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Curriculum Effectiveness, Professional Competence, and Learning Outcomes of K to 12 Social Science Education

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ABSTRACT: The K to 12 educational reform seeks to improve education by offering a more inclusive curriculum that caters to the diverse needs of students, with social science education playing a crucial role in developing critical thinking, civic engagement, and cultural awareness. As global interconnections grow, students need to build a solid foundation in social sciences to effectively address worldwide challenges. Despite the implementation of the K to 12 curriculum, concerns remain about its ability to achieve the intended educational outcomes, as a structured and coherent curriculum is essential for fulfilling broader educational objectives. This mixed-method research examined the effectiveness of the K to 12 Social Science curriculum, teachers' professional competence, and learning outcomes in Capiz for the 2024–2025 school year. A total of 190 Social Studies teachers, selected randomly using Slovin's formula, participated in the study. The data was collected through researcher-made questionnaires on curriculum effectiveness, teacher competence, and learning outcomes, along with a focus group discussion guide. Findings showed that the curriculum was highly effective, particularly in terms of alignment with standards, content relevance, pedagogy, and assessment. Teachers were highly competent in areas such as content knowledge, pedagogy, assessment, and professional development. Learning outcomes were also exceptionally high, reflecting students' knowledge, critical thinking skills, and engagement. The study found significant differences in learning outcomes based on curriculum effectiveness and teacher competence, with higher ratings in both leading to better results. Strong, positive, and significant relationships were observed between curriculum effectiveness and learning outcomes, teacher competence and learning outcomes, as well as between curriculum effectiveness and teacher competence.

KEYWORDS: Curriculum Effectiveness, Professional Competence, Learning Outcomes, K-12 Social Science Education.

I. INTRODUCTION

The K to 12 educational reform aims to enhance the quality of education by offering a comprehensive curriculum that addresses the diverse needs of students, with social science education playing a vital role in fostering critical thinking, civic engagement, and cultural awareness [1]. Despite the curriculum's implementation, questions persist about its effectiveness in achieving desired outcomes, as a well-structured curriculum is essential for meeting educational goals [2]. The role of teachers is crucial in the implementation of this curriculum, as their professional competence—encompassing knowledge, teaching methods, and student engagement—directly impacts student learning outcomes [3] and [4].

Research supports that professional development aligned with curriculum theory can significantly enhance teaching practices, promoting higher-order thinking and improving learning outcomes in social science education [5] and [6]. Despite the advancements, challenges persist in meeting the unique needs of students, leading to a decline in social science learning outcomes. Addressing these challenges requires continuous professional growth for teachers, ensuring they have the skills and knowledge to foster a meaningful and effective learning environment. As the K to 12 curriculum continues to evolve, professional competence and curriculum effectiveness remain key to improving student success, especially in preparing students for active civic participation [7].

The purpose of the study was to determine the curriculum effectiveness, professional competence, and learning outcomes of K to 12 Social Science Education in the Province of Capiz for the school year 2024-2025. Specifically, it sought to answer the following questions:

1. What is the level of curriculum effectiveness as an entire group and in terms of alignment with standards, content relevance, pedagogical approaches, and assessment methods?
2. What is the level of professional competence as an entire group and in terms of content knowledge, pedagogical skills, assessment practices, and professional development?
3. What is the level of learning outcomes in the K to 12 Social Science Education as an entire group and in terms of knowledge and understanding, critical thinking and analysis, skills and competencies, and attitudes and engagement?
4. Are there significant differences in the learning outcomes in the K to 12 Social Science Education based on curriculum effectiveness and professional competence?
5. Are there significant relationships among curriculum effectiveness, professional competence, and learning outcomes in the K to 12 Social Science Education?

II. RELATED LITERATURE

Curriculum effectiveness is essential in ensuring that students acquire the necessary knowledge and skills, particularly in K-12 social science education, where it fosters critical thinking, civic engagement, and an understanding of societal structures. An effective curriculum requires regular revision to stay relevant and aligned with societal needs. The OECD's "The Future of Education and Skills 2030" initiative emphasizes competencies such as literacy and ability, helping shape educational guidelines for the 12-year Basic Education Curricula. Competence-oriented instruction, which integrates knowledge, skills, and attitudes, supports real-world learning and empowers students to apply their knowledge to everyday life. Additionally, aligning curricula with national educational standards and real-world contexts leads to improved student outcomes, fostering engagement and deeper learning [8] and [9].

Pedagogical strategies, such as inquiry-based and cooperative learning, enhance curriculum effectiveness by promoting higher-order thinking, problem-solving skills, and collaboration among students. Formative and summative assessments are crucial in evaluating student progress and curriculum effectiveness. While formative assessments offer ongoing feedback, summative assessments provide an overview of overall achievement. However, challenges like resource limitations, lack of professional development, and institutional constraints can impede successful curriculum implementation. Effective curriculum implementation requires continuous evaluation, addressing teachers' challenges, and fostering a collaborative learning environment to bridge the gap between prescribed and enacted curricula [10] and [11].

Teacher professional competence plays a vital role in K-12 social science education, influencing both instructional quality and student outcomes. It encompasses teachers' knowledge, skills, and attitudes, which are crucial for fostering positive learning experiences. Research shows that professional competence is strongly linked to student success, with teachers' mastery of content, effective pedagogical strategies, and continuous professional development being key factors [12] and [13]. Teachers are expected to deeply understand their subject matter and employ methods such as inquiry-based and cooperative learning, integrating technology and diverse resources to enhance student engagement [14] and [15]. Moreover, knowledge of historical events, civic concepts, and cultural diversity is essential to preparing students for active citizenship [16].

The effective use of educational materials, from textbooks to digital tools, is integral to engaging students in critical thinking about complex social issues [17]. Additionally, teachers' assessment practices—such as formative assessments and peer evaluations—are central to improving student learning by providing timely feedback [18] and [19]. Continuous professional development, including mentorship and technology training, helps teachers maintain and enhance their competencies [20] and [21]. Policies focusing on teacher recruitment, retention, and skill enhancement are essential to sustaining educational quality [22] and [23].

Learning outcomes are crucial indicators of the effectiveness of K-12 social science education, representing the knowledge, skills, and attitudes students should acquire. They guide course design, teaching activities, and assessment, ensuring that educational programs are aligned with intended goals. Clear learning outcomes help teachers plan lessons, create effective teaching content, and assess whether students have achieved the desired outcomes [24]. However, learning outcomes should be flexible and responsive, involving both teachers and students in their development to foster creativity and innovation [25]. As teaching methods evolve, moving away from rote learning to more interactive, student-centered approaches, such as inquiry-based learning and project-based learning, they encourage critical

thinking and student autonomy [26]. These strategies help students engage more deeply with the content, improving retention and application of knowledge [27].

Effective curriculum design and teaching strategies are essential for promoting meaningful learning outcomes. Pedagogies such as problem-based learning, Socratic questioning, and collaborative projects foster critical thinking and engage students actively in their learning [26] and [28]. Additionally, inclusive curriculum design is key to accommodating diverse student needs, ensuring equitable access and opportunities for all learners [29]. The alignment of curriculum objectives with assessment and instruction is crucial for coherence and effectiveness, as clear learning goals and feedback mechanisms enhance student achievement [30]. By integrating technology and active learning strategies, educators can foster a more engaging and interactive learning environment, ultimately improving student outcomes in social science education [31].

III. METHODOLOGY

This study employed a mixed-method research design involving 190 Social Studies teachers from the Province of Capiz, including both Junior and Senior High School educators from the Roxas City and Capiz Divisions. Slovin's formula was used to determine the appropriate sample size. Participants were selected through stratified random sampling. Data collection was carried out using a researcher-developed curriculum effectiveness questionnaire, a professional competence questionnaire, a learning outcomes questionnaire, and a focus group discussion guide. All instruments underwent validation and review by an examination committee, with revisions made based on their feedback. Following validation, pilot testing was conducted to gather data for factor analysis, construct validation, and reliability testing, with results analyzed using SPSS software. Curriculum effectiveness and professional competence were treated as independent variables, while learning outcomes in K-12 Social Science Education served as the dependent variable. The data were analyzed using statistical methods such as frequency count, mean, standard deviation, ANOVA, and Pearson's r , with a significance level set at 0.05 alpha.

IV. RESULTS AND DISCUSSION

A. Level of Curriculum Effectiveness

The level of curriculum effectiveness as an entire group and in terms of alignment with standards, content relevance, pedagogical approaches, and assessment methods is shown in Table 1. Data show that generally, the level of curriculum effectiveness is very effective ($M = 4.48$, $SD = .32$). It also shows that the alignment with standards ($M = 4.44$, $SD = .51$), content relevance ($M = 4.50$, $SD = .47$), pedagogical approaches, ($M = 4.50$, $SD = .39$), and assessment methods ($M = 4.48$, $SD = .52$) are very effective.

Table 1: Mean and Standard Deviation of Curriculum Effectiveness

Category	Mean	Description	SD
Curriculum Effectiveness	4.48	Very Effective	.32
Alignment with Standards	4.44	Very Effective	.51
Content Relevance	4.50	Very Effective	.47
Pedagogical Approaches	4.50	Very Effective	.39
Assessment Methods	4.48	Very Effective	.52

Note Interval. 4.21 - 5.00 Very Effective: 3.41 - 4.20 Effective: 2.61 – 3.40 Moderately Effective: 1.81 – 2.60 Less Effective: 1.00 – 1.80 Least Effective

The K-12 social science curriculum is highly effective in ensuring that students meet educational standards and acquire the essential knowledge and skills necessary for their development. This curriculum is structured to provide a clear, progressive framework that helps students build on prior learning. It incorporates modern, real-world topics to engage students and encourages critical thinking through active teaching methods, such as project-based and cooperative learning. The curriculum's assessment strategies are well-aligned with the intended learning outcomes, using both formative and summative assessments to track student progress effectively. Additionally, the curriculum is flexible,

allowing teachers to adapt teaching methods to suit diverse student needs, ensuring that it can be implemented successfully in various classroom settings.

Furthermore, the curriculum's strong alignment with national standards ensures that it is carefully designed to equip students for both higher education and professional success. It includes clear learning outcomes, fostering a coherent learning experience across grade levels. The curriculum's content is continuously reviewed to stay relevant and incorporates contemporary issues that resonate with students' lives, enhancing student engagement and motivation. Pedagogical strategies emphasize student-centered learning, using diverse approaches to cater to different learning styles and promote critical thinking. The inclusion of authentic assessments ensures that students can apply their learning in real-world contexts, while clear grading criteria and ongoing feedback support their academic growth. This comprehensive design contributes to better student performance and meaningful learning experiences.

B. Level of Professional Competence

The level of professional competence as an entire group and in terms of content knowledge, pedagogical skills, assessment practices, and professional development is shown in Table 2. The result shows that generally, the level of professional competence is very competent ($M = 4.58$, $SD = .35$). Data show that the content knowledge ($M = 4.58$, $SD = .39$), pedagogical skills ($M = 4.61$, $SD = .40$), assessment practices ($M = 4.59$, $SD = .39$), and professional development ($M = 4.53$, $SD = .42$) are very competent.

Table 2: Mean and Standard Deviation of Professional Competence

Category	Mean	Description	SD
Professional Competence	4.58	Very Competent	.35
Content Knowledge	4.58	Very Competent	.39
Pedagogical Skills	4.61	Very Competent	.40
Assessment Practices	4.59	Very Competent	.39
Professional Development	4.53	Very Competent	.42

Note Interval. 4.21 - 5.00 Very Competent: 3.41 - 4.20 Competent: 2.61 – 3.40 Moderately Competent: 1.81 – 2.60
Less Competent: 1.00 – 1.80 Least Competent

Teachers are highly competent in their professional roles, demonstrating exceptional expertise in content knowledge, pedagogical skills, assessment practices, and ongoing professional development. This high level of competence indicates that teachers are well-prepared, confident, and supported in their teaching, which leads to a positive learning environment and improved student outcomes.

Teachers have a deep understanding of the subject matter, which allows them to explain complex concepts clearly and engage students effectively. They also excel in pedagogical skills, designing engaging lessons that accommodate diverse learning needs and promote critical thinking. Their ability to create positive classroom environments and manage student behavior further enhances their effectiveness.

In assessment practices, teachers are adept at creating a variety of assessments aligned with learning objectives and can provide timely, meaningful feedback. They use both formative and summative assessments to monitor student progress, adjust teaching strategies, and offer constructive feedback to support student growth.

Additionally, teachers are committed to continuous professional development, actively engaging in training opportunities such as workshops, online courses, peer collaboration, and mentoring. This ongoing learning ensures they remain up-to-date with the latest teaching strategies and innovations, further strengthening their effectiveness. Their dedication to professional growth contributes to a culture of excellence in teaching and learning, benefiting both students and the broader educational community.

C. Level of Learning Outcomes

The level of learning outcomes in the K to 12 Social Science Education as an entire group and in terms of knowledge and understanding, critical thinking and analysis, skills and competencies, and attitudes and engagement are shown in

Table 3. Data show that the level of learning outcomes in the K to 12 Social Science Education ($M = 4.44$, $SD = .43$) is very high. Data further show that knowledge and understanding ($M = 4.43$, $SD = .46$), critical thinking and analysis ($M = 4.39$, $SD = .48$), skills and competencies ($M = 4.44$, $SD = .46$), and attitudes and engagement ($M = 4.49$, $SD = .44$) are very high.

Table 3: Mean and Standard Deviation of Learning Outcomes in the K to 12 Social Science Education

Category	Mean	Description	SD
Learning Outcomes in the K to 12 Social Science Education	4.44	Very High	.43
Knowledge and Understanding	4.43	Very High	.46
Critical Thinking and Analysis	4.39	Very High	.48
Skills and Competencies	4.44	Very High	.46
Attitudes and Engagement	4.49	Very High	.44

Note Interval. 4.21 - 5.00 Very High: 3.41 - 4.20 High: 2.61 – 3.40 Moderate: 1.81 – 2.60 Low: 1.00 – 1.80 Very Low

K-12 social science education demonstrates very high learning outcomes, indicating that students consistently achieve their academic goals, develop a deep understanding of the subject matter, and acquire essential skills for both academic and personal success. This success is due to an effective curriculum and teaching methods that align with students' needs, ensuring they master key concepts and higher-order cognitive skills like critical thinking, analysis, and problem-solving.

Students not only grasp core knowledge but also gain practical competencies, such as research, communication, and collaboration, which are crucial in real-world contexts. These skills are fostered through hands-on activities like group projects and case studies, helping students apply their learning to solve real-life problems. As a result, students are well-prepared for future academic challenges and professional careers.

High levels of critical thinking and analysis reflect the effectiveness of teaching strategies that promote active engagement, intellectual reflection, and thoughtful decision-making. Teachers use methods like inquiry-based learning, debates, and problem-solving activities to encourage students to think critically and engage with complex social science content.

Engagement and positive attitudes toward the subject are also high, with students showing motivation, curiosity, and active class participation. This enthusiasm is fueled by teaching strategies that are interactive, student-centered, and connected to real-world applications. As a result, students take ownership of their learning, collaborate effectively, and contribute to a supportive classroom environment.

In sum, the K-12 social science education system fosters not only high academic achievement but also equips students with essential life skills, preparing them to engage as informed, responsible citizens in the broader world.

D. Differences in the Learning Outcomes in the K to 12 Social Science Education Based on Curriculum Effectiveness and Professional Competence

The differences in the learning outcomes in the K to 12 Social Science Education based on curriculum effectiveness and professional competence are shown in Table 4. Data show that there is a significant difference in the learning outcomes in the K to 12 Social Science Education based on curriculum effectiveness $F(4.749^*) = .010$, $p < .05$ in favor of very effective curriculum ($M = 4.46$, $SD = .43$). There is also a significant difference in the learning outcomes in the K to 12 Social Science Education based on professional competence $F(41.702^*) = .000$, $p < .05$ in favor of the high professional competence ($M = 4.55$, $SD = .36$). Therefore, the null hypothesis which states that there is no significant difference in the learning outcomes in the K to 12 Social Science Education based on curriculum effectiveness and professional competence is rejected.

Table 4: ANOVA on the Differences in the Learning Outcomes in the K to 12 Social Science Education Based on Curriculum Effectiveness and Professional Competence

Category	Sum of Squares	df	Mean Square	F	Sig.
Curriculum Effectiveness					
Between Groups	1.705	2	.853	4.749*	.010
Within Groups	33.575	187	.180		
Total	35.280	189			
Professional Competence					
Between Groups	10.882	2	5.441	43.702*	.000
Within Groups	24.398	187	.130		
Total	35.280	189			

*p < .05 – significant at 5% level

The learning outcomes in K-12 Social Science Education are significantly influenced by both curriculum effectiveness and teacher professional competence. A well-structured, relevant, and engaging curriculum plays a key role in boosting student performance. When the curriculum is aligned with educational standards, incorporates contemporary issues, and employs interactive learning methods, it promotes stronger knowledge acquisition, critical thinking, and overall student achievement. A coherent curriculum ensures that students build on prior knowledge, avoiding gaps and leading to improved academic outcomes. By including real-world applications, it helps students understand the relevance of what they are learning, keeping them motivated and engaged. Equally important, the professional competence of teachers greatly affects learning outcomes. Teachers with high levels of competence in content knowledge, pedagogy, assessment practices, and ongoing professional development are more successful in fostering positive student results. These teachers can design engaging lessons, present complex ideas clearly, and adapt their teaching methods to meet the diverse needs of students. They also assess student progress accurately and create a supportive learning environment that motivates students to excel. As a result, the combination of an effective curriculum and competent teachers leads to higher achievement levels, helping students develop critical thinking, problem-solving skills, and a deep understanding of the subject matter.

E. Relationships Among Curriculum Effectiveness, Professional Competence, and Learning Outcomes in the K to 12 Social Science Education

The relationships among curriculum effectiveness, professional competence, and learning outcomes in the K to 12 Social Science Education are shown in Table 5. Data reveal that there is a positive, strong association, and significant relationship between curriculum effectiveness $r = .386^*$, $p = .000 < .05$ and the learning outcomes in the K to 12 Social Science Education. There is also a positive, strong association, and significant relationship between professional competence $r = .696^*$, $p = .000 < .05$ and the learning outcomes in the K to 12 Social Science Education. Moreover, there is a positive, strong association, and significant relationship between curriculum effectiveness $r = .381^*$, $p = .000 < .05$ and professional competence. Therefore, the null hypothesis, which states that there are no significant relationships among curriculum effectiveness, professional competence, and learning outcomes in the K to 12 Social Science Education, is rejected.

Table 5: Pearson r Among the Curriculum Effectiveness, Professional Competence, and Learning Outcomes in the K to 12 Social Science Education

Variables	r-value	Sig
Curriculum Effectiveness and Learning Outcomes in the K to 12 Social Science Education	.386*	.000
Professional Competence and Learning Outcomes in the K to 12 Social Science Education	.696*	.000
Curriculum Effectiveness and Professional Competence	.381*	.000

*p < .05 – significant at 5% level

The results indicate strong, positive, and significant relationships between curriculum effectiveness, professional competence, and learning outcomes in K-12 Social Science Education. The effectiveness of the curriculum directly influences students' academic success; as the curriculum improves—becoming more engaging, well-structured, and aligned with educational standards—students' learning outcomes also improve. A high-quality curriculum helps students understand, retain, and apply knowledge better, making it a key factor in academic performance.

Similarly, teacher professional competence significantly impacts student outcomes. As teachers' content knowledge, teaching methods, and assessment practices improve, so do students' academic achievements. Highly competent teachers are more likely to create engaging lessons and provide effective instruction, which enhances student performance in social science education.

Moreover, there is a substantial link between curriculum effectiveness and teacher competence. A well-designed, effective curriculum supports teachers by providing clear guidelines and engaging content, helping them perform better in their roles. Conversely, competent teachers can more effectively implement a high-quality curriculum, maximizing its impact on student learning. This mutual relationship underscores the importance of both curriculum quality and teacher expertise in improving learning outcomes. Together, these factors create a powerful synergy that drives academic success.

V. CONCLUSIONS

The K to 12 Social Science Education curriculum is highly effective in achieving its intended outcomes. It aligns well with educational standards, addresses contemporary issues relevant to students' lives, and utilizes diverse, student-centered pedagogical approaches. The curriculum is well-structured, dynamic, and designed to foster engagement and academic growth, making it a reliable tool for promoting meaningful learning outcomes.

Teachers in K to 12 Social Science Education are highly competent, with strong content knowledge, effective teaching strategies, and proficiency in assessment practices. Their commitment to professional development ensures that they remain up-to-date with best practices, contributing to high-quality teaching and positive student outcomes. Skilled teachers create a conducive learning environment, which is crucial for student success.

Students are achieving very high learning outcomes, demonstrating strong foundational knowledge, critical thinking, and analytical skills. They actively engage with the content and develop valuable competencies like research, communication, and collaboration. Their positive attitudes toward learning further support their academic success, highlighting the effectiveness of the current teaching approach.

The data shows that both an effective curriculum and high professional competence in teachers are key contributors to improved student performance. A well-designed curriculum, combined with highly competent teachers, leads to higher student engagement, critical thinking, and achievement. Enhancing either area—curriculum or teacher competence—can significantly boost student outcomes, underscoring their interdependence.

Furthermore, the positive, interconnected relationship between curriculum effectiveness, teacher competence, and learning outcomes emphasizes the importance of both factors. Skilled teachers implement effective curricula more successfully, and strong curricula support teachers in delivering better lessons. Improvements in one area are likely to have a ripple effect on the other, enhancing overall educational results. A holistic approach to education, where both curriculum development and teacher professional growth are prioritized, is essential for maximizing student success.

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