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Impact of Career Exploration Instruction on Senior High School Students' Career Maturity: Evidence from Cape Coast, Ghana

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Abstract: *This study evaluated whether structured instruction in career exploration improves career maturity among Senior High School students in Cape Coast, Ghana. Using a quasi-experimental pretest–posttest design, two schools received six instructional sessions while two schools served as controls (N = 120; balanced by gender). Career maturity was assessed across six competence domains: world of work, self-knowledge, résumé writing, letters of application, interviewing, and rules for success. Post-intervention, the experimental group significantly outperformed the control group on the overall index and on five of six subscales, with the strongest gains in résumé writing, letters of application, and rules for success ($p < .05$). No significant gender differences were observed within groups, suggesting equitable benefits. These findings align with international evidence on brief, active, school-based interventions and demonstrate that short, low-cost programs can meaningfully enhance career readiness. Implications include embedding career instruction into curricula and strengthening counselor and teacher capacity.*

Keywords: career exploration instruction, career maturity, secondary education, gender equity, Ghana

INTRODUCTION

Helping adolescents to make informed, confident transitions from school to work or further study requires purposeful opportunities to explore the self and the world of work. Recent syntheses show that career education activities—especially those that combine information, practice, and guided reflection—are associated with gains in readiness, decidedness, and employability beliefs among Senior High School students (Kleine et al., 2021; Dodd et al., 2022; Wang et al., 2024). Contemporary program evaluations, including randomized and cluster-randomized trials, report positive effects for structured, brief interventions when they include active components such as exercises, feedback, and simulated tasks (Kiuru et al., 2021; Nykänen et al., 2023; Parola et al., 2024).

In Ghana, guidance and counseling services have long been recognized in policy rhetoric, yet school-level delivery remains uneven, constrained by staffing, space on timetables, and resources (Segbenya et al., 2023; Dankyi et al., 2024; Panford-Quainoo et al., 2024). These studies describe gaps in implementation and monitoring that limit adolescents' exposure to actionable career learning experiences in many schools. Elevating competence in everyday career tasks—such as writing résumés, composing application letters, and preparing for interviews—could address proximal skill needs while building confidence, particularly where students have limited access to internships or career fairs (Segbenya et al., 2023; Dankyi et al., 2024).

Parallel to implementation issues, measurement quality has also advanced. Current research urges the use of competence-focused, context-relevant assessments, with attention to reliability and validity under realistic response formats (Xiao & Hau, 2023; Bentler, 2021). This is especially salient in sub-Saharan contexts where imported instruments may not mirror students' practical tasks. Recent English-language studies show that brief, validated scales can sensitively track short-term outcomes from guidance activities in senior high schools (Dodd et al., 2022).

Gender remains a central equity lens. Cross-national evidence continues to show robust sex differences in adolescent occupational aspirations—more boys preferring things-oriented jobs and more girls people-oriented jobs—patterns that vary with national wealth and social contexts (Stoet & Geary, 2022). Yet intervention research suggests that structured exploration and practice can mitigate some aspiration gaps by increasing self-efficacy and broadening perceived options (Wang et al., 2024; Nykänen et al., 2023). Accordingly, this study's gender-disaggregated analyses are policy-relevant for Ghana's Senior High School system.

The present article reports an evaluation of a school-delivered, skills-focused instruction in career exploration conducted in Cape Coast. The design compared two schools that received six structured sessions with two comparison schools. The objective was to test whether targeted instruction enhances overall and domain-specific career maturity and whether effects differ by gender. The approach aligns with contemporary recommendations emphasizing brief, active, measurable, and curriculum-connected interventions in secondary education (Dodd et al., 2022; Kiuru et al., 2021).

METHODS

Design: The study used a quasi-experimental pretest–posttest control group design with intact school clusters. Two Senior High Schools were assigned to the experimental condition and two to the control condition in Cape Coast. All four schools were public urban institutions. The same career maturity instrument was administered at baseline and within one day after the intervention period.

Participants and Sampling: The target population comprised Senior High School (final-year) students. From each of the four schools, one intact class of final-year students was selected, yielding a total sample of 120 students. The sample included 60 males and 60 females, balanced across conditions. Two schools were assigned to the experimental group and two to control. The participating institutions included long-standing Cape Coast schools; the sample was

drawn via a combination of stratification by school and simple random selection at the class level.

Intervention: The experimental group received six sessions of instruction targeting foundational career exploration competencies: (1) world-of-work knowledge; (2) self-assessment and clarity about interests/strengths; (3) résumé preparation; (4) letters of application; (5) interviewing skills; and (6) rules for success (workplace behavior and expectations). Sessions ran for 90 minutes each, except the interviewing session (120 minutes), and were delivered over a short, continuous span arranged to fit the school timetable. Attendance was tracked; venues were prearranged in collaboration with school administration. The intervention was standardized using session objectives, teacher notes, and practice activities (e.g., drafting résumés, mock interviews).This structure mirrors contemporary evidence favoring brief, active, skills-based formats with opportunities for feedback and rehearsal (Dodd et al., 2022; Kiuru et al., 2021; Nykänen et al., 2023). The interviewing session's extended duration addressed the higher cognitive-behavioral load of role-play and feedback compared to written tasks.

Control Condition: Control schools continued with routine academic schedules without the supplemental career exploration instruction during the study period. No formal career lessons were scheduled specifically for the measurement window.

Measures: Career maturity was assessed with a competence-focused inventory comprising 54 dichotomously scored items (1=correct/competent; 0=incorrect) grouped into six subscales: World of Work (WOW; 9 items), Self-Knowledge (SELF; 9), Résumé (RES; 9), Letters of Application (LET; 9), Interviewing Skills (INT; 9), and Rules for Success (RFS; 9). Subscale scores were computed as proportions correct; an overall career maturity index was the mean of all items. The instrument emphasizes applied knowledge and performance, aligning with calls for proximal, behaviorally anchored measures in school settings (Dodd et al., 2022).A pilot administration reported KR-21 reliability around .70 for the total scale, acceptable for group comparisons with dichotomous items. While KR-21 is less common today than coefficient alpha or omega, recent psychometric reviews note that internal consistency indices remain informative when assumptions are approximately met and scales are short and homogeneous (Xiao & Hau, 2023; Bentler, 2021).

Procedures: Pretest assessments were conducted under exam-like conditions to reduce distractions, with seating arranged for adequate spacing and attendance recorded. The six instructional sessions were then delivered by trained facilitators, with each session including objectives, activities, and formative checks (e.g., short quizzes, draft reviews). The interviewing session incorporated extended practice and structured feedback. Shortly after the final session, the same instrument was administered to all classes, both experimental and control.

Scoring and Data Handling: Item responses were scored dichotomously; subscale and total indices were computed as proportions (0–1). This choice allowed direct interpretation of competence levels and facilitated comparison across domains with equal item counts. While dichotomous scoring can compress variance relative to polytomous formats, the approach has the practical advantage of clarity for classroom use (Xiao & Hau, 2023).

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Statistical Analysis: Analyses proceeded in four steps

1. *Baseline Equivalence***.** Independent-samples t-tests compared experimental and control groups at pretest on overall and subscale indices. No significant between-group differences were expected at baseline.
2. *Primary Impact.* Posttest means and standard deviations were compared between experimental and control groups for each subscale and the overall index using independent-samples t-tests. Statistical significance was evaluated at α=.05 (two-tailed).
3. *Gender-Specific Effects.* Posttest comparisons were repeated within males and females separately (male experimental vs. male control; female experimental vs. female control).
4. *Within-Condition Gender Differences.* Posttest male vs. female comparisons were conducted within the experimental group and within the control group to check whether effects differed by sex.

All tests used class-level independence approximations consistent with intact-group assignment; interpretation emphasizes practical significance alongside p-values, consistent with current guidance in school intervention research (Wang et al., 2024; Dodd et al., 2022).

RESULTS

Baseline Equivalence (Pretest): At the pretest stage, statistical analysis revealed that there were no significant differences between the experimental and control groups across the total career maturity index or on any of the six subscales. This finding demonstrates that both groups were comparable in their initial levels of competence before exposure to the instructional intervention. For example, the mean scores at baseline were closely aligned: overall pretest means were .66 (SD=.11) for the experimental group and .67 (SD=.12) for the control group, with a t-value of 0.36, indicating no significant difference. Subscale contrasts showed the same pattern of similarity, confirming equivalence prior to treatment and strengthening the internal validity of the design.

Posttest Group Differences (Primary Impact): Table 1 summarizes the posttest means, standard deviations, and t-test results, comparing the experimental and control groups on each subscale and on the overall index. The table illustrates the comparative performance patterns after instruction, showing where the experimental group gained the strongest advantages in competence across the assessed domains.

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Table 1. *Posttest career maturity by subscale and overall: experimental vs. control (N=120)*

Subscale / Total	Control Mean (SD)	Experimental Mean (SD)	t-value	Sig.
World of Work	.71 (.15)	.91 (.10)	3.10	p<.05
Self-Knowledge	.78 (.19)	.87 (.12)	1.25	ns
Résumé	.47 (.18)	.87 (.15)	5.39	p<.05
Letters of Application	.70 (.15)	.88 (.09)	2.85	p<.05
Interviewing Skills	.76 (.15)	.87 (.10)	1.70	p<.05
Rules for Success	.57 (.16)	.93 (.10)	5.47	p<.05
Overall Index	.67 (.11)	.89 (.02)	26.58	p<.05

Source: Field Survey, 2025

The posttest results demonstrate that the experimental group substantially outperformed the control group in nearly all domains. Key contrasts include Résumé (.87 vs. .47; $t = 5.39$, $p < .05$), Rules for Success (.93 vs. .57; $t = 5.47$, $p < .05$), and World of Work (.91 vs. .71; $t = 3.10$, $p < .05$). The overall index (.89 vs. .67; $t = 26.58$, $p < .05$) shows the strongest impact, while Self-Knowledge (.87 vs. .78; $t = 1.25$, ns) remained non-significant.

The clear improvement across most subscales demonstrates that structured, skill-oriented instruction has the capacity to meaningfully enhance career maturity within a short duration. The pronounced gains in résumé writing, letters of application, and workplace behavior illustrate the effectiveness of interventions grounded in practice, rehearsal, and feedback. These results support existing international evidence that active, task-focused strategies constitute the most influential components of career education (Dodd et al., 2022; Kiuru et al., 2021). The absence of significance in self-knowledge further highlights the differentiated nature of career growth, suggesting that reflective, identity-based competencies may require supplementary modules. Overall, the evidence strongly validates integrating such instructional programs into mainstream school curricula for maximum impact.

Gender-Specific Effects (Between-Condition): Table 2 and Table 3 present posttest comparisons between experimental and control groups separately for male and female students. These results highlight whether instructional benefits were consistent across genders, providing evidence on the equity of program impact. The tables allow a close look at domain-specific differences by sex, illustrating where male and female students recorded significant improvements after the intervention.

Table 2. *Posttest career maturity—male students: experimental vs. control*

Subscale / Total	Control Mean (SD)	Experimental Mean (SD)	t-value	Sig.
World of Work	.70 (.16)	.91 (.10)	3.03	p<.05
Self-Knowledge	.78 (.18)	.86 (.13)	0.92	ns
Résumé	.44 (.17)	.85 (.16)	5.12	p<.05
Letters of Application	.70 (.14)	.88 (.10)	2.81	p<.05
Interviewing Skills	.74 (.15)	.85 (.12)	1.39	ns
Rules for Success	.57 (.16)	.93 (.10)	4.88	p<.05
Overall Index	.68 (.12)	.90 (.02)	17.71	p<.05

Source: Field Survey, 2025.

Male students displayed strong and statistically significant improvements across several domains following the intervention. Large gains were recorded in Résumé (.85 vs. .44; $t = 5.12$, $p < .05$) and Rules for Success (.93 vs. .57; $t = 4.88$, $p < .05$), with additional advantages in World of Work (.91 vs. .70; $t = 3.03$, $p < .05$) and Letters (.88 vs. .70; $t = 2.81$, $p < .05$). Non-significant results in Interviewing ($t = 1.39$, ns) and Self-Knowledge ($t = 0.92$, ns) suggest slower progress in reflective skills.

Male students demonstrated significant improvements in practical skill domains, underscoring the value of explicit instruction in résumé preparation, workplace conduct, and related tasks. These skills are inherently task-driven, and the results suggest they are highly responsive to structured training interventions. Conversely, non-significant results in self-knowledge and interviewing skills indicate that reflective or higher-order social competencies may require additional instructional methods or longer engagement to produce change. This aligns with broader research showing that while short-term, skills-focused training enhances immediate task performance, deeper self-concept development and confidence often emerge more gradually (Wang et al., 2024; Nykänen et al., 2023).

Table 3. *Posttest career maturity—female students: experimental vs. control*

Subscale / Total	Control Mean (SD)	Experimental Mean (SD)	t-value	Sig.
World of Work	.72 (.15)	.90 (.11)	2.04	p<.05
Self-Knowledge	.78 (.20)	.89 (.11)	1.00	ns
Résumé	.49 (.19)	.88 (.16)	3.58	p<.05
Letters of Application	.70 (.16)	.89 (.09)	2.08	p<.05
Interviewing Skills	.77 (.15)	.88 (.09)	1.47	ns
Rules for Success	.58 (.16)	.92 (.10)	3.23	p<.05
Overall Index	.67 (.11)	.88 (.02)	23.91	p<.05

Source: Field Survey, 2025

Female participants recorded significant progress in applied domains, with major improvements in Résumé (.88 vs. .49; $t = 3.58$, $p < .05$), Rules for Success (.92 vs. .58; $t = 3.23$, $p < .05$), World of Work (.90 vs. .72; $t = 2.04$, $p < .05$), and Letters (.89 vs. .70; $t = 2.08$, $p < .05$). Non-significant findings in Interviewing ($t = 1.47$, ns) and Self-Knowledge ($t = 1.00$, ns) indicate that reflective domains may not respond as quickly as task-focused areas under short interventions.

Female students mirrored the strong improvements seen in males, with large gains in applied and document-focused competencies. This consistency suggests the program is equitable in its effects, enabling both genders to benefit similarly from structured instruction. The absence of significance in self-knowledge and interviewing skills again underscores the complexity of developing reflective awareness, which typically requires more sustained or dialogic activities. These findings strengthen the case for universal curriculum integration of such modules, while also pointing to the need for supplemental strategies—such as mentoring, reflective exercises, or role model exposure—to foster self-knowledge and broaden aspirations among girls (Stoet & Geary, 2022; Wang et al., 2024).

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Within-Condition Gender Differences: Tables 4 and 5 report posttest comparisons within the experimental and control groups separately by gender. These results provide further clarity on whether males and females differed after receiving the same instructional input or under usual school conditions.

Table 4. *Posttest—male vs. female within the experimental group*

Subscale / Total	Male Mean (SD)	Female Mean (SD)	t-value	Sig.
World of Work	.92 (.09)	.89 (.13)	1.18	ns
Self-Knowledge	.86 (.13)	.89 (.11)	0.96	ns
Résumé	.85 (.16)	.88 (.16)	0.70	ns
Letters of Application	.88 (.10)	.89 (.09)	0.38	ns
Interviewing Skills	.85 (.12)	.90 (.09)	1.86	ns
Rules for Success	.93 (.10)	.92 (.10)	0.49	ns
Overall Index	.90 (.02)	.88 (.02)	0.81	ns

Source: Field Survey, 2025

Comparisons within the experimental group show no statistically significant gender differences. For example, World of Work scores were .92 vs. .89 (t = 1.18, ns), Résumé .85 vs. .88 (t = 0.70, ns), and Overall Index .90 vs. .88 (t = 0.81, ns). These results indicate that boys and girls responded similarly to the structured instruction, with balanced improvements across all domains.

The absence of significant within-experimental gender differences shows that boys and girls derived comparable benefits from the intervention. This supports the conclusion that mixed-gender instructional delivery is sufficient for developing task-based competencies equitably. It also suggests that the skills addressed in the program are universally accessible and teachable across sexes, without disadvantaging one group over another. Such parity is important in Ghana's context, where gender disparities in career aspirations are still documented (Stoet & Geary, 2022). The findings thus provide evidence for policymakers to adopt gender-neutral delivery models while considering complementary strategies to address deeper aspiration differences.

Table 5. *Posttest—male vs. female within the control group*

Subscale / Total	Male Mean (SD)	Female Mean (SD)	t-value	Sig.
World of Work	.70 (.16)	.72 (.15)	0.76	ns
Self-Knowledge	.78 (.18)	.78 (.20)	0.05	ns
Résumé	.44 (.17)	.49 (.19)	1.20	ns
Letters of Application	.70 (.14)	.70 (.16)	0.09	ns
Interviewing Skills	.74 (.15)	.77 (.15)	1.13	ns
Rules for Success	.57 (.16)	.57 (.16)	0.06	ns
Overall Index	.68 (.12)	.67 (.11)	0.42	ns

Source: Field Survey, 2025

Within the control group, males and females recorded nearly identical outcomes across all subscales. For example, Résumé scores were .44 vs. .49 (t = 1.20, ns), Interviewing .74 vs. .77

(t = 1.13, ns), and the Overall Index .68 vs. .67 (t = 0.42, ns). This confirms that, absent instruction, gender differences in performance were negligible.

The non-significant male–female contrasts in the control group provide strong evidence that the improvements observed in the experimental group resulted from the intervention rather than pre-existing differences. This strengthens causal inference under the quasi-experimental design, supporting the conclusion that structured career instruction was the key factor driving improvements (Kiuru et al., 2021; Nykänen et al., 2023). It also emphasizes the importance of intentional intervention, since without targeted instruction, students of both genders remained at roughly the same baseline competence levels. For policymakers and educators, this underscores the necessity of actively embedding structured, skills-focused programs into the curriculum rather than relying on natural classroom variation to build these competencies.

DISCUSSION

The study tested a pragmatic proposition: can concise, classroom-integrated instruction in career exploration skills move the needle on career maturity among Senior High School students? The evidence suggests a clear and affirmative answer. The experimental group consistently surpassed the controls on the overall index and on five of the six measured subscales, with the largest gaps identified in résumé writing, rules for success, world-of-work information, and letters of application. These domains are not only highly teachable but also align directly with authentic, real-life tasks that students must complete when applying for internships, scholarships, or entry-level employment opportunities. They also lend themselves to modeling, demonstration, and guided practice, making them especially responsive to instructional intervention. Contemporary international evidence further underscores these domains as "active ingredients" of effective career interventions, particularly when brief, structured, and practice-based methods are applied (Dodd et al., 2022; Wang et al., 2024).

Mechanisms. Theories of career self-management suggest that career exploration and preparation are fueled by self-efficacy, outcome expectations, and structured goal setting (Kleine et al., 2021). Within this study, the instructional sessions likely raised students' mastery expectations through successful task completion in résumé preparation and application letter writing, while structured feedback clarified standards and outlined clear next steps for improvement. Gains in rules-for-success and world-of-work knowledge may have also reduced uncertainty about workplace expectations, thereby increasing perceived readiness for transitions beyond school. Randomized trials in other contexts similarly report that short, structured programs can enhance preparedness and coping with career tasks when they integrate active learning strategies and provide opportunities for practice and immediate feedback (Kiuru et al., 2021; Nykänen et al., 2023). Thus, the mechanisms observed here align with theoretical expectations, suggesting that practical competence-building can quickly translate into enhanced career maturity.

Why was self-knowledge not significantly different? A notable finding of the study was that the self-knowledge subscale did not yield statistically significant improvement, despite showing a positive trend. This can be explained by the nature of self-reflection, which tends to develop more gradually and often requires repeated experiences across different contexts. Unlike résumé writing or interview practice, self-reflection is less concrete and depends on iterative processes of meaning-making. Interventions that emphasise reflective exercises, narrative

career methods, or counselling dialogues often demonstrate stronger effects on self-awareness, particularly when measured over longer time horizons (Wang, 2024). Therefore, a logical follow-on module might integrate activities such as personal career stories, values clarification exercises, or occupational information interviews, which could deepen self-knowledge gains beyond the immediate study window. Such design modifications would address the slower-moving but equally important reflective dimensions of career maturity.

*Gender***.** The absence of significant within-group gender differences suggests that both boys and girls benefitted similarly from the same instructional dose. This finding is particularly noteworthy given the extensive global evidence of sex-typed occupational aspirations, where more boys gravitate toward things-oriented careers and more girls toward people-oriented careers (Stoet & Geary, 2022). The study's results indicate that foundational skills in résumé writing, application letters, and workplace conduct are equally teachable across genders when delivered in a structured, mixed-classroom setting. However, skill gains alone may not shift broader gendered aspiration patterns. To address those deeper issues, complementary strategies such as structured exposure to diverse role models, worksite learning opportunities, and mentorship programmes may be necessary to broaden occupational imaginations, particularly in fields where gender stereotypes remain strongly entrenched.

Measurement Considerations. The study employed a dichotomously scored, competence-focused inventory that demonstrated acceptable internal consistency (pilot KR-21 ≈ .70). While this reliability estimate is suitable for group comparisons, modern psychometric research advises that internal consistency should ideally be triangulated with construct validity evidence and, where feasible, alternative reliability indices such as omega or model-based estimates under ordinal scoring (Xiao & Hau, 2023; Bentler, 2021). Nonetheless, for classroom implementation purposes, a brief, domain-specific tool containing concrete items can be especially sensitive to instructional change, as shown here and in recent school-based evaluations (Dodd et al., 2022). To further strengthen future evaluations, mixed-format measures could be incorporated, such as rubrics for evaluating résumés or structured observation checklists for interviewing skills. This would expand variance, capture gradations in quality, and generate richer data while remaining practical for teachers and counselors.

External Validity and Context. Ghana-based studies consistently document structural challenges in delivering guidance services, including limited timetable slots, insufficient numbers of trained counsellors, and chronic resource constraints (Segbenya et al., 2023; Dankyi et al., 2024; Panford-Quainoo et al., 2024). Against this backdrop, the intervention's feasibility—delivering six structured sessions within existing school timetables—underscores its practical relevance. The results dovetail with the priorities expressed by local stakeholders, who continue to call for practical, timetable-anchored career guidance activities that demonstrate immediate relevance to students' educational and occupational transitions (Segbenya et al., 2023). Importantly, this study provides empirical support for models of delivery that are both affordable and realistic, given the constraints faced by Ghanaian schools. It therefore contributes to the conversation on scalable, context-sensitive approaches to career education in sub-Saharan Africa.

Causal Inference Caveats. One limitation inherent in the study's quasi-experimental design is that intact-group assignment at the school level can introduce risks of unobserved confounding.

For instance, teacher enthusiasm or subtle differences in school culture might influence outcomes. However, the demonstration of baseline equivalence across all measures, combined with large and domain-consistent posttest improvements, strengthens the case for attributing observed differences to the intervention itself. Furthermore, the patterns observed here mirror those reported in randomized trials in other countries, which also confirm that brief, active career education interventions can yield meaningful short-term gains (Kiuru et al., 2021; Nykänen et al., 2023; Parola et al., 2024). Thus, although unmeasured contextual factors cannot be fully excluded, they are unlikely to account for the consistent improvements observed across applied domains within such a short time frame.

Equity and Systems View. Given the absence of gender differentials, scaling this type of instruction could serve as an equity-neutral lever to enhance baseline readiness across entire student cohorts. However, achieving systemic impact depends critically on institutional capacity, including counselor training, access to materials, and appropriate scheduling. Ghanaian reviews consistently advocate for institutional supports such as dedicated time on timetables, adequate logistics, and ongoing professional development for guidance staff (Segbenya et al., 2023; Dankyi et al., 2024). Embedding career modules within core subjects—for example, teaching résumé writing in English classes—offers a practical solution that reduces dependence on a limited cadre of counselors while distributing delivery across subject teachers. Such integration could normalise career education as a routine part of senior high schooling, ensuring sustainability and broader reach across the education system.

IMPLICATIONS

The findings of this study carry several important lessons for schools, teachers, counselors, and policymakers who aim to improve career readiness among Senior High School students. Beyond demonstrating that short, skills-focused instruction can significantly raise competence, the results point to practical steps that can be applied in real classrooms and scaled across schools in Ghana and similar contexts. The following subsections highlight key implications for curriculum design, teaching models, assessment, gender equity, counselor training, program structure, scaling strategies, and directions for future research.

Curriculum Integration. The most policy-ready implication from this study is the need to embed the six-session sequence directly into the Senior High School curriculum. Doing so would ensure that all students, not only those in special projects, receive career instruction. The sessions can be linked to key transition milestones, such as preparing job or scholarship applications and attending interviews. The observed gains in résumé writing, letters, and rules for success clearly show that even short, carefully structured units can raise competence quickly. International evidence also suggests that when career guidance is integrated into the main curriculum rather than treated as an optional activity, both student participation and program impact increase meaningfully.

Delivery Model. Schools can adopt a co-teaching approach so that the responsibility of delivery does not rest on one person. For instance, English teachers can handle résumé writing and application letters, while social studies teachers focus on the world-of-work sessions. Counselors, or other trained teachers, can then facilitate role-plays for interviewing and teach norms of professional conduct. This shared model distributes workload fairly and makes career learning a normal part of everyday teaching. It also reflects stakeholder recommendations in

Ghana, which highlight the importance of including career guidance in the timetable rather than leaving it as an extra activity outside class hours.

Assessment and Accountability. The competence-based tool used in this study is classroom-friendly and can be further improved. Teachers can add rubrics for grading résumés, structured observation sheets for interviews, and simple checklists for letters of application. This makes it easier to measure quality, not just completion. Following current psychometric advice, reliability should be tracked using indicators such as alpha or omega, while task-specific checks between raters can improve fairness in scoring performance tasks. Short pre- and post-tests allow teachers and counselors to quickly see progress and adjust sessions. This kind of accountability ensures that the program stays useful and responsive to student needs.

Gender Responsiveness. Because the results showed similar benefits for boys and girls, universal delivery is justified, and the same program can be offered to all students. However, addressing gender differences in career aspirations may require additional low-cost enhancements. Schools can organize mixed-gender role-model talks to show students examples of diverse career paths, or host virtual employer sessions where students can ask questions. Short, structured occupational exploration activities can also expose both boys and girls to options they might not normally consider. These activities can be added without making the program longer, helping to broaden perspectives while keeping it practical and affordable.

Counselor Capacity. Professional development is a key factor for success. Counselors, and even non-counseling teachers, need targeted training in how to lead practice-based sessions. Interviewing skills, for example, require effective facilitation of role-play and constructive feedback. Offering short courses or micro-credentials can prepare regular teachers to deliver document-focused lessons such as résumé or letter writing. This approach eases the workload on overburdened counselors, while ensuring that the sessions are taught consistently and with quality. It also aligns with recent Ghanaian studies calling for improved staffing levels, better logistics, and clearer roles for teachers in career instruction delivery.

Program Timing and Dosage. The six-session sequence was sufficient to improve practical career skills within a short period. However, for deeper development in areas such as self-knowledge or long-term career planning, more time and reflection may be needed. Schools could therefore consider a two-part model: the current "skills block" for applied tasks, followed by a "reflection block" that uses narrative exercises, career stories, or informational interviews. Research shows that reflection-based activities are more effective in building self-clarity, which supports long-term career decisions. Combining both blocks would balance immediate competence with deeper personal growth.

Scaling and Equity. Because this program is relatively low-cost and can fit into normal timetables, it is suitable for scaling up across schools, even in resource-constrained areas. To achieve this, ministries and district education offices should provide schools with teaching time, materials, and small incentives to sustain delivery. Scaling must also ensure that rural and less resourced schools are not left behind. Monitoring should focus on three simple areas: reach (how many classes receive the sessions), fidelity (whether teachers actually deliver the key activities), and outcomes (student improvements before and after). This will help maintain both quality and equity as the program grows.

Taken together, these implications show that career exploration instruction can be turned into a practical, low-cost, and effective program for schools in Ghana. The findings point clearly to what can be done at classroom, school, and policy levels: embed the six sessions in the curriculum, train teachers and counselors to share the workload, adopt better tools for measuring progress, and ensure equal access for both boys and girls. At the same time, the results encourage further research and testing to refine the approach. If acted upon, these lessons can make career guidance a normal and effective part of schooling, giving students stronger preparation for their future education, jobs, and life opportunities.

CONCLUSIONS

A short, skills-focused instruction in career exploration substantially improved career maturity among Senior High School students in Cape Coast. The largest gains—résumé writing, letters of application, world-of-work knowledge, and rules for success—reflect competencies with immediate utility for school-to-work transitions. Effects were comparable for male and female students, and no baseline differences were observed, reinforcing a credible intervention impact. These findings align with contemporary international research supporting brief, active, school-embedded career education as a practical lever for readiness gains. In Ghana's context, where guidance service delivery faces resource and timetable constraints, integrating this six-session sequence into existing subjects and equipping teachers alongside counselors offer feasible pathways to scale. Strengthening measurement with brief, reliable classroom assessments will support iterative improvement and accountability. Overall, the evidence indicates that targeted instruction in exploration skills can deliver meaningful benefits quickly and equitably, advancing students' preparedness for post-school opportunities.

Research Next Steps. Future studies in Ghana should test the program with stronger research designs, such as cluster randomized trials, to confirm its impact more rigorously. Longer follow-up periods of three to six months would show whether gains last beyond the immediate intervention window. Outcomes could also be expanded to include real-world indicators such as applications submitted, interview invitations received, or success in gaining internships. Using mixed-format measurement, such as combining tests with performance rubrics, could capture richer differences between students. This approach would provide more detailed evidence while still being practical for school settings and consistent with current psychometric guidance.

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