Perceptions Of Critical Thinking And Inclusive Practice Among Surabaya Primary School Teachers

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ABSTRACT

Background: Critical thinking should be taught and included in school curricula where inclusiveness towards all students is a priority, the most useful ability to tackle problems in the twenty-first century.

Aim: The purpose of this study is to present primary school education applied by primary school teachers for the teaching and evaluation of critical and inclusive thinking.

Methods: Using a qualitative method, the authors look for candidates who have a real commitment to improving the profession of primary school teachers in the elementary school age range (about 7-12 years). Then, the author conducted in-depth interviews with ten elementary school teachers, of which 5 were from public schools and 5 were from private schools in Surabaya, Indonesia. Interviews were conducted in September and October 2022 which were conducted face-to-face, by visiting the selected elementary schools as samples and all recorded orally. The duration ranges from 25-35 minutes, depending on how involved the primary school teacher is. The data is then transcribed afterwards.

Results: Research shows that primary school teachers will recognize the need to develop students' critical thinking skills but are not adequately equipped to meet this demand. Elementary school teachers choose deliberation and cross-group interaction as key methods for developing critical thinking. These primary school teachers link the relationship between critical thinking and fair and high-quality schools.

Conclusion: Critical thinking is very important if you want to change society in a way that can assess reason, values, pluralism, and diversity. Conducted, transparent and ongoing classroom education that encourages critical thinking, as well as opportunities for practice, are needed for things to be noticed. For this kind of learning to occur, it is very important for educators, especially elementary school teachers to practice what they apply and provide examples of reflective thinking to students.

Keywords: *Critical Thinking, Inclusive Practice*, *Primary School Teachers, Primary School Students,*

INTRODUCTION

There have been several changes to Indonesia's present educational system in recent years. As a result of societal shifts, schools must adapt to meet the needs of the twenty-first century learner. As such, it is crucial to provide all children with access to a high-quality education that caters to their individual requirements. This is particularly true in a country like Indonesia, where the appreciation of cultural differences is widespread. One facet of the

inclusion process is "inclusive practice" (Qvortrup & Qvortrup, 2018). Good inclusive practices, according to Sulasmi & Akrim (2019), consist of the measures made by educators to ensure that all students have an equal chance of attending class regularly and excelling academically (Arneson, 2018). Schools should provide in-depth instruction to equip kids with the knowledge and abilities they'll need to succeed in today's world (Kapur, 2018; Kassing & Jay, 2020; Siedentop et al., 2019). Critical thinking is one of the most highly prized talents in recent decades because of its central role in fostering complete human development (R. W. Paul, 2018; Renatovna & Renatovna, 2020). For a long time, people have used critical thinking as a method of developing their own unique identities. This skill allows people to think critically about the facts at hand, independently weigh the benefits and drawbacks of potential solutions, and come up with their own solutions to issues. This study's significance lies in its analysis and application of critical thinking in the classroom, where it elucidates crucial dynamics for the development of such an ability.

Prior research, like that undertaken by Forawi in 2012, has shown promising results. Both Muhammadiyeva et al. in 2020 and Uribe et al. in 2017 have used critical thinking abilities in the context of language acquisition. Despite its importance, little study has focused on the analysis and use of this ability from the perspective of the educator. Research shows that elementary school teachers seldom engage in instructional practices that are explicitly designed to foster critical thinking among their students.

The goal of this research is to determine how much of an impact teachers' own perspectives have on critical thinking lessons in primary school. Learning from a conceptual content-based curriculum prevents students from learning to reason their findings, reflect flexibly and creatively, solve issues, and make choices in a timely manner. As a result, the ideas primary school instructors have about their students' intellect and learning styles frequently account for variations in their motivation to create and execute critical thinking activities for their pupils.

This research can be used as a source of literature for the development of further research. Can be a source of reference for teachers, especially elementary school teachers in implementing learning in critical thinking practices and inclusive practices. Can be used as information material for activities that support students in critical thinking.

LITERARURE REVIEW

Theoretical framework

Good training that equips students with the skills they'll need to think critically is an essential function of educational institutions (Hodges et al., 2020; Ramos-Morcillo et al., 2020; Simamora, 2020). "thinking well" is a frequent phrase used to describe the process of critical thinking. For this reason, providing pupils with the best possible education across all disciplines and delivery methods is a central goal of schools (El-Hamamsy et al., 2021). Teachers help

students build their critical thinking abilities via both their instruction and the students' own experiences. However, this influence is often exerted in an ad hoc, unsystematic, and unreflective manner. The PISA and NAEP tests both include critical thinking as a metric for student performance. It is astonishing, however, how little value is placed on this in educational settings (Barrett et al., 2019).

Depending on whoever you ask, critical thinking may mean a number of different things. Some experts (R. Paul & Elder, 2019a) define critical thinking as making an intentional and methodical effort to grasp and assess one's own and others' ideas and arguments. Critical thinking, as defined by Kurniawan et al (2019), involves a set of dispositions and abilities that are crucial to understanding and making sense of the plethora of data available in the modern world. According to Bezanilla et al. (2019), critical thinking is the process of actively considering alternative explanations for a phenomenon in order to arrive at a conclusion. The term "active learning" refers to activities in which the subject is actively engaged in order to reveal knowledge and abilities include critical thinking, reasoning, inference, explanation, self-control, and assessment. Furthermore, critical thinking necessitates the connection between abilities like judging the reliability of sources, analyzing the strength of arguments, drawing logical conclusions, and resolving issues (Elder & Paul, 2019).

There are three stages in the critical thinking process (Farah & Ayoubi, 2020). To begin, let's be quite clear. This means having such a clear grasp of the situation that you can identify the issue without hesitation. The second part is summaries. Following the procedure that will be detailed in the following text, the issue or objective may be achieved. Finally, making choices, in the sense that after an option to achieve the issue or aim has been presented, it is up to the individual to decide whether or not to implement it. One of the primary goals of critical thinking is to break out of habitual thought patterns before even considering an issue. This ability allows the individual to think independently from the crowd by using several critical thinking strategies (Bean & Melzer, 2021; Dill & Zambrana, 2020; Elder & Paul, 2019).

There is a wide range of possible results from engaging in critical thinking, and it depends on the individual's level of cognitive ability (Changwong et al., 2018). Goal-oriented and problem-solving reasoning, inference-making, and decision-making are all part of this result set (Bertel et al., 2020). Whereas the process is seen in a more limited light when seen through the lens of issue resolution, In critical thinking, one must be able to reason in unstructured or open-ended contexts. Problem-solving may be thought of as an approach to resolving problems. Comparatively, the goal of critical thinking is to develop the most plausible depiction of a situation feasible via the use of convincing arguments. Critical thinking also involves questioning the veracity of an assertion, looking for further data that may or may not back up a conclusion, and exploring possible counterarguments (Black, 2018).

Many different tests have been developed to evaluate critical thinking (Changwong et al., 2018; Espey, 2018; Wechsler et al., 2018). The problem is that only a small fraction of them

really find their way into classrooms. In Table 1 we can see a synopsis of the most important ones. Different tools that are closely connected to critical thinking are categorized together. Individual differences in critical thinking may be measured by evaluating a wide range of cognitive competencies and personality traits. In other words, several abilities are evaluated by each tool. Each of these instruments takes into account the abilities that are being tested and also distinguishes between the recommended answer styles (open, closed, or mixed) that will allow for analysis. All of these tests have educational relevance and are designed to evaluate the critical thinking abilities of students of various ages.

Means of Evaluating Critical Thinking

TABEL

Table 1: Critical thinking assessment instrument

Instrument	Author and year	Response type	No. items	Skills to be assessed
WGCTA (Watson-Glaser Critical Thinking Assessment)	Watson (1980)	Closed	80	1. Inference 2. Recognise assumptions 3. Deduction 4. Interpretation 5. Evaluation arguments
CCTST (California Critical Thinking Skills Test)	Facione (1990)	Closed	34	1. Interpretation 2. Inference 3. Analysis 4. Evaluation 5. Explanation
CCTDI (California Critical Thinking Disposition Inventory)	Facione (2007)	Closed	75	1. Critical thinking self confidence 2. Open-mindedness 3. Analyticity 4. Systematicity 5. Truth seeking 6. Inquisitiveness 7. Cognitive maturity
CCTT (Cornell Critical Thinking Test)	Ennis & Millman (1985)	Cerrada	75	1. Assumptions identification 2. Induction 3. Deduction 4. Credibility 5. Semantics 6. Definitions 7. Prediction
HCTAES (Halpern Critical Thinking Assess-ment using Every-day	Halpern (2010)	Mixed	50	1. Verbal reasoning 2. Argument analysis 3. hypothesis testing 4. Lilelihood assessment

Given this battery of tests, it's clear that further research is needed to show why it's crucial to encourage people to enhance their critical thinking skills. It is also important to examine how this skill might be taught at various levels of schooling. Thus, Changwong et al. (2018) included in his research a description of some of the more effective activities he'd used with his high school students to foster analysis and reflection. The author singled several activities like asking students to think critically about a topic, putting on a performance, and contrasting and comparing various ideas and viewpoints as examples. He said that these activities may be used at a variety of educational levels. Incorporating various instructional methodologies into their own pedagogical frameworks, other writers have also found success in fostering the growth of critical thinking within their student bodies (Bustami et al., 2018; Changwong et al., 2018; Saputri et al., 2019; Suardana et al., 2018). Taking these findings into account, the purpose of this proposed research is to provide further evidence, in the eyes of

first-year educators, the value of stimulating students' critical thinking and the pedagogical practices employed to promote it.

METHOD

Approach and Type of research

A qualitative study was developed to examine how primary school teachers perceive the impact of intervention strategies on students' critical thinking and the significance teachers place on these skills. In this case, primary school teachers in the research environment (5 public elementary schools and 5 private elementary schools, Surabaya, Indonesia) in order to provide the author with insight into the phenomenon that the author is investigating thanks to the qualitative paradigm (Bogna et al., 2020). In particular, the author uses a phenomenological theoretical and methodological approach. To do so requires an in-depth analysis of the interviewee's words, thoughts, and feelings.

Sample, Participant and place of research

Participants were selected using a sample is formed using theoretical purposeful sampling and a set of preset inclusion criteria. First, the authors are looking for candidates who have a real commitment to improving the teaching profession in the elementary school age range (around 7-12 years). Elementary school teachers are also expected to teach in several subjects or act as specialists, tutors, coordinators, etc. as needed. There are ten different schools namely 5 public schools and 5 private schools represented by these educators. Every effort was made to ensure equal representation of women and men in interviews. However, given the structure of the study, most of the participants were women. The sample consisted of 10 primary school teachers who met the above criteria and agreed to be interviewed (these schools received public and private funding). These elementary school teachers receive training and education called Diklat m general education institutions organized by the Indonesian government. Most urban classes have 19 to 25 children, while rural classes have only 13 to 19 children. Data on sample demographics and social background are presented in Table 2.

Table 2: Socio-demographic characteristics of the participants

Partici-pant No.	Gender	Age	Years exp.	Level of studies (1)	Job
1	M	31-40	12	MEd	Tutor (2), member of management team
2	M	41-50	18	BEd	Tutor of an urban school
3	F	41-50	9	BEd	Tutor of a rural school
4	F	22-30	1	MEd	Tutor of an urban school
5	F	41-50	20	BEd	Hearing and language teacher (3)
6	F	51-65	16	BEd	Hearing and language teacher
7	F	41-50	23	BEd	Therapeutic pedagogy specialist (4)
8	M	41-50	21	BEd	Music specialist teacher and headteacher
9	M	51-65	42	MEd	Tutor and education inspector (5)
10	F	51-65	25	BEd	Tutor

1. MEd - Masters in Education degree. BEd - Bachelor of Education degree.
2. The tutor teacher is the one responsible for teaching the general subjects of the primary education stage (language, mathematics and natural sciences).
3. The hearing and language teacher is a specialist teacher in the area of language and communication and is responsible for responding to the educational needs of students who present needs in this area of communication development.
4. The therapeutic pedagogy specialist is a specialist teacher responsible for responding to the needs of students with special educational needs in different areas. She also has the responsibility to contribute to promoting the educational inclusion of these students.
5. The education inspector is a professional who works in public administration and is competent in educational issues and supervises non-university education.

INSTRUMENT

Interviewees' responses were collected using semi-structured interviews. Individual thoughts and feelings about the research problem can be collected with some autonomy using this type of interview (Moser & Korstjens, 2018). Eleven questions were used for the interview, all of which were free and meant to encourage honest answers. Questions are organized into sections covering topics such as primary school teachers' familiarity with various critical thinking assessment methods, classroom practices that encourage these skills in their students, the value of encouraging critical thinking, the relationship between critical thinking and social inclusion, and the importance of providing primary school teachers with the resources they need to develop it (Figure 1).

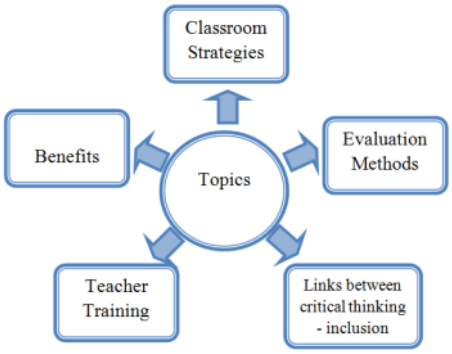

Figure 1. Interview topics on critical thinking

Data collection

This study is qualitative in nature and was conducted in public elementary schools and private elementary schools with the aim of discovering new information. Primary school teachers must stick to what has worked in the past, by applying critical thinking perceptions and inclusive practices. Therefore, observations were scheduled at a time that did not interfere with the daily activities of primary school teachers. So, the authors followed 10 different elementary schools to examine how primary school teachers in grades one through six engage with their students one-on-one. All of the authors' primary school teachers observed four times, each lasting 25 or 35 minutes.

The main aim of this study was stated to primary school teachers, and it was to "get a contemporary picture of critical thinking perceptions and inclusive practices" by finding and documenting similarities in classroom practice across different grade levels in Surabaya, Indonesia. When the writer was done with the observations, the writer wrote a separate report for each elementary school teacher. Their general teaching approaches are discussed, and specific examples of different treatments that apply critical thinking perceptions and inclusive practices are provided in this work. In accordance with the guidelines set by the ethics committee at the institution where the second author taught, observations of elementary school teachers were carried out and obtained approval from the students' parents or students themselves. They were also assured that the identity of their students would not be revealed to them by the primary school teacher at any stage during the observation.

Without disclosing the identity of the students, the authors collected and reported the data. For concerned parents, the study's lead investigator encouraged them to get in touch. The study authors did not hear from affected family members. Prior to making observations, primary school teachers should have a list of names detailing the ethnicity, academic ability, and needs of students. This list can be used to categorize students for statistical purposes. Data were collected by having observers sit in the course and take notes on teacher interactions with each student. In the field, walking notebooks are used to track thoughts and ideas. The way primary school teachers, both verbal and nonverbal, is explained in great detail, with word-for-

word quotations included where possible in the field notes. Several examples were recorded, along with contextual information such as their relative time and position in the classroom. In addition to recording their observations, observers often write down their interpretation of the findings in their field notes.

Validity and Reliability of the Study

- External Validity

  Quantitative research results are supposed to be generalized to a wide range of contexts, whereas qualitative research results are meant to be translated to contexts with analogous qualities (Castleberry & Nolen, 2018). This study's external validity was ensured by both detailed description and meticulous sampling.

- Internal Validity

  When doing qualitative research, as opposed to quantitative research, the researcher is responsible for persuading their audience of the usefulness and credibility of the data collected. Expertise on the part of the researcher is an indicator of the study's internal validity (Thomas et al., 2022). Use of both expert opinion and participant confirmation helped keep this study's internal validity strong.

- Reliability

  Results from qualitative studies may only be trusted if they have been independently verified by the researcher (Rose & Johnson, 2020). Fast confirmation was employed in this research to guarantee the findings could be relied upon in the real world.

Data analysis

Specifically, the study was divided into a series of steps. First, the overarching topic on which the interview questions will be made is drawn from a comprehensive literature research. After that, an interview request was sent to the relevant primary school teacher. Interviews were conducted in September and October 2022 which were conducted in person, with the authors visiting the primary schools that had been selected as samples and every one of them was a verbatim account. At the outset, they were informed of the interview's goals and given assurances about their privacy. Each interviewee was assigned a unique number code to protect their anonymity. The length ranges from 25-35 minutes, depending on how involved the primary school teacher is being asked. The data is then transcribed afterwards.

To conclude, the authors conducted an analysis of the conversations and outcomes using the rubrics set out by (Martin & Bolliger, 2018; Preston et al., 2020). Information is disclosed, cataloged, and categorized based on broad themes that are defined from the start. The author coded each interview separately and then looked at the whole series together. Several qualitative research quality factors are taken into account to ensure the validity of the study (FitzPatrick, 2019). Every step of the process from theoretical framework to design to participant recruitment to data collection and analysis is explained in depth, as is the use of dependency criteria. Study team triangulation was used to complement and differentiate findings, so this criterion was taken into account (Kankaraš et al., 2019). Since the methodology and setting of the study are extensively documented, it is guaranteed that the data can be used in other situations. This allows the method and design to be reused in future research. All investigative assessments and interviews with those involved were recorded. Therefore, auditability requirements may be met.

Ethical Consideration

Participants were given unrestricted access to information on all aspects of the research. It is important to the researcher that they have reliable data from the participants. So, it's important to get the OK from the principal, instructors, students in grades 3, 4, 5, and 6, and their parents. When working with or studying with children less than 12, it is ethically obligatory to include their parents. Participation in the study was entirely optional, and primary school teachers were given the option to withdraw at any time. The principal and faculty of an elementary school reach an agreement. Research participants' anonymity before and after the study is conducted is one way to protect them from harm.

FINDINGS

In light of the goals, the presentation of results builds on the topics already introduced: the positive effects of critical thinking on student development, the connections between critical thinking and school inclusion, the ways in which it can be evaluated, the strategies useful strategies for fostering critical thinking in the classroom, etc., and the preparation of teachers to foster critical thinking in their students.

Under the first heading, "critical thinking's positive effects on student learning," these educators highlight the need of incorporating critical thinking into the design of educational processes. A phenomenology that facilitates the growth of multifaceted, well-rounded individuals in the minds of young people. They also stress the need of critical thinking in fostering an approach to thinking and reasoning that is distinct from the morality imposed by society, or monotheism. The pupils might then compare their own perspective with external realities and critically examine the rationale of others. Thus, they are able to make sound

choices that aid in the development of their minds and the completion of challenging tasks. Some of the participants' testimonies provide an excellent illustration of this.

> Participant 1 : People who can think critically are a need in today's society. It would serve as both a boon to elementary education and preparation for more independent civic participation. Students' ability to make judgments and develop their own thinking and action depends on their capacity for critical thinking and the ability to examine information from a variety of perspectives. Naturally, you should never go beyond of your comfort zone.

> Participant 2 : Given that the "majority" frequently dictates a single line of thinking in today's culture, I believe that teaching students to think critically is crucial. In addition to offering advice on how to think outside the box when confronted with common issues, and how to ultimately arrive at the most optimal answer possible.

However, when asked about the importance of critical thinking in the classroom, most of the educators questioned had a common theme. They all agree that it is a problem that cuts across all fields of study and technological progress. Students who have had the chance to explore and discuss their own and others' ways of thinking will benefit much from growth in self-awareness and the capacity to expand upon existing strengths. All of them are also open to argument, discussion, and acceptance. Through such experiences, kids have a much larger perspective on the world around them.

> Participant 2 : Naturally, even more than many features and topics of the curriculum that must be taught. By using their critical thinking skills, students will be able to provide responses that demonstrate an appreciation for and an awareness of other viewpoints. It promotes collaborative problem-solving, when different team members provide their own suggestions, leading to an abundance of different approaches.

> Participant 4 : Yes, every student examines and is aware of her strengths and weaknesses, with the goal of developing the former and strengthening the latter.

> Participant 9 : Understanding one's own and others' strengths and weaknesses is a huge step in developing critical thinking skills. An accepting and critical mindset is necessary for seeing that others, like myself, have both strengths and weaknesses. The recognition of the difference's worth requires all of this. Here, it's just as crucial to foster attitudes that encourage critical thinking as it is to foster such thinking itself.

Teachers also note that students' unique perspectives make classroom discussions more engaging and informative. Therefore, teaching students to think critically is essential. Students may enhance their quality of life by developing high-caliber, reasonable thought processes via this. Furthermore, one's problem-solving and decision-making skills will vastly increase. Better and higher-quality decision-making allows us to come up with novel answers and swiftly achieve desirable outcomes. However, there are professors who do not see connections between critical thinking and diversity and inclusion. A common misconception held by these individuals is that they can't be taught clearly in a classroom setting using a networked approach. Whatever the situation, targeted activities and initiatives may help foster these knowledge gains.

Participant 6 : Yes. To the opposite of indoctrination, a classroom that welcomes all students and celebrates their differences does just that.

Participant 7 : Naturally, this is the case. Classrooms with a wide range of students from different backgrounds help students develop personally and academically.

Participant 1 : Simply having a high level of critical thinking is not enough to ensure acceptance in the classroom. Assuming you don't want to reject this conclusion out of hand, you'll need to create rigorous studies that positively link both variables. The two variables, however, should be connected.

Participant 3 : We need to connect critical thinking with every facet of our existence. But that's not how it works; often, a single idea wins out. Additionally, at these ages, the need to fit in with the group may have a detrimental impact on how welcoming a school can be for children of varied backgrounds.

Participant 8 : There seems to be no obvious relationship between the two ideas. Why? It is possible to design a school assignment that prioritizes student participation above encouraging critical thinking. It's possible, too, that when kids are given more agency in the classroom, it leads to circumstances that may be reflected upon, which in turn encourages critical thinking.

Yet many educators lack familiarity with more objective and analytical approaches to assessing students' critical thinking. This may be because few people have been given enough instruction in or exposure to these methods of assessment. Some of them have actually worked with or been taught by experts whose specialty is using some kind of assessment technique. By doing so, they were able to see firsthand the positive effects encouraging pupils to think critically can have. The following testimonials serve as an illustration of this point.

Participant 5 : I don't know whether there are any tried-and-true techniques, but I do know that it's something that cuts across disciplines.

Participant 8 : Unfortunately, I am unable to provide a method for objectively measuring critical thinking.

Participant 9 : In my opinion, critical thinking should be assessed from the point of view of its production. That is, the actions must include the promotion. Judging the worth of a concept is unnecessary; what's important is figuring out what blocks our own thinking.

A major contributing factor to teachers not being familiar with how to evaluate students' critical thinking skills is their education. In this regard, the instructors who were questioned said that they had never had any formal training before. However, they also stress the significance of each professional's motivation and curiosity to learn more about effective strategies for fostering critical thinking in the classroom. These claims are eye-opening, to say the least. The instructors have a rough idea of how to evaluate their pupils' critical thinking abilities, but few have received formal training in this area. Only one participant mentioned feeling confident in their ability to do a systematic assessment via the planning of activities meant to reveal competing hypotheses and their respective solutions.

Participant 2 : There has been no training of this kind for me. However, I have been fortunate enough to meet, work with, and learn from experts whose work has given me a front-row seat to the advantages of this approach to education.

Participant 3 : The short answer is "no," since I have not received any. In my opinion, neither society nor the people in charge of schools are interested in cultivating critical thinking skills. People are more easily manipulated the less critical they are.

Participant 9 : No, just random articles from various fields of study that touch on critical thinking somewhere down the line.

Participant 1 : Yes. Several tests have been published since the 1980s; I am most familiar with the Watson-Glaser and Faccione California versions, and I believe there was a test developed in Salamanca (PENCRISAL) that was better suited to our community and the Spanish language.

> Participant 2 : This line of thinking is further upon in some of the approaches presented by Robert Swartz and David Perkins. With its emphasis on routines and the development of critical thinking abilities, the Thought Based Learning approach is a useful tool for this purpose.

> Participant 4 : Methods like as projects, debates, thinking routines, etc., that require students to put their knowledge to use are excellent. The student's own self-evaluation tools seem like a solid way to gauge critical thinking skills. Using evaluation rubrics is another way to improve this ability.

Teachers' evaluation strategies vary widely depending on their level of education and experience. Possibly this is because they are lacking in knowledge on how to foster critical thinking. Despite this, they agree that it is crucial to choose a method of assessment that is both fair and equitable for the students. Analyzing, evaluating, and making connections are the three stages of a critical thinking assessment. Open-ended tasks that require more than just recalling previously learned information require the student to engage in critical thinking by analyzing judgments, evaluations, problem-solving, and the ability to draw inferences or draw conclusions from premises or evidence; the ability to construct and evaluate arguments; the ability to classify objects; the ability to identify assumptions and main ideas; the ability to identify sequence. To this end, some educators favor using rubrics since they are seen as the most neutral and fair method of assessment. These tools measure what the educator cares about most in terms of student growth (in terms of critical thinking):

> Participant 1 : My current level of expertise suggests that if I were to conduct an inquiry, I would use a validated test. If I merely cared about making comparisons among my pupils, I would create a basic rubric with the criteria that are always of most interest to me, given the context in which...

> Participant 10 : By using scoring rubrics to measure against predetermined criteria. That criteria would allow me to determine whether or not a student's critical thinking has improved as a result of their assignment.

Teachers value a wide range of tools that provide students with possibilities for introspection, analysis, criterion development, priority setting, and verification, to name a few. Among the strategies used by these educators include the use of routines, the development of critical thinking abilities, self-assessment, evaluation by targets, co-evaluation, classroom observation, discourse, debate, the explanation of arguments on a subject, and the examination of students' perspectives. Some of these educators, however, haven't given much

attention to how to assess their students' critical thinking skills, believing that it's too subjective to be measured objectively and via standardized assessments.

> Participant 2 : Would use established procedures and critical thinking to evaluate the pupils' responses. To me, it's more important to understand how you arrived at that solution than to know whether or not it's accurate.

> Participant 4 : Self-evaluation tools like evaluation by objectives or coevaluation, together with some student comment, would make up the bulk of my assessment strategy.

> Participant 7 : Classroom observation, discussions with and among students, and student-on-student and student-on-teacher debates and argument presentations.

> Participant 9 : I think it's important for students to critically examine their own biases and preconceptions and provide their own explanations for them.

> Participant 3 : Really, I have no idea. When it comes to assessing things, I'm not very good at it and I'm not even sure it's feasible. In my opinion, understanding your pupils is essential to making an impartial assessment on this.

There has also been debate about the best ways to instill a sense of critical analysis in their students. In order to foster critical thinking, increase personality traits like self-respect, sense of safety and security, and the ability to express oneself verbally and physically, and more, teachers often use conversation as a foundational teaching tool. Conversations help students develop decision-making criteria by highlighting the merits and limitations of other perspectives. They also have the option of sharing their choices and perspectives with others. As a result, conversation is a great medium for the development of analytical skills.

> Participant 1 : Make sure that any problems that need to be solved include the use of language, and that these activities are open and collaborative. Second, I would actively promote and organize opportunities for kids to engage in both verbal and nonverbal forms of communication with one another. Taking into account the feelings and sentiments involved. Third, I'd attempt to steer the debate into exploratory topics rather than the more common cumulative ones.

> Participant 3 : I'd want to start with the conversation. I try to convey all I mean clearly, and I always appreciate hearing back from them. Second, make the most of the

opportunity now. When I think of school, I don't think of a sheltered environment apart from the rest of the world. In addition, I use media like WonderPonder Thinking Cards and other similar tools to help students develop their analytical abilities.

Participant 9 : A precise approach is beyond my ken, unfortunately. In any case, these are the points I want to emphasize: precision in the provision of data or references (not based on general data); relevance of the elements that make up a fact or thought (distinguish between the essential and the accessory); clarity in the definition of what they think (avoid confusion and unfounded generalizations, mix of topics, etc.); accuracy (that when they make any judgment, they do so with specific, clear, demonstrable information); willingness to consider other points of view (rather than holding fast to one's own interpretation of events) and actively seeking out information that contradicts or supports one's own conclusions.

Finally, it's interesting to note that two of the instructors we surveyed both emphasize the PBL method (problem-based learning, or sometimes project-based learning). PBL, or project-based learning, is a relatively new and dynamic teaching method that has recently seen significant use. It's perfectly in line with the factors that really matter when it comes to shaping one's capacity for critical thinking. Students in a project-based learning (PBL) environment are expected to do research and produce a final product as a means of demonstrating their mastery of course material. This outcome is a reflection of not just the learning process, but also the development of abilities such as imagination, communication, collaboration, problem solving, and building upon previously acquired knowledge, while also leaving greater opportunity for experimentation and discovery.

Participant 2 : By forcing them to actively process the data presented to them in order to formulate a reasonable answer, thought-based learning encourages students to become self-aware and mentally fit.

Participant 4 : Some of the strategies I may use in the classroom are thought routines, visual thinking, and problem-based learning.

DISCUSSION

The majority of educators aren't currently addressing the importance of critical thinking in their classes, as these educators have discovered. The significance of learning to think critically in the modern world is something that almost all educators have stressed. This

importance has also been emphasized by the findings of several investigations (Hebebci et al., 2020). In our culture, the vast majority tends to adhere to a narrow line of thought (Heyes, 2018). Students will be able to draw on their own unique perspectives and judgments as a result of this line of reasoning. In addition, in agreement with Fabian (2018), this mode of thinking equips students with the means to approach commonplace issues imaginatively and seek out the best possible answer for each circumstance. Students who take the time to cultivate their own distinctive ways of thinking are more likely to find success in the classroom than those who focus just on mastering the subject matter covered in the curriculum and the theoretical frameworks presented. As a matter of fact, it gives students the opportunity to answer the questions in a way that shows appreciation for and awareness of other viewpoints. By having everyone in the team provide their own unique approaches, the team is able to come up with a wide range of potential answers. Consistent with the findings of several writers, this variety of problem-solving approaches is the product of critical thinking (Belecina & Ocampo Jr, 2018; Shively et al., 2018).

However, several strategies for teaching and testing critical thinking have been published in the literature (Bezanilla et al., 2019). The instructors questioned here, however, echo the findings of Bean & Melzer (2021) in that they demonstrate a lack of preparation in the area of evaluating and fostering critical thinking among their pupils. In particular, PBL was the most commonly stated approach. The great efficacy its practical implementation has exhibited in several research, especially with pre-school children, may explain this conclusion (Kozioł-Kozakowska et al., 2018). Although there are several methods available, one of the most popular is dialogue. The students polled for Bause et al. (2018) research agreed that debate is an effective tool for fostering analytical thinking, effective communication, and collaborative problem solving.

Similarly, educators have divergent views on whether students should be taught in small groups or large ones, and how critical thinking should be assessed. Better results are shown, however, in research that propose techniques to develop critical thinking from a collective viewpoint (Azorín et al., 2020; Darnell et al., 2018; R. Paul & Elder, 2019b). Most of these educators believe that group projects are superior than individual ones when it comes to cultivating students' capacity for independent thought. As a matter of fact, multiple studies have shown that working in groups may improve students' critical thinking across a variety of academic settings (Shiraev & Levy, 2020). The outcomes are more variable when looking at specific projects. In sum, writer agree with El Soufi & See (2019) that it's possible to teach critical thinking successfully, given the right circumstances. Among these are the facilitation of learning situations, the allocation of adequate time for the completion of activities, and the development of incentives for students to engage in such behaviors as critical thinking, creative problem solving, active participation, engagement, cooperation, and collaboration.

Teachers' thoughts on the critical thinking/inclusion dichotomy were also collected through interviews. Their stance is that students need to learn to think critically as part of a well-rounded curriculum. As a result, improving students' capacity for metacognition may help them think more clearly, communicate more effectively, and argue and debate more persuasively in the classroom. Furthermore, as determined by Shavelson et al. (2019), If they have this skill, they will be able to back up social evaluations and critically examine the beliefs and situations of their immediate environment. For the development of critical thinking and acceptance, Woldeyes & Offord (2018) emphasized the significance of teaching in contexts of dialogue and diversity. Critical thinking is a skill that benefits greatly from exposure to a wide range of perspectives, therefore an inclusive education system is certain to foster its growth (Ainscow, 2020).

Creating a system of assessment that promotes an integrated and insightful kind of critical thinking deserves special attention. Students' justifications and the methods they used to arrive at their answers should also be taken into account, not only the correctness of the answers themselves. Despite this diversity, there was consensus among the questioned instructors that there are not enough chances for professional development that focus on explicitly promoting teaching critical thinking. Despite this, they all have access to sufficient materials (often including assessment rubrics) to conduct a reasonably objective evaluation of their students' proficiency in these areas. Self-evaluation, co-assessment, the use of multiple examinations, and assessment rubrics have all been used in the past, but all methods have their limitations (Almohaimede, 2022; Arce et al., 2022). However, educators are unhappy with the lack of focus on cultivating students' capacity for critical thinking. This is why they are advocating for education that will equip them to meet this need and take steps that will lead to a shift in the dominant ways of thinking. Several writers have pointed out the significance of teachers' training in this area (König et al., 2020; Sepulveda-Escobar & Morrison, 2020). Since it is a direct factor in the success of educational interventions aimed at fostering students' capacity for critical thinking.

CONCLUSSION

To present primary school education applied by primary school teachers for learning and evaluation of critical and inclusive thinking is the aim of this study. Most of the mental processes and behaviors that adults do can also be found in young children. Therefore, teaching students to think critically should be a priority for elementary school teachers. A person has the ability to think for himself while working well with others through this method of thinking. Therefore, critical thinking is very important if you want to change society in a way that respects reason, values, pluralism, and diversity. Conducted, transparent and ongoing classroom education that encourages critical thinking, as well as opportunities for practice, are needed for things to be noticed. For this kind of learning to occur, it is very important for

primary school teachers in both public and private schools. to practice what they apply and provide examples of reflective thinking to students. This is why it is important to regularly identify and determine educator attitudes and actions that enhance students' capacity for critical thinking. The findings of this study are important in incorporating lessons about learning into teacher preparation programs, with the ultimate goal of preparing students for a better life and ensuring their participation in classes that reflect their diversity of needs.

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REFERENCES

Ainscow, M. (2020). Promoting inclusion and equity in education: lessons from international experiences. *Nordic Journal of Studies in Educational Policy*, *6*(1), 7–16.

Almohaimede, A. A. (2022). Comparison between students' self-evaluation and faculty members' evaluation in a clinical endodontic course at King Saud University. *European Journal of Dental Education*, *26*(3), 569–576.

Arce, E., Suárez-García, A., López-Vázquez, J. A., & Fernández-Ibáñez, M. I. (2022). Design Sprint: Enhancing STEAM and engineering education through agile prototyping and testing ideas. *Thinking Skills and Creativity*, *44*, 101039.

Arneson, R. J. (2018). Equality and equal opportunity for welfare. In *The Notion of Equality* (pp. 237–253). Routledge.

Azorín, C., Harris, A., & Jones, M. (2020). Taking a distributed perspective on leading professional learning networks. *School Leadership & Management*, *40*(2–3), 111–127.

Barrett, P., Treves, A., Shmis, T., & Ambasz, D. (2019). *The impact of school infrastructure on learning: A synthesis of the evidence*.

Bause, I. M., Brich, I. R., Wesslein, A.-K., & Hesse, F. W. (2018). Using technological functions on a multi-touch table and their affordances to counteract biases and foster collaborative problem solving. *International Journal of Computer-Supported Collaborative Learning*, *13*(1), 7–33.

Bean, J. C., & Melzer, D. (2021). *Engaging ideas: The professor's guide to integrating writing, critical thinking, and active learning in the classroom*. John Wiley & Sons.

Belecina, R. R., & Ocampo Jr, J. M. (2018). Effecting change on students' critical thinking in problem solving. *Educare*, *10*(2).

Bertel, S., Vrachliotis, G., & Freksa, C. (2020). Aspect-Oriented Building Design: Toward Computer-Aided Approaches to Solving Spatial Constraint Problems in Architecture. In *Applied Spatial Cognition* (pp. 75–102). Psychology Press.

Bezanilla, M. J., Fernández-Nogueira, D., Poblete, M., & Galindo-Domínguez, H. (2019). Methodologies for teaching-learning critical thinking in higher education: The teacher's view. *Thinking Skills and Creativity*, *33*, 100584.

Black, M. (2018). *Critical thinking: An introduction to logic and scientific method*. Pickle Partners Publishing.

Bogna, F., Raineri, A., & Dell, G. (2020). Critical realism and constructivism: merging research paradigms for a deeper qualitative study. *Qualitative Research in Organizations and Management: An International Journal*, *15*(4), 461–484.

Bustami, Y., Syafruddin, D., & Afriani, R. (2018). The implementation of contextual learning to enhance biology studentsâ€™ critical thinking skills. *Jurnal Pendidikan IPA Indonesia*, *7*(4), 451–457.

Castleberry, A., & Nolen, A. (2018). Thematic analysis of qualitative research data: Is it as easy as it sounds? *Currents in Pharmacy Teaching and Learning*, *10*(6), 807–815.

Changwong, K., Sukkamart, A., & Sisan, B. (2018). Critical thinking skill development: Analysis of a new learning management model for Thai high schools. *Journal of International Studies*, *11*(2).

Darnell, S. C., Chawansky, M., Marchesseault, D., Holmes, M., & Hayhurst, L. (2018). The state of play: Critical sociological insights into recent 'Sport for Development and Peace'research. *International Review for the Sociology of Sport*, *53*(2), 133–151.

Dill, B. T., & Zambrana, R. E. (2020). Critical thinking about inequality: An emerging lens. In *Feminist Theory Reader* (pp. 108–116). Routledge.

El-Hamamsy, L., Chessel-Lazzarotto, F., Bruno, B., Roy, D., Cahlikova, T., Chevalier, M., Parriaux, G., Pellet, J.-P., Lanarès, J., & Zufferey, J. D. (2021). A computer science and robotics integration model for primary school: evaluation of a large-scale in-service K-4 teacher-training program. *Education and Information Technologies*, *26*(3), 2445–2475.

El Soufi, N., & See, B. H. (2019). Does explicit teaching of critical thinking improve critical thinking skills of English language learners in higher education? A critical review of causal evidence. *Studies in Educational Evaluation*, *60*, 140–162.

Elder, L., & Paul, R. (2019). *The thinker's guide to analytic thinking: How to take thinking apart and what to look for when you do*. Rowman & Littlefield.

Espey, M. (2018). Enhancing critical thinking using team-based learning. *Higher Education Research & Development*, *37*(1), 15–29.

Fabian, J. (2018). *Creative thinking and problem solving*. CRC Press.

FARAH, N., & Ayoubi, Z. (2020). Enhancing the critical thinking skills of grade 8 chemistry students using an inquiry and reflection teaching method. *Journal of Education in Science Environment and Health*, *6*(3), 207–219.

FitzPatrick, B. (2019). Validity in qualitative health education research. *Currents in Pharmacy Teaching and Learning*, *11*(2), 211–217.

Hebebci, M. T., Bertiz, Y., & Alan, S. (2020). Investigation of views of students and teachers on distance education practices during the Coronavirus (COVID-19) Pandemic. *International Journal of Technology in Education and Science*, *4*(4), 267–282.

Heyes, C. (2018). *Cognitive gadgets: The cultural evolution of thinking*. Harvard University Press.

Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., & Bond, M. A. (2020). *The difference between emergency remote teaching and online learning*.

Kankaraš, M., Feron, E., & Renbarger, R. (2019). *Assessing students' social and emotional skills through triangulation of assessment methods*.

Kapur, R. (2018). Factors influencing the students academic performance in secondary schools

in India. *University Of Delhi*, 575–587.
Kassing, G., & Jay, D. M. (2020). *Dance teaching methods and curriculum design: comprehensive K-12 dance education*. Human Kinetics Publishers.
König, J., Jäger-Biela, D. J., & Glutsch, N. (2020). Adapting to online teaching during COVID-19 school closure: teacher education and teacher competence effects among early career teachers in Germany. *European Journal of Teacher Education*, *43*(4), 608–622.
Kozioł-Kozakowska, A., Piórecka, B., & Schlegel-Zawadzka, M. (2018). Prevalence of food neophobia in pre-school children from southern Poland and its association with eating habits, dietary intake and anthropometric parameters: a cross-sectional study. *Public Health Nutrition*, *21*(6), 1106–1114.
Kurniawan, D. A., Astalini, A., Darmaji, D., & Melsayanti, R. (2019). Students' Attitude towards Natural Sciences. *International Journal of Evaluation and Research in Education*, *8*(3), 455–460.
Martin, F., & Bolliger, D. U. (2018). Engagement matters: Student perceptions on the importance of engagement strategies in the online learning environment. *Online Learning*, *22*(1), 205–222.
Moser, A., & Korstjens, I. (2018). Series: Practical guidance to qualitative research. Part 3: Sampling, data collection and analysis. *European Journal of General Practice*, *24*(1), 9–18.
Paul, R., & Elder, L. (2019a). *A guide for educators to critical thinking competency standards: Standards, principles, performance indicators, and outcomes with a critical thinking master rubric*. Rowman & Littlefield.
Paul, R., & Elder, L. (2019b). *The miniature guide to critical thinking concepts and tools*. Rowman & Littlefield.
Paul, R. W. (2018). Critical thinking and the critical person. *Thinking: The Second International Conference*, 373–403.
Preston, R., Gratani, M., Owens, K., Roche, P., Zimanyi, M., & Malau-Aduli, B. (2020). Exploring the impact of assessment on medical students' learning. *Assessment & Evaluation in Higher Education*, *45*(1), 109–124.
Qvortrup, A., & Qvortrup, L. (2018). Inclusion: Dimensions of inclusion in education. *International Journal of Inclusive Education*, *22*(7), 803–817.
Ramos-Morcillo, A. J., Leal-Costa, C., Moral-García, J. E., & Ruzafa-Martínez, M. (2020). Experiences of nursing students during the abrupt change from face-to-face to e-learning education during the first month of confinement due to COVID-19 in Spain. *International Journal of Environmental Research and Public Health*, *17*(15), 5519.
Raphael-Leff, J. (2018). *The psychological processes of childbearing*. Routledge.
Renatovna, A. G., & Renatovna, A. S. (2020). Developing Critical Thinking On Elementary Class Pupils Is The Most Important Factor For Preparing Social Relationship. *JCR*, *7*(17), 438–448.
Rose, J., & Johnson, C. W. (2020). Contextualizing reliability and validity in qualitative research: toward more rigorous and trustworthy qualitative social science in leisure research. *Journal of Leisure Research*, *51*(4), 432–451.
Saputri, A. C., Rinanto, Y., & Prasetyanti, N. M. (2019). Improving Students' Critical Thinking Skills in Cell-Metabolism Learning Using Stimulating Higher Order Thinking Skills Model. *International Journal of Instruction*, *12*(1), 327–342.
Sepulveda-Escobar, P., & Morrison, A. (2020). Online teaching placement during the COVID-19

pandemic in Chile: challenges and opportunities. *European Journal of Teacher Education*, *43*(4), 587–607.

Sewell, W. H., Haller, A. O., & Portes, A. (2018). The educational and early occupational attainment process. In *The Inequality Reader* (pp. 553–566). Routledge.

Shavelson, R. J., Zlatkin-Troitschanskaia, O., Beck, K., Schmidt, S., & Marino, J. P. (2019). Assessment of university students' critical thinking: Next generation performance assessment. *International Journal of Testing*, *19*(4), 337–362.

Shiraev, E. B., & Levy, D. A. (2020). *Cross-cultural psychology: Critical thinking and contemporary applications*. Routledge.

Shively, K., Stith, K. M., & Rubenstein, L. D. (2018). Measuring what matters: Assessing creativity, critical thinking, and the design process. *Gifted Child Today*, *41*(3), 149–158.

Siedentop, D., Hastie, P., & Van der Mars, H. (2019). *Complete guide to sport education*. Human Kinetics.

Simamora, R. M. (2020). The Challenges of online learning during the COVID-19 pandemic: An essay analysis of performing arts education students. *Studies in Learning and Teaching*, *1*(2), 86–103.

Suardana, I. N., Redhana, I. W., Sudiatmika, A. A., & Selamat, I. N. (2018). Students' Critical Thinking Skills in Chemistry Learning Using Local Culture-Based 7E Learning Cycle Model. *International Journal of Instruction*, *11*(2), 399–412.

Sulasmi, E., & Akrim, A. (2019). Management construction of inclusion education in primary school. *Kumpulan Makalah, Jurnal Dosen*, *1*(1).

Thomas, J. R., Martin, P., Etnier, J., & Silverman, S. J. (2022). *Research methods in physical activity*. Human kinetics.

Wechsler, S. M., Saiz, C., Rivas, S. F., Vendramini, C. M. M., Almeida, L. S., Mundim, M. C., & Franco, A. (2018). Creative and critical thinking: Independent or overlapping components? *Thinking Skills and Creativity*, *27*, 114–122.

Woldeyes, Y. G., & Offord, B. (2018). Decolonizing Human Rights Education: Critical Pedagogy Praxis in Higher Education. *International Education Journal: Comparative Perspectives*, *17*(1), 24–36.

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