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# 1      Mentoring Uncertified Teachers in Guyana

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## 5      **Abstract**

6      In 2022, Guyana's Ministry of Education began a teacher licensing system highlighting the  
7      need for continuous development. Teacher quality is a challenge in many developing countries.  
8      The research question that guided this study was: how does a customized professional  
9      development intensive mentoring program influence the preparation of uncertified teachers in  
10     Guyana as it relates to their lack of pedagogical, content knowledge, and classroom  
11     management skills? Data were collected and analyzed using the Delphi Technique, a group  
12     decision-making method, to reach a consensus that identified what a customized professional  
13     development solution for uncertified teachers in two high schools in Guyana entailed,  
14     specifically an intensive mentoring intervention. Results from this study showed that a  
15     customized professional development intensive mentoring training program could be beneficial  
16     for uncertified teachers in Guyana. The findings implied the presence of collaboration, support,  
17     and collegially sharing ideas and strategies that address evidence-based teaching practices.

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19      **Index terms—**

## 20      **1      Introduction**

21      The success of the education system of any country depends on its having certified classroom teachers to deliver  
22      superior instruction to our students (Burton, 2005). However, some developing countries' circumstances are  
23      such that, more often than not, educators are uncertified and do not possess the requisite skills to promote  
24      quality education (Brown, 2000;Cook, 2012;Robinson, 2017). When a nation's education system lacks certified  
25      teachers who do not possess effective pedagogical, content knowledge, and adequate classroom management  
26      capabilities, it impairs the learning power of students (Karhus, 2010). Research has shown that teachers with  
27      formal training in instructional delivery and classroom management skills produce higher education benchmarks  
28      for students rather than uncertified teachers who lack this training (Gatbonton, 2008). Therefore, this study  
29      examined the implications of uncertified teachers in two secondary schools in Guyana and recommended more  
30      viable solutions. Some of the implications for student learning associated with having uncertified teachers have  
31      included teachers being ill-prepared as they lack training in pedagogical, content knowledge, and classroom  
32      management skills (Sterling & Frazier, 2011). Among those problems studied, this research aligns with the  
33      international literature where scholars identified some core effects that included slower academic progress in  
34      students (Darling-Hammond, Holtzman, Gatlin & Heilig, 2005); higher incidences of disruptive behavior in the  
35      classroom (Schussler, 2009;Marzano & Marzano, 2003); uncertified teachers had higher stress levels (Darling-  
36      Hammond, et al., 2005), and they lacked preparedness that caused lower test scores on in-house and mandatory  
37      examinations (Neild & Farley-Ripple, 2008).

38      Further, the difficulties associated with uncertified teachers caused rippling effects on other sectors of the  
39      country. Many developing nations are facing similar difficulties; the focus of this study was Guyana (Brown,  
40      2000;Cook, 2012, Limbong & Lumbantoruan, 2022;Robinson, 2017). The researchers used the Delphi Technique,  
41      a group decision-making method, to develop a customized professional development solution to enhance the  
42      uncertified teachers' pedagogical, content knowledge, and classroom management skills. The findings from this  
43      research will add to the body of knowledge on one way to mentor uncertified teachers in developing countries.

### 44 2 II.

### 45 3 Literature Review

46 This study seeks to answer the research questions: how does a customized professional development intensive  
47 mentoring program influence the preparation of uncertified teachers in Guyana as it relates to their lack of  
48 pedagogical, content knowledge, and classroom management skills? Research has shown that undesirable  
49 student's academic performance has been the result of uncertified teachers who lacked pedagogical, content  
50 knowledge, and classroom management skills and who were unable to deliver quality instruction (Billingsley,  
51 2004; Darling-Hammond et al., 2005; Henevald & Craig, 1996; Leu, 2005 ??eu, , 2004; O'Dwyer, Carey & Kleiman,  
52 2007). The literature review for this study was brief but very diverse, multifaceted, and extensive. We begin with  
53 a short discussion of uncertified teachers in the classrooms, followed by describing the importance of mentoring  
54 in the field of education; next, we discussed teacher mentoring programs and teacher mentoring strategies and  
55 professional development to intentionally shed light on how a customized professional development intensive  
56 mentoring program might influence the preparation of uncertified teachers in Guyana.

### 57 4 a) Uncertified Teachers in the Classrooms

58 According to Abosi (2007), the term uncertified teachers is defined as teachers called into the teaching profession  
59 before they have fully developed pedagogical skills, curriculum knowledge of specific subject areas, and classroom  
60 management skills needed to address various behavioral issues. After researching, Abosi (2007) concluded that  
61 uncertified teachers could not manage their classes and proficiently execute a lesson efficiently. In the context of  
62 this study, uncertified teachers are synonymous with pre-trained teachers who had not gone through the country's  
63 teacher training program. In contrast, certified teachers have completed the country's two-year associate degree  
64 program and received a teacher training certification. The results of a qualitative study by Darling-Hammond,  
65 Holtzman, Gatlin, and Heilig (2005), indicated a positive correlation between certified teachers and students'  
66 learning outcomes. In another study, students in classrooms with uncertified teachers showed very little or no  
67 academic progress, and uncertified teachers reported a high level of student behavior referral (Schussler, 2009).  
68 This suggests the need for more support for uncertified teachers. Schussler (2009) concluded uncertified teachers  
69 lacking pedagogical skills, content knowledge, and classroom management skills had monumental damaging  
70 consequences on student learning and achievement, as well as the teacher's ability to teach effectively. Therefore,  
71 having a cadre of highly qualified and trained teachers was the solution (Leu, 2005) News, 2015). Since many of  
72 the teachers in Guyana are uncertified, mentoring might be a viable solution to help them gain the knowledge  
73 and skills they need.

### 74 5 b) Importance of Mentoring in the Field of Education

75 In the field of education, experts have argued that supporting uncertified teachers with various teacher mentoring  
76 interventions can enhance teacher quality, job satisfaction, quality delivery of classroom instruction, and students'  
77 classroom behavior and academic performance (Achenstein & Athanases, 2006; Smith & Ingersoll, 2004) promoting  
78 overall professional, psychological, and personal growth and development of all involved. In the context of this  
79 study, mentoring is defined as a support program that provides uncertified classroom teachers with various  
80 opportunities for learning which enhance their practical professional knowledge in the classroom. Intervention is  
81 defined as a strategy used to teach new skills to uncertified teachers; hence, mentoring is an intervention strategy.

82 Across the United States of America today, the focus of education policymakers and reformers is to close  
83 the achievement gap through the provision of highly qualified teachers and equitable distribution of educational  
84 resources (Eckert, 2013; Mestry, 2019). To accomplish this ambitious target, every State Education Department,  
85 through the No Child Left Behind Act of 2001 (NCLB) is mandated to have a certified teacher for every classroom  
86 across that state. This federal law pressured states and school systems across America to investigate, identify,  
87 and implement strategies and programs to improve teacher quality, student achievement and lower behavioral  
88 referrals. Similar standards might be set in place for Guyana (Guyana -Ministry of Education, 2012). Uncertified  
89 teachers are expected to execute their teaching and classroom responsibilities similarly to their more experienced  
90 counterparts (Sterling & Frazier, 2011) with limited support from school administrators or other school personnel.  
91 Researchers (Daresh, 2003; Swaminathan & Reed, 2020) noted that uncertified teachers are expected to perform  
92 at the same skill level as seasoned and experienced teachers. Due to these expectations, uncertified teachers might  
93 benefit from specialized or customized intensive mentoring professional development support to move along the  
94 continuum from being an uncertified teacher to a fully-fledged certified teacher capable of performing the duties  
95 and functions of a certified teacher. To this end, a customized professional development (intensive mentoring)  
96 intervention might help the uncertified teacher achieve competent and effective classroom skills that will enhance  
97 organization, time management, interpersonal skills, delivery of quality instruction, improve students' academic  
98 performance, and lowering behavior incidences (Achenstein & Athanases, 2006). The benefits include capable  
99 and competent teachers, improved uncertified teachers' self-esteem, teachers who are highly motivated and less  
100 frustrated and disillusioned, and lastly, mentoring can result in higher productivity (Daresh, 2003).

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## 101 6 c) Teacher Mentoring Programs

102 Uncertified classroom teachers bring with them a great sense of enthusiasm when they enter the teaching  
103 profession. However, a short time later, the demands for being a competent teacher and a lack of classroom  
104 support cause these uncertified teachers to soon experience frustration and isolation (Brennan, Thames, &  
105 Roberts, 1999; Brown & Wynn, 2009; ?rovashnik & Dorfman, 2005). A resource or tool that has been found to  
106 be useful in reducing the frustration and isolation experienced by uncertified teachers and aiding in producing  
107 competent classroom teachers is teacher mentoring intervention (Shernoff et al., 2011).

108 With a severe shortage of certified teachers and a growing demand for the employment of certified and  
109 highly qualified classroom teachers, a customized professional development teacher mentoring intervention is  
110 one tool to alleviate this situation ??Ingersoll, 2002). Teacher mentoring programs provide uncertified classroom  
111 teachers with various opportunities for contextualized learning or workplace learning which enhance their practical  
112 professional knowledge in the classroom (Shernoff et al., 2011). Mentoring uncertified teachers during their  
113 early years in the teaching profession is crucial to their professional development and might yield long-term  
114 benefits such as improved instructional, pedagogical, and classroom management skills (Oliver, Conney, & Maor,  
115 2009). Teacher mentoring intervention provides a collegial relationship that is based on providing encouragement,  
116 confidence building, constructive comments, openness, trust, respect, and the willingness to learn ?? Lastly, the  
117 mentors might listen to any concerns the uncertified classroom teacher may have and discuss those concerns  
118 without being judgmental of the teachers' teaching skills (Glasgow & Hicks, 2009). After the development of  
119 classroom management skills, the emphasis can shift to the development of teaching techniques (Richards, 2010).  
120 Providing uncertified high school classroom teachers with real-life teaching experiences or opportunities through  
121 the utilization of teacher mentoring and professional development strategies can have profound consequences  
122 on their classroom teaching skills. Uncertified classroom teachers' instructional practices would be enhanced;  
123 students' behavioral referrals would be minimized and allow for a higher degree of classroom teaching and student  
124 learning opportunities. Through ongoing teacher mentoring and professional development, mentors are constantly  
125 demonstrating the targeted strategy. By so doing, the uncertified teachers would become wellversed in these  
126 strategies to enhance their pedagogical, content knowledge, and classroom management skills (Sterling & Frazier,  
127 2011;Fenzel et al., 2014). The results of practicing these strategies are improved students' academic performance  
128 and decreased behavioral referrals. After becoming well-versed in the targeted teaching strategies, the uncertified  
129 teachers reflect on their mastery of the targeted practice, such as looking at samples of students' work produced  
130 from the lesson taught, discussing and reflecting on students' successes and failures to promote greater informed  
131 understanding when another lesson is presented. Following the reflection, mentors and uncertified teachers use the  
132 knowledge garnered through teacher mentoring strategies from the targeted classroom practice to make decisions  
133 on the next step in the learning process to better their teaching practice and meet the academic needs of the  
134 students. Mentoring strategies can help uncertified teachers develop many pedagogical skills they need to succeed  
135 in the classroom.

## 136 7 III.

## 137 8 Research Site and Method

138 Guyana is located on the northeastern coast of South America and has a population of 747,884 (Guyana Statistical  
139 Bureau, 2014). At the time of this research in 2015, the only public access data available was the 2011-2012  
140 school data. Guyana had 426 secondary or high schools (Guyana Ministry of Education, 2012). The number of  
141 public school teachers who were employed by the Ministry of Education during 2011 -2012 was 15,746. Among  
142 those, 12,124 were certified, while 3,622 teachers were uncertified, representing 23% of the teaching population  
143 who lacked formal training.

144 Consequently, Guyana has faced many of the challenges associated with uncertified teachers. As mentioned  
145 previously, the term uncertified teacher is defined as a teacher called into the teaching profession before having  
146 fully developed pedagogical skills, curriculum knowledge of specific subject areas, and classroom management  
147 skills needed to address various behavioral issues (Abosi, 2007). In the context of this study, uncertified teachers  
148 are synonymous with pre-trained teachers who had not gone through the country's teacher training program. In  
149 contrast, certified teachers have completed the country's two-year associate degree program and received a teacher  
150 training certification. It must be noted that many certified teachers have not fully developed the pedagogical  
151 skills, curriculum knowledge of specific subject areas, and classroom management skills needed to address various  
152 behavioral issues, as this might come with years of experience in the classroom.

153 Delphi Technique was used to conduct this research. The Delphi Technique is a qualitative research method  
154 using systematic solicitation and collection of judgments on a particular topic through a set of carefully designed  
155 sequential questionnaires interspersed with summarized information and feedback of opinions derived from earlier  
156 responses (Wiersma & Jurs 2009). The Delphi Technique was used to identify elements and practices for the  
157 professional training strategy or intensive mentoring intervention. Intensive mentoring refers to the continuous  
158 support of uncertified teachers (Stanulis & Floden, 2009). The decision to use the Delphi Technique was viewed  
159 as the most appropriate qualitative data-gathering approach to collect data regarding elements to be included  
160 in a customized professional development program. Using Delphi Technique had the promise to convey richness

## 10 DISCUSSION

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161 and intensity of detail in a way that quantitative research could not provide for the phenomenon being studied  
162 (Mason, Augustyn, & Seakhoa-King, 2010).

163 The Delphi Technique was selected as the most appropriate research method for this study for five main  
164 reasons (a) it provided a greater understanding in answering the research question; (b) educational outcomes  
165 from research studies could be multifaceted, so Delphi Technique provided more thoughtful explanations; (c)  
166 it provided anonymity to respondents; (d) it provided a controlled feedback process; and (e) it provided the  
167 suitability of a variety of techniques to interpret the data (Hsu & Sandford, 2007). Using the Delphi Technique,  
168 data were captured from a targeted sample of education professionals. Participants served as Delphi members,  
169 comprising eight uncertified and four certified high school teachers, two principals, and two senior officers from  
170 the Central Ministry of Guyana. The Delphi panel of reviewers had a vested interest in the customized intensive  
171 mentoring professional development program. The qualitative data gathered through the use of the Delphi  
172 Technique comprised three rounds of questioning and feedback from the Delphi panel members over six weeks.  
173 It was the most appropriate method for addressing the purpose of this study, as participants were vested in  
174 supporting uncertified teachers to develop the pedagogical and content skills need to be more successful in the  
175 classroom.

176 IV.

## 177 9 Findings

178 The findings for the study were presented after the administration of three rounds or iterations of questionnaires by  
179 the researchers using Delphi panel of experts as respondents. The Delphi panel participants' opinions, experiences,  
180 and ideas were based on their knowledge, roles, and responsibilities on the issues researched. The researchers used  
181 the responses of the 16 Delphi panel members to answer the sample questions from the interview guide protocol  
182 and pre-round teaching practices questionnaire (see Appendix A) to develop the pre-round classroom observation  
183 questions, leading to the first round questions (see Appendix B). Participants' responses provided an extensive  
184 range of data. Data were gathered and analyzed from the opened-ended responses from the Delphi panel members  
185 to each question asked during the interviews. The themes that emerged from the data were then associated with  
186 the research question: how does a customized professional development intensive mentoring program influence  
187 the preparation of uncertified teachers in Guyana as it relates to their lack of pedagogical, content knowledge,  
188 and classroom management skills? a) Themes associated with the interview and pre-round Teaching Practices  
189 Questions Based on the 16 Delphi panel members' responses to the questions for the interview guide protocol  
190 and pre-round teaching practice sample questions -five distinct themes emerged: The Delphi panel members  
191 explained that constantly practicing the content knowledge strategies and giving immediate feedback helped to  
192 develop strong content knowledge. Hence, students' classroom behavioral issues were minimized because they  
193 actively engaged in challenging classroom activities. In sum, the 16 Delphi panel members' responses to the  
194 three demonstrated strategies (pedagogical, content knowledge, and classroom management skills), the results  
195 indicated that intensive mentoring could enhance the training and preparation of uncertified teachers. Throughout  
196 the mentoring process, UCTs learned classroom practices and felt that none of the demonstrated strategies were  
197 difficult to adapt during the execution of lessons.

198 V.

## 199 10 Discussion

200 The findings of this study support the literature that mentoring uncertified classroom teachers have a proven  
201 positive influence on teachers' pedagogical, content knowledge, and classroom management skills (Sterling &  
202 Frazier, 2011) Based upon the evaluation of the results, findings from this study have supported the fact that: (a)  
203 Classroom teachers and school administration have identified classroom management as a critical issue affecting  
204 classroom teachers' delivery of quality instruction (Ford & Kea, 2009; Protheroe, 2006; Shawer, 2010.); (b) Good  
205 quality classroom management techniques can enhance the uncertified classroom teachers' pedagogical skills  
206 which would lead to meeting the needs of all students, and lowering students' behavioral referrals (Marzano  
207 et al., 2003); and (c) Mentorship helped to overcome the shortcomings of having an uncertified teacher in the  
208 classroom, thus reducing the level of teacher turnover in secondary schools in Guyana. As mentioned, uncertified  
209 classroom teachers have identified a lack of administrative support (Brown & Wynn, 2009) and poor classroom  
210 management skills as integral factors for leaving the teaching profession (Gonzalez, ??rown & Slate, 2008).

211 Lastly, the data collected for this research study supported the current literature in terms of the research  
212 question on what it means to be a mentor and the benefits to the mentors in a mentoring relationship. The  
213 mentors felt that while they guided and supported the UCTs; they had the opportunity to improve or enhance

214 Appendix A Interview Guide Protocol and Pre-Round Teaching Practices

215 The purpose of the interview guide protocol and pre-round teaching practice questions is for the researcher to  
216 gather data on the research participants' perspectives of their experiences during the teaching practice sessions.

217 To begin the interview, please answer these questions based on your role that is as a Mentee (Uncertified  
218 Classroom Teacher), Mentor (Certified Teacher), Principal or Curriculum and Instructional Specialist. The  
219 researcher will then precede with the interview questions.

220 Q 1: "What instructional strategies or methods" did you find most helpful during the mentoring sessions? Q  
221 2: "What specific classroom management skills" did you find most helpful during the mentoring sessions? Q 3:  
222 Describe whether the pedagogical, content knowledge, and classroom management skills you learned from the  
223 professional development -intensive mentoring intervention resulted in increased student achievement.

224 Q 4: Describe whether the pedagogical, content knowledge, and classroom management skills you learned from  
225 the professional development -intensive mentoring intervention resulted in lowered behavioral incidences.

226 Q 5: Describe how the roles and responsibilities of those involved in the intensive mentoring intervention has  
227 influenced your pedagogical, content knowledge, and classroom management skills -resulted in increased student  
228 academic achievement and lowered behavior incidences.

229 Next Course of Action: Within the next week you will receive via email, a questionnaire that must be return  
230 within a week from receipt. This questionnaire will be use to develop round 1 questions for the study. Do you  
231 have any questions; if not, thank you for accepting to participate in this study. Keyterms: To answer questions  
232 below use these definitions of key terms to better understand the concept being discussed:

233 ? Pedagogical/instructional strategies: Refers to the methodology or process of instruction, which focus  
234 on the teaching classroom teachers sound pedagogy skills to enhance their instructional skills and thus improves  
235 students' academic performance. ? Content Knowledge Skills: Content knowledge refers to the factual knowledge  
236 to be communicated from the teacher to the student as it relates to each subject area. ? Classroom Management  
237 Skills: Classroom management skill is the term used to describe practical methods for creating a positive learning  
238 environment, which encourages and establishes positive student achievement and behavior. Directions: The  
239 questions for Round One are based on the pre-round data collected during interviews and observations. In the  
240 first three columns, you are asked to rank order each question by circling your choice (0 = Least; 1 = somewhat;  
241 2 = Very Helpful, and 3 = Most Helpful).

242 ? Difficulty: How difficult is this task to perform/achieve to reach student success? ? Importance: How  
243 important is this task to achieve student success?

244 .1 :

245 At any time, you may use N/A for non-applicable, as appropriate.

246 1. In the pre-round interview and observations the following pedagogical/instructional strategies were provided  
247 by your mentor during the classroom observations. Circle the number that reflects your opinion of the row and  
248 column item. 4. In the pre-round interview and observations the following roles and responsibilities of those  
249 involved in the intensive mentoring intervention were demonstrated by your principals, mentees, mentors, and  
250 Curriculum/ Instructional Specialist during the classroom observations. Circle the number that reflects your  
251 opinion of the row and column item.

252 .2 All

253 .3 Roles and

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