Implementation Of The Instructional Principles To Support Diverse Learners

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Abstract : The implementation of instructional principles is vital for fostering inclusive and effective learning environments, particularly for diverse learners in the context of the MATATAG Curriculum. This study focuses on Grade 2 teachers from District 6 Manila to evaluate their adherence to instructional principles and identify challenges in supporting diverse learners. The study aims to assess the implementation of instructional principles under four dimensions—Inclusive, Ideational, Integrative, and Innovation—while examining the relationship between these practices and the teachers' profiles. It also seeks to identify challenges faced during implementation and provide actionable recommendations. A descriptive-correlational research design was employed, involving 19 Grade 2 teachers as respondents. Data were collected through a structured questionnaire and analyzed using descriptive and inferential statistical methods. Findings revealed that instructional principles were consistently rated as "Highly Implemented" across all dimensions. However, significant challenges included adapting teaching materials, integrating technology, and balancing curriculum flexibility with diverse learner needs. Marital status was the only profile variable significantly related to the implementation of integrative principles. Recommendations include expanding access to professional development, improving resource allocation, fostering technological integration, and providing systemic support to address challenges and resistance to change. These strategies aim to enhance the capacity of educators to deliver equitable and effective education

Rationale

An increasing amount of diversity distinguishes today's classrooms. Students with impairments, gifted students, English language learners, and students from varied cultural and linguistic backgrounds all learn alongside one another in the same instructional setting (Ewe & Galvin, 2023).

Today, teachers are faced with a challenge because of growing diversity in the classroom, which guarantees that every student, regardless of background or learning style, has an equal chance to succeed. Around the world, the need to help different learners has grown dramatically. In classrooms, there are kids with a variety of disabilities, cultural backgrounds, and learning preferences. Because of this variability, a varied learner group must effectively receive instructional principles. Nevertheless, several studies show that teachers may run into several issues while trying to accomplish this (Ainscow, 2020).

According to Gibbs & McKay (2021), the study carried out on differentiated instruction among classrooms found that despite the understanding teachers give towards adaptable strategies of teaching the instructional approach, they often feel unprepared due to the lack of preparedness offered by training and resources in the subject. The same issues are noticed across distinct educational settings, as most developed areas have pointed out the huge gap in teacher training in differentiated instruction and inclusive practices in teaching.

Moreover, a systematic review by Griful-Freixenet et al. (2020) was conducted on the convergence points of Universal Design for Learning and differentiated instruction. They concluded that although both principles have the potential to address the needs of diverse learners, the real-world application of these approaches puts teachers under considerable pressure, particularly with large class sizes and conflicts in curriculum curricula. Similarly, Deunk et al. noted that differentiated instruction lacks a cohesive understanding and is not properly practiced, which only makes it more difficult to execute. While the literature has been good and fair for students when the principles of instructional instruction are carried out appropriately, inconsistency in practice does this a disservice overall.

Dixon et al. (2021) noted that teachers often complain about having to dedicate a lot of time and effort to adjusting their instructional practice for the many diverse learners they have, coupled with limited support from administrators and fewer opportunities for using available materials appropriately. Teachers are further hindered by the lack of adequate professional development to implement research-based practices that would benefit all students.

As the following research points out, such matters as brought forth need to be addressed urgently within the framework of education itself and towards closing the achievement gap among at-risk and diverse student populations. For instance, modified instructional strategies in K-12 settings have been found to promote increased engagement and accomplishment among at-risk learners (Coubergs et al., 2020). However, there is still a gap between the theory behind inclusive teaching practices and what is practiced within schools. An immense amount of research has to be done in order to increase this support mechanism.

The main purposes of education and educational institutions, especially schools where instruction is provided in a structured manner, are to prepare students for adulthood, socializing, self-realization, obtaining a job, and transferring the cultural heritage of society to future generations. Students and professors are the most significant partners in educational institutions. As a result, educators are in charge of helping learning and educational institutions accomplish their goals. Therefore, when planning and carrying out the educational process, teachers should use common teaching concepts as a guide (Alsaeed, 2022).

Numerous theories have been created to explain learning and its outcomes. In addition, these theories have produced learning principles pertaining to the learning dimension. Since the 17th century, several teaching principles have been developed as a consequence of scholarly research to improve the effectiveness of educational activities (Saunders & Wong, 2020).

A teaching principle is a fundamental concept that clarifies the planning and implementation of the teaching process. Teaching principles serve as a kind of standard for tasks throughout the educational process and as a manual for educators. The foundation for all activities, including program design and implementation, equipment and material selection, and instruction, is common teaching principles. Thus, among the responsibilities of all parties involved in education is understanding and putting educational ideas into practice (Teaching Ideas, 2022).

The Department of Education in the Philippines has introduced the Matatag Curriculum. This ground-breaking educational framework aims to develop the whole person in young Filipino learners from kindergarten to Grade 10. The four instructional principles (4Is) for basic education are inclusive, ideational, integrative, and innovative. These principles are intended to support holistic learning, the pursuit of lifelong learning, and the development of learners into knowledgeable decision-makers and productive workforce members (ILoveDepEd, 2023).

Creating relevant and accessible learning experiences for all students, regardless of their backgrounds or skill levels, is the emphasis of inclusive education. Creating culturally sensitive materials, offering a variety of content access modes, assisting students with special needs, and modifying the learning environment to support multiple learning pathways are all part of it. Ideational refers to encouraging an original way of thinking and coming up with ideas without bias or condemnation. The objective is to introduce students to a range of feasible solutions and uncover unanticipated conceptual connections. Integrative learning entails bringing disparate ideas and concepts together into a cohesive whole, leveraging real-world scenarios, expanding on learners' existing knowledge, and promoting linkages between them. This idea helps students understand topics more deeply and make connections between the material and their own lives. Innovative delves into imaginative approaches to developing and presenting education. It involves utilizing cutting-edge technologies, a variety of instructional techniques, and creative assessment approaches to guarantee that students have an inspiring and interesting learning experience (DepEd, 2023).

A study found that the level of implementing inclusive practice is moderate to high and depends on the availability of resources and teacher training. Budwig and Alexander (2020) indicated that schools and universities increasingly implement inclusive practice, but its application is quite inconsistent. Educators in better-founded institutions report that the practice is more inclusive, whereas schools that are underfunded fail to implement the practice correctly. However, inclusive practice levels have also been reported to be low, as reported by Mijares et al. (2023). They should improve particularly with the principles of universal design for learning and helping diverse learners.

According to Selznick et al. (2022), the implementation levels of ideational strategies, which promote creativity and idea generation, are somewhat moderate. There is a growing degree of emphasis within higher education on the ideational approach, especially concerning interdisciplinary or problem-based learning (2022). Less commonly found in primary and secondary settings, teachers point to a lack of support or uncertainty over whether this is feasible to incorporate into normal teaching practice. However, Barber (2020) concludes that higher education presented less-developed ideational practice, including creative and abstract thinking. Faculty members also stated that they face challenges in encouraging cross-disciplinary thinking and conceptual integration because of the stiffness of their curricula and institutional conditions.

Generally, integrative practices have a higher implementation in higher education settings but remain at a moderate level in teachers at the K-12 level. According to Kindelan (2022), there is evidence that the institute possessing an underlying framework for cross-curricular learning seems to be related to higher levels of integrative teaching. Sustained gaps in such a scenario lie within the rigid and standardized curricula, which seem to make it difficult for such approaches to be facilitated, especially in elementary and secondary schools. On the contrary, a study by Selznick et al. (2020) on learning integrated in transdisciplinary concludes that, although students show an interest, integrative teaching is at a low practical level due to insufficient structural support, particularly under problem-based learning contexts.

Innovative teaching practices have been implemented by teachers at moderate to high degree levels, especially in STEM fields. This is according to Selznick et al. (2020), as higher education institutions come forward with innovation through capstone projects and other experiential learning methods. However, there is a wide gap in K-12 education where traditional pedagogies hinder innovative work, and the integration of technological tools is lacking in resources. However, according to UNESCO (2020), in their report on global innovations in the education sector, innovations in teaching practices, such as technology integration and problem-solving, are still very low in many developing countries. Teachers identified a lack of resources and professional development as deterrents.

RESEARCH METHODOLOGY

This chapter discusses research methodology, which includes research design and the procedures used to solve research problems. Similarly, it discusses the data collection tools as well as the statistical treatments that will be used to analyze the data.

Research Design

This study employs a descriptive-correlational research design to examine the implementation of instructional principles to support diverse learners under the MATATAG Curriculum by Grade 2 teachers of District 6, Schools Division of Manila. This design is appropriate as it allows the researcher to describe and analyze the current practices and experiences of teachers in implementing instructional principles while identifying relationships between the variables of interest. Specifically, it explores the relationship between the teachers' profile (age, sex, marital status, length of service, and relevant training) and their perceived level of implementation of instructional principles, including inclusivity, ideation, integration, and innovation.

The descriptive component of the design focuses on summarizing and characterizing the respondents' profiles and the extent to which they implement the instructional principles. This aligns with the study's goal of presenting a clear picture of the practices and challenges faced by Grade 2 teachers in supporting diverse learners. Descriptive research is particularly valuable for studies that aim to document and understand phenomena as they naturally occur in specific contexts (Creswell & Creswell, 2021).

The correlational aspect of the design investigates potential relationships between the teachers' profiles and their implementation of the principles. For example, it seeks to determine whether factors such as experience or the number of training sessions attended influence how effectively teachers adopt inclusive and innovative practices. Correlational research is essential in identifying and quantifying the strength and direction of relationships between variables (Fraenkel & Wallen, 2020). This provides a deeper understanding of how individual and contextual factors contribute to the implementation of the MATATAG Curriculum.

This research design is appropriate for the study because it allows the researcher to achieve the study's objectives comprehensively. It enables the identification of trends, relationships, and challenges in the implementation process without manipulating variables, making it suitable for educational settings where ethical considerations and practicality are paramount. Moreover, the descriptive-correlational design aligns with the nature of the study, which aims to provide actionable insights rather than test causal hypotheses.

Sources of Data

Locale of the Study

The locale of the study is District 6, Schools Division of Manila, a geographic and administrative unit located in Manila, Philippines. This area consists of several elementary schools under the supervision of the Department of Education (DepEd) and is notable for its implementation of the MATATAG Curriculum. The district comprises diverse learners, with students coming from various cultural, linguistic, and socioeconomic

backgrounds. These characteristics make it an ideal setting for exploring how Grade 2 teachers implement instructional principles designed to support a wide range of learners effectively.

The schools within Cluster II operate under the MATATAG Curriculum, which emphasizes inclusivity, innovation, integration, and ideation in teaching. Teachers in this district face the challenge of addressing the individual needs of students while adhering to DepEd's standards for quality education. The diversity in learners' profiles — including differences in academic abilities, cultural contexts, and access to resources — adds a layer of complexity to the teaching process. These factors make the locale a compelling context for studying the practical application of instructional principles aimed at equitable and effective education.

Moreover, District 6, Schools Division of Manila is part of a rural area where educational resources and teacher training opportunities may differ significantly from urban settings. This unique context allows for an in-depth analysis of the challenges and successes encountered by teachers in implementing curriculum reforms tailored to the needs of diverse learners. By focusing on this locale, the study aims to generate insights that are not only relevant to the immediate community but also applicable to similar educational settings across the country.

Population Sampling

This study utilized cluster sampling to select respondents from the Grade 2 teachers in District 6, Schools Division of Manila. Cluster sampling involves dividing the population into distinct groups, or clusters, and randomly selecting some clusters for inclusion in the study. In this context, the clusters were the schools within District 6, Schools Division of Manila, where each school served as a distinct cluster. All Grade 2 teachers within the selected schools were included as respondents. This method is ideal for research that covers geographically dispersed populations, such as the schools in the district, as it reduces logistical challenges and resource constraints (Creswell & Creswell, 2021).

The appropriateness of cluster sampling for this thesis lies in its efficiency and practicality. Given the broad scope of the study, which involves multiple schools in a rural district, cluster sampling minimized the time and cost required to conduct the research. Instead of individually selecting teachers from the entire district, grouping them by school streamlined the process while still ensuring a representative sample. Additionally, cluster sampling provided a practical way to capture the variability in teaching practices and challenges across different schools, aligning with the study's goal of exploring the implementation of instructional principles in diverse contexts (Fraenkel & Wallen, 2020).

This method also ensured that the sample size was manageable while maintaining a high level of representation. By including all Grade 2 teachers from the selected clusters, the study gathered comprehensive data on the implementation of the MATATAG Curriculum in diverse school environments. Moreover, cluster sampling is particularly suitable for educational research, where populations are naturally grouped into clusters, such as schools or classrooms, making it both logical and effective (Lodico et al., 2019).

Instrumentation and Data Collection

A self-made questionnaire was utilized to gather data for this study, meticulously designed to align with the MATATAG Curriculum Shaping Paper to ensure relevance and alignment with the curriculum's instructional principles. The questionnaire aimed to capture the perceptions and practices of Grade 2 teachers in District 6, Schools Division of Manila concerning inclusivity, ideational approaches, integration, and innovation in their teaching strategies. A digital version of the questionnaire was administered using Google Forms, making it accessible and efficient for respondents to complete.

The development process of the questionnaire began with a thorough review of the MATATAG Shaping Paper to ensure that each question directly reflected the instructional principles emphasized in the curriculum. The questionnaire comprised sections covering demographic profiles, the level of implementation of the instructional principles, and the challenges encountered. Care was taken to construct items that were clear, concise, and measurable, adhering to best practices in educational research (Creswell & Creswell, 2021).

A 10-item validation tool was developed and utilized by three experts in education and curriculum development to validate the questionnaire. These experts evaluated the questionnaire based on its clarity, relevance, alignment with the study objectives, and appropriateness for the target respondents. This rigorous validation process ensured that the instrument met high standards of reliability and validity. Revisions were made based on the feedback provided, enhancing the questionnaire's overall quality and applicability.

The use of Google Forms to administer the questionnaire offered several advantages. It allowed for seamless distribution of the instrument to teachers across District 6, Schools Division of Manila, overcoming

geographic limitations and ensuring timely responses. Additionally, the digital format facilitated the collection and organization of data, reducing the risk of errors associated with manual data entry and enabling efficient analysis. Below shows the 5-Likert scale used in validating the research instrument.

Numerical value	Score Range	Description
5	4.51 – 5.00	Very High (VH)
4	3.51 – 4.50	High (H)
3	2.51 – 3.50	Moderate (M)
2	1.51 – 2.50	Low (L)
1	1.00 – 1.50	Very low (VL)

Result of research Instrument validation

The table presents the results of the validation process for the research instrument, highlighting the mean ratings and corresponding descriptive equivalents for ten indicators evaluated by experts. These indicators assess the clarity, readability, comprehensiveness, and alignment of the questionnaire with the study's objectives.

The first indicator, which examines the clarity of directions across all sections, received a mean rating of 4.7, categorized as "High." This reflects that the instructions provided in the instrument were well-articulated, enabling respondents to understand and navigate the questionnaire with ease. The clarity of individual items was also rated "High," with a mean score of 4.1, affirming that the statements within the instrument were effectively phrased.

The readability of the items was rated as "Very High," with an exceptional mean of 4.9, signifying that the questions were straightforward and easily comprehensible. Similarly, the comprehensiveness of the instrument, evaluated through its coverage of all significant areas of the study, was also rated "Very High" with a mean score of 4.8. These findings underscore the instrument's capacity to address the research objectives comprehensively.

The design aspects, such as the attractiveness of the layout and provision of adequate spacing, scored 4.4 and were rated as "High." The alignment of items with specific ideas and avoidance of duplication were both highly rated, with scores of 4.3 and 4.9, respectively. These results indicate that the instrument was thoughtfully structured to focus on distinct concepts while eliminating redundancy. Furthermore, the objectivity of the items, essential to ensuring unbiased responses, was rated "High" with a mean score of 4.2.

Notably, the systematic arrangement of items received a "Very High" rating with a mean score of 4.5, emphasizing that the sequence of questions followed a logical and desirable order. Similarly, the alignment of items with the study's explicit and implicit objectives was rated "Very High," scoring a mean of 4.9.

The overall mean score for the validation process was 4.57, falling under the "Very High" descriptive equivalent. This indicates that the expert validators deemed the research instrument highly effective, reliable, and aligned with the study's goals. These results affirm that the instrument is a robust tool for gathering accurate and relevant data, ensuring the study's validity and reliability.

Result of research Instrument validation

Indicators	Mean	Descriptive Equivalent
1. The directions are clear in all sections of the gathering instrument.	4.7	High
2. Each item is clearly stated.	4.1	High
3. Each item is readable, i.e., the items are easily read.	4.9	Very High
4. Each item is attractive; enough space is provided to avoid crowding among the items.	4.4	High
5. The data gathering instrument is comprehensive, i.e., covered all areas important to the study.	4.8	Very High
6. Each item is focused on a particular thought or idea.	4.3	High

7. The items are objective, i.e., the responses to be elicited are neither biased nor reactive.	4.2	High
8. The items are formulated per the study's explicit and implicit objectives.	4.9	Very High
9. The items are systematically arranged according to a desirable sequence.	4.5	Very High
10. The items do not overlap with each other; no duplication of items is observed.	4.9	Very High
Overall mean	**4.57**	**Very High**

Tools for Data Analysis

To derive valuable insights and make significant discoveries, the data underwent a rigorous analysis employing appropriate statistical methods through IBM SPSS Statistics 20. This process ensured the precision of the results in accurately portraying the real situation and providing solutions to the research's addressed concerns.

To answer sub-problem 1, the profile of the respondents, frequency counts, and percentages were used.

To answer sub-problems 2, the perceived level of implementation of the instructional principles, the weighted mean was computed and described using a five-point Likert scale with a descriptive equivalent shown below:

Score	Median Score Range	Descriptive Equivalents
5	4.51 – 5.00	Very Highly Implemented (VHI)
4	3.51 – 4.49	Highly Implemented (HI)
3	2.51 – 3.49	Implemented (I)
2	1.51 – 2.49	Slightly Implemented (Sl)
1	1.00 – 1.49	Not Implemented (NI)

To answer sub-problem 4 and to test if there is a significant relationship between the perceived level of implementation of the instructional principles and the profile of the respondents, Pearson-R, Point Biserial, and Spearman-rho were utilized.

To answer sub-problem number 5, the challenges encountered while implementing the instructional principles, the weighted mean was computed; Mean and Rank are described using a five-point Likert scale with a descriptive equivalent shown below:

Score	Median Score Range	Descriptive Equivalents
5	4.51 – 5.00	Very Highly Serious (ES)
4	3.51 – 4.50	Very Serious (VS)
3	2.51 – 3.50	Serious (S)
2	1.51 – 2.50	Slightly Serious (SS)
1	1.00 – 1.50	Not Serious (NS)

To answer sub-problem number 6, recommendations and a plan of action were proposed.

Ethical Consideration

Ethical considerations are fundamental in ensuring the rights and welfare of respondents and maintaining the integrity of the research process. They not only protect participants but also enhance the credibility and reliability of the study's findings.

Foremost among these considerations is informed consent, which was obtained from all participants. Before data collection began, each respondent was thoroughly informed about the study's purpose, objectives, and scope. The explanation included clear details about their voluntary participation, the confidentiality of their responses, and their right to withdraw at any stage without repercussions. Participants were given a consent form to read, understand, and sign, formalizing their agreement to take part in the research. This step upheld their autonomy and right to make an informed decision.

Confidentiality was another cornerstone of ethical practice in the study. All personal information and responses were handled with strict confidentiality. To ensure this, data were anonymized, and participants were assigned unique codes to separate identities from their responses. The use of secure online tools, such as Google Forms, ensured that access to the data was restricted solely to the researcher. Additionally, all digital files were stored in password-protected accounts, mitigating the risk of unauthorized access or breaches of privacy.

The study also prioritized minimizing potential harm to respondents. The questionnaire was carefully crafted to avoid invasive or sensitive questions that might cause discomfort. Every item was objective, neutral, and directly aligned with the study's goals, creating a non-judgmental environment where respondents could freely share their insights without feeling pressured.

Transparency and honesty were integral throughout the research process. The researcher committed to accurate and unbiased reporting, ensuring no manipulation, fabrication, or omission of data. Furthermore, fairness was emphasized by giving all eligible Grade 2 teachers in the district 6, Schools Division of Manila an equal opportunity to participate. No participant was excluded based on irrelevant factors, reflecting the study's commitment to inclusivity and equity.

Finally, ethical clearance was secured from the relevant institutional review board or ethics committee before commencing the study. This step demonstrated adherence to recognized ethical standards and protocols, reinforcing the legitimacy and credibility of the research process. By embedding these ethical principles into the study's design and execution, the research upheld its responsibility to both participants and the broader academic community.

IV. RESULTS AND DISCUSSION

This chapter presents the results of the study based on the gathered, analyzed, and interpreted data. The results are arranged according to the order of the problems stated in the previous chapter.

Profile of the Respondents

Table 1 presents the profile of respondents based on their age, providing insights into the demographic distribution of the Grade 2 teachers included in the study. Among the 19 respondents, the majority, accounting for 42.1% (8 individuals), fall within the age range of 36 to 45 years old. This is followed by 31.6% (6 individuals) in the 26 to 35 age group, and 26.3% (5 individuals) aged 46 to 55 years old. These findings indicate a relatively even distribution of ages across a significant portion of the teaching workforce in the cluster, with a slight concentration in the mid-career range.

The predominance of mid-career teachers (36–45 years old) suggests that many respondents have accumulated considerable teaching experience, which may influence their implementation of instructional principles under the MATATAG Curriculum. This age group is often associated with teachers who have already established their professional routines while being open to adapting new strategies in response to curriculum reforms. Meanwhile, younger teachers in the 26–35 age group may bring fresh perspectives and openness to innovative teaching methods, which could enhance the integration of inclusive and ideational principles. On the other hand, teachers in the 46–55 age group, likely nearing the latter stages of their careers, may offer valuable institutional knowledge and practical insights but could face challenges adapting to rapidly evolving educational frameworks like MATATAG.

This age diversity within the teaching population presents both opportunities and challenges in implementing instructional strategies. Mid-career teachers might act as anchors for consistent practice, while younger and older educators provide innovative approaches and seasoned expertise, respectively. The varying levels of experience and potential adaptability across age groups underscore the importance of targeted professional development programs. Training initiatives that address age-specific needs, such as technology integration for older teachers or classroom management strategies for younger ones, could optimize the implementation of the instructional principles aligned with the MATATAG framework.

Understanding the demographic profile of teachers is essential for tailoring interventions to support diverse learners effectively. By recognizing the age-related dynamics among educators, school administrators, and policymakers can design more nuanced strategies to facilitate the MATATAG Curriculum's successful execution, ultimately fostering an inclusive and innovative educational environment for all learners.

Table 1. Profile of the respondents in terms of Age

Age	Frequency	Percent
26 to 35 years old	6	31.6
36 to 45 years old	**8**	**42.1**
46 to 55 years old	5	26.3
Total	**19**	**100.0**

Table 2 highlights the sex distribution of the Grade 2 teacher respondents within the District 6, Schools Division of Manila under the MATATAG Curriculum. Among the 19 respondents, a significant majority, accounting for 84.2% (16 individuals), are female, while 15.8% (3 individuals) are male. This distribution aligns with broader trends observed in the teaching profession, particularly in primary education, where female educators often outnumber their male counterparts.

This gender imbalance may influence the implementation of instructional principles, as studies have shown that male and female teachers may approach teaching practices differently. Research indicates that female teachers often exhibit greater empathy and collaborative teaching strategies, which can be advantageous in fostering inclusive classroom environments. Conversely, male teachers may bring unique perspectives and methodologies that diversify the learning experience.

The predominance of female educators in the respondent group suggests that the MATATAG Curriculum's emphasis on inclusivity, ideational thinking, integrative approaches, and innovation might resonate strongly with collaborative and empathetic teaching styles. However, ensuring effective implementation requires targeted professional development that caters to the strengths and challenges faced by educators of all genders.

In summary, understanding the demographic profile of teachers, including their gender distribution, provides valuable context for tailoring training programs and support systems to enhance the delivery of instructional principles. This approach ensures that diverse learners in the Bolinao District receive equitable and effective education, as envisioned by the MATATAG Curriculum.

Table 2. Profile of the respondents in terms of Sex

Sex	Frequency	Percent
Male	3	15.8
Female	**16**	**84.2**
Total	**19**	**100.0**

Table 3 highlights the marital status of the Grade 2 teacher respondents in District 6, Schools Division of Manila under the MATATAG Curriculum. Of the 19 respondents, the majority, 68.4% (13 individuals), are married, while 26.3% (5 individuals) are single, and a smaller proportion, 5.3% (1 individual), is widowed.

The predominance of married teachers may influence the implementation of instructional principles in various ways. Studies suggest that married educators often report a greater sense of stability and support, which could contribute to their perceived effectiveness in implementing inclusive and innovative teaching strategies. For instance, Gheyssens et al. (2020) found that teachers with a robust support network, often attributed to marital stability, are better equipped to manage classroom dynamics and implement differentiated instruction effectively. However, the challenges of balancing family responsibilities with professional demands may also impact their time and energy for curriculum planning and professional development.

On the other hand, single teachers, who represent over a quarter of the respondents, may have fewer external obligations, potentially allowing them to dedicate more time to professional growth and innovation in teaching practices. Nonetheless, they may lack the informal support networks often associated with married counterparts, which can sometimes influence resilience in facing classroom challenges.

The presence of a widowed respondent underscores the diversity of teacher backgrounds and life experiences, emphasizing the need for tailored professional development opportunities that account for varying personal circumstances. These differences in civil status highlight the importance of providing flexible and supportive training programs that empower all educators, regardless of their marital status, to implement the instructional principles of the MATATAG Curriculum effectively.

.**Table 3. Profile of the respondents in terms of Marital Status**

Civil Status	Frequency	Percent
Single	5	26.3
Married	**13**	**68.4**
Widow/er	**1**	**5.3**
Total	**19**	**100.0**

Table 4 presents the profile of the respondents in terms of their length of service, offering insight into their teaching experience. Among the 19 Grade 2 teachers surveyed, the majority have considerable teaching experience, with 36.8% (7 respondents) having served between 9 to 14 years. This indicates a substantial group of mid-career educators who are likely well-versed in traditional and contemporary teaching practices, potentially benefiting their ability to implement the instructional principles under the MATATAG Curriculum. Additionally, 26.3% (5 respondents) have been teaching for 15 years or more, contributing seasoned perspectives and practices to the classroom.

Interestingly, 21.1% (4 respondents) are relatively new to teaching, with 3 years of service or less, while 15.8% (3 respondents) have 4 to 8 years of experience. These early-career teachers bring fresh training and enthusiasm but may lack the extensive practical knowledge that comes with prolonged experience. The diversity in the length of service among the respondents highlights a blend of traditional expertise and modern approaches, which can contribute to dynamic teaching methods for diverse learners.

The variation in teaching experience underscores potential challenges and opportunities in implementing the MATATAG Curriculum. Seasoned teachers may need targeted professional development to align long-standing practices with innovative instructional strategies. Conversely, newer teachers, although more familiar with recent pedagogical trends, may require additional support to refine classroom management skills and apply the curriculum's principles effectively. The diversity in experience levels calls for tailored training programs to ensure that all teachers, regardless of their tenure, can successfully support diverse learners and promote inclusive, ideational, integrative, and innovative teaching practices.

Table 4. Profile of the respondents in terms of Length of Service

Length of Service	Frequency	Percent
3 years and below	4	21.1
4 to 8 years	3	15.8
9 to 14 years	**7**	**36.8**
15 years and above	5	26.3
Total	**19**	**100.0**

Table 5 presents data on the relevant training undergone by the respondents, highlighting the levels at which professional development opportunities were accessed. Out of 385 recorded training sessions, the majority of the respondents (50.13%, or 193 sessions) participated in training conducted at the district or school level. This suggests that localized training initiatives are the primary source of professional growth for these teachers, offering accessible opportunities to enhance their teaching competencies.

A significant portion of the respondents (31.95%, or 123 sessions) attended division-level training, which likely provides broader insights and resources compared to district or school-based sessions. Regional-level training accounted for 12.63% (49 sessions), indicating moderate engagement in programs that expand beyond local contexts to incorporate regional educational priorities and strategies. Only 5.19% (20 sessions) of the respondents participated in training at the international or national level, which typically offers exposure to global teaching trends and advanced practices.

The data underscores a potential gap in access to higher-level training opportunities, which could enrich teachers' perspectives and equip them with diverse instructional strategies to support the implementation of the MATATAG Curriculum. The emphasis on district and school-level training suggests a need for more robust frameworks to facilitate participation in division, regional, and international/national programs. By addressing this gap, educators can be better prepared to implement inclusive, ideational, integrative, and innovative principles, fostering more effective teaching practices for diverse learners.

Table 5. Profile of the respondents in terms of Relevant Training

Relevant Training	Frequency	Percent
International/National	20	5.19
Regional	49	12.63
Division	123	31.95
District/School	**193**	**50.13**
Total	**385**	**100.0**

Implementation of Instructional Principles to Support Diverse Learners

Table 6 highlights the implementation of instructional principles related to inclusivity by Grade 2 teachers under the MATATAG Curriculum in the District 6, Schools Division of Manila. With an average weighted mean of 4.36, all indicators were rated as "Highly Implemented," reflecting a strong adherence to inclusive teaching practices. Among the specific indicators, "Providing additional support and resources for students who need them" received the highest weighted mean of 4.47, emphasizing the teachers' commitment to accommodating diverse learners' needs. Similarly, ensuring accessible learning materials, fostering a respectful classroom environment, and adapting teaching methods to cater to varied learning styles and abilities were also scored above 4.2, signifying a consistent focus on inclusivity across different dimensions.

These findings underscore the importance of inclusive practices in modern classrooms, where diversity is increasingly prevalent. The implementation of these principles aligns with the MATATAG Curriculum's emphasis on inclusive education, ensuring equitable learning opportunities for students of varying abilities, backgrounds, and needs. While these results are encouraging, they also point to the ongoing need for resources, professional development, and systemic support to sustain and enhance these practices. By addressing these needs, educators can continue to refine their approaches, fostering an environment where all students can thrive academically and socially.

Table 6. Implementation of Instructional Principles to Support Diverse Learners by Grade 2 Teachers in Terms of Inclusive

Indicators	Weighted Mean	Descriptive Equivalent
1. Ensure all learning materials are accessible to students with diverse needs.	4.42	Highly Implemented
2. Promote a classroom environment where every student feels valued and respected.	4.21	Highly Implemented
3. Adapt teaching methods to cater to different learning styles and abilities.	4.32	Highly Implemented
4. Encourage participation from all students, regardless of their background.	4.37	Highly Implemented
5. Provide additional support and resources for students who need them.	**4.47**	**Highly Implemented**
Average Mean	**4.36**	**Highly Implemented**

Table 7 highlights the implementation of ideational instructional principles by Grade 2 teachers in the District 6, Schools Division of Manila under the MATATAG Curriculum. With an average weighted mean of 4.37, all indicators were rated as "Highly Implemented," showcasing the teachers' dedication to fostering creativity and critical thinking in the classroom. Among the specific indicators, "Inspire students to think creatively and critically about the subject matter" received the highest weighted mean of 4.47, reflecting teachers' emphasis on encouraging original thought and problem-solving skills. Similarly, facilitating discussions for student expression (4.42) and encouraging exploration of concepts and theories (4.37) further illustrate a proactive approach to ideational learning.

Real-world application was also emphasized, with teachers integrating practical examples (4.31) and supporting student-led projects (4.26), ensuring that abstract concepts are relatable and actionable. These practices align with the MATATAG Curriculum's focus on holistic education, equipping learners with skills essential for lifelong learning and meaningful participation in society. Overall, the findings reflect a consistent implementation of ideational principles, contributing to a dynamic and engaging learning environment.

However, these practices could be further enhanced with additional professional development and resources, addressing challenges such as time constraints and limited access to innovative teaching tools.

Table 7. Implementation of Instructional Principles to Support Diverse Learners by Grade 2 Teachers in Terms of Ideational

Indicators	Weighted Mean	Descriptive Equivalent
1. **Inspire students to think creatively and critically about the subject matter.**	**4.47**	**Highly Implemented**
2. Facilitate discussions that allow students to express their ideas and opinions.	4.42	Highly Implemented
3. Encourage students to explore and develop their concepts and theories.	4.37	Highly Implemented
4. Integrate real-world examples to help students connect ideas to practical applications.	4.31	Highly Implemented
5. Support students in developing their projects and presentations.	4.26	Highly Implemented
Average Mean	**4.37**	**Highly Implemented**

Table 8 presents the extent of implementation of integrative instructional principles by Grade 2 teachers in the District 6, Schools Division of Manila under the MATATAG Curriculum. The data reveal a consistently high level of implementation, with an average weighted mean of 4.32. Among the specific indicators, the principle of promoting the application of knowledge in various contexts and situations achieved the highest rating (4.47), reflecting teachers' commitment to contextualized and practical learning experiences. Similarly, encouraging interdisciplinary projects and integrating technology and multimedia resources both scored 4.37, underscoring the educators' efforts to facilitate collaboration and enhance learning through modern tools.

The principles of combining subject areas for holistic learning (4.21) and linking new information to student's prior knowledge (4.16) were also highly implemented, highlighting a focus on building connections across disciplines and personalizing learning. These results illustrate that teachers in the Bolinao District strive to create integrative and meaningful educational experiences despite potential challenges such as limited resources or time constraints.

Integrative teaching supports a deeper understanding of subjects by connecting learning to real-life applications and fostering interdisciplinary approaches. These practices align with the MATATAG Curriculum's goal of holistic and inclusive education. To further enhance implementation, teachers may benefit from increased access to resources, professional development, and structured opportunities for collaboration. This would ensure sustained and expanded application of integrative principles, better addressing the diverse needs of learners.

Table 8. Implementation of Instructional Principles to Support Diverse Learners by Grade 2 Teachers in Terms of Integrative

Indicators	Weighted Mean	Descriptive Equivalent
1. Combine different subject areas to create a more holistic learning experience.	4.21	Highly Implemented
2. Link new information to students' prior knowledge and experiences.	4.16	Highly Implemented
3. Encourage interdisciplinary projects that require collaboration across different fields.	4.37	Highly Implemented
4. Integrate technology and multimedia resources to enhance learning.	4.37	Highly Implemented
5. **Promote the application of knowledge in various contexts and situations.**	**4.47**	**Highly Implemented**
Average Mean	**4.32**	**Highly Implemented**

Table 9 highlights the extent to which Grade 2 teachers in the District 6, Schools Division of Manila implement instructional principles to support diverse learners, focusing specifically on innovation. The data reveals a high level of implementation, with an overall weighted mean of 4.33. Among the specific indicators, the principles of encouraging students to experiment with problem-solving approaches and fostering continuous improvement and innovation in the classroom received the highest ratings, each scoring 4.42. These findings suggest that teachers are effectively creating an environment that encourages creativity, adaptability, and the exploration of new teaching methodologies.

Other indicators, such as the implementation of new teaching strategies and tools (4.37) and the support for interactive, technology-enhanced lessons (4.26), underscore the teachers' commitment to integrating modern tools into their practice. While the exploration of innovative assessment methods received the lowest rating (4.16), it still falls within the "highly implemented" range, demonstrating a consistent effort to adapt evaluation strategies to meet diverse learning needs.

This strong emphasis on innovation aligns with the MATATAG Curriculum's goal of fostering holistic, adaptable, and student-centered learning experiences. However, the findings also highlight the need for sustained support in areas such as professional development and resource allocation to ensure the effective and consistent application of these principles. By addressing these needs, educators can enhance their capacity to deliver engaging and innovative instruction that meets the diverse needs of their learners.

Table 9. Implementation of Instructional Principles to Support Diverse Learners by Grade 2 Teachers in Terms of Innovation

Indicators	Weighted Mean	Descriptive Equivalent
1. Implement new teaching strategies and tools to enhance learning.	4.37	Highly Implemented
2. **Encourage students to experiment with different approaches to problem-solving.**	**4.42**	**Highly Implemented**
3. Support the use of technology to create interactive and engaging lessons.	4.26	Highly Implemented
4. **Foster a culture of continuous improvement and innovation in the classroom.**	**4.42**	**Highly Implemented**
5. Explore new ways to assess and evaluate student learning.	4.16	Highly Implemented
Average Mean	**4.33**	**Highly Implemented**

Relationship between the Implementation of Instructional Principles to Support Diverse Learners between the Profile Variable of Grade 2 Teachers

Table 10 illustrates the relationship between the demographic profiles of Grade 2 teachers in the District 6, Schools Division of Manila and the implementation of instructional principles to support diverse learners under the MATATAG Curriculum. The table presents the correlation between various profile variables—age, sex, marital status, length of service, and relevant training—and the four instructional principles: Inclusive, Ideational, Integrative, and Innovative.

The findings suggest that most demographic factors do not have a strong influence on the implementation of instructional principles. Specifically, age, length of service, and relevant training showed weak or statistically insignificant correlations across all the instructional principles. This implies that these factors alone do not significantly affect how teachers implement the principles in their classrooms. For instance, age had very low correlation values with the principles (ranging from -0.148 to 0.108, all non-significant). At the same time, the length of service did not appear to affect the teachers' use of instructional strategies either.

In contrast, marital status demonstrated a more notable impact. Statistically significant positive correlations were observed with the Integrative ($r = 0.568$, $p = 0.011$) and overall Instructional Principle ($r = 0.466$, $p = 0.044$). This suggests that married teachers might be more likely to implement integrative and holistic instructional strategies, possibly due to greater life experiences or support networks. These results are consistent with studies such as Gheyssens et al. (2020), which found that marital status could influence the perception of teaching effectiveness, possibly through enhanced personal and social support structures.

Sex also showed moderate correlations with the Ideational and Innovation principles (r = 0.436 and r = 0.436, respectively), though these were not statistically significant. These findings hint at potential differences between male and female teachers in implementing creative and innovative teaching methods, a point that warrants further investigation.

Relevant training, despite showing some positive correlations, did not reach significance in its relationship with any of the instructional principles. This aligns with the findings of Dixon et al. (2021), who suggested that while teachers recognize the importance of training for differentiated instruction, a lack of comprehensive and ongoing professional development remains a barrier to effective practice.

Overall, these results indicate that the implementation of instructional principles in the MATATAG Curriculum may be influenced by personal factors like marital status and, to a lesser degree, sex. However, demographic factors such as age, service length, and training appear to have a limited impact on the teachers' ability to implement these principles effectively. This suggests that further attention may need to be directed at systemic factors, such as professional development, institutional support, and resources, to enhance the effectiveness of these instructional strategies in the classroom.

Table 10. Test of Relationship between the Implementation of Instructional Principles to Support Diverse Learners between the Profile Variable of Grade 2 Teachers

Profile		Inclusive	Ideational	Integrative	Innovation	Instructional Principle
Age[a]	r	0.108	-0.066	-0.085	-0.043	-0.148
	Sig.	0.660	0.787	0.731	0.862	0.547
Sex[b]	r	0.355	0.436	0.312	0.436	0.308
	Sig.	0.136	0.062	0.193	0.062	0.200
Marital Status[c]	r	0.197	0.351	**0.568***	0.389	**0.466***
	Sig.	0.419	0.140	**0.011**	0.100	**0.044**
Length of Service[a]	r	0.145	0.031	-0.123	-0.084	-0.263
	Sig.	0.553	0.898	0.615	0.733	0.277
Relevant Training[a]	r	0.343	0.236	0.066	0.172	0.127
	Sig.	0.150	0.330	0.790	0.482	0.604

*Significant at 0.05

[a]Pearson-r; [b]Point Biserial Correlation; [c]Spearman – Rho

Challenges Encountered by Grade 2 Teachers in the Implementation of Instructional Principles to Support Diverse Learners

Table 11 outlines the challenges faced by Grade 2 teachers in the implementation of instructional principles to support diverse learners under the MATATAG Curriculum. The table lists ten key indicators, each accompanied by a weighted mean and rank, highlighting the most significant obstacles encountered in diverse classrooms. Among the top challenges, the adaptation of teaching materials to meet diverse learning needs, integration of technology, maintaining student engagement, and balancing curriculum requirements with flexible teaching methods all share the same weighted mean of 4.21, placing them at rank 1 to 4. These challenges suggest that teachers struggle to provide an individualized approach in an increasingly diverse classroom while also managing technological demands and ensuring active student participation. The high rank of these issues reflects the complexity of balancing these factors in an inclusive teaching environment.

Further, other issues, such as addressing varying levels of student readiness, securing sufficient resources, and ensuring consistent application of inclusive practices, all received a weighted mean of 4.16, placing them at rank 5 to 7. These challenges emphasize the teachers' need for resources and support to effectively cater to students with diverse learning needs, which aligns with previous findings indicating that inadequate resources and teacher preparation are significant barriers to successful inclusive practices (Gibbs & McKay, 2021; Griful-Freixenet et al., 2020). Ensuring that inclusive practices are applied consistently across classrooms is a critical concern, as inconsistency in practice can undermine the effectiveness of the instructional principles.

Additionally, challenges like providing adequate teacher training and overcoming resistance to change, with weighted means of 4.10 and 4.05, respectively, point to the systemic issues in professional development and institutional support. Teachers report feeling unprepared for the demands of inclusive teaching and are hindered by resistance to adopting new methods (Dixon et al., 2021). The lack of sustained training and insufficient professional development in differentiated instruction are recurring themes in educational literature (Suryati et al., 2023).

In conclusion, the challenges identified in Table 11 reflect the multifaceted nature of teaching diverse learners under the MATATAG Curriculum. Teachers are confronted not only with the need to address the individual needs of their students but also with structural and resource-related obstacles. These findings suggest that addressing these challenges requires a comprehensive approach that includes enhanced professional development, better resource allocation, and greater institutional support to ensure the successful implementation of instructional principles for diverse learners.

Table 11. Challenges Encountered by Grade 2 Teachers in the Implementation of Instructional Principles to Support Diverse Learners

INDICATORS	Weighted Mean	Rank
1. **4. Adapt teaching materials to meet diverse learning needs.**	**4.21**	**2.5**
2. **5. Integrate technology effectively without overwhelming students or teachers.**	**4.21**	**2.5**
3. **Maintain student engagement in a diverse classroom setting.**	**4.21**	**2.5**
4. **Balance curriculum requirements with the need for flexibility in teaching methods.**	**4.21**	**2.5**
5. Address varying levels of student readiness and prior knowledge.	4.16	6
6. Secure sufficient resources and funding to support diverse learners.	4.16	6
7. Ensure consistent application of inclusive practices across all classrooms.	4.16	6
8. Provide adequate training and support for teachers.	4.10	8
9. Overcome resistance to change from educators and students.	4.05	9.5
10. Evaluate the effectiveness of new instructional strategies.	4.05	9.5

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REFERENCES

1. Ainscow, M. (2020). Promoting inclusion and equity in education: lessons from international experiences. Nordic Journal of Studies in Educational Policy, 6(1). Doi: 10.1080/20020317.2020.1729587
2. Alsaeed, H. (2022). The Role of Public Education Schools in Developing Social Responsibility in the Light of Contemporary Global Trends. Creative Education, 13, 2754-2780. Doi: 10.4236/ce.2022.139174.
3. Amzaleg, M., & Masry-Herzallah, A. (2021). Cultural dimensions and skills in the 21st century: The Israeli education system as a case study. Pedagogy, Culture and Society, 1–21. Doi: 10.1080/14681366.2021.1873170
4. Barber, J. P. (2020). Facilitating the integration of learning: Five research-based practices to help college students connect learning across disciplines and lived experience. Stylus. Doi: 10.4324/9781003444770
5. Blanchet, M. (2024). Supporting Teachers in Implementing Professional Learning. Edutopia. Retrieved from https://www.edutopia.org/article/supporting-teachers-implementing-professional-learning/
6. Budwig, N. & Alexander, A. J. (2020). A Transdisciplinary Approach to Student Learning and Development in University Settings. Frontiers in Psychology, 11. Doi: 10.3389/fpsyg.2020.576250
7. Coubergs, C., et al. (2020). Differentiated instruction in inclusive classrooms. SpringerLink. Retrieved from https://link.springer.com/chapter/10.1007/978-3-031-31678-4

8. DepEd. (2023). General Shaping Paper. Republic of the Philippines. Department of Education. BUREAU OF CURRICULUM DEVELOPMENT. Retrieved from https://www.deped.gov.ph/wp-content/uploads/GENERAL-SHAPING-PAPER-2023.pdf
9. Deunk, M. I., Smale-Jacobse, A. E., de Boer, H. Dooland, S., & Bosker, R. J. (2019). Effective differentiation practices: A systematic review and meta-analysis of cognitive effects in primary education. Educational Research Review, 24, 31-54. Doi: 10.1016/j.edurev.2018.02.002
10. Dixon, F. A., Yssel, N., McConnell, J. M., & Hardin, T. (2021). Differentiated instruction, professional development, and teacher efficacy. Journal for the Education of the Gifted, 37, 111–127. Doi: 10.1177/0162353214529042
11. Ewe, L. P. & Galvin, T. (2023). Universal Design for Learning across Formal School Structures in Europe—A Systematic Review. Education Sciences, 13(9). Doi: 10.3390/educsci13090867
12. Gheyssens, E., Griful-Freixenet, J., Struyven, K. (2023). Differentiated Instruction as an Approach to Establish Effective Teaching in Inclusive Classrooms. In: Maulana, R., Helms-Lorenz, M., Klassen, R.M. (eds) Effective Teaching Around the World. Springer, Cham. Doi: 10.1007/978-3-031-31678-4_30
13. Gibbs, K., & McKay, L. (2021). Differentiated teaching practices of Australian mainstream classroom teachers: A systematic review and thematic analysis. International Journal of Educational Research, 109, 101799. Doi: 10.1016/j.ijer.2021.101799
14. Griful-Freixenet, J., Struyven, K., Vantieghem, W., & Gheyssens, E. (2020). Exploring the interrelationship between Universal Design for Learning (UDL) and Differentiated Instruction (DI): A systematic review. Educational Research Review, 29, 100306. Doi: 10.1016/j.edurev.2019.100306
15. Hayati, A., Mistima, M., & Mahmud, M. S.. (2022). Factors influencing teachers' creative teaching: A systematic review. Cypriot Journal of Educational Sciences. 17. 250-264. Doi: 10.18844/cjes.v17i1.6696.
16. ILoveDepEd. (2023). The Four Instructional Principles of the Matatag Curriculum. Retrieved from https://www.ilovedeped.net/2024/05/the-four-instructional-principles-of.html#:~:text=It%20is%20designed%20to%20foster%20holistic%20development%20in%20young%20Filipino
17. Kindelan, N. (2022). Enhancing Learning Through Integrative Education: On the Road. In: STEM, Theatre Arts, and Interdisciplinary Integrative Learning. The Arts in Higher Education. Palgrave Macmillan, Cham. Doi: 10.1007/978-3-031-08907-7_4
18. Mahmoud Alali, R. (2020). Developing a Scale for Creative Teaching Practices of Faculty Members at King Faisal University. Universal Journal of Educational Research, 8(5), 2129 - 2142. Doi: 10.13189/ujer.2020.080552.
19. Mijares, A. D., Carter, E., Froy, C. A., & Molina, E. (2023). Measuring inclusive teaching practices that support learning for all. World Bank Blogs. Retrieved from https://blogs.worldbank.org/en/education/measuring-inclusive-teaching-practices-support-learning-all
20. NemerAitski, S., & Heinla, E. (2020). Teachers' creative self-efficacy, self-esteem, and creative teaching in estonia: A framework for understanding teachers' creativity-supportive behaviour. Creativity, 7(1), 183–207. Doi: 10.2478/ctra-2020-0011
21. Olayvar, S. R. (2022). Effects of Teachers' Demographic Characteristics and Self-Perceived Competencies on Their Self-Efficacy in Implementing Inclusive Education. International Journal of Instruction, 15(4). Retrieved from https://www.e-iji.net/dosyalar/iji_2022_4_21.pdf
22. Rasmitadila, R., Yahya, W., Prasetyo, T., & Putri, A. (2022). CHALLENGES IN THE IMPLEMENTATION OF INSTRUCTIONAL STRATEGY MODEL BASED ON THE BRAIN NATURAL LEARNING SYSTEMS FOR INCLUSIVE CLASSROOM. PUPIL: International Journal of Teaching, Education and Learning. 5. 112-128. Doi: 10.20319/pijtel.2022.53.112128.
23. Saunders, L. & Wong, M. A. (2020). Learning Theories: Understanding How People Learn. Illinois. Retrieved from https://iopn.library.illinois.edu/pressbooks/instructioninlibraries/chapter/learning-theories-understanding-how-people-learn/
24. Selznick, B.S., Dahl, L.S., Youngerman, E., & Mayhew, M. J. (2022). Equitably Linking Integrative Learning and Students' Innovation Capacities. Innov High Educ 47, 1–21. Doi: 10.1007/s10755-021-09570-w
25. Suryati, I., Ratih, K., & Maryadi, M. (2023). Teachers' Challenges in Implementing Differentiated Instruction in Teaching English at Junior High School. Eduvest - Journal of Universal Studies. 3. 1693-1708. Doi: 10.59188/eduvest.v3i9.871.

26. Teaching Principles. (2022). Eberly Center - Carnegie Mellon University. Retrieved from https://www.cmu.edu/teaching/principles/teaching.html
27. UNESCO. (2020). Inclusive teaching: preparing all teachers to teach all students. Global Education Monitoring Report. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000374447
28. Wang, G., Zhang, D., Kang, Y., Zhang, N., Shen, J., & Li, F. (2022). The Influence of Demographic Factors on the Ability to Research and Innovate among Primary and Secondary School Teachers. Universal Journal of Educational Research. 10. 553-569. Doi: 10.13189/ujer.2022.101002.