

# TEACHER'S READINESS ON LEARNING RECOVERY PLAN ON STUDENT'S COGNITIVE ENGAGEMENT AND ABILITY: BASIS FOR UPSKILLING PROGRAM

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## **ABSTRACT**

In this study, the researcher aimed to determine the significant relationship of teacher's readiness and learning recovery plan on student's cognitive engagement and ability. It was anchored on Theory of Law of Readiness, Cognitive Theory and John Dewey's Theory of Learning-by-Doing. A descriptive method of research was utilized in this study. Survey Questionnaire was formulated and given to one hundred (100) elementary teachers of Lucena East District, who were selected purposively. The findings of the study revealed that the level of teacher's readiness on learning recovery plan was very high in terms of teaching pedagogy, integration of technology, knowledge application, and classroom management. As to the level of learning recovery plan, it was interpreted as high with regards to tutoring and additional learning plan. Moreover, the level of student's cognitive engagement was interpreted as high in relation to motivation, collaboration, participation, communication and attentive listening. As to the level of student's cognitive ability in relation to comprehension, working memory, reasoning, visual processing and information processing, it was also interpreted as high.

From the results, the researcher found out that teacher's readiness on learning recovery plan has significant relationship to student's cognitive engagement as well as to student's cognitive ability. This implied that teacher has big influence towards helping learners achieve learning objectives. On the other hand, learning recovery plan also has a significant relationship to student's cognitive engagement as well as to student's cognitive ability. This proved that materials used like learning recovery plan plays an important role towards recovering student's learning as it provides them rich experiences suitable on their current needs and ability. Thus, teachers who were equipped with both the knowledge and materials results to student's better performance. Among the recommendations were the utilization of proposed upskilling program; input for decision-making to remedy the emerging deficiencies and reference in the selection of training and workshops; and conduct of another study related to teacher's readiness.

## **Keywords:**

*Teacher's readiness, learning recovery plan, student's cognitive engagement and ability, upskilling program*

## **INTRODUCTION**

In the light of post-pandemic, education from virtual, modular, blended, and distance learning turns back to what we had before which is the face to face classes. However, these transitions made the learning community adaptive and flexible but in the same manner, have brought its counter effects which

implies a thorough understanding on the needs of learning recovery. As for DepEd Order 24, S. 2022, Basic Education Development Plan (BEDP 30) puts forward on four priority development areas which include pivoting to quality in every key stage in the K to 12 program, expanding access of education for all, empowering learners and strengthening the promotion of the overall well-being of learners. As well as Deped Order 34 S. 2022, regional offices are highly encouraged to implement a contextualized set of strategies and intervention as part of the Learning Recovery and Continuity Plan that focus on learning remediation and intervention, socio-emotional functioning, mental health and well-being and professional development of teachers.

With this, involvement of school leaders and teachers builds collaboration to support learning recovery implementation that specifies set of actions on an identified strategy (National Institute for Excellent Teaching, 2021).

According to Mendoza and Hife (2020) the ability of the instructional leaders to create awareness among stakeholders about the current status of the organization may be enhanced in order to provide the information needed for goal achievements and also should ensure that subordinates are aware of quality requirements and provide training in best practices

However, as teachers are part of the learning community, prime movers of the curriculum, and ones who drives on the learning recovery, teacher's readiness on this context is one of the factors that could suffice to the success of the teaching and learning process. As we relate it on the concept of the law of readiness, teachers must be equipped with materials and knowledge that they must have to instil it with others especially to students.

In line with the above discussion, it is necessary to determine teacher's readiness and learning recovery plan as this can affect student's cognitive engagement and ability. On the other hand, could provide more knowledge that fill in gaps on the determined related experiences on the context. It could also be an indicator for the basis of crafting upskilling program.

This also sought to determine the significant relationship of teacher's readiness and learning recovery plan on student's cognitive engagement and ability.

Specifically, it aimed to answer the following questions.

- 1 What is the level of teachers readiness on learning recovery plan in terms of
  - 1.1 Teaching Pedagogy;
  - 1.2 Integration of Technology;
  - 1.3 Knowledge application; and
  - 1.4 Classroom management?
- 2 What is the level of the learning recovery plan with regards to:
  - 2.1 Tutoring; and
  - 2.2 Additional Learning Plan?
- 3 What is the level of student's cognitive engagement in relation to:
  - 3.1 Motivation;
  - 3.2 Collaboration;
  - 3.3 Participation;
  - 3.4 Communication; and
  - 3.5 Attentive listening?
- 4 What is the level of student's cognitive ability in relation to:
  - 4.1 Comprehension;
  - 4.2 Working memory;

- 4.3 Reasoning;
- 4.4 Visual processing; and
- 4.5 Information processing?

- 5 Is there a significant relationship between teacher's readiness and student's cognitive engagement?
- 6 Is there a significant relationship between teacher's readiness and student's cognitive ability?
- 7 Is there a significant relationship between the learning recovery plan and student's cognitive engagement?
- 8 Is there a significant relationship between the learning recovery plan and student's cognitive ability?

## **REVIEW OF RELATED LITERATURE**

Student's cognitive engagement is an indicator found relevant in this study. According to Casimiro (2016) five conditions that could have defined the student engagement where the nature of discussion questions, the mitigating factors for the level of student response, learning community, student characteristics, and teacher facilitation and of these the nature of discussion questions, quality of student response, and learning community appeared to be the best to promote cognitive engagement. Some forms of students' engagement which includes intellectual engagement may help teachers create lessons, assignments, or projects that appeal to student interests or stimulates their curiosity, emotional engagement that emphasizes educators the use of a wide variety of strategies to promote positive emotions in students, behavioral engagement wherein teachers may establish classroom routines, use consistent cues, or assign students roles that foster behaviors more conducive to learning, physical engagement from which teachers may use physical activities or routines to stimulate learning or interest, social engagement where teachers may use a variety of strategies to stimulate engagement through social interactions and cultural engagement from which schools play an active role to create active steps towards the diverse cultural backgrounds (Abbott, 2016).

Cognitive ability is another variable found relevant in the study. As stated by, Shi and Qu (2021) cognitive ability refers to the ability of the human brain to process, store and extract information including attention, memory and reasoning ability. Likewise Xu and Li (2015), it refers to the ability of a person to extract information more quickly and accurately and encode it accurately and efficiently in their memory, allowing the brain to output more and more effective information, resulting in greater academic achievement.

Moreover, cognitive ability is currently one of the most research and stable predictors of academic performance for it is a psychological feature and a psychological condition for the normal learning activities (Stadler et al., 2016). Likewise, suggested that early assessment of cognitive abilities, especially executive functions, can help to identify children at risk of poor academic performance (Nesayan et. al., 2019)

Likewise, cognitive abilities such as impulse controlling, planning, and monitoring are crucial for both areas of learning specifically when it comes to reading and mathematics (Best et al., 2011) but yet are essential for the success of children at school (Becker et al., 2014). Cognitive abilities which are the working memory, reasoning, and executive function help sustain a high-quality schooling and education that directly foster children's academic and cognitive development (Kievit, 2020).

Teacher's readiness is another variable found relevant in this study. As stated by Tumanduk et al. (2020) teacher readiness is an effort made by the teacher which pertains to the subject of building construction to help create optimal learning conditions with the goal of achieving effective teaching with indicators such as preparation of material, management of teaching and learning programs, management of the class, usage of media or other sources, mastery of the educational foundation, management of

teaching and learning interactions and assessment of student learning achievement for teaching purposes. Structural components of professional readiness are the theoretical components that deals with the formation of knowledge in different areas about children with different educational needs, practical and personal which dealt with the formation of professionally important qualities of the teacher's personality that allows building interaction with children (Slusareva, 2021).

Likewise, readiness is more than determining whether ready or not but rather determined by the three related components which includes motivation, general capacities, and innovation-specific capacities from which can vary in influence depending upon the setting (Wandersman Center). Along with the same lines, as anchored on the theory of Law of Readiness, satisfying state of affairs results when an individual is ready to learn and allowed to do so. Subsequently, as teachers we're also learners on their own self, this theory applies as this readiness serves as one of the key factors towards the effectiveness and efficiency in teaching. Teachers are critical drivers of student learning in schools so then well-prepared, supported, and empowered teachers were heart of this mission (Giannini, 2021).

Moreover, Lynch and Smith (2016)] teacher readiness affects the learning performance of student, thus central proposition is that high states of teacher readiness in a school would be an indicator of improvement in whole of school student learning which influence on student achievement that requires for further consideration in this aspect of educational delivery as central to ongoing discussions and research in the area. Similarly, Bolliger et al. (2019) it is therefore necessary to examine both perceptions of teachers' knowledge and skills and their perception of the readiness of their institution.

Learning Recovery Plan is another indicator found relevant in this study. Recovery should start with testing students for it allows teachers, schools, and education policy makers determine the severity of learning loss that will guide teachers on where to restart lessons will also serve as a baseline for policy makers to evaluate the impact of learning recovery policies (Gayares et al., 2022).

As for DepEd Order 34 S. 2022, Basic Education Development Plan (BEDP 30) puts forward on four priority development areas which include pivoting to quality in every key stage in the K to 12 program, expanding access of education for all, empowering learners and strengthening the promotion of the overall well-being of learners. As well as Deped Order 34 S. 2022, regional offices are highly encouraged to implement a contextualized set of strategies and intervention as part of the Learning Recovery and Continuity Plan that focus on learning remediation and intervention, socio-emotional functioning, mental health and well-being and professional development of teachers.

Likewise, Magno (2022) as stated in The Hanover Research Institute (2020) learning recovery plan is one of the best practices for the long-term recovery program from which follows several systematic models on how it is being operationalized. One of which includes the operational model at the onset of the pandemic (2021) provided by The National Institute for Excellence in Teaching (NIET) which consists four steps; conduct of a landscape analysis from which involves analysis of assessment of students learning, demographics, attendance, interview with teachers and school leaders on their perspectives to better address the learning gaps; find out strategies on areas which support for instructional practices, support for literacy, high quality curriculum and instructional materials, and ongoing individual learning intervention for learners will best support learning recovery and accelerate learning in the district; identify key personnel and build buy-in which involvement of teachers and school leaders builds the buy in to support the implementation and create a budget which means to specify set of actions on an identified for each strategy.

Similarly, according to UNESCO, the need for catch-up learning and target interventions quickly help pupils bridge their learning gaps and improve learning. On the other hand, Tarricone et al (2022) The RAPID learning recovery framework focuses on five action areas including reaching every child and retaining them in school; assessing learning levels; prioritising teaching the fundamentals; increasing catch-up learning and progress beyond what was lost; and developing psychosocial health and

wellbeing so that every child is ready to learn (UNICEF et al., 2022). It has also the goal of monitoring the implementation and progress of education policies within an education system by policymaker.

### **Related Studies**

Pietarinen et.al (2014) students' cognitive engagement was highly dependent both on the dynamic interplay between students and the school environment and, more broadly, on the daily pedagogical practices adopted in schools. The students' experience of school-related well-being was a key mediator for emotional and cognitive engagement and further, contributed to their school achievement. Thus, the detected interrelation between student learning and subjective school-related well-being has potentially significant implications for further studies attempting to understand the complexity of the experience of engagement in the multiple social contexts provided by schools and further imply the focus in developing school pedagogical practices should be the dynamics between students and their learning environment rather than solely the individual or the environment.

On the other hand, studies about student's cognitive engagement reveals that when it comes to literary, it gives opportunity for the students to actively maximize learning through applying it in real life situation and therefore enable them to become motivated, interested and interactive to follow studying in the classroom. Thus, in students' engagement, teacher gives opportunity to the students to participate while they are learning (Sesmiyanti, 2018). Likewise, Christenson et al (2012) student engagement is further important because it enables teachers the moment to moment feedback that they need during the lessons to assess how well their efforts to motivate students are working to give feedback during learning process so therefore, the students and the teachers have to have their own strategy in learning to make good atmosphere in that learning.

On the study of Steinmayr (2019), with student's motivation for academic achievement, student's ability self-concept turned out to be the most important motivational predictor of student's grades above and beyond differences in their intelligence and prior grades, even when all predictors were assessed domain-specifically.

Parallel studies on teacher's readiness reveals that although information on the virus outbreak is continually evolving, readiness and intention for adapting to the new normal prevention campaign were insufficient from which is critical to improve readiness and intention though increasing of knowledge and having the emphasis on the importance of new technologies and handy protective supplies that may encourage the sustainable practice of new norms post-pandemic is implemented. On the other hand, (DfE, 2020) school leaders need time and support to develop contingency plans to respond on sudden demands to close and re-open schools while continuing to teach. As unplanned event may have had significant impacts on the social, emotional, physical, and economic well-being of the school community that needs to be acknowledged (Harmey & Moss, 2021). Similarly, Bolliger et al. (2019) readiness is therefore necessary to examine both perceptions of teachers' knowledge and skills and their perception of the readiness of their institution.

Meanwhile, studies that focuses on learning recovery, had identified gaps in knowledge on learning recovery which includes little evidence about innovative programmes that support teachers at a fast pace; teachers awareness about the areas such as digital curriculum design, effective digital delivery and engagement and online/offline learning assessment tools; teacher's preparedness to respond to the rising challenges of school closure and re-opening; effectiveness of training in specific classroom or instructional techniques and how these might assist teachers in helping children in their classrooms; and the ways on how schools, local or national governments can support teachers back into classrooms and prevent workforce attrition, as well as teacher anxiety and trauma caused by Covid-19 and working conditions; and the most effective catch-up approaches are in a range of contexts (Kashefpakdel, 2021).

Moreover, UNESCO (2021) to recover from learning losses caused by the pandemic, policymakers need to implement guidance on the measures which includes the adjustment and streamline

curricula, assessment of learning needs to provide more individualized remedial support, especially for struggling students, strength teacher preparation and support, improvement of teaching materials and textbook availability, invest in education technology, focus on social-emotional learning and ensure gender equality.

## METHODOLOGY

This study followed the procedures of descriptive research method. It is a method that describes the characteristics of the variables studied.

This study involved a total of one-hundred (100) purposively chosen public elementary teachers from East District of Lucena. In gathering data needed to answer the research questions, a validated research questionnaire was utilized. In order to answer each specific question, the statistical treatment used was mean, standard deviation and Pearson's r.

## RESULT AND DISCUSSION

**Table 1. Level of Teachers Readiness on Learning Recovery in Terms of Teaching Pedagogy**

Statements	Mean	Standard Deviation	Remarks
The teacher has the provision of guidance and technical assistance in applying a certain strategies or methods in all types of learners.	4.36	0.88	Strongly Agree
The teacher communicates effectively for better involvement and engagement of the learners.	4.34	0.91	Strongly Agree
The teacher applies a certain strategy with mastery in recovering the learning gaps.	4.28	0.95	Strongly Agree
The teacher selects appropriate teaching method to recover learning gaps.	4.29	0.95	Strongly Agree
The teacher serves as a mentor or coach who helps all types of learners in achieving the learning goals.	4.43	0.85	Strongly Agree

*Overall Mean = 4.34*

*Standard Deviation = 0.91*

*Verbal Interpretation = Very High*

Table 1 show the level of teachers' readiness in terms of teaching pedagogy. The teachers *strongly agree* that they serve as mentor or coach who helps all types of learners in achieving their goals (M= 4.43, SD= 0.85), has a provision of guidance and technical assistance in applying a certain strategies or methods in all types of learners (M= 4.36, SD= 0.88). On the other hand, teachers *strongly agree* that they apply certain strategy with mastery in recovering the learning gap (M= 4.28, SD= 0.95).

The overall mean of 4.34 indicate that teacher's level of readiness in terms of teaching pedagogy is *very high*. This means that teacher used appropriate teaching strategy and materials as well as understanding the learning gap happened for the learners to achieve the leaning objectives.

As cited by Tumanduk et al (2020), effort made by the teacher pertains to the subject of building construction that create optimal learning conditions like achieving goals in teaching. Similarly, Slusareva (2021) professional readiness dealt with the formation of knowledge in different areas about children with different educational needs.

Table 2 indicate the level of teachers' readiness in terms of integration of technology. The teachers *strongly agree* that they have hardware resources such as laptop, computer, etc. (M= 4.36, SD= 0.89), has a provision of guidance and technical assistance with the use of technology (M= 4.27, SD= 0.90). On the other hand, teachers *agree* that they have enough knowledge and skills on the use of different software application and learning platforms (M= 4.09, SD= 0.97).

**Table 2. Level of Teachers Readiness on Learning Recovery in Terms of Integration of Technology**

Statements	Mean	Standard Deviation	Remarks
The teacher has the provision of guidance and technical assistance with the use of technology.	4.27	0.90	Strongly Agree
The teacher has hardware resources such as laptop, computer, etc.	4.36	0.89	Strongly Agree
The teacher has access in the internet connection.	4.14	0.97	Agree
The teacher has enough knowledge and skills on the use of different software, application and learning platforms.	4.09	0.97	Agree
The teacher makes interactive activities based on student's suitability to attain the objectives of the lesson through the use of technology.	4.22	0.91	Strongly Agree

*Overall Mean = 4.21*

*Standard Deviation= 0.93*

*Verbal Interpretation= Very High*

Findings supported by Kashfepakdel (2021) teacher awareness about the areas such as digital curriculum design, effective digital delivery and engagement must be the focus on learning recovery. Likewise, UNESCO (2021) investment in educational technology was one of the ways to recover from learning losses caused by pandemic.

Table 3 reveal the level of teachers' readiness in terms of knowledge application. The teachers *strongly agree* that they transfer knowledge according to the learner's current ability (M= 4.33, SD= 0.91), and creates developmental plan in fulfilling gaps of the learners (M= 4.26, SD= 0.93). On the other hand, teachers *agree* that they provide certain measures and guidelines on how to recover learning gaps. (M= 4.19, SD= 0.94).

**Table 3. Level of Teachers Readiness on Learning Recovery in Terms of Knowledge application**

Statements	Mean	Standard Deviation	Remarks
The teacher has the provision of guidance and technical assistance on addressing the gaps of the student's learning.	4.23	0.97	Strongly Agree
The teacher employs varied questioning styles that suits to learner's current ability.	4.24	0.95	Strongly Agree
The teacher transfers knowledge according to the learner's current ability.	4.33	0.91	Strongly Agree
The teacher provides certain measures and guidelines on how to recover learning gaps.	4.19	0.94	Agree
The teacher creates developmental plan in fulfilling gaps of the learners.	4.26	0.93	Strongly Agree

*Overall Mean = 4.25*

*Standard Deviation = 0.94*

*Verbal Interpretation = Very High*

The overall mean of 4.25 indicates that teacher's level of readiness in terms of knowledge application is *very high*. This indicates that teacher created plans and provided varied methods and strategies that cater the needs of the students in recovering learning.

As cited by Gayares et. al (2022) strategies to recover learning loss includes teaching that tailored student's current learning level. Likewise, Stalnaker (2018) developmental plan serve as intensive improvement approaches to advance student outcomes.

**Table 4. Level of Teachers Readiness on Learning Recovery in Terms of Classroom management**

Statements	Mean	Standard Deviation	Remarks
The teacher has the provision of guidance and technical assistance on employing teaching strategies to support learning recovery in the classroom.	4.30	0.92	Strongly Agree
The teacher has the provision of guidance and technical assistance in assisting less marginalized learners.	4.25	0.92	Strongly Agree

The teacher has the provision of guidance and technical assistance in managing students' differences.	4.25	0.94	Strongly Agree
The teacher has the provision of training opportunities for the classroom disciplines to be imposed in the context of learning recovery.	4.13	1.00	Agree
The teacher has the provision of training opportunities on handling and settling post-pandemic students in the classroom.	4.20	0.95	Agree

*Overall Mean = 4.22*

*Standard Deviation = 0.94*

*Verbal Interpretation = Very High*

Table 4 includes the level of teachers' readiness in terms of classroom management. The teachers *strongly agree* that they has the provision of guidance and technical assistance on employing teaching strategies to support learning recovery in the classroom (M= 4.30, SD= 0.92), has the provision of guidance and technical assistance in managing students' differences. (M= 4.25, SD= 0.92). On the other hand, teachers *agree* that they has the provision of training opportunities for the classroom disciplines to be imposed in the context of learning recovery (M= 4.13, SD= 1.00).

The overall mean of 4.22 indicated that teacher's level of readiness in terms of classroom management is *very high*. This means that teacher has the provision of guidance and technical assistance that supports the learning recovery of student's differences in the classroom.

In line with, Kashefpakdel (2021) support on the effectiveness of training in specific classroom or instructional techniques might assist teachers in helping children in the classroom. Likewise, UNESCO (2021) the need to implement guidance on the measures helps recover learning losses.

### **Level of Learning Recovery**

In this study, level of learning recovery includes tutoring, additional learning plan and was determine by the mean and standard deviation.

**Table 5. Level of Learning Recovery with Regards to Tutoring**

Statements	Mean	Standard Deviation	Remarks
The teacher ensures learning materials that caters the need of the students.	4.10	0.94	Agree
The teacher provides varied activities that suits to student's current ability.	4.11	0.96	Agree
The teacher helps learners grasp the appropriate knowledge, skills, attitudes and values based on their current ability.	4.20	0.93	Agree

The teacher provides time to assess and identify the needs of less marginalized students.	4.18	0.92	Agree
The teacher intensifies remediation among learners.	4.22	0.97	Strongly Agree

*Overall Mean = 4.16*

*Standard Deviation = 0.94*

*Verbal Interpretation = High*

Table 5 reveals the level of learning recovery with regards to tutoring. The teachers *strongly agree* that they intensify remediation among learners (M= 4.22, SD= 0.97), and agree that they help learners grasp the appropriate knowledge, skills, attitudes and values based on their current ability (M= 4.20, SD= 0.93). On the other hand, teachers *agree* that they ensure learning materials that caters the need of the students (M= 4.10, SD= 0.94).

The overall mean of 4.16 means that the level of learning recovery with regards to tutoring *is high*. This means that teachers intensify remediation through the use of learning materials appropriate to student's learning strategy and needs in order to achieve the leaning objectives.

As cited by Nguye (2013) tutoring includes maintaining a supportive and encouraging relationship. Meanwhile, according to Madera (2018), it is a method for improving educational effectiveness.

In line with UNESCO (2021) the need for more individualized remedial support helps recover learning losses.

Table 6 shows the level of learning recovery with regards to additional learning plan. The teachers *agree* that they seek parental support in implementing plans on addressing learning gaps (M= 4.20, SD= 1.02), and seek support to school administrators in carrying out the plans on learning recovery. (M= 4.15, SD= 1.01). On the other hand, teachers *agree* that they has enough budget support in employing the plans on learning recovery (M= 3.69, SD= 1.17).

The overall mean of 4.05 means that the level of learning recovery with regards to additional learning plan *is high*. This means that teachers carried out additional learning plan through seeking of administration and parental support and as well as in the implementation and utilization of the plan.

**Table 6. Level of Learning Recovery with Regards to Additional Learning Plan**

Statements	Mean	Standard Deviation	Remarks
The teacher seeks parental support in implementing plans on addressing learning gaps.	4.20	1.02	Agree
The teacher seeks supports to school administrators in carrying out the plans on learning recovery.	4.15	1.01	Agree
The teacher has enough budget support in employing the plans on learning recovery.	3.69	1.17	Agree

The teacher monitors the carried-out learning plan on recovering learning gaps.	4.11	0.93	Agree
The teacher ensures the evaluation of the carried-out learning plan.	4.09	0.95	Agree

*Overall Mean = 4.05*

*Standard Deviation= 1.03*

*Verbal Interpretation= High*

As supported by Magno (2020) support on the implementation and creation of budget specify set of actions that best support learning recovery and accelerate leaning. Likewise, UNESCO (2021) to recover from learning losses caused by the pandemic we need to strengthen teacher preparation and support.

### Level of Students Cognitive Engagement

In this study level of students' cognitive engagement include motivation, collaboration, participation, communication, and attentive listening.

Table 7 reveals the level of student's cognitive engagement in relation to motivation. The teachers *agree* that students show general desire to achieve the learning objective (M= 3.86, SD= 0.97), know the purpose of what they do and able to inspire others (M= 3.85, SD= 0.97). On the other hand, teachers *agree* that students have patience and persistence towards learning concepts (M= 3.81, SD= 1.00) and always show positivity in every task they do (M= 3.84, SD= 0.99)

**Table 7. Level of Student's Cognitive Engagement in Relation to Motivation**

Statements	Mean	Standard Deviation	Remarks
The students have patience and persistence towards learning concepts.	3.81	1.00	Agree
The students show general desire to achieve the learning objective.	3.86	0.97	Agree
The students are enthusiastic in every activity and task they do.	3.84	0.99	Agree
The students always show the positivity in every task they do.	3.81	0.99	Agree
The students know the purpose of what they do and able to inspire others.	3.85	0.97	Agree

*Overall Mean = 3.84*

*Standard Deviation= 0.98*

*Verbal Interpretation= High*

The overall mean of 3.84 means that the level of student's cognitive engagement in relation to motivation is *high*. This means that students show their passion in learning and performing deemed activities towards attaining learning objective.

As cited by Sesmiyanti (2018) cognitive engagement in the classroom tends to truly understand a topic that maximize learning by applying it in real life situation and therefore enable them to become motivated, interested, and interactive. Parallel on the study of Abbott (2016) one of the best ways to promote cognitive engagement is through teacher self-made activities and projects wherein appeals or stimulates student's curiosity.

**Table 8. Level of Student's Cognitive Engagement in Relation to Collaboration**

Statements	Mean	Standard Deviation	Remarks
The students welcome and value other's input.	3.90	1.00	Agree
The students show promotive interaction.	3.91	0.98	Agree
The students promote their social skills with their group mates or partners in doing tasks and activities.	4.00	0.97	Agree
The students show individual and group accountability.	3.93	0.99	Agree
The students show positive interdependence.	3.84	0.99	Agree

*Overall Mean = 3.92*

*Standard Deviation = 0.98*

*Verbal Interpretation = High*

Table 8 indicate the level of student's cognitive engagement in relation to collaboration. The teachers *agree* that students promote their social skills with their group mates or partners in doing tasks and activities. (M= 4.00, SD= 0.97), show individual and group accountability (M= 3.93, SD= 0.99). On the other hand, teachers *agree* that students show positive interdependence (M= 3.84, SD= 0.99).

The overall mean of 3.92 indicate that the level of student's cognitive engagement in relation to collaboration is *high*. This means that students show positive social interaction among their group mates and partners in performing and accomplishing tasks or inputs.

As stated by Pietarinen et. al (2014) student's cognitive engagement was highly dependent both on the dynamic interplay between students and school environment. Likewise, Christenson et al. (2012) it relates to strategic learning strategies and active self-regulation from which includes independent work styles and so on.

**Table 9. Level of Student's Cognitive Engagement in Relation to Participation**

Statements	Mean	Standard Deviation	Remarks
The students are able to express/ debate their ideas to their classmates.	3.67	0.95	Agree

The students able to exchange ideas promptly to their teachers.	3.74	0.98	Agree
The students promote active interaction in every discussion.	3.95	0.91	Agree
The students able to expound their answers in a direct way.	3.87	0.97	Agree
The students get along well with every activity they are deemed to.	3.92	0.96	Agree

*Overall Mean = 3.83*

*Standard Deviation = 0.95*

*Verbal Interpretation = High*

Table 9 includes the level of student's cognitive engagement in relation to participation. The teachers *agree* that students promote active interaction in every discussion (M= 3.95, SD= 0.91), get along well with every activity they are deemed to (M= 3.92, SD= 0.96). On the other hand, teachers *agree* that students able to express/ debate their ideas to their classmates (M= 3.67, SD= 0.95).

The overall mean of 3.83 indicate that the level of student's cognitive engagement in relation to participation is *high*. This means that students can able to express their selves and ideas in interacting to their teachers and classmates as well as show eagerness in performing every activity.

According to Casimiro (2016) some of the conditions that could have defined the student engagement were the nature of discussion questions, teacher facilitation and of these nature of discussion questions and the quality of student response that appeared to be the best in promoting cognitive engagement.

**Table 10. Level of Student's Cognitive Engagement in Relation to Communication**

Statements	Mean	Standard Deviation	Remarks
The students are able to communicate ideas very well	3.62	1.06	Agree
The students are able to reason out well to support their answer.	3.73	1.11	Agree
The students promote positive Interaction with teachers and classmates often.	3.80	0.97	Agree
The students are able to provide feedback with their teachers.	3.76	1.01	Agree
The students easily remove the barriers in communicating to others.	3.62	1.06	Agree

*Overall Mean = 3.71*

*Standard Deviation = 1.04*

*Verbal Interpretation = High*

Table 10 includes the level of student's cognitive engagement in relation to communication.

The teachers *agree* that students promote positive Interaction with teachers and classmates often. (M= 3.80, SD= 0.97), able to provide feedback with them (M= 3.76, SD= 1.01). On the other hand, teachers *agree* that students communicate ideas very well (M= 3.62, SD= 1.06) and easily remove the barriers in communicating to others (M= 3.62, SD= 1.06)

The overall mean of 3.71 indicate that the level of student's cognitive engagement relation to communication is *high*. This means that students are able to communicate effectively in interacting their ideas, reasons and feedbacks to their teachers and classmates.

As stated by Christenson et al (2012) student engagement enables feedback that they needed during the lessons in creating good atmosphere in that learning. Similarly, OECD (2013) students may ask question or for clarifications that may also respond to other requests c questions.

**Table 11. Level of Student's Cognitive Engagement in Relation to Attentive Listening**

Statements	Mean	Standard Deviation	Remarks
The students listen and follow to directions easily.	3.53	1.16	Agree
The students respond promptly when ask questions.	3.56	1.17	Agree
The students focus to on what the teachers are saying.	3.64	1.11	Agree
The students ask questions when they want to clarify the information about the concept or the topic.	3.61	1.14	Agree
The students provide feedback on what have been heard.	3.60	1.15	Agree

*Overall Mean = 3.59*

*Standard Deviation= 1.14*

*Verbal Interpretation= High*

Table 11 indicates the level of student's cognitive engagement in relation to attentive listening.

The teachers *agree* that students focus on to what the teachers are saying. (M= 3.64, SD= 1.11), able to ask questions when they want to clarify the information about the concept or the topic (M= 3.61, SD= 1.14). On the other hand, teachers *agree* that students listen and follow to directions easily (M= 3.53, SD= 1.16)

The overall mean of 3.59 reveals that the level of student's cognitive engagement in relation to attentive listening is *high*. This means that students are attentive listeners as they can able to follow and clarify directions in learning as well as give feedback and reactions on what being told and discussed.

As cited by Akyol (2012) observable external signs of active listening include expressing approval or disapproval of what is being said and contributing appropriate explanations and

comments. Likewise, Canpolal et al (2015) it is a multidimensional process that involves various cognitive, affective and psychomotor-based elements.

### Level of Student Cognitive Ability

In this study, level of students cognitive ability include comprehension, working memory, reasoning, visual processing, and information processing and was determined by mean and standard deviation.

Table 12 indicates the level of student's cognitive ability relation to comprehension.

The teachers *agree* that students have the ability to identify main idea and key details on a passage (M= 3.47, SD= 1.07), make proper inferences and solving problem (M= 3.45, SD= 1.04). On the other hand, teachers moderately *agree* that students are able to reason out well on the questions why and how (M= 3.33, SD= 1.08) and comprehend simple to complex texts in reading (M= 3.33, SD= 1.10)

**Table 12. Level of Student's Cognitive Ability in Relation to Comprehension**

Statements	Mean	Standard Deviation	Remarks
The students comprehend simple to complex texts in reading.	3.33	1.10	Moderately agree
The students are able to reason out well on the questions why and how.	3.33	1.08	Moderately agree
The students have the ability to answer direct recall questions.	3.45	1.04	Agree
The students have the ability to identify main idea and key details on a passage.	3.47	1.07	Agree
The students make proper inferences and solving problem	3.35	1.03	Strongly Agree

*Overall Mean = 3.38*

*Standard Deviation= 1.06*

*Verbal Interpretation= Moderately High*

The overall mean of 3.38 reveals that the level of student's cognitive ability in relation to comprehension is *moderately high*. This means that the students are average in comprehension as they can able to comprehend texts, passages, and paragraphs as well as to solve problems.

According to Shi and Qu (2012) comprehension supports effective extraction of meaning from a written passage. Successful readers tend to create connection between ideas, understand complex notions and reflect on the information simultaneously while reading (Javed et al., 2015) However, Gorsuch et al (2015) the hinder that affects their interest when it comes to reading comprehension is the lack of reading fluency.

**Table 13. Level of Student's Cognitive Ability in Relation to Working Memory**

Statements	Mean	Standard Deviation	Remarks
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The students have retention of information for a period of time.	3.43	1.04	Agree
The students have the ability to adopt activities based on situational requests or time	3.59	1.09	Agree
The students have the ability to control the response or ignore the information.	3.46	1.03	Agree
The students concentrate on the important features of the learning environment.	3.40	1.08	Agree
The students are able to hold information while engaged in other activities.	3.54	1.04	Agree

*Overall Mean = 3.48*

*Standard Deviation= 1.06*

*Verbal Interpretation= High*

Table 13 shows the level of student's cognitive ability in relation to working memory. The teachers *agree* that students have the ability to adopt activities based on situational requests or time (M= 3.59, SD= 1.09), able to hold information while engaged in other activities (M= 3.54, SD= 1.04). On the other hand, teachers *agree* that students concentrate on the important features of the learning environment (M= 3.40, SD= 1.08).

The overall mean of 3.48 reveals that the level of student's cognitive ability relation to working memory. is *high*. This means that the students are independent and responsible towards goals and activities they are opt to do as well as adopt in transition of learning.

As cited by Canpolat et al (2015) cognitive process involves an array of intellectual behaviours such as paying attention, taking notes and asking questions. Likewise, it is stable predictors of academic performance for it is a psychological feature and a psychological condition of normal learning (Gorsuch et al, 2015).

**Table 14. Level of Student's Cognitive Ability in Relation to Reasoning**

Statements	Mean	Standard Deviation	Remarks
The students have the ability to summarize new understanding in its own words.	3.41	1.05	Agree
The students are able to connect other concept to their new learning concept.	3.72	1.03	Agree
The students have the ability to reason out well and debate for their ideas	3.47	1.11	Agree
The students are able to draw inferences and reach conclusions based on given information.	3.58	1.05	Agree

The students strongly express ideas that supports to their answer.	3.56	1.08	Agree
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*Overall Mean = 3.55*

*Standard Deviation= 1.07*

*Verbal Interpretation= High*

Table 14 indicates the level of student's cognitive ability in relation to reasoning. The teachers *agree* that students are able to connect other concept to their new learning concept (M= 3.72, SD= 1.03), they can draw inferences and reach conclusions based on given information (M= 3.58, SD= 1.05). On the other hand, teachers *agree* that students have the ability to summarize new understanding in its own words (M= 3.41, SD= 1.05).

The overall mean of 3.55 shows that the level of student's cognitive ability in relation to working memory is *high*. This means that the students are able to create their own understanding and associations based on the learning he/she learned.

As supported by Shi and Qu (2012) cognitive ability refers to the ability of the human brain to process, store and extract communication including memory and attention. Likewise, it is stable predictors of academic performance for it is a psychological feature and a psychological condition of normal learning (Gorsuch et al, 2015).

**Table 15. Level of Student's Cognitive Ability in Relation to Visual Processing**

Statements	Mean	Standard Deviation	Remarks
The students have the ability to recognize differences in size, colour or shape.	3.87	0.92	Agree
The students supply patterns on the given information.	3.83	0.87	Agree
The students are able to recognize differences and similarities.	3.84	0.91	Agree
The students have the ability to store and recall visual representations from visual imagery and visual memory.	3.81	0.88	Agree
The students have the ability to organize and interpret information that is seen and give its meaning.	3.65	0.96	Agree

*Overall Mean = 3.80*

*Standard Deviation= 0.91*

*Verbal Interpretation= High*

Table 15 indicates the level of student's cognitive ability relation to visual processing. The teachers *agree* that students have the ability to recognize differences in size, colour or shape (M= 3.87, SD= 0.92), able to recognize differences and similarities (M= 3.84, SD= 0.91). On the other hand, teachers *agree* that students have the ability to organize and interpret information that is seen and give its meaning (M= 3.65, SD= 0.96).

The overall mean of 3.80 shows that the level of student's cognitive ability relation to visual processing is *high*. This means that the students are able to differentiate visual imagery and visual memory as well as analysing patterns.

According to Shi and Qu (2012) cognitive ability refers to the ability of the human brain to process, store and extract communication including memory and attention.

**Table 16. Level of Student's Cognitive Ability in Relation to Information Processing**

Statements	Mean	Standard Deviation	Remarks
1. The students have the ability to process information quickly.	3.58	1.06	Agree
2. The students understand concepts meaningfully.	3.66	1.05	Agree
3. The students are able to learn from their homework and tests that promote next learning step.	3.69	0.96	Agree
4. The students are able to break information into smaller parts.	3.61	1.01	Agree
5. The students have the ability to relate concepts to other concepts.	3.63	1.04	Agree

*Overall Mean = 3.64*

*Standard Deviation = 1.02*

*Verbal Interpretation = High*

Table 16 reveals the level of student's cognitive ability in relation to information processing. The teachers *agree* that students are able to learn from their homework and tests that promote next learning step. (M= 3.69, SD= 0.96), understand concepts meaningfully. (M= 3.66, SD= 1.05). On the other hand, have the ability to process information quickly (M= 3.58, SD= 1.06).

The overall mean of 3.64 shows that the level of student's cognitive ability relation to visual processing is *high*. This means that the students can able to make connections between being learned and what is being learned as well as the stability in accepting new information.

As stated by Kim and Lee (2014) information processing is the ability of the students to discover a problem about the subject by themselves, remake information and internalize it.

Table 17 show the significant relationship between teachers' readiness and students' cognitive engagement. There is a significant relationship exist in terms of teaching pedagogy and level of cognitive engagement in terms of motivation ( $r= 0.467$ ,  $p=0.000$ ), collaboration ( $r= 0.465$ ,  $p= 0.000$ ) participation ( $r= 0.471$ ,  $p= 0.000$ ), communication ( $r= 0.471$ ,  $p= 0.000$ ), and attentive listening ( $r= 0.418$ ,  $p= 0.000$ ). The correlation is positive and moderate. This means that teacher readiness on teaching pedagogy help students to develop cognitive engagement. Students motivate to participate in task and show their accountability, promote positive interaction with teachers and students.

**Table 17. Significant Relationship Between Teacher's Readiness and Student's Cognitive Engagement**

Teachers Readiness	Cognitive Engagement	r-value	Degree of Correlation	P-value	Analysis
Teaching Pedagogy	<i>Motivation</i>	0.467	Moderate Correlation	0.000	Significant
	Collaboration	0.465	Moderate Correlation	0.000	Significant
	Participation	0.471	Moderate Correlation	0.000	Significant
	Communication	0.471	Moderate Correlation	0.000	Significant
	Attentive listening	0.418	Moderate Correlation	0.000	Significant
Integration of technology	<i>Motivation</i>	0.418	Moderate Correlation	0.000	Significant
	Collaboration	0.388	Weak Correlation	0.000	Significant
	Participation	0.518	Moderate Correlation	0.000	Significant
	Communication	0.452	Moderate Correlation	0.000	Significant
	Attentive listening	0.341	Weak Correlation	0.000	Significant
Knowledge Application	<i>Motivation</i>	0.500	Moderate Correlation	0.000	Significant
	Collaboration	0.531	Moderate Correlation	0.000	Significant
	Participation	0.471	Moderate Correlation	0.000	Significant
	Communication	0.501	Moderate Correlation	0.000	Significant
	Attentive listening	0.471	Moderate Correlation	0.000	Significant
Classroom management	<i>Motivation</i>	0.566	Moderate Correlation	0.000	Significant
	Collaboration	0.525	Moderate Correlation	0.000	Significant
	Participation	0.529	Moderate Correlation	0.000	Significant
	Communication	0.483	Moderate Correlation	0.000	Significant
	Attentive listening	0.429	Moderate Correlation	0.000	Significant

*Legend:*±0.80 – ± 1.00 *Very strong*

$\pm 0.60 - \pm 0.79$  *Strong*

$\pm 0.40 - \pm 0.59$  *Moderate*

$\pm 0.20 - \pm 0.39$  *Weak*

$\pm 0.00 - \pm 0.19$  *Very weak*

According to Abbott (2016) teachers may create some forms of students' engagement which may include intellectual engagement through creating lessons, assignments and projects that appeal to student interests or stimulates their curiosity. Similarly, Pietarinen et. al (2014) they were dependent both on the dynamic interplay between students and the school environment as well as, in the daily pedagogical practices adopted in schools.

Meanwhile, there is a significant relationship existing in terms of integration of technology and level of cognitive engagement in terms of motivation ( $r= 0.418$ ,  $p=0.000$ ), collaboration ( $r= 0.388$ ,  $p= 0.000$ ) participation ( $r= 0.518$ ,  $p= 0.000$ ), communication ( $r= 0.452$ ,  $p= 0.000$ ), and attentive listening ( $r= 0.341$ ,  $p= 0.000$ ). The correlation are positive that range from weak to moderate ( $r= 0.452$ ,  $p= 0.000$ ), ( $r= 0.518$ ,  $p= 0.000$ ), ( $r= 0.388$ ,  $p= 0.000$ ) and ( $r= 0.341$ ,  $p= 0.000$ ). This means that teachers readiness on the on teaching. This means that teacher readiness on integration of technology help students to develop cognitive engagement. Students were introduce in different learning devices that uses technology, arouse interest and provide activities suited in addressing learning gaps.

According to Direen (2016) having the emphasis on the importance of new technologies would make the teachers ready in handling and managing students. Likewise, Kashefpakdel (2021) teacher awareness about the areas such as digital curriculum design, effective digital delivery and engagement must be the focus on learning recovery.

On the other hand, a significant relationship exist in terms of knowledge application and level of cognitive engagement in terms of motivation ( $r= 0.500$ ,  $p=0.000$ ), collaboration ( $r= 0.531$ ,  $p= 0.000$ ) participation ( $r= 0.471$ ,  $p= 0.000$ ), communication ( $r= 0.501$ ,  $p= 0.000$ ), and attentive listening ( $r= 0.471$ ,  $p= 0.000$ ). The correlation is positive and moderate. ( $r= 0.452$ ,  $p= 0.000$ ), ( $r= 0.518$ ,  $p= 0.000$ ), ( $r= 0.388$ ,  $p= 0.000$ ) and ( $r= 0.341$ ,  $p= 0.000$ ). This means that teacher readiness on knowledge application help students to develop cognitive engagement. Students were given adaptive learning support, explanations and constructive feedbacks as well as positivity towards learning is shown.

As stated by Gayares et. al (2022) strategies to recover learning loss includes teaching that tailored student's current learning level.

However, significant relationship exist in terms of classroom management and level of cognitive engagement in terms of motivation ( $r= 0.566$ ,  $p=0.000$ ), collaboration ( $r= 0.525$ ,  $p= 0.000$ ) participation ( $r= 0.529$ ,  $p= 0.000$ ), communication ( $r= 0.483$ ,  $p= 0.000$ ), and attentive listening ( $r= 0.429$ ,  $p= 0.000$ ). The correlation is positive and moderate. This means that teacher readiness on classroom management help students to develop cognitive engagement. Students feel that they are secured and accepted by their teachers, classmates and peers as well as promote positive interaction and collaboration.

As cited by Bozkus (2021) the presence of classroom management enables students in active participation and effective learning achieved. Similarly, Baker et. al as cited by Bozkus (2021) undesirable behaviors of the majority of students can be prevented and student's participation in classes will increase.

Table 18 revealed the significant relationship between teachers' readiness and level of students' cognitive ability. There is a significant relationship exist in terms of teaching pedagogy and level of cognitive ability in terms of comprehension ( $r=0.307$ ,  $p= 0.002$ ), working memory ( $r= 0.342$ ,  $p= 0.000$ ), reasoning( $r= 0.248$ ,  $p= 0.012$ ), visual processing ( $r= 0.423$ ,  $p= 0.000$ ) and information Processing ( $r= 0.297$ ,  $p= 0.003$ ) The correlation is positive and ranged from weak to moderate.

This means that teacher's readiness on teaching pedagogy help students to develop cognitive ability. Students extract information, follow pattern, and interpret its implied meaning through teacher's selection of strategies, activities and assessments that helps recover learning gaps.

According to Tumanduk et al (2020), effort made by the teacher pertains to the subject of building construction which create optimal learning conditions like achieving goals in teaching. Similarly, Slusareva (2021) professional readiness dealt with the formation of knowledge in different areas about children with different educational needs.

Meanwhile, there is a significant relationship exist in terms of integration of technology and level of cognitive ability in terms of comprehension ( $r=0.327$ ,  $p= 0.001$ ), working memory ( $r= 0.229$ ,  $p= 0.002$ ), reasoning( $r= 0.347$ ,  $p= 0.000$ ), visual processing ( $r= 0.378$ ,  $p= 0.000$ ) and information processing ( $r= 0.364$ ,  $p= 0.000$ ).

**Table 18. Significant Relationship Between Teacher's Readiness and Student's Cognitive Ability**

Teachers Readiness	Cognitive Ability	r-value	Degree of Correlation	p-value	Analysis
Teaching Pedagogy	<i>Comprehension</i>	0.307	Weak Correlation	0.002	Significant
	Working memory	0.342	Weak Correlation	0.000	Significant
	Reasoning	0.248	Weak Correlation	0.012	Significant
	Visual processing	0.423	Moderate Correlation	0.000	Significant
	Information processing	0.297	Weak Correlation	0.003	Significant
Integration of technology	<i>Comprehension</i>	0.327	Weak Correlation	0.001	Significant
	Working memory	0.299	Weak Correlation	0.002	Significant
	Reasoning	0.347	Weak Correlation	0.000	Significant
	Visual processing	0.378	Weak Correlation	0.000	Significant
Knowledge application	Information processing	0.364	Weak Correlation	0.000	Significant
	<i>Comprehension</i>	0.374	Weak Correlation	0.000	Significant

Classroom management	Working memory	0.337	Weak Correlation	0.001	Significant
	Reasoning	0.407	Moderate Correlation	0.000	Significant
	Visual processing	0.455	Moderate Correlation	0.000	Significant
	Information processing	0.407	Moderate Correlation	0.000	Significant
	<i>Comprehension</i>	0.386	Weak Correlation	0.000	Significant
	Working memory	0.338	Weak Correlation	0.001	Significant
	Reasoning	0.368	Weak Correlation	0.000	Significant
	Visual processing	0.403	Moderate Correlation	0.000	Significant
	Information processing	0.392	Weak Correlation	0.000	Significant

**Legend:**

±0.80 – ± 1.00 *Very strong*

±0.60 – ± 0.79 *Strong*

±0.40 – ± 0.59 *Moderate*

±0.20 – ± 0.39 *Weak*

±0.00 – ± 0.19 *Very weak*

The correlation is positive and weak. This means that teacher readiness on integration of technology help students to develop cognitive ability. Students were introduced with different learning devices that use technology which lead them to concentrate on important features of learning and exposed with interactive activities based on their suitability of attaining the objectives of the lesson.

As stated by Cecilia et al. (2015) technological exposition in childhood can favour a better cognitive flexibility and enhanced learning. Likewise, Di Gicomo et al. (2015) the child may be better stimulated to learn and comprehend the information using technology interactive thus might be a strong ally in mental development.

On the other hand, significant relationship exist in terms of knowledge application and level of cognitive ability in terms of comprehension ( $r=0.374$ ,  $p= 0.000$ ), working memory ( $r= 0.337$ ,  $p= 0.001$ ), reasoning( $r= 0.407$ ,  $p= 0.00$ ), visual processing ( $r= 0.455$ ,  $p= 0.000$ ) and information processing ( $r= 0.407$ ,  $p= 0.000$ ) The correlation is positive and ranged from weak to moderate.

This shows that teacher’s readiness on knowledge application help students to develop cognitive ability. Students are provided with activities based on their individual needs and differences which enable them to extract and process information, express and support ideas, and recognize similarities and differences based on their own understanding.

As cited by Arhin et al. (2021) pedagogical content knowledge is a blend of competence used to teach on impact subject knowledge to learners.

However, there is a significant relationship exist in terms of classroom management and level of cognitive ability in terms of comprehension ( $r=0.386$ ,  $p= 0.000$ ), working memory ( $r= 0.338$ ,  $p= 0.001$ ), reasoning( $r= 0.368$ ,  $p= 0.00$ ), visual processing ( $r= 0.403$ ,  $p= 0.000$ ) and information processing ( $r= 0.392$ ,  $p= 0.000$ ) The correlation is positive and ranged from weak to moderate.

This reveals that teacher's readiness on classroom management help students to develop cognitive ability. Students are exposed with classroom discipline and teaching strategies that assist them in recovering learning from which enable them to extract and process information, express and support ideas, and recognize similarities and differences based on their own understanding.

As cited by Gage (2018) classroom practices have direct relationship with student's academic achievement. Parallel with Nisar (2018) good relationship between teacher's practices and learner's achievement was found as a vital and basic element for the school high academic scores.

Table 19 reveal the significant relationship between learning recovery and students' cognitive engagement. A significant relationship exist in terms of tutoring and level of cognitive engagement in terms of motivation ( $r= 0.557$ ,  $p=0.000$ ), collaboration ( $r= 0.592$ ,  $p= 0.000$ ) participation ( $r= 0.578$ ,  $p= 0.000$ ), communication ( $r= 0.518$ ,  $p= 0.000$ ), and attentive listening ( $r= 0.436$ ,  $p= 0.000$ ). The correlation is positive and moderate. This means that learning recovery on tutoring help students to develop cognitive engagement. Students are deemed to perform tasks that address learning gaps appropriate to their knowledge, skills, attitudes and values based on their current ability which arouse their interest towards learning, participate in learning activities and communicate ideas among teachers and classmates.

**Table 19. Significant Relationship Between Learning Recovery and Student's Cognitive Engagement**

Learning Recovery	Cognitive Engagement	r- value	Degree of Correlation	p- value	Analysis
Tutoring	<i>Motivation</i>	0.557	Moderate Correlation	0.000	Significant
	Collaboration	0.592	Moderate Correlation	0.000	Significant
	Participation	0.578	Moderate Correlation	0.000	Significant
	Communication	0.518	Moderate Correlation	0.000	Significant
	Attentive listening	0.436	Moderate Correlation	0.000	Significant
Additional Learning Plan	Motivation	0.644	Strong Correlation	0.000	Significant
	Collaboration	0.628	Strong Correlation	0.000	Significant
	Participation	0.603	Strong Correlation	0.000	Significant

Communication	0.636	Strong Correlation	0.000	Significant
Attentive listening	0.596	Moderate Correlation	0.000	Significant

**Legend:**±0.80 – ± 1.00 *Very strong*±0.60 – ± 0.79 *Strong*±0.40 – ± 0.59 *Moderate*±0.20 – ± 0.39 *Weak*±0.00 – ± 0.19 *Very weak*

In reference to the study of Ching (2007) as cited in Madera (2018) tutoring is one the method in improving educational effectiveness as well as maintain support and encouragement to the learners. (Nguye, 2013)

On the other hand, there is a significant relationship existing in terms of additional learning plan and level of cognitive engagement in terms of motivation ( $r= 0.644$ ,  $p=0.000$ ), collaboration ( $r= 0.628$ ,  $p= 0.000$ ) participation ( $r= 0.603$ ,  $p= 0.000$ ), communication ( $r= 0.636$ ,  $p= 0.000$ ), and attentive listening ( $r= 0.596$ ,  $p= 0.000$ ). The correlation is positive that range from moderate to strong. This indicates that learning recovery on additional learning plan help students to develop cognitive engagement. Student' activities from the learning plan is supported by the stakeholders and are subjected to monitoring and evaluation which makes them inspire, show general desire and persistence toward achieving the learning goals as well as promote social skills among others.

As cited by Magno (2022) support for instructional practices and individual learning intervention for learners will best support learning recovery and accelerate learning in the district. Likewise, Syafaruddin et al (2022) carrying out learning plans requires the ability of an educator to involve parents, pay attention to environmental conditions and the habits of students in their homes impacts the development of students that can arouse interest and challenge curiosity towards learning.

Table 20 reveal the significant relationship between learning recovery and students' cognitive ability. A significant relationship exist in terms of tutoring and level of cognitive ability in terms of comprehension ( $r= 0.355$ ,  $p=0.001$ ), working memory ( $r= 0.330$ ,  $p= 0.001$ ) reasoning ( $r= 0.328$ ,  $p= 0.001$ ), visual processing ( $r= 0.372$ ,  $p= 0.000$ ), and information processing ( $r= 0.435$ ,  $p= 0.000$ ). The correlation is positive and range from weak to moderate. This means that learning recovery on tutoring help students to develop cognitive ability. Students are equipped on varied activities that suits to student's current ability and provided with tasks that gauges learning gaps through tutoring and which helps to extract and process information, allow retention mind for a period of time and reason out well.

**Table 20. Significant Relationship Between Learning Recovery and Student's Cognitive Ability**

Learning Recovery	Cognitive Ability	r- value	Degree of Correlation	p- value	Analysis
Tutoring	<i>Comprehension</i>	0.335	Weak Correlation	0.001	Significant

	Working memory	0.330	Weak Correlation	0.001	Significant
	Reasoning	0.328	Weak Correlation	0.001	Significant
	Visual processing	0.372	Weak Correlation	0.000	Significant
	Information processing	0.435	Moderate Correlation	0.000	Significant
	Comprehension	0.476	Moderate Correlation	0.000	Significant
Additional Learning Plan	Working memory	0.442	Moderate Correlation	0.000	Significant
	Reasoning	0.364	Weak Correlation	0.000	Significant
	Visual processing	0.354	Weak Correlation	0.000	Significant
	Information processing	0.449	Moderate Correlation	0.000	Significant

**Legend:**±0.80 – ± 1.00 *Very strong*±0.60 – ± 0.79 *Strong*±0.40 – ± 0.59 *Moderate*±0.20 – ± 0.39 *Weak*±0.00 – ± 0.19 *Very weak*

According to Robinson et al. (2020) tutoring programs that support data use and ongoing formal assessments allow tutors to more effectively tailor their instruction for individual students. Likewise, Arhin et al. (2021) tutorials sessions are learner support systems in which the learner engages with the learning materials and the tutor as well as help students expand their learning boundaries and learn more than when learning on their own.

On the other hand, significant relationship exist in terms of learning recovery and level of cognitive ability in terms of comprehension ( $r= 0.476$ ,  $p=0.000$ ), working memory ( $r= 0.442$ ,  $p= 0.000$ ) reasoning ( $r= 0.364$ ,  $p= 0.000$ ), visual processing ( $r= 0.354$ ,  $p= 0.000$ ), and information processing ( $r= 0.449$ ,  $p= 0.000$ ). The correlation is positive and range from weak to moderate. This means that learning recovery on additional learning plan help students to develop cognitive ability. Students are provided with tasks and activities that recover learning gaps which enable them to make proper inferences, hold information, summarize understanding and break information into smaller parts.

As stated by UNESCO (2021) to recover learning losses, assessment of learning needs to provide more individualized remedial that enhance cognitive ability must be implemented.

**CONCLUSION**

The results of the study led to the conclusion that teacher's readiness on learning recovery plan has significant relationship to student's cognitive engagement as well as to student's cognitive ability. This implied that teacher has big influence towards helping learners achieve learning objectives. On the other hand, learning recovery plan also has a significant relationship to student's cognitive engagement as well as to student's cognitive ability. This proved that materials used like learning recovery plan plays an important role towards recovering

student's learning as it provides them rich experiences suitable on their current needs and ability. Thus, teachers who were equipped with both the knowledge and materials results to student's better performance.

### RECOMMENDATIONS

1. Administrators may utilize the proposed upskilling program. This is to ensure that the gaps encountered in recovering student's cognitive engagement and ability were addressed.
2. Administrators may also use the findings of the study as an input for decision-making to remedy the emerging deficiencies and serve as a reference in the selection of training and workshops.
3. Teachers may continue and enhance their teaching styles and strategies by the use of upskilling program in order to improve student's cognitive engagement and ability.
4. Future researchers may test among other variables related to teacher's readiness and student's cognitive engagement and ability for it could provide sound basis in the development of new strategies in upskilling program.
5. Future researchers may also conduct this study in other locale for it may address the gaps on encountered problems of teachers who recovers student's cognitive engagement and ability.

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