

# Journal of **Education and Practice** (JEP)

Equipping Young Researchers Through Mentorship to Engage in  
Collaborative Academic Research



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## Equipping Young Researchers Through Mentorship to Engage in Collaborative Academic Research

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*Accepted: 12<sup>th</sup> November, 2025, Received in Revised Form: 25<sup>th</sup> November, 2025, Published: 28<sup>th</sup> November, 2025*

### Abstract

**Purpose:** Early-career researchers (ECRs) have various foundational competencies that they need to demonstrate to produce effective research output. Mentors can provide guidance to help them hone their skills and shape their research and professional identity. However, many young researchers do not have structured mentorship or formal avenues to support their research development. This research study sought to explore ECRs perceptions of the skills needed and their research readiness to engage in collaborative research, core attributes of a research mentor, experience working with a research mentor, benefits of collaborative research, and ways to improve research output among ECRs.

**Methodology:** A mixed-methods design was employed. Data were collected from 10 ECRs via an online questionnaire developed in Google Forms and from one interviewee – a research mentor – through a structured interview. Participants were selected through purposive sampling. Data were analysed using qualitative content analysis and descriptive statistics.

**Findings:** Major findings revealed that mentorship plays a valuable role in shaping ECRs research skills and improving confidence, highlighting that research mentors should not only demonstrate academic and technical competence but also psychosocial and soft skills. Additionally, collaborative research brings numerous benefits, including strengthening cross-disciplinary research. Nevertheless, research structures need to be strengthened by deliberate policies, investments, and incentives to boost research output.

**Unique Contribution to Theory, Practice and Policy:** The study contributes to the limited literature in Jamaica and the Caribbean concerning mentorship of ECRs. It invites universities and researchers to develop sustainable frameworks to support young researchers, including graduate students and teachers at the lower levels of the education system who are interested in developing and strengthening their research skills. Beyond Jamaica and the Caribbean, the study's implications are applicable to wider contexts in which ECRs struggle to establish their research identity. Therefore, requisite stakeholders are encouraged to dedicate the necessary funding and mentorship support to improve quality research output.

**Keywords:** *Collaboration, Jamaica, Mentorship, Research, Training*

## 1. Introduction

Mentorship plays a crucial role in ensuring that the next generations of researchers are reasonably equipped to contribute meaningfully to current, future, and re-emerging trends in interdisciplinary fields in local, regional, and international contexts. In Jamaica, it is primarily academics at the tertiary level who conduct research, even though there are concerns about research output at some local higher education institutions (Usman, 2024). Ivey (2023) identifies barriers that affect research output among Caribbean Community (CARICOM) countries; these include limited access to adequate funding mechanisms, time constraints on academics and researchers, limited technological opportunities for conducting research, and a lack of national priority for research and innovation. Nevertheless, Streete et al. (2013) note that some initiatives have been taken to increase research productivity, such as the provision of internal grant funding for research, training, mentorship, and awards and incentives for research output. However, to further increase quality research output, more work is needed to engage and mentor graduate students, as well as educators at the primary and secondary levels of the education system, which is critical for sustainable education (Chandrasekaran et al., 2022).

Various definitions of mentorship exist. Sutter and Francis (2022) indicate that mentorship entails an enduring personal relationship between individuals to cultivate career knowledge, nurture self-identity and transformation, and provide social and emotional support to assist a colleague. Lunsford et al. (2017) emphasise that in the context of higher education, mentorship enhances the academic development of graduate students, to include the development of research skills and disciplinary identity. Oxley (1998) provides a fulsome definition of mentorship, which is a relational process in which a knowledgeable, respected, and supportive individual (mentor) provides guidance to another person – typically a less experienced mentee – to facilitate the refinement of their thinking, the advancement of their learning, and the enhancement of their personal and professional growth. The mentor is often an expert or the more competent other in their field and genuinely invests in their mentee to help them become better at their craft (Sarabipour et al., 2022). A good mentor often creates a positive climate for amicable interaction and open communication, provides opportunities for intentional learning, and guides the career and personal development of the mentee (Davis et al., 2023). Accordingly, a successful mentor-mentee relationship can be viewed as a partnership which requires the active participation and devotion of both parties, whose main objective is to guarantee the professional development of the mentee.

Nundulall and Dorasamy (2012) suggest that mentorship can develop the expertise needed to make research output successful. To date, there is an increasing body of evidence on the success of research mentorship programmes (Ward et al., 2017). However, most of the research is from the mentors' perspectives. Furthermore, in Jamaica, as research is primarily conducted by university faculty, the voices of educators at lower levels of the education system are not often captured. To address these shortcomings in the literature, this research aimed to gather the thoughts and experiences of young researchers who have been mentored by a more knowledgeable researcher that has guided them to achieve co-authored publications. To achieve this, the following research questions were utilised to guide the study:

RQ1. What core skills should young researchers possess?

RQ2. What were young researchers' experiences working with a research mentor on collaborative research manuscripts?

RQ3. What qualities should a research mentor demonstrate when working with young researchers?

RQ4. What are the benefits of collaborative research to young researchers?

RQ5. How can the Jamaican system boost research among young researchers?

## **2. Theoretical Framework**

Early-career researchers (ECRs) require support that transcends their mere involvement in research projects, to include mentorship, skills development, and career guidance. ECRs can benefit from the guidance and experience of more senior researchers through the lenses of Kelman's (1958) social influence theory (SIT) and Kram's (1983) theory of career support.

### **2.1 Social Influence Theory**

Kelman's Social Influence Theory (SIT) provides a framework for understanding how individuals' attitudes, beliefs, and behaviours are shaped through interactions with others (Davlembayeva & Papagiannidis, 2024). The theory outlines three distinct processes of social influence: compliance, identification, and internalisation (Kelman, 1958), with each process representing a different level of attitude and behaviour change. Compliance occurs when an individual conforms to gain rewards or avoid punishment, without much belief in the change. ECRs may initially follow the advice or expectations of mentors due to their perceived authority or expertise, even if there is partial agreement or understanding. For example, a novice researcher may adopt certain publication practices or methodological approaches because a mentor recommends them. Identification occurs when behaviours are adopted to maintain social relationships with someone who an individual

admires or wants to emulate. For instance, an ECR may start to model the communication style, ethical stance, or leadership approach of their mentor. Internalisation occurs when behaviours are accepted because they align with the recipients' own values and goals (Liu et al., 2020) and not solely because someone else modelled them. For example, an ECR may advocate for open science or interdisciplinary collaboration not simply because their mentor does it but because they see its intrinsic value. Through social influence, mentorship can impact behavioural and attitudinal changes, often motivated by an agent of authority, a system, or a role model (Ghauri & Adler, 2024).

## **2.2 Theory of Career Support**

The Theory of Career Support, as purported by Kram (1985), is a foundational framework for studies related to mentoring relationships in organisational settings. In her work, Kram examined peer and mentoring relationships and highlighted that, despite both being mutually beneficial, mentoring relationships have a shorter lifespan and have a distinct coach in the pair (Kram & Isabella, 1985). The theory highlights key career support functions that mentors provide in support of a protégé's career development, including sponsorship, exposure, coaching, protection, exposure and visibility, and the assignment of challenging tasks to promote professional growth.

Concerning sponsorship, mentors use their influence to promote the mentee's visibility and advancement within academia and professional networks. For example, a mentor nominates or recommends an ECR for conferences, publications, grant collaborations, or job opportunities. These initiatives can open doors that ECRs may not access on their own due to lack of status or connection. With regard to coaching, mentors offer specific guidance on performance skills and strategies for academic success. This can be done by helping ECRs improve their academic writing, structure a grant proposal, or prepare for a job interview. The impact is that the mentee will experience increased competence and confidence in navigating the demands of academia. As it relates to protection, mentors may act as advocates in institutional politics or difficult situations, shielding ECRs from unnecessary risks. Mentors can intervene in cases of unfair workload distribution or provide support in difficult supervision situations, thereby creating psychological safety nets for learning and risk-taking (Burris et al., 2025). As it relates to exposure and visibility, mentors can help ECRs gain recognition by introducing them to key figures, inviting them to speak, or encouraging publication and public engagement. This can be done by featuring mentees in departmental presentations or on collaborative research papers. By doing this, the professional identity formation and visibility of ECRs will be accelerated. Regarding challenging assignments, mentors provide opportunities that stretch the mentee's abilities, encouraging growth through

practical challenges. This can be achieved by assigning leadership roles in research projects or encouraging the ECR to submit a grant application independently, resulting in a transition from dependency to autonomy in the researcher's career.

By facilitating access to life-changing opportunities and networks, mentors afford their apprentices opportunities to grow professionally and experience long-term successes. Through these mentorship facilities, ECRs can benefit from the expertise of their colleagues and ultimately continue the cycle of mentorship. Such relationships not only foster personal and professional growth but also contribute to a stronger and more collaborative research culture.

### **3. Literature Review**

#### **3.1 Origins and role of mentorship**

The concept of mentoring emerged out of an interesting story as far back as ancient mythology. In the story of the Odyssey, Odysseus assigned his friend, Mentor, to guide and advise his son, who was described as weak and needing protection. Through this relationship, Telemachus learnt about kingship and went on to win a violent battle with Odysseus (Garvey, 2023). The concept of mentoring here primarily involves an experienced individual providing guidance and support to someone with less experience. Starr (2014) agrees, stating that a mentor is an individual who serves as a trusted guide, supporter, teacher, and offers wise counsel to another. For Tollefson-Hall (2015), a mentor is "a wise elder who provides guidance to a younger person" (p. 30). However, mentoring is not limited to age; it can occur in various modes, between peers or across varying levels of expertise.

Over the years, the concept of mentorship has evolved. Despite this, Garvey (2023) asserts that it was in early 18th-century France that the first account of mentoring in the way it is practised today was observed. In retrospect, between the 12th and 19th centuries, mentoring was projected as the master-disciple or craftsman-apprentice relationship (Malamud, 1996, as cited in Koopman, et al., 2021). This is indicative of the guru-disciple tradition from Hinduism and Buddhism. With the apprenticeship model, there is focus on reproducing the mentors' skills in the apprentices or mentees (Balster et al., 2010; Lee et al., 2015). This model is unidirectional, placing focus primarily on the specific responsibilities of mentors and mentees. Emphasis is also placed on the abilities and skills that mentees should develop (Johnson & Bozeman, 2012).

Effective mentoring involves mentors listening, providing meaningful feedback, aiding mentees in deciphering among possible choices, providing resources where possible, and assisting with decision-making regarding life matters. In similar vein, APA Presidential Task Force (2012)

highlights that mentors provide insight, guide, encourage, and offer support. Mentoring is practised within many professional settings due to its potential benefits. In the teaching profession, for example, Paula and Gr̃infelde (2018) highlight that mentoring aids beginning teachers to navigate trials, sharpen their coping skills, and eliminate reservations about the profession. Likewise, in the business community, the role and significance of mentoring is primarily to support fellow business personnel, provide knowledge and guidance, and ultimately assist them in overcoming obstacles throughout their business journey (Raharjo et al., 2023). For many businesses, mentoring is seen as the underpinning for success in their roles, facilitating an interdependent relationship, driving both mentor and mentee towards accomplishment and cultivating business mindsets and life skills, such as persistence and strategic thinking (Yani et al., 2024). In the field of medicine, mentoring aids in career planning and advancement, promotion, work morale, increased inspiration to complete studies in academic medicine, and personal growth and improvement (Dimitriadis et al., 2012; Goldner & Ofra, 2009; Williams et al., 2004, as cited in Hill et al., 2022).

### **3.2 Needs of early-career researchers**

The concept early-career researcher (ECR) may be defined as a beginner who learns to conduct research while functioning under the guidance of others (Laudel & Gläser, 2008). ECRs are also referred to as early-stage researchers. Alternatively, an ECR is seen as an individual who has been newly appointed early in their research career (Kent et al., 2022) or someone who is within eight years of earning a Ph.D. or six years of their first academic appointment (Kuzembayeva et al., 2022). These definitions all allude to the researcher being a novice in the area.

Due to ECRs' lack of experience, they find it difficult to effectively engage the research environment and create opportunities to collaborate and publish research; therefore, they need research support (Frandsen & Nicolaisen, 2024). This research support may be accomplished by co-authoring and co-researching (Merga & Mason, 2021), as operating under prominent researchers can enhance career development through increased citations and guidance (Sekara et al., 2018, as cited in Krauss, 2023). Similarly, research confirms that collaboration among scientists has been observed as a source for invention and originality, which primarily leads to improved research output (Jones et al., 2008, as cited in Krauss et al., 2023; Wauchty et al., 2007). This may be translated in other areas, as each researcher brings a unique perspective, which, when combined, will be invaluable.

This research support may also be in the form of mentorship, as ECRs report that it positively propels them in their careers and opens avenues for networking (Virhia et al., n.d). Moreover, it offers support when contending with various challenging encounters in their new profession

(Merga & Mason, 2021). Furthermore, some ECRs may be in the process of working on improving their skills, believing they are not competent enough to communicate in this capacity. Consequently, they see building their skills in this area as a work in progress (Merga & Mason, 2020). Considering this, pairing themselves with more experienced researchers would help to mentor and scaffold them, given that they are new to the practice. This will help ECRs hone their research skills and enhance their professional identity. Additionally, feedback from the experienced researcher was also highlighted by Merga & Mason (2021) as an emerging theme, which was significant in helping junior researchers produce quality research and, as such, would be beneficial in developing confidence among ECRs.

Conversely, though mentorship is beneficial, not all individuals require a mentor and may work well with other support mechanisms; therefore, it should not be seen negatively (Merga & Mason, 2021). Similarly, Merga (2015) highlights a doctoral candidate who reported that her participation in several on-campus workshops on developing academic writing skills, and other supplementary support, aided in her building confidence to successfully complete her project. This is testament that there are other support systems that may aid in ECRs' personal and professional development.

In addition, ECRs need to learn to balance their various obligations, inclusive of research activities and other professional responsibilities, which include how to overcome the pressure to network and publish (Frandsen, 2024). Additionally, there exists the "publish or perish" mentality, which produces overwhelming pressure for ECRs, driving them to place tremendous emphasis on publishing, while neglecting other areas of their professional development. This pressure may influence their work as well as affect their general well-being. ECRs often feel the need to publish widely to boost their careers, but often at the expense of other duties (INASP, 2023).

Another pressure levied on the ECRs is lack of funding. Funding is necessary for improving and executing research activities. In doing this, it will yield considerable results by advancing the integrity and clarity of scientific research and fostering a more robust and efficient work environment (Kent et al., 2022).

Although grounded in science, Kent et al. (2022) unearthed six principles for empowering ECRs in improving the culture and practice of science, which may be applicable to ECRs in general. These include: (1) developing clear advancement opportunities by rewarding contributions made to improve research culture; (2) involving ECRs into decision-making processes; (3) providing competent ECRs with funding, needed materials, and time; (4) acknowledging and enhancing competent ECRs; (5) supporting marginalised ECRs; and (6) furthering global initiatives to advance research culture and practice. Supporting ECRs will propel meaningful improvements in

personal and institutional research culture and practice. It will also develop a new era of researchers who will help to change the landscape of research globally.

Chapman et al. (2015) call for better care to be taken in training future cohorts of ECRs, acknowledging that training will continue outside of the classroom. To stay relevant, they posit that ECRs must endeavour to produce meaningful and time-appropriate research that is beneficial for sustenance and development. ECRs must also seek to broaden their horizons and adopt integrative approaches to learn and expand across various fields. ECRs form an integral part of the academic landscape and should be supported to maximise their impact.

### **3.3 Benefits of mentorship for young educators and researchers**

Mentorship provides a structured pathway for educators and researchers to navigate the complexities of academic life. One of the primary benefits is the enhancement of research skills and the development of academic identity. A study conducted with master's level education students at a Caribbean university revealed that mentorship facilitated their transition from being mere consumers of research to becoming active producers. Mentors played a crucial role in honing students' methodological skills and fostering a sense of ownership over their research, which, in turn, bolstered their confidence as researchers (Almon et al., 2022). This indicates that mentorship encompasses not only skill transfer but also the cultivation of a strong professional identity.

Additionally, mentorship significantly impacts scholarly productivity and professional growth. Research focusing on educational psychologists at universities demonstrated a robust correlation between mentorship and increased rates of scholarly publications. Mentors were found to foster a supportive research environment that encouraged mentees to engage in frequent scholarly activities (Okon et al., 2022). Furthermore, Cohall (2021) emphasised that formal mentorship programmes are essential for establishing a “high-quality academic enterprise” and enhancing the research grant success and academic self-efficacy of young scholars in the Caribbean context. Collectively, these studies illustrate that mentorship in education and research translates to tangible outcomes, including increased publication rates and a more resilient academic workforce.

### **3.4 Challenges associated with educational mentorship**

Despite the numerous advantages, the implementation of effective mentorship in education encounters substantial obstacles. A significant issue is the absence of formal, institutionalised programmes. A qualitative study conducted on early-career academics at a higher education institution in Jamaica highlighted a strong desire for mentorship; however, many departments lacked structured initiatives. Consequently, mentorship often occurs informally, leading to

inconsistencies and diminished effectiveness (Ferguson & Wilmot, 2025). This informal approach can leave emerging researchers without the consistent guidance essential for their success.

Another critical challenge is the time constraints and competing responsibilities faced by senior academics. The demands of publishing research, securing funding, and managing administrative tasks often restrict the time available for senior faculty to dedicate to mentoring junior colleagues (Roofe & Miller, 2015). This underscores the necessity for institutions to acknowledge and reward mentoring efforts to encourage participation. The Jamaica Teaching Council (JTC) has made strides in this area by establishing a Mentorship Unit, which empowers experienced teachers to mentor novice educators, reflecting a recognition of the need for structured support within the education sector (JTC, n.d.). However, this model primarily emphasises pedagogy rather than research mentorship, revealing a significant gap that still needs to be addressed.

### **3.5 Changing models of educational mentorship**

To address the challenges faced in mentorship, innovative models are emerging. Moving beyond the traditional one-on-one method, peer-to-peer and group mentoring are gaining prominence (Nisbet & McAllister, 2015). These approaches create a supportive network where young researchers can share their experiences, resources, and advice with peers at a similar career stage. For example, a study on implementation science emphasised the importance of peer mentoring in providing vital professional development and emotional support, particularly in new or emerging research fields within education (Mavandadi et al., 2021). This model promotes a collaborative atmosphere rather than a competitive one.

Furthermore, mentorship is increasingly regarded as a holistic process. Instead of depending solely on a single senior academic, young researchers are encouraged to seek out a “constellation” of mentors who can offer diverse forms of guidance, ranging from methodological expertise to career advice and emotional support (Felten & Lambert, 2020; Mullen & Klimaitis, 2021). This multi-faceted approach recognises that no single mentor can fulfil all of a mentee’s needs, and a broader network can offer more comprehensive support.

Mentorship within Jamaican and Caribbean education is essential for nurturing young researchers. Although it faces challenges, such as a lack of formal structures and time constraints on mentors, emerging strategies like peer and group mentoring, along with a more holistic perspective on the mentorship process, are helping to bridge these gaps. By enhancing mentorship programmes, the region can foster a more robust and innovative educational research community.

### **3.6 Benefits of collaborative research**

Medhi et al. (2019) classify collaboration as a voluntary affiliation and merger that can occur across five levels: disciplinary, interdisciplinary, multidisciplinary, trans-disciplinary, and at national or international scales. Brownson et al. (2023) coin this type of approach as team science, which involves the collaboration of one or more individuals in an interdependent fashion, leveraging the expertise of professionals across disciplines. Ravasi et al. (2024) express that collaborative research is warranted due to the increasing complexity of research problems and, as such, it benefits from shared resources and expertise from diverse contributors. Furthermore, collaborative research is not merely a matter of convenience, but an ethical imperative, especially in health emergencies (Saenz et al., 2024).

Collaboration contributes to researchers being able to integrate their unique experiences and skills, which lead to more effective problem solving, according to Blunt and Munro (2023). Mcclunie-Trust et al. (2022) postulate that some of the key benefits to collaborative research teams include establishing relationships, learning research (mentorship), and engaging with technology. Furthermore, they establish that these benefits collectively enhance research outcomes, foster professional growth, and create a supportive and enjoyable environment for researchers. Dusdal and Powell (2021) reinforce that collaborative research not only mirrors previously noted networking and innovation but also adds value through its cross-disciplinary insights and career-building opportunities that together strengthen the capacity to address complex research problems. Similarly, Ravasi et al. (2024) posit that collaborative research creates the opportunities for pursuing more ambitious projects, increasing productivity, and fostering intellectual inspiration among team members. Building on these findings, Osman et al. (2024) highlight that collaborative research strengthens both individual and institutional reputations while enabling larger-scale projects. They further note that with this approach to collaboration, it increases funding opportunities and expands professional network.

Empirical evidence reinforces these qualitative benefits. According to Wang et al. (2024), internationally co-authored publications receive significantly more citations both from abroad and overall. This form of international collaboration is further linked to higher scholarly impact. For instance, Xu et al. (2024) found that racially diverse co-authorships in the social sciences consistently accrued more citations over time, reinforcing that a collaborative approach to research enhances research visibility and influence. Going beyond citation counts, recent research conducted by Thelwall et al. (2024) provides a direct cross-field test that international co-

authorship is also associated with higher quality outputs, underscoring that collaboration contributes not only to greater visibility but also to substantive research excellence.

#### **4. Methodology**

The study employed a mixed-methods approach to allow the researchers to hear directly from the research participants about their individual experiences with, and perceptions of, mentorship and its various facets as they embarked on their research journey. Mixed-methods research allows researchers to collect, analyse, interpret, and report both qualitative and quantitative data in the same study (Creswell & Clark, 2017). Enosh et al. (2014) posit that the use of the mixed-methods approach enables researchers to answer questions with sufficient depth and breadth. Specifically, an embedded design was used in this study. According to Plano Clark et al. (2003), the embedded design is a mixed-methods design in which one data set provides a supportive, secondary role in a study focused primarily on the other data type. The embedded approach is based on the premises that a single data set is insufficient, different questions need to be answered, and each type of question requires different types of data. The embedded design is used when researchers need to incorporate qualitative or quantitative data to answer a research question within a largely quantitative or qualitative study. Our study primarily entailed qualitative questions, supported by quantitative ones, to focus on ECRs needs, experiences, and perceptions in relation to mentorship and their research journey in participating in collaborative research. This detailed understanding is vital to ensuring that mechanisms are implemented to respond to and support the needs of ECRs in ways that serve their interest and, by extension, improve research output in Jamaica and the wider Caribbean.

The study focused on 10 young researchers, seven of whom work in higher education (lecturers), while three work at the secondary level (teachers). This number was deemed sufficient, given that the study is primarily qualitative, and this approach accommodates small sample sizes, allowing for in-depth case-oriented data to be gathered (Vasileiou et al., 2018) on participants' experiences of mentorship. These participants were chosen through the purposive sampling approach (Panton, 1990) as they had first-hand knowledge working with a more experienced researcher. Of the participants, nine were male and one female. In terms of age, one participant was between 20-25 years, four between 26-30, three between 31-35, one between 36-40, and one above 41 years. All participants had at least one research publication, which was achieved by collaborating with a more experienced researcher.

In the context of this study, we adopt the definition of Laudel Gläser (2008) who defined an ECR as a beginner who learns to conduct research while functioning under the guidance of others. This

is not a restrictive perspective compared to other viewpoints, such as Kuzembayeva et al. (2022) who established a parameter that an ECR is an academic who is within six to eight years of receiving their doctorate and first academic appointment. However, it is fair to say that different jurisdictions have various criteria for ECRs.

To support the data obtained from the ECRs, a structured interview was conducted (through the form of a written questionnaire) with a research mentor and supervisor who works at the University of the West Indies, Mona, Jamaica. The educator is a female within the 43-48 age range who supervises students at both the bachelor's and master's degree levels. She ranks as a lecturer academically and holds a master's degree as her highest form of qualification. Her teaching experience falls within the 16–20-year range, while her research mentoring/supervision experience falls within the 6-10-year range.

#### **4.2 Data Collection**

Data for this study were collected via a Google Forms questionnaire in July 2025. Each participant was contacted via WhatsApp, and the purpose of the study was explained to them prior to the questionnaire link being shared. The participants were not asked to indicate their names or institutional affiliations on the questionnaire, which helped to preserve anonymity and confidentiality. The data collection instrument comprised 10 questions – six open-ended and four closed-ended questions (see Appendix A), focusing on research readiness, experiences, perceptions, and developmental needs of ECRs.

Data from the research mentor/supervise was collected in September 2025 via a structured interview. The research mentor was asked some similar questions posed to the young researchers, such as questions 1, 7, 8, and 9 (see Appendix A). Question 8, however, was open-ended. The additional questions explored barriers to effective mentorship and support for ECRs (see Appendix B).

#### **4.3 Data Analysis**

To address the research questions, conventional content analysis was applied. According to Zhang and Wildemuth (2009), conventional qualitative content analysis involves coding categories of data that are derived directly and inductively from raw data. This analysis is used with a study design whose aim is to describe a phenomenon, such as the actions of adult learners on a given teaching method. Researchers immerse themselves in the raw data to allow new insights to emerge. Tesch (1990) notes that data analysis in conventional qualitative content analysis starts with recording all data repeatedly to achieve immersion and obtain a sense of the whole, similar to how

one would read a novel. One of the advantages of the conventional approach to content analysis is obtaining direct information from participants without imposing predefined categories or theoretical perspectives.

Thematic coding was conducted by the first author and checked by the second author, while MAXQDA used to support the analysis. An iterative thematic coding approach was used, which involved the researcher continuously refining codes and themes by repeatedly moving back and forth between the dataset and a developing coding scheme. Quotes cited are presented either in verbatim or edited verbatim form, with meaning carefully preserved.

Quantitative data is presented and analysed using descriptive statistics, which highlight frequencies and patterns. These are presented through graphs.

## 5. Results

### RQ1: What core skills should young researchers possess?

Table 1 summarises the core skills that young researchers should possess as they seek to engage in academic research. Among the major ones are critical and analytical thinking (70%), research and methodological competence (60%), and academic writing proficiency (50%). Others include information literacy, digital proficiency, time management, ethical awareness, and passion and motivation.

Table 1: *Summary of core skills young researchers should possess*

| Theme                        | % Present | Skills cited                                                     |
|------------------------------|-----------|------------------------------------------------------------------|
| Critical/Analytical Thinking | 70        | Critical thinking, logical reasoning, analytical skills          |
| Research/Data Handling       | 60        | Methodology, data collection, analysis, synthesis                |
| Academic Writing             | 50        | Academic writing, technical writing, writing and research skills |
| Information Literacy         | 30        | Evaluating sources, finding and using credible data              |
| Digital Proficiency          | 30        | Word processing, platforms, application software                 |
| Time Management              | 20        | Time management, self-discipline                                 |
| Ethical Awareness            | 20        | Ethical awareness, reasoning                                     |
| Passion and Motivation       | 10        | Passion for reading and writing                                  |

To the above list, the interviewee highlights attention to detail, organisation, curiosity, and proper record keeping.

*“They must be meticulous, organised and curious (wanting to learn more). You have to pay attention to every detail, continue to read and learn from others and keep good records of everything you do.”*

## **RQ2: What were young researchers’ experiences working with a research mentor on collaborative research manuscripts?**

Majority of the participants (80%) did not envision themselves engaging in academic research when they were approached, citing anxiety/uncertainty (50%), lack of confidence or required skills (40%), the perceived complexity of research (20%), and time constraints (10%). Nevertheless, 30% expressed excitement and willingness to participate. Only 10% had prior exposure engaging in academic research activities.

Figure 1 shows the emotions experienced by the participants when they were asked to participate in collaborative research. Many of them (60%) expressed feeling nervous, 30% were motivated, and 20% incapable. However, all of them were open to the challenge of engaging in research.

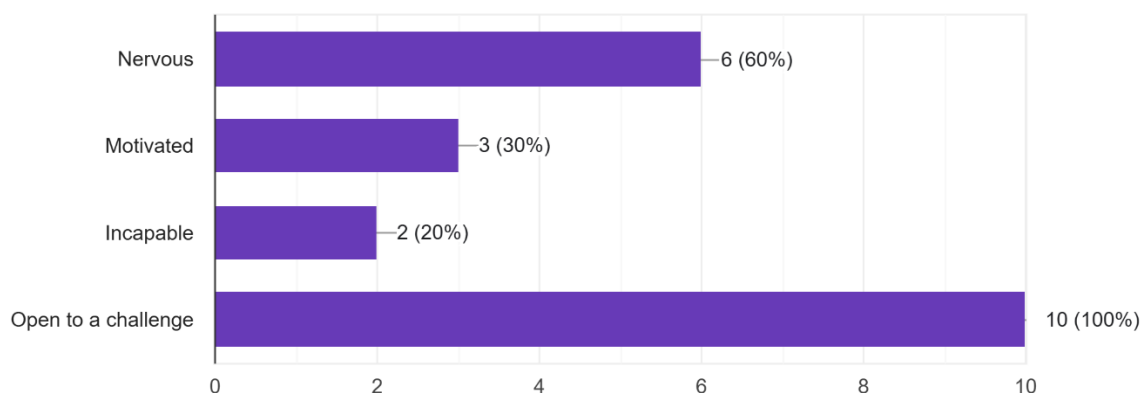


Figure 1. Emotions felt by participants when asked to engage in research

Figure 2 shows the evaluation of participants’ research skills before and after mentorship, on a rating scale of 1-5, with one being the lowest and five being the highest. Before the mentorship, majority of the participants (60%) rated themselves at 3, 20% at 2, and 10% at 1 and 4 respectively. However, after mentorship, majority (70%) rated themselves at 4, 20% at 3, and 10% at 2.

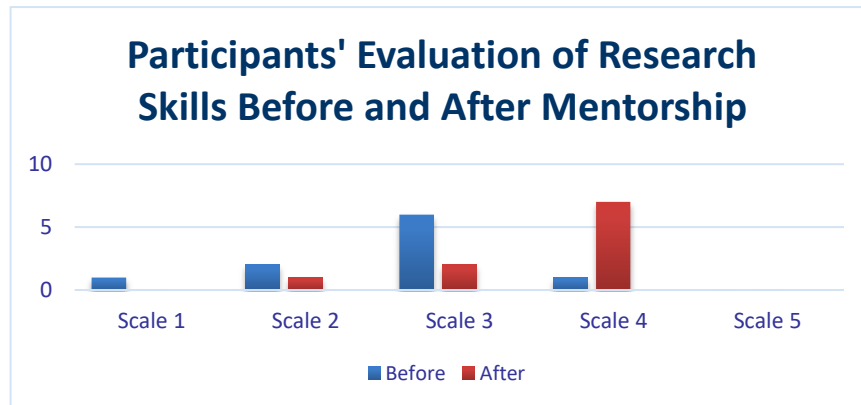


Figure 2. Participants' evaluation of their research skills before and after mentorship

As seen in Table 2, several themes emerged when participants reported on their experiences working with a research mentor.

### 1. Increased Confidence and Emotional Reassurance

Working with a research mentor reduces self-doubt, helping young researchers become more emotionally resilient, especially when facing challenges or corrections. Many participants explicitly mentioned feeling “more capable” or “less afraid to be wrong”.

*“It gave me confidence seeing the researcher has done this before. I was open to learn and grow in this area.”* – Participant 10

### 2. Skill Refinement and Research Competence

Mentorship enhanced practical research abilities, including critical thinking, structuring academic writing, and understanding advanced research techniques. There is an emphasis on becoming more competent and capable of scholarly output.

*“Working with a more experienced researcher sharpens your research skills through mentorship, exposes you to advanced methods, and boosts your confidence by providing guidance and support.”* – Participant 3

### 3. Guidance, Feedback, and Mentorship

Nearly all participants stressed the importance of consistent guidance and timely feedback from the research mentor. Mentors were valued not just for instruction but also for correcting errors in a way that fostered improvement.

*“Timely feedback helped refine my thinking and sharpen my structure. I learnt how to approach each section more critically and communicate more effectively, which boosted both my confidence and competence.”* – Participant 4

*“Constructive feedback was helpful, direct observation as it relates to the research process was very instrumental.”* – Participant 6

#### 4. Motivation and Personal Growth

Mentorship provided more than technical support; it also shifted mindsets, encouraged personal discipline, and made the process enjoyable and meaningful. For some, this included changes in how they perceived failure and learning.

*“There’s definitely a boost in confidence and personally not fearing being wrong nor failing at a task. Another effect is the change in perspective that one has approaching the task.”* – Participant 1

*“There’s a type of experiential insight that encourages discipline in the art and craft of research.”* – Participant 5

#### 5. Dual Nature of Feedback

One respondent noted that while corrections were valuable, they could be emotionally difficult. This theme highlights the need for sensitive and affirming communication during feedback.

*“It provides proper guidance and motivation but at the same time can be demotivating with the corrections to be made.”* – Participant 7

Table 2. *Summary of effects of working with a research mentor*

| Theme                              | Description                                                                         |
|------------------------------------|-------------------------------------------------------------------------------------|
| Confidence Building                | Mentorship significantly improves emotional confidence and self-belief              |
| Skill Development                  | Researchers gain advanced research skills, structure, and academic literacy         |
| Academic Writing                   | Academic writing, technical writing, writing and research skills                    |
| Guidance and Constructive Feedback | Mentors provide crucial feedback and instruction that shape academic growth         |
| Motivation and Perspective Shift   |                                                                                     |
| Emotional Complexity of Feedback   | The relationship inspires discipline, motivation, and new attitudes toward learning |

Some feedback, while constructive, may feel discouraging if not handled carefully

### **RQ3: What qualities should a research mentor demonstrate when working with young researchers?**

Participants were asked to mention the top three qualities that a research mentor should demonstrate when working with young researchers. As seen in Table 3, patience was the most frequently mentioned trait (90%), followed by clear communication (60%), and constructive feedback (50%). Other traits include encouragement, flexibility, leadership, assertiveness, and open-mindedness.

Table 3. *Traits that research mentors should demonstrate*

| <b>Trait</b>                 | <b>Mentions/<br/>% Present</b> | <b>Keywords/Indicators</b>                         |
|------------------------------|--------------------------------|----------------------------------------------------|
| Patience                     | 9, 90%                         | Patience, take time, allows space                  |
| Clear Communication          | 6, 60%                         | Structure/clarity, effective communication         |
| Constructive Feedback        | 5, 50%                         | Honest critique, non-judgmental, affirmation       |
| Encouragement/Motivation     | 3, 30%                         | Motivational, affirmation, encouraged              |
| Flexibility                  | 3, 30%                         | Adapt to different learning styles, openness       |
| Leadership/Stewardship       | 2, 20%                         | Guide rather than dictate, facilitator             |
| Assertiveness/Organisation   | 2, 20%                         | Set deadlines, timely reminder, meticulous         |
| Teachability/Open-mindedness | 10, 10%                        | Learn from young researcher, open-minded, openness |

The interviewee also agrees that patience is an essential attribute that research mentors should demonstrate. However, she equally speaks to them having expertise in the discipline and being willing to give of their time.

*Knowledgeable, Experienced, Patient: These three attributes all complement each other in assisting young researchers to understand the rudiments of research and guiding them along their own paths. Mentors must have the knowledge and experience but be willing to sacrifice their time in helping someone new in the field.*

The interviewee deems quality time necessary as it can be a barrier to effective mentorship.

*“Sometimes, ECRs do not get a mentor who spends time on a regular basis to advise and guide use.”*

#### **RQ4: What are the benefits of collaborative research to young researchers?**

Figure 3 shows different benefits of engaging in collaborative research. It provides an opportunity to learn from others (90%), share the workload (90%), explore new research interests (80%), and save time (70%).

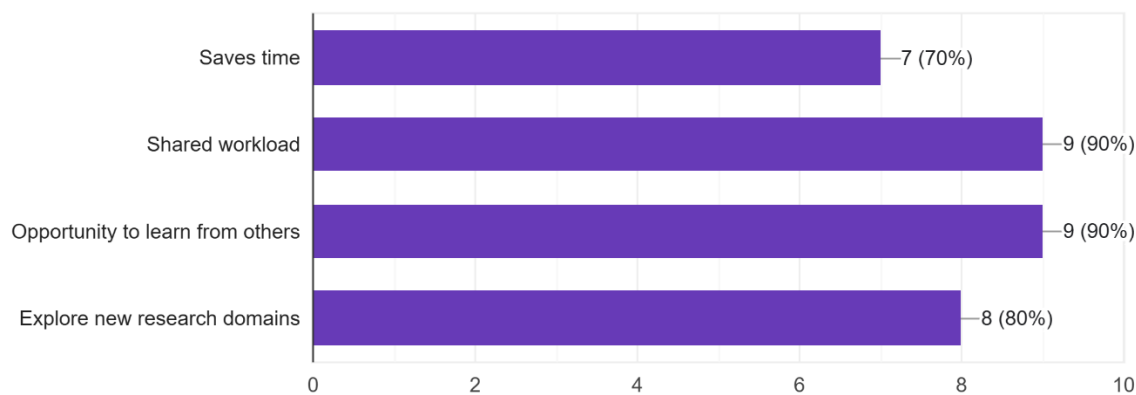


Figure 3. Benefits of collaborative research

The interviewee also believes collaborative research is advantageous to ECRs as *“they will gain experience and confidence in writing, data collection, and analysis”*.

#### **RQ5: How can the Jamaican system boost research among young researchers?**

Participants suggested different ways the Jamaican system could boost research among young researchers.

##### **1. Structured Mentorship and Collaboration**

Participants emphasise that accessible mentorship and collaborative projects between experienced and young researchers are essential to building confidence and expertise.

*“Provide funding, introduce research mentors to scaffold junior members, encourage research among students and teachers by engendering a culture of research.”* – Participant 10

This perspective is supported by the interviewee who notes, *“There should be more projects/publications between senior and junior researchers which are completed over a longer period of time.”*

## **2. Incentives and Motivation**

Financial and non-financial incentives are seen as critical motivators. Many respondents believe that young researchers are more likely to engage in research if it leads to tangible benefits, such as stipends, awards, promotion, and recognition.

*"Incentives, incentives, incentives"* – Participant 3

*"If there were some form of compensation or obvious professional standing benefit to publishing research, I believe it would be a field more attractive to young researchers."* – Participant 9

## **3. Research Funding and Resource Allocation**

Respondents note the need for dedicated funding and protected time to allow young researchers to conduct meaningful work without being overwhelmed by teaching or administrative burdens.

*"By increasing funding opportunities, reducing teaching loads for research-active staff, creating structured mentorship programmes, and promoting undergraduate and graduate research conferences."* – Participant 4

## **4. Cultivating a Research Culture**

Beyond incentives and structure, a national or institutional culture that values inquiry, celebrates discovery, and promotes intellectual curiosity is seen as essential for long-term research development.

*"Providing more opportunities for collaborating with research project/ research internships."* – Participant 6

*"Provide incentives and implement a policy that speaks to time allotted to research."* – Participant 7

## **5. Research Exposure and Engagement Opportunities**

Young people should see research as active, visible, and impactful. Offering venues to present work, learn from others, and understand the real-world relevance of research can fuel deeper interest and participation.

*“By encouraging them to participate in research symposiums and workshops. Create a welcoming environment that values collaborative work and creativity. Also, create more opportunities for young researchers to partner with more experienced researchers.”* – Participant 2

*“ECRs need to be continuously engaged in research activities, and they should learn to take the lead in the process.”* - Interviewee

## **6. Access to Training and Skill Development**

Many respondents feel they lack formal instruction and skill-building opportunities, especially in areas such as research methods, data analysis software, and scientific writing.

*“Learning sessions on the research process and writing for publication.”* – Participant 6

*“Access to advanced training in research.”* – Participant 7

## **7. Resource Accessibility**

Lack of access to up-to-date, high-quality resources was a barrier for some. Access to scholarly journals and tools is key for building expertise and staying current.

*“More access to international journals and more training using quantitative research software.”*  
– Participant 4

## **8. Foundational Education and Preparation**

Some respondents feel the foundation for research should be laid earlier, suggesting that better research education during undergraduate studies would ease their later development.

*“Adequate teaching and preparation from the undergraduate level.”* – Participant 7

## **6. Discussions**

The findings reveal that there are critical skills that young or early-career researchers (ECRs) must possess to adequately engage in the research process. Chief among these are critical and analytical skills, research methodology, and academic writing. Understandably, a lack of these core skills can cause young researchers to feel anxious, nervous, and incapable of engaging in the process, as they may lack the confidence. However, despite doubt or imposter syndrome, being open to a new challenge is crucial to overcome fear and explore new opportunities for personal and professional growth. Drawing on Kram's (1985) theory of career support, imposter syndrome and related fears can be mitigated through consistent mentoring, coaching, and exposure to research practices under the guidance of more experienced academics and seasoned scholars. In addition, insights from

positive psychology reinforce overcoming such difficulties is not only natural but also beneficial for long-term growth (Horikoshi, 2023).

ECRs indicated positive experiences working with a research mentor on collaborative research. All the participants had an improved outlook on their research capacities after receiving guidance from their research mentor, resulting in improved confidence and emotional reassurance, skill refinement and research competence, increased motivation, and personal growth. Frandsen and Nicolaisen (2024) allude to the importance of scaffolding ECRs, helping them to sharpen their research skills and professional identity through effective feedback, which will help them produce quality research and develop their confidence (Merga & Mason, 2021). However, even as research mentors demonstrate academic and technical competence in administering mentorship, psychosocial attributes and soft skills, such as patience, effective communication, empathy, humility, sacrifice are key in achieving and balancing effective mentorship.

Realising the demand for academic mentorship and the informal nature of the current arrangements (Ferguson & Wilmot, 2025), there is a pressing need for structured programmes that intentionally build core research skills – critical thinking, methodology, and academic writing – at the early stages of researchers' careers. Mentorship should be seen as a support mechanism. As a result, institutions – both secondary and tertiary – should institutionalise mentorship and coaching opportunities as a strategic response to help ECRs improve their research skills and build their professional identity. Additionally, institutions should adopt psychosocial support in research training. Research training models should incorporate soft skills when preparing mentors to guide ECRs. Furthermore, on a policy level, educational establishments and research institutions should develop policies that promote early and sustained exposure to research practices through apprenticeships, research assistantships, and peer-to-peer learning. As there is no standardised approach to mentorship (Mavandadi et al., 2021; Nisbet & McAllister, 2015), Caribbean institutions should consider adopting emerging models, such as peer and group mentoring, to provide ECRs with the necessary support to increase research productivity. Group mentorship allows ECRs to benefit from the expertise of various research-oriented colleagues despite their levels of experience (Felten & Lambert, 2020; Mullen & Klimaitis, 2021).

Collaborative research is advantageous to ECRs in saving time, sharing workload, learning from others, and exploring new research domains. As established by Ravasi et al. (2024), when researchers engage in collaborative research, they benefit from shared resources and collective expertise from contributors of varying backgrounds and disciplines. Researchers are able to integrate their unique experiences and competencies, leading to effective problem solving (Blunt

& Munro, 2023). Collaborative research also promotes interdisciplinary networking and career-building opportunities (Dusdal & Powell, 2021). Institutions should encourage collaborative research as it leads to accelerated skills development among ECRs. They can gain practical experience with research design, data analysis, academic writing, and publishing through real-world collaboration. Senior researchers or mentors transfer tacit knowledge while learning new methods and perspectives from ECRs. Combining the experience of senior researchers with the fresh ideas of ECRs can produce more rigorous, creative, and interdisciplinary research.

Additionally, collaboration gives ECRs access to professional networks, conferences, and co-authorship opportunities. This enhances their academic visibility and opens doors for future partnerships and career advancements. Institutions that promote collaborative research foster a supportive academic environment that values mentorship and capacity building. Furthermore, collaborative efforts align with broader goals of developing a skilled research workforce capable of addressing complex regional and global challenges. Ivey (2023) highlighted that Caribbean academics and researchers have significant time constraints, limiting their research output. However, Streete et al. (2013) noted the importance of mentorship to improve research outcomes. Collaborative research, therefore, is not only needed among academics, researchers, and graduate students at the university level but also among educators at the primary and secondary levels. Mentors will help build research capacity, particularly in underrepresented or developing regions.

Finally, the findings from this research also suggest that ECRs believe that there are several prerequisites for building Caribbean researchers' competencies. Participants emphasised that building a vibrant research community for ECRs in the Caribbean requires structured mentorship, meaningful collaboration, adequate training, access to resources, and a strong foundational education in research from the undergraduate level. The mentorship arrangements that the research participants crave are in congruence with Kram's (1985) theory of career support. ECRs seek mentoring relationships that are not only focused on the production of scholarship but also those relationships that lead to their increased visibility and holistic development as researchers. In fact, numerous scholars highlight significant benefits of research output that is rooted in collaboration (Blunt & Munro, 2023; Mcclunie-Trust et al., 2022; Ravasi et al., 2024). Additionally, creating a supportive research culture, supported by incentives, dedicated funding, protected time, and opportunities for active engagement and visibility (Ivey, 2023) is seen as essential to motivate participation and sustain long-term research development. Consequently, academic and research institutions, as well as the Government should dedicate adequate funding and resources to

strengthen research mentorship and output. Additionally, mentorship and collaboration should be integrated as a key factor when appraising educators for promotion.

## **7. Conclusion**

This study aimed to explore the perceptions of young researchers on their experiences working with more seasoned researchers and the benefits of engaging in collaborative research. Significant findings from the study revealed that young researchers believe that academic mentoring by more senior researchers can have positive effects on their formation as research scholars. However, while mentors should demonstrate academic and technical skills, they should also display psychosocial and soft skills to be effective mentors. The findings also highlight what early-career researchers (ECRs) in Jamaica consider to be next steps for boosting research output in Jamaica and the Caribbean region. These next steps include the need for institutions to provide funding, create opportunities for exposure, and avail more structured mentorship programmes for ECRs. This move will not only enhance the confidence and capacities of ECRs but also serve as an investment into research and development mandate of learning institutions across the region.

## **8. Limitations and future research**

While the study provides insights gleaned from the participants, the authors acknowledge that generalisation of these findings is not recommended. The sample of 10 participants and one interviewee provided useful information for understanding the needs of Caribbean-based ECRs in their quest to contribute to scholarship. However, the contributions are not exhaustive, and the reliance of self-reported contributions presented an implicit bias. To this end, future research should expand the sample size and incorporate diverse data collection methods to enhance validity and depth, including larger populations in various CARICOM countries with similar educational landscapes. Additionally, future research should explore the effects of specific mentorship models on ECRs, and longitudinal studies should incorporate mentorship between university academics and researchers and educators at the primary and secondary levels who are inclined to develop their research skills.

## **Acknowledgments**

The authors are grateful to the 10 young researchers and the sole interviewee who volunteered to participate in this valuable research project.

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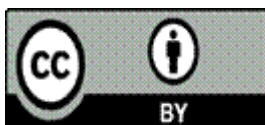
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