# AN ANALYSIS OF THE CURRICULUM ON THE NECESSARY TACTICS AND SUBJECT AREAS ADDRESSED BY EFFECTIVE TEACHERS AND EDUCATIONAL PROFESSIONALS ILLUSTRATES THEIR COMPETENCIES.

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## ABSTRACT

Several individuals were of the opinion that the secondary school curriculum that were implemented during the Soviet era did not adequately teach students the abilities that they would need in the contemporary world. As a result, China is now undergoing significant modifications. In 2014, the Organisation for Economic Co-operation and Development (OECD) discovered this issue while performing an examination of secondary education. The OECD committee proposed modifying the curriculum as a potential solution to the problem. Since the beginning of the current school year, the increased curriculum that was proposed has successfully been implemented. The objective of this study was to investigate the viewpoints of regular teachers working in public schools about the modifications that were made to the curriculum recently. In addition to this, the researcher carried out an analysis of the factors that facilitated or impeded the implementation of the new curriculum. A quantitative research approach was used by the researchers, and they focused their attention on the opinions of the educators. Through the use of quantitative data from a specific group of participants, this method offers additional context to the replies provided by the participants. In order to expand the debate with different points of view, contributions from a wide range of persons are much appreciated. As a result of additional analysis of these statements, the quantitative component of the research found that senior instructors were less excited about the new content and approach that the upgraded program offered than their colleagues who had less experience. On the other hand, they are not too enthusiastic about putting the new ideas into effect because of the difficulties that are presented by inadequate school funding, diversity, the sheer quantity of children, low levels of parental engagement and memory, and undue pressure from the top down.

**Keywords:** Organisation for Economic Co-Operation and Development, Inadequate School Funding, Diversity, Parental Engagement, Secondary School Curriculum.

## INTRODUCTION

Universities have made it a priority to offer instructors with affordable professional development opportunities in an attempt to improve the overall satisfaction of teachers, as well as classroom practices and the learning of students. According to

a number of studies, increasing the amount of time that instructors spend participating in professional development opportunities is connected with improved levels of effectiveness among teachers. The researcher had less success in her study in Ohio, despite the fact that evidence indicates that teachers' self-efficacy may be increased by participation in professional development. Those who work in successful schools are self-reflective, collaborative, and introspective, in contrast to the people who work in failing schools, who are unreflective, lonely, and helpless. It has been determined by the researchers that this distinction is rather obvious. The researcher said that the difference in classroom teaching was due to external causes, and that the increase in instruction was typified by greater student choices, learning outcomes connected to themes or curriculum, and classroom instruction. Furthermore, the researcher said that senior educators have a higher chance of understanding and applying new pedagogical advancements if they are able to make links to what they already know and have encountered in the classroom. According to the study that was discussed earlier, there is a connection between the level of engagement that teachers have in professional development and the level of effectiveness that they exhibit in the classroom (Lee & Min, 2019). Transformation, on the other hand, is more important than theory when it comes to determining the efficiency of a teacher. When it comes to determining a teacher's efficacy, the most revealing evidence is how effectively they are able to integrate new material into their courses in order to allow pupils to accomplish more. Numerous studies have shown that the quality of the instructor is the single most critical aspect that determines the educational experience that a student has. According to professionals in the field, the most significant influence on the final grades of students is determined by the quality of their professors. According to his observations, the quality of the instructor is almost twice as important as any other factor. Researchers discovered that measures of teacher quality within the context of teacher certification and training are more strongly associated to student accomplishment than other sorts of expenditures, such as reduced class sizes, increased education spending, and improved teacher compensation. This was the case when compared to other types of expenditures (Miller & Tümkaya, 2020).

## BACKGROUND OF THE STUDY

The Soviet Union's focus on the memorisation of information has had a significant impact on China's educational system, which is now undergoing significant changes from the inside out. As a consequence of this, many people are concerned about the capacity of the nation to grow its human capital, which is critically important to the nation's economic prosperity. The educational systems of the Soviet Union and the post-Soviet countries not only failed to meet the requirements for success in the contemporary world, but they also failed to adequately prepare students for the problems they may encounter in the future. Through the State Program of Education Development of the Republic of China for 2011-2020 (SPED), the Chinese government has set a goal to bring the educational system of their nation up to the level of

developed countries by the year 2015. An attempt has been made by the government to enhance the quality of education that is widely available throughout the country (OECD, 2023). At this time, there are a number of hurdles that prevent the provision of chances for high-quality education. Reading, mathematics, and science were all areas in which Chinese pupils failed, according to the findings of the Programme for International Student Assessment (PISA) results from 2009. During the time that students were enrolled in general education, teachers supplied a plethora of material to them, but they did not give much direction on how to use this information in real-world situations, according to the PISA assessment from 2009. The legacy of the Soviet Union educating students to remember vast quantities of knowledge based on theories and to endure strict, harsh training is the fundamental reason of their low academic performance, according to study. This heritage has been passed down from generation to generation (Pešková et al., 2019). It is essential to include scientific education in order to make progress in the area and shed light on the intricate interaction that exists between science and society. In order to do this, the researcher will need to give some thought to topics such as the conventional knowledge, the growth of scientific understanding, and the practical applications of discovering scientific facts. It is still difficult for science teachers to implement inquiry-based learning into their classrooms, despite the fact that new laws regarding the curriculum have been implemented. They are not competent educators, especially when it comes to applying a social constructivist approach to scientific education. This is the reason why they are not qualified. As a result of this deficiency in pedagogical competency, social constructivist classrooms are unable to make use of an appropriate model that would aid the transmission and understanding of scientific knowledge. An insufficient supply of resources, such as trained instructors, proper equipment, and efficient techniques for optimising the amount of time spent on each task, is one of the numerous variables that contribute to these challenges. Since the 1970s, Chinese educators have been analysing and debating every facet of the country's teacher training program, from the content to the delivery to the evaluation, in an attempt to identify which method is the most efficient. Many people are worried about the characteristics that define a successful education as a consequence of this (Polesel et al., 2020).

## THE PURPOSE OF THE RESEARCH

One may have a better understanding of the primary instructional methods and subject matter areas that are used by knowledgeable teachers in the classroom by doing research on the course of study. Through the use of pedagogical techniques, the building of curriculum, and the covering of topics, the study offers some insight into the ways in which instructors enhance the learning of their students. The purpose of this article is to investigate the ways in which these particular teachers adapt their methods in order to accommodate students who have varying levels of prior knowledge and skill sets. In addition, the research investigates how teachers may improve their abilities and keep on track with the aims of their courses via the

process of professional development. Through an inquiry of the connection between curricular requirements and teaching effectiveness, the purpose of this research is to shed light on successful teaching strategies that encourage student accomplishment for the purpose of achieving the aforementioned goal. When all is said and done, the data will give a comprehensive study of how the competences of instructors impact the quality of courses and the final marks that students get.

## LITERATURE REVIEW

Due to the fact that they are ultimately responsible for adopting new ideas and modifications proposed by legislators into classroom practice, teachers play a significant part in the process of rewriting educational curricula. Numerous individuals consider them to be the driving force behind the creation of new ventures and the assistance in maintaining the viability of existing ones. Studies conducted in 2010, 2013, and 2016 have studied a revitalised perspective of teachers as architects of curriculum and agents of change. The author asserts that teachers' views are often neglected, and these studies have been conducted. In situations when new regulations are imposed from on high, educators are faced with a great deal of resistance that they must overcoming. The observance of statutory requirements and the provision of responses to questions about the instructional program are events that they often encounter Putwain & von der Embse, 2019). It is possible that teachers will be more dedicated to their employment when classrooms are well-organised, and when they work in an environment that is pleasant, they are more likely to take an active part in putting the curriculum into reality. The environment and setting of a school have been demonstrated to have a major influence on the efficacy and dedication of the instructors working there, according to research conducted by scientists. Interactions between teachers and students, bonds between teachers and administrators, and relationships amongst teachers themselves are all impacted by the interactive relationship that exists between the physical architecture of the school and the environment that surrounds it (Rauf et al., 2019). The term "environment" has been expanded to include a wider range of concepts, such as adequate infrastructure, enough instructional resources, a well-managed course load, and a healthy learning environment. When seen from an ecological point of view, a "teacher agency environment" is defined as the collection of circumstances and practices that provide teachers the ability to make choices on their own professional practice while they are on the job. The burden of establishing a warm and inviting environment for kids falls on the shoulders of educators and other authorities. Educators, despite the fact that their opinions are sometimes disregarded, play a significant part in the process of modifying the curriculum that is taught in schools. This is because educators are better equipped to actively engage in the execution of the curriculum and contribute to the overall success of the educational system when they are given with good work settings and supportive working circumstances (Sodergren et al., 2023).

## RESEARCH QUESTION

How do subject areas act as a link between educational professionals' efficacy and curriculum effectiveness?

# METHODOLOGY

## RESEARCH DESIGN

The quantitative data analysis was conducted using SPSS version 25. The odds ratio and 95% confidence interval were used to ascertain the strength and direction of the statistical link. The researchers developed a statistically significant criterion at $p < 0.05$. A descriptive analysis was performed to determine the key characteristics of the data. Quantitative approaches are often used to evaluate data obtained from surveys, polls, and questionnaires, as well as data modified by computational tools for statistical analysis.

## SAMPLING

The Rao-soft program estimated a sample size of 620. A total of 720 questionnaires were issued, 685 were returned, and 36 were discarded due to incompleteness. A total of 649 individuals from China were approached and surveyed for the research.

## DATA AND MEASUREMENT

A questionnaire survey served as the principal tool for data gathering in the study. The survey had two sections: (A) General demographic information and (B) Responses on online and offline channel variables assessed using a 5-point Likert scale. Secondary data was obtained from many sources, mostly on internet databases.

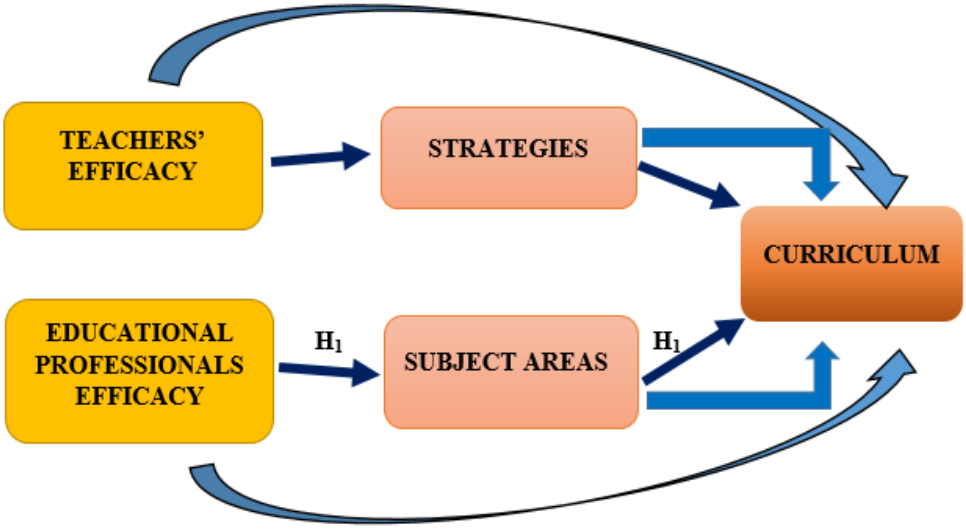
## STATISTICAL SOFTWARE

MS-Excel and SPSS 25 were used for Statistical analysis.

## STATISTICAL TOOLS

To grasp the fundamental character of the data, descriptive analysis was used. The researcher is required to analyse the data using ANOVA.

## CONCEPTUAL FRAMEWORK




## RESULTS

**Factor Analysis**: The process of verifying the underlying component structure of a set of measurement items is a widely used application of Factor Analysis (FA). The observed variables' scores are believed to be influenced by hidden factors that are not directly visible. The accuracy analysis (FA) technique is a model-based approach. The primary emphasis of this study is in the construction of causal pathways that connect observable occurrences, latent causes, and measurement inaccuracies.

The appropriateness of the data for factor analysis may be assessed by using the Kaiser-Meyer-Olkin (KMO) Method. The adequacy of the sampling for each individual model variable as well as the overall model is assessed. The statistics quantify the extent of possible common variation across many variables. Typically, data with lower percentages tends to be more suited for factor analysis.

KMO returns integers between zero and one. Sampling is deemed adequate if the KMO value falls within the range of 0.8 to 1.

It is necessary to take remedial action if the KMO is less than 0.6, which indicates that the sampling is inadequate. Use the researcher best discretion; some authors use 0.5 as this, therefore the range is 0.5 to 0.6.

• If the KMO is close to 0, it means that the partial correlations are large compared to the overall correlations. Component analysis is severely hindered by large correlations, to restate.

Kaiser's cutoffs for acceptability are as follows: A dismal 0.050 to 0.059.

• 0.60 - 0.69 below-average

Typical range for a middle grade: 0.70–0.79.

Having a quality point value between 0.80 and 0.89.

The range from 0.90 to 1.00 is really stunning.

**Table 1: KMO and Bartlett's Test.**

| KMO and Bartlett's Test | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .958 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 3252.968 |
| | df | 190 |
| | Sig. | .000 |

The overall significance of the correlation matrices was further confirmed by using Bartlett's Test of Sphericity. A value of 0.958 is the Kaiser-Meyer-Olkin sampling adequacy. By using Bartlett's sphericity test, researchers found a p-value of 0.00. A significant test result from Bartlett's sphericity test demonstrated that the correlation matrix is not a correlation matrix.

**INDEPENDENT VARIABLE**

**Educational Professionals Efficacy:** It is possible to describe the efficacy of educational professionals as their self-assurance in their ability to have a positive influence on the learning of students, the implementation of the curriculum, and the outcomes of education as a whole. Components of it include all that instructors are aware of and do in order to assist kids in learning, meeting their particular needs, and achieving success in school. When educators are particularly successful, it is evident in the lessons that they teach, which in turn increases the level of engagement and academic accomplishment among their students. It is shaped by a variety of factors, including formal training, training on the job, collaboration with others, and support from institutions. Those that demonstrate high efficacy, which may be characterised as resiliency, inventiveness, and a drive to continuous development, are the ones who are most likely to be successful in achieving their educational goals. They have the belief that they can make a positive change, which is the source of their motivation and persistence. There is a considerable relationship between the effectiveness of educational professionals and the performance of the education system as a whole, as well as the accomplishments of students and the quality of education that is offered (Apriliyanti, 2021).

**MEDIATING VARIABLE**

**Subject Areas:** Subject areas refer to the distinct fields of study within an educational curriculum that provide structured knowledge and skills to students. These areas encompass disciplines such as mathematics, science, language arts, social studies, and the arts, each contributing to a well-rounded education. Subject areas are designed to develop critical thinking, problem-solving, and specialized expertise, preparing students for academic and professional success. They are aligned with educational standards and tailored to different learning levels, ensuring a progressive acquisition of knowledge. Effective teaching of subject areas requires appropriate instructional strategies, curriculum planning, and assessment methods to meet diverse student needs. By integrating subject areas, interdisciplinary learning can be encouraged, fostering connections between different fields of knowledge. Ultimately, subject areas form the foundation of education, equipping learners with essential competencies for lifelong learning and career development (Majoko, 2022).

**DEPENDENT VARIABLE**

**Curriculum:** In Latin, the English phrase "curriculum" literally means "action of running" or "courses of action"; so, it suggests that all learning must follow this road to attain its aim. The phrase was originally defined as a set of connected facts and knowledge. Then, instead of the educational requirements, it was the indication of expertise of professionals from numerous fields. Bent and Kortenberg provide a more contemporary use of the word, arguing that a curriculum is a methodical presentation of subject information tailored to the needs of particular students. This is why classes and activities meant to equip pupils for a range of real-world challenges abound in today's schools. A "curriculum" has to take into account not just the books pupils' study but also the extracurricular activities they engage in, the school's culture, and many other facets neglected in the textbooks. "Curriculum in its widest sense, includes the complete school environment involving all the courses, activities, reading and association furnished to the pupils in the school," (Caldwell et al., 2021).

**Relationship Between Educational Professionals Efficacy and Curriculum Through Subject Areas:** The association between the efficacy of curriculum and educational professionals depends much on subject area teaching and evaluation. Highly effective teachers are confident in their ability to provide course content in a manner that facilitates student understanding and development as learners. Their great understanding helps them to creatively apply the curriculum and bring topics to life using special teaching strategies. Teachers who have trust in themselves are more likely to use a range of tactics, draw from a number of disciplines, and change their lessons to fit pupils with various learning styles and skill set.

Although a well-designed curriculum forms the basis of subject areas, the manner educational professionals use it will define their efficacy. Those who are very

successful in what they do rely on their broad knowledge of related disciplines to create relationships that matter, which in turn helps students grow in their critical thinking and problem-solving capacity. Furthermore, they regularly assess their students' development, which helps them to adjust their instructional strategies to raise their knowledge and recall. Professional growth and peer interaction help them to be more productive as they bring fresh approaches to effectively tackle curricular challenges (Tümkaya & Miller, 2020).

On the other hand, instructors who lack confidence in their own skills might find it challenging to inspire their students in their areas of study, so rigid classes could follow. Teachers' lack of confidence might result in inadequate curricular material adaption, therefore lessening the influence of the curriculum on the learning of their pupils. Therefore, topic area implementation in the curriculum mostly depends on the increased effectiveness of educational experts. Through defining the quality of instruction, efficacy, curriculum, and subject areas all cooperate to influence student performance in different educational environments (Chaula, 2019).

Based on the above discussion, the researcher formulated the following hypothesis, which was analyse the relationship between Educational Professionals Efficacy and Curriculum through Subject Areas.

**$H_{01}$: There is no significant relationship between Educational Professionals Efficacy and Curriculum through Subject Areas.**

**$H_1$: There is a significant relationship between Educational Professionals Efficacy and Curriculum through Subject Areas.**

**Table 2: $H_1$ ANOVA Test.**

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Sum | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 39588.620 | 181 | 5735.517 | 1,073.464 | .000 |
| Within Groups | 492.770 | 467 | 5.343 | | |
| Total | 40081.390 | 648 | | | |

This investigation yields remarkable results. The F value is 1073.464, attaining significance with a p-value of .000, which is below the .05 alpha threshold. This signifies the **"$H_1$: There is a significant relationship between between Educational Professionals Efficacy and Curriculum through Subject Areas"** is accepted and the null hypothesis is rejected.

## DISCUSSION

The effectiveness of professional teachers in enabling student learning—their certainty and skill—determines mostly how successfully they run the program. The

independent variable—that is, their self-efficacy—directly influences the effectiveness of educational professionals in understanding and using the curriculum. Generally speaking, instructors who have high degrees of effectiveness are more likely to meet course objectives, students are more engaged, and they are better equipped to accommodate certain learning styles. Subjects are the building blocks of knowledge; thus, they modify the link between the efficacy of educational professionals and the dependent variable, curricular implementation.

Connecting the effectiveness of the work of educational professionals with the curriculum depends much on the subject areas. The way teachers approach certain subjects will determine how well pupils grasp and apply knowledge. While certain academic fields, such as social studies and language arts, put an emphasis on communication and critical thinking, others, including math and physics, stress analytical thinking and problem-solving strategies. Good instructors change their approaches of instruction based on the demands of every subject so that students get enthusiastic in what they are studying.

Another quality of very successful professionals is the use of multidisciplinary education, in which different subject areas are connected to advance knowledge. Furthermore, evidenced by a teacher's topic area choice and delivery is their ability to match their educational techniques with the objectives of the curriculum. CPD gives instructors current knowledge and tools, therefore strengthening the link between the two sides. The relationship among the efficacy of educational professionals, subject areas, and curricular effectiveness finally decides the quality of education and student accomplishment in many academic domains.

## CONCLUSION

In the end, subject areas are very important in mediating the link between the success of the application of the curriculum and the efficacy of educational professionals. Highly successful teachers may help their pupils to develop a thorough knowledge of a wide range of disciplines by means of efficient analysis and communication of course contents. Students are more engaged in their academic work and perform better generally when teachers can use strategies tailored to each subject area. The success of the curriculum and the effectiveness of the teachers are linked; the subject areas define the organisation, delivery, and evaluation of the included information in the curriculum.

Moreover, a major determinant of the general efficiency of the curriculum management process is the degree to which educational professionals can fit the criteria of a broad spectrum of disciplines. Teachers who can boldly use creative and subject-specific teaching approaches will be able to meet curricular goals as well as enhance the learning results. Constant professional growth really helps teachers to better their educational approaches, therefore strengthening the bond between the

two. Eventually, it is vital to raise the efficiency of educational experts and properly combine subject matter areas with the objectives of the curriculum if the researcher is to enhance the quality of education and inspire student success. The study emphasises the requirement of ongoing investments in teacher training and program upgrading to guarantee that teaching is effective and that students have significant learning opportunities.

## REFERENCES


1. Apriliyanti, D. L. (2021). Enhancing teachers' competencies through professional development program: Challenges and benefits. Acuity: Journal of English Language Pedagogy, Literature and Culture, 5(1), 11–23.
2. Caldwell, H., Whewell, E., Bracey, P., Heaton, R., Crawford, H., & Shelley, C. (2021). Teaching on insecure foundations? Pre-service teachers in England's perceptions of the wider curriculum subjects in primary schools. Cambridge Journal of Education, 51(2), 231–246. Chaula, G.J. (2019). Challenges Teachers face in Implementation of Inclusive Education in Primar Schools. University of Tanzania Schools.
3. Lee, J., & Min, M. (2019). School culture, self-efficacy, outcome expectation, and teacher agency toward reform with curricular autonomy in South Korea: A social cognitive approach. Asia Pacific Journal of Education, 39(4), 473–487.
4. Majoko, T. (2022). Teachers' competencies in assessment of competency-based curriculum among grades 1, 2, and 3 in Langata Sub-County, Kenya. International Journal of Humanities Social Sciences and Education, 9(12), 38-50.
5. Miller, S., & Tümkaya, G. S. (2020). The perceptions of pre and in-service teachers' self-efficacy regarding inclusive practices: A systematised review. Elementary Education Online, 19(2), 1061–1077.
6. OECD. (2023). Curriculum flexibility and autonomy. Organisation for Economic Co-operation and Development.
7. Pešková, K., Spurná, M., & Knecht, P. (2019). Teachers' acceptance of curriculum reform in the Czech Republic: One decade later. Center for Educational Policy Studies Journal, 9(2), 73–97.
8. Polesel, J., Gillis, S., Suryani, A., Leahy, M., & Koh, S. (2020). The Australian Senior Certificates: After 50 years of reforms. Australian Educational Researcher, 48(3), 565–584.
9. Putwain, D. W., & von der Embse, N. P. (2019). Teacher self-efficacy moderates the relations between imposed pressure from imposed curriculum changes and teacher stress. Educational Psychology, 39(1), 51–64.
10. Rauf, R. A. A., Sathasivam, R., & Rahim, S. S. A. (2019). STEM education in schools: Teachers' readiness to change. Journal of Engineering Science and Technology, 14(Special Issue on ICEES2018), 34–42.

11. Sodergren, C. D., Kettler, T., Sulak, T., & Payne, A. (2023). Teacher self-efficacy, innovativeness, and preparation in relation to implementing inquiry-based learning. Journal of Advanced Academics, 34(1), 4–27.
12. Tümkaya, G. S., & Miller, S. (2020). The perceptions of pre and in-service teachers' self-efficacy regarding inclusive practices: A systematised review. Elementary Education Online, 19(2), 1061–1077.