Instructional Preparations and the Learning Skills of the 21st Century Students

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Abstract

Planning is an integral part of the teaching process where learning expectations are identified, and resources and activities are selected and organized step-by-step to help students meet learning goals. In this context, this study aimed to determine the relationship between the instructional preparations and the level of learning skills of the 21st century students. The respondents were 140 students enrolled in grade ten level under online and blended distance modality during the school year 2021-2022. Descriptive design was utilized in the study with the aid of mean, standard deviation, and Pearson product-moment correlation coefficient as statistical tools. The findings revealed that teaching strategies was the most effective among the three instructional preparations. Meanwhile, on the 21st century learning skills, students were very good in learning and innovation, critical thinking, and information, media, and technology. However, the students are somewhat lacking on problem solving. The findings also revealed no relationship between the instructional preparations and the level of learning skills. This study suggests educational institutions to provide professional development programs and seminars on instructional preparations that can be invaluable in improving and enhancing different teaching methodologies adhering to the 21st century learning.

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1. Introduction

Teaching is a strenuous yet rewarding profession that prepares teachers to learn and adapt to the demands and expectations of the work. It is the process of setting objectives, selecting actions to achieve them, and mobilizing resources to carry out those activities, known as strategic planning in its simplest form. Teachers utilize instructional techniques and approaches to enable the students to become self-directed and active learners. When they strategically apply appropriate methods for achieving their objectives, these methods become learning strategies. Instructional strategies can support learners in becoming motivated, arranging material for comprehension and memorization, and reviewing and evaluating their learning.

Article IV, Section 2 of the Code of Ethics for Professional Teachers, which the Board approved of Professional Teachers in 1997, states that every teacher is obliged to keep the highest standards of quality education, prepare for a career in teaching as thoroughly as possible, and perform at the top of their abilities at all times in their job. As a result, this guideline aims to help teachers keep high educational standards by stressing the importance of planning lessons. It is meant to help teachers do one of their most important jobs, which is to help students learn in the classroom. Additionally, it is anchored on Department of Education (DepEd) order 42 series of 2016, in which the DepEd emphasizes that the ability to plan and implement lessons successfully is a prerequisite for good teaching and learning. Preparation, content selection, learning activities, grouping approaches, and speed and time allocation calculations are part of the process.

There are three steps in the instructional process: instruction planning, instruction delivery, and assessment of learning. In creating a lesson plan, teachers have to think about how they want their students to learn, what kind of resources they will need, and how they want them to learn. The next step is teaching students what they need to know and how to do it. Finally, determining the degree to which the learning objectives were attained is a part of assessing instruction. The teaching process begins long before a teacher enters a classroom. As part of their tasks, teachers should be capable of developing and implementing a teaching plan and assessing their strategy's effectiveness (Airasian & Russel, 2011; Mertler, 2016).

Planning is thought to be an essential part of the teaching process where learning expectations are identified, and the resources and activities are selected and organized step-by-step to help students meet learning goals. In addition, it aids in maximizing classroom time for education, responding to students' needs, and communicating achievement expectations to students. In light of this notion, the DepEd has issued daily lesson preparation guidelines enabling teachers to engage in reflective practice, which is an essential component of good teaching, when preparing their daily lessons. In this way, teachers will be better equipped to plan and execute their classes and lessons to maximize student accomplishment. According to Stronge (2018), teachers who prepare and structure their lessons are more effective. In the actual lesson planning, teachers find it easier to plan instruction when the K-12 curriculum has clearly defined content and performance standards, and learning criteria.

With these premises, this study determines the effectiveness of instructional preparations in terms of teaching strategies, classroom activities, and assessment activities in the 21st-century learning skills such as learning and innovation, critical thinking, problem-solving, and information, media, and technology of the Grade 10 Araling Panlipunan learners. It also assessed the significant relationship between the perceived instructional preparations and the level of learning skills of 21st-century students.

2. Literature review

2.1. Instructional Preparation

In this modern world, the function of education is a crucial tool for gaining employment, personal growth, economic prosperity, moral development, and positive interpersonal connections. According to Bukoye (2019), the presence of education as the key to a country's actual development in the educational system for students, regardless of their cognitive capabilities, provides advancement. At the same time, many believe that lack of education equals ignorance, underdevelopment, maladjustment, crime, poverty, and frustration. Teachers are responsible for implementing the specified curriculum and are also presumed to employ a variety of quality instructional materials to facilitate a thriving learning environment among students. In essence, without suitable instructional materials to increase creative output in modern areas, effective teaching may be unavoidable.

Effective teaching necessitates much preparation and planning (Meador, 2019). As preparing and planning lessons before the actual teaching are critical, one wrong detail can lead to ineffective teaching. According to Ecole Globale (2015), to be an effective educator, they excessively prepare their lessons, thinking about what they will teach afterward. They believe that even preparing will alter students' attitudes towards their learning process regarding instructional preparations when they fail. These include teaching strategies, classroom activities, and assessment activities.

Teaching Strategies. The term "teaching strategy" refers to a comprehensive lesson plan that includes organization, instructional goals, and an overview of teachers' prepared approaches for use in the classroom. Based on the study of Victoria State Government (2019), the teaching strategy is a vital instrument in instructional design since it determines the training methods in connection to the covered content. According to Al-Banna and Aziz (2014), adopting a strategy entails establishing a set of guidelines for action, linking it with a specific global approach to organizational learning and learning circumstances, and using specific techniques and means.

Classroom Activities. According to Coskun and Eker (2018), students' academic performance improves when they participate in classroom activities. Similarly, students need to actively participate in classroom activities to gain knowledge from one another by sharing ideas with their peers as they work on the project and eventually improve their communication skills as a result of this interaction. Moreover, Sharna (2019) asserts that, in general, teaching and learning could benefit from an almost unlimited range of activities. Learners must apply what they have learned while still having a good time. Then they can put it to good use by working together. In schools, students can learn and retain information more effectively and more interestingly by engaging in educational activities that are both interesting and enjoyable.

Assessment Activities. According to Jenlink (2020), assessments serve an essential role in education, namely in preparing teachers to join classrooms and tackle the challenges of teaching and learning with a varied population of learners. It assesses whether or not students have learned the expected and necessary material for success by testing what they know and can perform. According to Fisher and Brandy (2019), student assessment is the focal point of the teaching and learning process. As such, it is a hot topic in teaching and learning education. Teachers will never know whether their instruction is effective unless they have a mechanism for collecting and analyzing evidence of student learning. Thus, they need a way to determine

whether or not students are learning the appropriate knowledge and abilities and, thus, whether or not their teaching is effective and efficient. Learning evaluation is similar to a magnifying glass held up to students' learning to see whether the teaching and learning process works well or needs to be changed.

2.2. 21st Century Learning Skills

It is a feature of the shift from the industrial to the information era that technical developments have been fast, affecting life unimaginably. According to Erdem (2019), given the characteristics of the twenty-first century, students will require a set of competencies that will enhance their needed skills to deal with a complex and ever-changing society. The institutional aspect of technology, devices, has evolved to tailored, omnipresent technology. However, it keeps the students as digital natives of the new generation. According to Aguilera-Hermida (2020), only a small number of people required talents such as problem-solving, critical thinking, and learning innovation. However, in the twenty-first century, these skills are required of everyone. To keep up with the changes brought on by globalization, particularly in the educational sector, continuous development of students' learning skills must be present. When it comes to interacting with technology profoundly, Erdem (2019) said that many people, especially young people, are "digital immigrants."

The P21 framework's components include learning and innovation, information, media, technology, and life and career skills. Using this framework, students can gain a comprehensive understanding of their subject matter while also developing their creativity, teamwork, critical thinking, communication skills, life and career skills, as well as their information, media, and technical abilities.

Learning and Innovation. The innovation implemented in the educational system helps students continue their learning process, as does the teachers' consistency in developing themselves to serve their needs better. According to Callo and Yazon (2020), teachers should develop proficiency in teaching approaches and expertise in the flexible use of blended learning. The environment relies on teaching strategies that aid students in their learning process by acknowledging potential scenarios and repercussions for blended learning, considering the effect of various teaching techniques on the success of students' learning perspectives. As a result, difficulties provide a possibility for diverse learning to develop more effective teaching strategies

in terms of variety, adaptability, approach, encouragement, and innovation in knowledge building for performance improvement programs (Gurajena et al., 2021). There are still effective and efficient ways to teach even when there is no face-to-face interaction by focusing on learning readiness and using online teaching as an alternate delivery channel in the new everyday learning and process.

Critical Thinking. Individuals have a unique ability to think (Iyer, 2019). An ability to think is the fundamental basis of all cognitive enactments and developing critical thinking abilities is emphasized in modern educational models and methodologies. Iyer (2019) believes that critical thinking is widely recognized as a key stage in all fields of learning, primarily in recent decades. Many people recognize that the world is becoming more sophisticated and complex every day than it has been, which is why education is becoming more important for each generation. In addition, critical thinking helps people be more creative and improve how they utilize and organize their time. It is also recognized that essential abilities include applying logical and probabilistic thinking to situations that are not limited to a single field. According to Karag and Bekmezei (2015), critical thinking may help teachers better understand how they teach and how it fits with students' skills in the 21st century.

Problem-Solving. Teachers must accompany a suited approach to execute classroom learning, such as producing new information via instructional preparation for students' requirements that will enable them to succeed in their future pursuits and identify their abilities. As a result, knowledge creation happens when students produce new knowledge rather than ingest it (Stehle & Peters-Burton, 2019). Students who participate in knowledge creation better comprehend the material being taught to them. Furthermore, knowledge creation and real-world problem solving lay the groundwork for students to collaborate, particularly in the classroom (Williams & Mangan, 2016). It supports self-regulated learners in learning settings that are geared for knowledge creation. According to Kapur (2020), within training and development opportunities, instructors and school administration must be effectively taught to refine problem-solving abilities and develop a matching strategy to help students enhance their learning skills. As a result, students in the twenty-first century can effectively improve their problem-solving skills by acquiring appropriate training and teaching.

Information, Media and Technology. Several developments represent the 21st century regarding upgrading the educational system and instructors' teaching methods in response to

changing student demands. According to Mallillin et al. (2021), knowledge integration is the new normal, which impacts instructors' methods and approaches to match with technology that focuses on the learners' learning enhancement. Furthermore, information technology has emerged as part of the essential, frequently applied principles in various fields, including education. Establishing communication and technological aids and government educational assistance with a focus on development has yielded several benefits (Al-Khasawneh, 2019). While based on LSU Online (2020), the uses and advantages of instructional technology vary greatly, depending on the teachers' technique. Every instructional technology has the same goal: to provide students with exciting and compelling learning experiences.

3. Methodology

The study utilized a descriptive research design. It systematically describes a situation, condition, or area of interest factually and accurately. In this research, the study aims to determine the relationship between the perceived instructional preparations and the level of learning skills of 21st century students.

This study used stratified random sampling to select the respondents, including the 140 students enrolled in grade ten level under online and blended distance modality during the school year 2021-2022.

A researcher-made questionnaire was used to gather data. The research instrument is composed of two parts: part 1 determines the extent of respondents' perceptions of instructional preparations, and part 2 determines the level of learning skills of grade ten students in areas such as learning and innovation, critical thinking, problem-solving, information, media, and technology. It was evaluated and validated by select panel and educators who are experts in the related field.

Data were gathered for two consecutive days through the use of Google forms. The respondents initially answered parts 1 (Instructional preparations) and 2 (21st-century learning skills), and the links were sent to the respondents. The respondents were oriented through an online platform to ensure clarity and compliance with the instructions given in the questionnaire. The collected data were kept confidential to protect the participants' identities.

Mean and standard deviation was utilized to measure the perceived effectiveness of instructional preparations and the level of the learning skills of 21st-century students. The Pearson Product-Moment of Correlation Coefficient was used to determine the significant relationship between the perceived instructional preparations and the level of learning skills of 21st-century students.

4. Findings and Discussion

Table 1

Effectiveness of Instructional Preparations in terms of Teaching Strategies

Indicators	Mean	SD	Verbal Interpretation
1. I can comprehend the lesson using instructional materials such as charts, real objects, audio samples.	4.40	0.64	Agree/ Effective
2. I can explore and understand the lesson using concept maps, diagrams, and graphic organizers.	4.03	0.75	Agree/ Effective
3. I can apply the lesson in connection with reality.	3.87	0.83	Agree/ Effective
4. I can integrate and relate the lessons across other learning areas.	3.84	0.75	Agree/ Effective
5. I can apprehend the lesson with the help of different strategies such as cooperative learning and technology integration.	4.23	0.68	Agree/ Effective
6. I learn quickly when I read a text about the topic we are talking about.	3.86	0.91	Agree/ Effective
7. I learn best when my teacher uses higher-order thinking skills or critical thinking questions in class.	4.02	0.80	Agree/ Effective
8. I can synthesize useful information from discussions, activities, and assessments.	3.91	0.64	Agree/ Effective
9. I can summarize the main ideas or key points from class discussions.	3.75	0.77	Agree/ Effective
10. I learn best when I ask my teacher questions to clarify concepts during the discussion.	4.18	0.81	Agree/ Effective
Overall	**4.01**	**0.43**	**Agree/ Effective**

Legend: 4.50 - 5.00 Strongly Agree/ Highly Effective, 3.50 - 4.49 Agree/ Effective, 2.50 - 3.49 Moderately Agree/ Moderately Effective, 1.50- 2.49 Disagree/ Slightly Effective, 1.00 - 1.49 Strongly Disagree/ Less Effective

Table 1 shows the results of the effectiveness of instructional preparation in teaching strategies having a general mean of 4.01, which was interpreted as 'agree/effective'. Regarding the composite mean results, the highest mean obtained was 4.40 with a verbal interpretation of 'agree/ effective' as reflected in the indicator "I can comprehend the lesson when using instructional materials such as charts, real objects, audio samples.". The indicator "I can

summarize the main ideas or key points from class discussions" got the lowest mean of 3.75, having a verbal interpretation of 'agree/ effective.'

The result implies that instructional materials aid in the learning process, enable students to apply concepts, and give them a chance to evaluate their progress. They are designed to help students better comprehend what they are learning. Using instructional tools in the classroom can improve a teacher's capacity to communicate new concepts to learners. However, they do not stand alone but serve a purpose. This result affirms the study of the Victoria State Government (2019) that teaching strategy is a vital instrument in instructional design since it determines the training methods in connection to the covered content. It is also supports the study of Al-Banna and Aziz (2014) that adopting a strategy entails establishing a set of guidelines for action, linking it with a specific global approach to organizational learning and learning circumstances, as well as the use of specific techniques and means.

Table 2

Effectiveness of Instructional Preparations in terms of Classroom Activities

Indicator	Mean	SD	Verbal Interpretation
1. I can present ideas and report them to the entire class.	3.46	0.84	Moderately Agree/Moderately Effective
2. I can explore and study the lesson by doing individual activities.	4.06	0.81	Agree/ Effective
3. I can explore and study the lesson by doing group activities.	3.87	0.86	Agree/ Effective
4. I can use the activities in the classroom to enhance my skills and abilities.	4.19	0.68	Agree/ Effective
5. I can work independently on the classroom activities given by the teacher.	4.03	0.72	Agree/ Effective
6. I get different opportunities through activities to show my understanding, learning, and skills in class	4.04	0.69	Agree/ Effective
7. I enjoy participating in lesson-related games.	3.94	1.05	Agree/ Effective
8. I enjoy participating in debates and argumentations.	3.30	1.02	Moderately Agree/Moderately Effective
9. I have become more efficient in making decisions in doing individual and group activities	3.87	0.79	Agree/ Effective
10. I can relate to the knowledge that I learned during the discussion in the classroom activities.	4.03	0.74	Agree/ Effective
Overall	**3.88**	**0.47**	**Agree/ Effective**

Legend: 4.50 - 5.00 Strongly Agree/ Highly Effective, 3.50 - 4.49 Agree/ Effective, 2.50 - 3.49 Moderately Agree/ Moderately Effective, 1.50- 2.49 Disagree/ Slightly Effective, 1.00 - 1.49 Strongly Disagree/ Less Effective

Table 2 presents the respondents' assessment of the effectiveness of instructional preparation in classroom activities, having a general mean of 3.88, which was interpreted as 'agree/ effective.' On the general assessments, the highest mean achieved was 4.19 with a verbal

interpretation of 'agree/ effective' as reflected in the indicator "I can use the activities in the classroom to enhance my skills and abilities." The indicator "I enjoy participating in debates and argumentations" got the lowest mean of 3.30, having a verbal interpretation of 'agree/ effective'.

The data showed that students could learn and retain information more effectively and more interestingly by engaging in educational activities that are both interesting and enjoyable. Classroom activities are essential to the educational process because they involve students in the teaching-learning process and make teachers' tasks more efficient. Students benefit from classroom activities because they can put their skills to use and learn more about the world around them by participating in various classroom activities. The result is similar to Akan and Basar (2013) that all of the students who participated in the classroom activities felt that they helped them succeed, solidify their knowledge, foster a positive learning environment, and help them grow as individuals. Accordingly, it also upholds the findings of Nasrullah et al. (2017) that instructional characteristics are essential for improving students' knowledge, and teachers are responsible for providing a high-quality education to pupils. Teachers have high esteem in the learning process since they may help students lead on their stated goals as the cornerstone of their learning journey.

Table 3 shows the respondents' assessment of the effectiveness of instructional preparation in assessment activities having a general mean of 3.95, which was interpreted as 'agree'. The highest mean obtained was 4.14 with a verbal interpretation of 'agree/ effective' as reflected in the indicator "I become more responsible for my learning when answering quizzes and exams". The indicator "I can increase my self-confidence and autonomy when doing assessments" got the lowest mean of 3.66, having a verbal interpretation of 'agree/ effective'.

It can be implied that assessment is an essential part of learning since it determines whether students are making progress toward their learning goals. By evaluating students' responses to assessment activities, teachers gain insight into the strengths and weaknesses of their students, as well as the direction in which their instruction should go. Students, meanwhile, gain insight into their academic aspirations. The results are parallel with the findings of Anastasiadou (2013) that assessments helped students choose the best approaches to improve their critical thinking regarding their learning and thinking. In addition, the students appeared to have gained understanding from their academic achievement and skill development.

Table 3

Effectiveness of Instructional Preparations in terms of Assessment Activities

Indicator	Mean	SD	Verbal Interpretation
1. I am more motivated to study when taking quizzes and tests.	3.92	0.85	Agree/ Effective
2. I can easily recall the lesson by answering assessment activities.	3.74	0.90	Agree/ Effective
3. I can improve my performance in Araling Panlipunan 10 through quizzes and exams.	3.93	0.70	Agree/ Effective
4. I can increase my self-confidence and autonomy when doing assessments.	3.66	0.85	Agree/ Effective
5. I have enough time to think and to learn the lesson when answering assessments.	3.94	0.78	Agree/ Effective
6. I have the chance to understand my weaknesses and how to overcome them when doing assessments.	4.04	0.78	Agree/ Effective
7. I become more responsible for my learning when answering quizzes and exams.	4.14	0.66	Agree/ Effective
8. I have become aware of the areas I need to work on to improve my results during assessments.	4.09	0.71	Agree/ Effective
9. I used the comments and suggestions I received to review my work and improve upon it.	3.94	0.81	Agree/ Effective
10. I listened intently to critiques of my work and did my best to comprehend what they were trying to convey.	4.13	0.73	Agree/ Effective
Overall	**3.95**	**0.47**	**Agree/ Effective**

Legend: 4.50 - 5.00 Strongly Agree/ Highly Effective, 3.50 - 4.49 Agree/ Effective, 2.50 - 3.49 Moderately Agree/ Moderately Effective, 1.50- 2.49 Disagree/ Slightly Effective, 1.00 - 1.49 Strongly Disagree/ Less Effective

Table 4 unveils the respondents' level of learning skills in learning and innovation, critical thinking, problem-solving and information, media, and technology.

In terms of learning and innovation, majority (53.57%) of the students have very good level of learning skills with scores ranging from 16–20 with only 6.43% in the excellent level. This emphasizes that the majority of the students can analyze and evaluate their ideas to boost their creativity and contribute to innovation. Similarly, the majority of the students also have very good level of critical thinking as reflected by 74 students (52.83%) while 13.57% are in the excellent level. This allows students to improve the ability to critique facts, justifications, claims, and viewpoints.

In terms of information, media, and technology, the students achieved very good level of learning skills manifested by 65 students (46.43%) with scores ranging from 16-20 while 32.86%

got excellent scores of 21-25. This means students are tech-savvy. However, the students have lower problem-solving skills with majority (65.71%) scoring 11-15 interpreted as 'good' with no one in the excellent level and 26.43% students scored within the fair level. This explains that students find this skill a difficult one to acquire and develop. It implies that questions under problem-solving are hard to understand and comprehend because it requires logical thinking.

Table 4

Respondents' Level of Learning Skills

Scores	f	%	Interpretation
Learning and Innovation			
21-25	9	6.43	Excellent
16-20	75	53.57	Very Good
11-15	54	38.57	Good
6-10	2	1.43	Fair
0-5	0	0	Poor
Critical Thinking			
21-25	19	13.57	Excellent
16-20	74	52.83	Very Good
11-15	47	33.57	Good
6-10	0	0	Fair
0-5	0	0	Poor
Problem-Solving			
21-25	0	0	Excellent
16-20	11	7.86	Very Good
11-15	92	65.71	Good
6-10	37	26.43	Fair
0-5	-	-	Poor
Information, Media, and Technology			
21-25	46	32.86	Excellent
16-20	65	46.43	Very Good
11-15	26	18.57	Good
6-10	3	2.14	Fair
0-5	0	0	Poor

Although the results are congruent with the findings of Kapur (2020), Callo and Yazon (2020), Kivunja (2015) and Erdem (2019) on the various skills necessary for the students' development, this study finds problem-solving a necessary skill that requires further enhancement and development. As Kapur (2020) emphasizes, instructors and school management must be taught problem-solving skills and a matching technique to help students improve their learning capabilities. Students in the 21st century can improve their problem-

solving skills with proper training and teaching, such as supporting self-directed learning, brainstorming, and problem-solving components.

Table 5

Correlation between Instructional Preparation Variables and Level of Learning Skills of the Respondents

Instructional Preparations	21st Century Learning Skills			
	Learning And Innovation	Critical Thinking	Problem-Solving	Information, Media, And Technology
Teaching Strategies	.051	-.032	.053	-.048
Classroom Activities	.086	.084	.023	-.009
Assessment Activities	.075	-.042	-.015	.009

**. Correlation is significant at the 0.05 level (2-tailed).

Table 5 presents the test of the relationship between the perceived instructional preparations and the level of learning skills. Based on the results, it can be observed that there are no significant relationships among variables since there are no variables that reached the 0.05 level (2-tailed) of correlation. It connotes that there is no relationship between the instructional preparations and the level of learning skills of the learners. The result is similar to the study of McGuire (2018) that instructional preparations have no direct significant relationship with the students' level of learning skills. This emphasizes that the amount of effort, hours and creativity the teachers put into the preparation of their instructional materials have no direct significant influence on the students' development of learning skills. This study failed to associate the lesson planning to the students' skills development. Although the results do not produce any significant relationship, infusing quality and innovation in 21st-century education and technical development requires proper lesson planning. information.

5. Conclusion

This study assessed the effectiveness of instructional preparations in the 21st-century learning skills of the students in Araling Panlipunan 10. The descriptive research design was

utilized through the 140 grade ten students from online and blended learning distance modalities chosen through stratified random sampling. The study used a researcher-made survey questionnaire as an instrument.

Results show that teaching strategies was the most effective among the three instructional preparations. Meanwhile, on the 21st century learning skills, students were very good in learning and innovation, critical thinking, and information, media, and technology. However, the students are somewhat lacking on problem solving. The findings also revealed no relationship between the instructional preparations and the level of learning skills.

Pedagogical innovation and virtual education were made possible because of the current health crisis the world is experiencing. There is a need to transition to online or so-called virtual education gradually. The pandemic necessitates careful planning to ensure that all available resources are utilized to the fullest extent possible. Adapting current technology, engaging with existing organizational practices, and guaranteeing the participation of teachers and students throughout the process are all critical for effective change. This study suggests that educational institutions may offer teacher professional development programs, teaching methodologies, classroom activities, and assessments. Send teachers to seminars, workshops, or training to improve 21st-century teaching methods and practices using digital resources and technology. Schools may likewise employ a school-based learning action cell or whole-group teaching as an ongoing professional development strategy focused on 21st century learning abilities, ways to increase their teaching repertoire, and the capacity to combine multiple methodologies. Using today's technologies, lesson planning, classroom activities, and evaluations must incorporate 21st century learning skills. Future studies regarding the instructional preparation and the learning skills of 21st century learners may be conducted to provide sufficient information on the relationship between the two variables

References

Aguilera-Hermida, A. P. (2020). College Students' Use and Acceptance of Emergency Online Learning Due To Covid-19. *International Journal of Educational Research Open*, 1, 100011.

Airasian, P. W., & Russell, M. (2011). *Classroom Assessment* (7th ed.). McGraw-Hill Education.

Akan, D., & Basar, M. (2013). The effect of the classroom activities on classroom management in the teaching- learning process: The case of Uşak City. *Mevlana International Journal of Education*, 3(4), 147–165. https://doi.org/10.13054/mije.13.63.3.4

Al-Banna, J. B., & Aziz, M. S. A. (2015). Teaching Strategies. Research Gate. https://www.researchgate.net/publication/327433965_TEACHING_STRATEGIES

Al-Khasawneh, R. O. (2019). The Role and Importance of Information Technology In Reducing the Risks of Information Technology Security in Government Units in The Light of Applying e-government governance. *Information and Knowledge Management*, 8(9).

Anastasiadou, A. (2013). Self-assessment: Its Impact on Students' Ability to Monitor their Learning Process in the English Classroom and Develop Compensatory Strategies. *Research Papers in Language Teaching & Learning*, 4(2).

Bukoye, R. O. (2019). *Utilization of Instruction Materials as Tools for Effective Academic Performance of Students: Implications for Counselling*. Proceedings, 2, 1395. 10.3390/proceedings2211395

Callo, E. C., & Yazon, A. D. (2020). Exploring The Factors Influencing the Readiness of Faculty and Students on Online Teaching and Learning as an Alternative Delivery Mode for the New Normal. *Universal Journal of Educational Research*, 8(8), 3509-3518.

Coşkun, S., & Eker, C. (2018). The Effect of Teaching Activities Done by Using Activity Based Posters on the Students' Academic Achievements, Retention Levels in Their Learning. *Universal Journal of Educational Research*, 6(4), 585–597. https://doi.org/10.13189/ujer.2018.060402

Ecole Globale. (2021). Importance of Preparation and Planning for Teachers. *Ecole Globale International Girls' School*. https://www.ecoleglobale.com/blog/importance-of-preparation-and-planning-for-teachers/

Erdem, C. (2019). Introduction to 21st Century Skills and Education. *Cambridge Scholars Publishing*.

Fisher, M. R., & Brandy, J. (2019). *Assessing Student Learning*. Center for Teaching Vanderbilt University. Vanderbilt Center for Teaching.

Gurajena, C., Mbunge, E., & Fashoto, S. (2021). Teaching and Learning in the New Normal: Opportunities and Challenges of Distance Learning Amid COVID-19 Pandemic. Available at 10.2139/ssrn.3765509.

Iyer, L. (2019). *Critical Thinking and its Importance in Education*. Proceedings of the Cognitive, Psychological and Behavioural Perspectives in Education.

Jenlink, P. M. (2020). *Teacher Preparation and Practice: Reconsideration of Assessment for Learning*. Rowman & Littlefield. ISBN 1475856911

Kapur, R. (2020). Problem Solving Skills: Essential Skills in Providing Solutions to Personal and Professional Problems.

Karag, I., & Bekmezei, S. (2015). Investigating Academic Achievements and Critical Thinking Dispositions of Teacher Candidates. *Journal of Education and Training Studies*, *3*(4). 10.11114/jets.v3i4.834

Kivunja, C. (2015, January 23). Unpacking the Information, Media, and Technology Skills Domain of the New Learning Paradigm. *International Journal of Higher Education*, 4(1). 10.5430/ijhe.v4n1p166

LSU Online. (2020, May 8). *How Instructional Technology Can Improve the Learning Process. Newsroom*. https://online.lsu.edu/newsroom/articles/how-instructional-technology-can-improve-learning-process/

Mallillin, L. L. (2021). Strategies, Trends, Methods and Techniques of Teaching in the New Normal Learning Perspective of Students. *East African Scholars Journal of Education, Humanities and Literature*, 4(7). 10.36349/easjehl.2021.v04i07.001

McGuire, C. (2018, May). Transforming Traditional Teaching Practices with 21st Century Skills in K-12 Classrooms. *St. Cloud State Repository*. https://repository.stcloudstate.edu/cgi/viewcontent.cgi?article=1021&context=im_etds

Meador, D. (2019). Strategies for Teachers: Preparation and Planning. ThoughtCo. https://www.thoughtco.com/power-of-preparation-and-planning-3194263

Minchin, T. (2014). *Bruner's Theory of Instruction*. New Learning Online. https://newlearningonline.com/new-learning/chapter-8/bruners-theory-of-instruction

Nasrullah, S., Khan, M. S., & Kamal, S. (2017). Effect of Claaroom Activities in Teaching Learning Process at Primary Level. *Science International*, 29(3), 691-695. http://www.sci-int.com/pdf/636430587612078336.pdf

Sharna, K. (2019, November 13). Best Learning Activities For Students in School. *The Asian School*. https://www.theasianschool.net/blog/learning-activities-for-students/

Stehle, S.M., Peters-Burton, E.E. Developing student 21st Century skills in selected exemplary inclusive STEM high schools. *IJ STEM Ed* **6,** 39 (2019). https://doi.org/10.1186/s40594-019-0192-1

Tanjung, B. J., Saragih, A., & Pulungan, A. H. (2021). The Effect of Teaching Strategies and Students' Interest in Reading Comprehension. Advances in Social Science, Education and Humanities Research. https://doi.org/10.2991/assehr.k.211110.139

Tularam, G. A. (2018, August 27). Traditional vs Non-traditional Teaching and Learning Strategies - the case of E-learning! *International Journal for Mathematics Teaching and Learning*, 19(1).

Victoria State Government. (2022, February 9). High impact teaching strategies (HITS). Department of Education and Training Victoria. https://www.education.vic.gov.au/school/teachers/teachingresources/practice/improve/Pages/hits.aspx

Williams, P. J., & Mangan, J. (2016). The effectiveness of using young professionals to influence STEM career choices of secondary school students. *Journal of Research in STEM Education*, 2(1), 2–18.