodological complexity, criticism, revision, and rejection. The practical implication is that research-career development should combine skill-building with mastery experiences, constructive feedback, psychosocial support, and institutional work-design improvements. The study does not establish causality or intervention effectiveness, but it provides a transparent baseline for developing and testing a positive psychology-based research mentoring model.

LIMITATIONS

This study has several limitations that should be considered when interpreting the findings. First, the study involved only 32 faculty members from a single Muhammadiyah-affiliated university; therefore, the results cannot be generalized to other Islamic higher education institutions or broader Indonesian higher education contexts. Second, the descriptive cross-sectional design only provides an initial profile of faculty members' mindset tendencies and does not establish causal relationships between mindset, research productivity, self-efficacy, institutional support, mentoring, and academic career advancement. Third, the use of self-

reported questionnaire data may have introduced subjective interpretation and social-desirability bias, particularly because research competence and publication performance are closely related to professional identity. In addition, the categorization of respondents into fixed, growth, and mixed mindset profiles should be interpreted as an exploratory framework because mindset may vary across research tasks, publication experiences, feedback processes, and institutional environments. Finally, this preliminary study did not include qualitative interviews, longitudinal measurement, comprehensive psychometric testing, or an intervention to evaluate the effectiveness of positive psychology-based mentoring. Future studies should therefore involve larger multi-institutional samples, validated instruments, mixed-methods approaches, and longitudinal or quasi-experimental designs to examine how mentoring, psychological resources, and institutional support can strengthen sustainable research career development among faculty members.

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AUTHOR CONTRIBUTION

A.R. conceptualized the study, developed the research design, coordinated data collection, conducted the statistical analysis, interpreted the findings, and prepared the original manuscript draft. S.S. contributed to the methodological development, instrument validation, and critical review of the manuscript. H.H. provided theoretical guidance, supervised the research process, and contributed to the interpretation of the findings. M.N. supported data collection, data curation, and the refinement of the research procedures. R.A. contributed to data validation, manuscript review, and editing. All authors read and approved the final manuscript and agree to be accountable for all aspects of the work.

CONFLICT OF INTEREST

"The authors declare no conflict of interest."

DECLARATION OF USE OF AI IN SCIENTIFIC WRITING

The authors used ChatGPT for word refinement during the preparation of this work. After utilizing the tool, the authors thoroughly reviewed and edited the content as necessary, assuming full responsibility for the publication's content.

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