

Role of Standardized Test in Encouraging Teach-To-Test Approach and Its Effects on Learning

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I. INTRODUCTION

Purpose of the Study

This study researched on how standardized test encourages teach-to-test approach and its effect on learning. Teaching and learning require a complete and wholesome approach that ensures the development of the right skills, knowledge and competence that is required to prepare the students to be value adding, strategic thinkers able to comprehend and proffer creative solutions as against showcasing declarative cognitive abilities and skills (Volante, 2014). Unfortunately, students learning has been impacted by a teach-to-the-test approach in a quest for achieving academic successes in standardized test.

Standardized tests are academic assessment test that has become a key part of the educational development of every child. Students and teachers are thus under pressure to pass these exams, this has led to a targeted approach of studying and teaching with the sole aim of excelling in the test as against the development a wholesome teaching and learning approach (Zimmer, 2018). This phenomenon has consequently not only affected students' overall knowledge but also subjects that are not tested. This work studied how standardized testing encourages a teach-to-the-test approach and its effect on students learning. This topic is particularly important to me as a teacher because of my interest in developing my students to be great learners able to comprehend and proffer strategic solutions to complex issues rather than just students that can pass standardized test.

Context

Earl, L et al (2003) in their work England's National Literacy and Numeracy Strategies: Final report of the external evaluation of the implementation of the strategies, suggested that teachers most often focus their lessons on their students' successes in standardized exams (Earl, et al, 2003). This often have a long run effect of building half-baked graduates unable to meet the broader challenges of life. The context of this work entailed researching, exploring, and looking at works on the effects of teach-to-test to the students learning outcomes with a view of recommending a sustainable way of managing the issues raised.

Statement of the Problem

Teaching and learning are inconclusive without a proper means of assessment. This assessment gives insights on students' level of mastery of the knowledge sought (Popham, 2021). However, the knowledge and skills often passed out to students are of large volumes and often overwhelming to test accurately every aspect of the knowledge and skills. Thus, standardized testing is often used to do such assessments, in order to relieve the workload involved in teaching the full range of curriculum and knowledge needed, teachers often direct their instruction towards the standardized testing requirement (Popham, 2021). This seemingly focus on teaching to improve scores of standardized tests has proven to affect the capacity of the students to be lifelong learners able to solve problems, collaborate and proffer creative and innovative solutions to real-life problems (Harwick, 2020).

Rationale

The use of standardized testing as a means of evaluating students' performance has been a controversial issue, with varying opinion as regard its efficacy in determining students' overall knowledge base (Morgan, 2017). These controversies notwithstanding teachers, educators and students strive to excel and succeed in such test, leading to a strategic approach where teachers teach -to- test and students only learn what they believe are relevant to succeeding in such standardized test at the expense of the overall curriculum and learning expectations. The impact of this approach has also been a subject of controversy and varying opinions (Morgan,

2017). A need then arises to ascertain such impacts, find out how equipped students are prepared in school to take up decision making task in future and verify students' level of learning especially as it relates to non-tested subjects and areas ignored in the standardized test. This work investigated and researched on how standardized testing encourages teaching to the test and the impacts on students learning.

Prior Interventions

This topic has been a subject of research, the works of Brett D. Jones and Robert J. Egley on "Learning to Take Tests or Learning for Understanding? Teachers' Beliefs about Test-Based Accountability" where they were able to conduct a survey on teachers' perceptions regarding Florida's test-based accountability program raised serious doubts about whether testing has precipitated positive outcomes in upper-elementary students' learning (Jones and Egley, 2007) and Christina Simpson on "Effects of Standardized Testing on Students' Well-Being" where she was able to verify the effects of standardized testing on students' physical and emotional wellbeing, concluding that the effects are worrisome and deserving of attention as much the effects of standardized testing on teaching and learning (Simpson, 2016), are some prior interventions on this subject worthy of mentioning.

Research Questions

1. How does standardized test encourage teach-to test?
2. Does teaching to the test impact the quality of students learning?
3. Are there benefits or drawbacks to teach-to-test by students and teachers?
4. What are alternatives to teach-to-test approach?

Significance of the Study

The increased expectation by parents, school administrators and politicians on students to pass standardized exams, coupled with the pressure exerted on teachers has led to a teach-to test approach which clearly does not favor the students (Volante, 2014). The exclusion of important curricular contents, overemphasis on standardized test contents, prolong practice session directed towards passing standard test and an over reliance on standardized test results as a basis for school's rating, funding and academic status has greatly affected the students. This study will look at such impacts with a view of mitigating the causal effect and recommending suitable solutions that will help in solving it, these solutions will be beneficial to all stakeholders and the society at large.

II. LITERATURE REVIEW

Teachers are vested with the responsibility of nurturing, teaching and management of the learning process of students. This learning process must ensure that students are equipped with the needed skills to be lifelong learners able to think critically, creatively and make meaningful problem-solving contributions while applying this knowledge to novel issues rather than just being mere custodians of basic skills and declarative knowledge (Volante, 2014). This very important obligation of teachers has been greatly interfered on by the quest for students' success in high- stake test like standardized test (Volante, 2014).

Standardized test are test or exams that are given to students in manner that are very consistent, logical and are scored in similar fashion to ensure that performance is easily compared, evaluated and graded (Moreno, 2020). These tests are often used as decision making tools that determines the funding available to school, school's rating, teachers' performance and the overall productivity and effectiveness of educators in a district or area (Volante, 2014). Due to this fact, teachers are always under intense pressure to perform well in such standardized tests and are thus always devising better way of achieving success in these tests (Dodge, 2007). The teach-to-test approach is one of such way and has led to teachers teaching with the sole aim of making their students pass these tests rather than teaching to the curriculum and promoting an authentic classroom learning experience (Volante, 2014).

The teach-to-test approach is a process of teaching whereby, a teacher directs instructions towards knowledge and skills represented by a test. In this form of teaching, the teacher organizes learnings and instructions around items found on a standard test or its look alike (Popham, 2001). This approach to learning has been a subject of controversy, with different views for and against it as there are teachers and educators, one of such is that it is a dangerous process that does not promote creativity, innovation, collaboration and problem-solving mindset thereby creating narrow minded students (Harwick, 2020).

Learning to Take Tests or Learning for Understanding?

Proponents of standardized testing and policy makers are often of the view that standardized tests and test-based accountability programs are avenues to hold teachers and students accountable with a goal of raising students' educational achievements in the long run (Brett and Egley, 2008). However, this opinion is not

reflected in the views of teachers, as researchers have shown that educators and teachers view standardized testing to be detrimental to effective teaching practices and students learning (Brett and Egley, 2008).

The forgoing notwithstanding standardized testing has proven to be both beneficial and disadvantageous as Louise Gaille (2018) suggested that these advantages and disadvantages are unique and acts as an avenue for providing a basis for comparison of student knowledge and learning gaps at one end while simultaneously not being a true basis of varying understanding and knowledge of subjects (Gaille, 2018).

According to Louise Gaille standardized test have the following advantages and disadvantages:

Advantages:

1. It has a positive impact on student achievement.
2. It is a reliable and objective measurement of achievement.
3. Standardized tests allow for equal and equivalent content for all students.
4. A standardized test teaches students prioritization.
5. It allows school districts to discover their good teachers (Gaille, 2018).

Disadvantages

1. It has not had a positive impact on student education.
2. Standardized testing can be predictable.
3. They assume that all students start from the same point of understanding.
4. Standardized tests only look at raw comprehension data.
5. Teacher evaluations have been tied to standardized test results (Gaille, 2018).

These positives and negatives as regard standardized testing notwithstanding, an increased performance in students standardized test score does not reflect or mean an increase in students learning of knowledge (Brett and Egley, 2008), as factors such as teaching to the test may be responsible for such outcome. This invariably is justified by the fact that focused teaching to the test can produce an inflated notion of success in standardized test (Brett and Egley, 2008). Thus, teaching for understanding and teaching to the curriculum maybe more beneficial to the student in the long run (Brett and Egley, 2008).

Teaching to the Test approach to learning and its challenges

The drive to ensure high scores in standardized test and the use of the teach-to-test approach has unfortunately led to the sacrifice of important curricular contents (Volante, 2014). Thus, promoting a dumbing effect to teaching and learning which invariably leads to neglects on emphasizing and development of higher order thinking to just basic knowledge and skills needed for the standardized test (Volante, 2014). Ultimately, the curriculum becomes narrowed, non- tested subjects suffers and alienation of students whose academic strengths are not in commonly tested subjects, with such students becoming disengaged and truant (Volante, 2014). This unfortunately, has a multiplying effect to the school, educational system and the society.

Alternatives to teach-to-the-test

Teachers spend an enormous amount of time teaching to the test, motivating and preparing students to strategically study to pass standardized test by focusing strictly on such strategic areas in such standard test as against other developing a wholistic and sustainable approach to learning that will prepare them for the future (Brett and Egley, 2008). In view of this, a need arises to create alternative to teach-to-the test or a better, effective and a more beneficial approach to teaching and learning that will ensure students not only pass standardized test but reap all the needed outcomes enshrined in schooling and learning.

Louise Volante (2014) suggested that trainings on curriculum teaching which requires teachers to direct their instruction towards a specific knowledge content and cognition must be given to teachers. This allows teachers to discuss test-represented content as against test items when preparing for standardized test (Volante, 2014), when this is done students will be more likely to apply critical thinking skills and knowledge to areas beyond the confines of a standard test (Volante, 2014).

Summary

Assessment of students' progress must not be strictly dependent on standardized test scores, policy makers and educators should consider academic progression, learning development and the intrinsic motivation of students as evaluation items that should be considered (Volante, 2014).

III. METHODOLOGY

Purpose of the Study

This research reviewed, analyzed and investigated how standardized test encourages teach- to-test approach and its effect on learning, with a view of proffering and recommending improved solutions and better ways of managing the process where needed.

Research Questions

1. How does standardized test encourage tech-to test?
2. Does teaching to the test impact the quality of students learning?
3. Are there benefits or drawbacks to tech-to-test by students and teachers?
4. What are alternatives to teach-to-test approach?

Study Population

This research work was based on secondary data, it is therefore a secondary research process, data and information was derived from secondary sources like journals, articles and books and findings from other sources (Qualtrics, 2022). In addition to this firsthand data was also obtained from a group of students after all the necessary consents and approvals was obtained and completed.

Population Justification

Researchers over the years have worked on standardized test and the teach-to-test approach, its effects on students' wellbeing, learning expectation and overall academic development. This work reviewed such work, analyzed, and drew up reasonable inferences that justified the impact of teach-to-test on students learning and how standardized testing encourages the teach-to-test approach of learning.

Intervention

The work brought to light the effectiveness or non-effectiveness of teach-to-test on students learning, not only as regard being able to pass standardized test but also when compared to the overall learning requirement for such students while revealing the impact on students' wellbeing, stress level, emotional and academic health. The overall perception of teachers to such test and its impact was also investigated and brought forward after obtaining the due consents from the participating teachers.

Intervention Plan

The interventions carried out for this research was as follows: Week One

- ✓ A small group of 20 grade 6 students was created.
- ✓ A group session was conducted to inform them of a forthcoming mock standardized test at the end of the second week of training.

Week Two

- ✓ Lessons started and they were thought based on teach-to-test and teach-to- curriculum respectively.
- ✓ Group One: Teach-to-Test (Based on the normally expected Standardized Test)
- ✓ Group Two: Teach-to-the curriculum (Based on the recommended learning expectation for grade 6)

Week Three

- ✓ Training was continued based on week 2 format.

Week Four

- ✓ A mock test was conducted based on the entire curriculum learning expectations for grade 6.
- ✓ The test was scored the results were recorded and compared.
- ✓ The results were analyzed while conclusions and recommendations were made based on the result.

Sources of Data

The source of data for the work was basically qualitative, mostly via the internet, online portals, journals, and articles. That was because over the years works related to this topic has been carried out, thus, the work reviewed explored and analyzed such works with the aim of making productive and workable inferences that will help improve learning and teaching.

Instrumentation

The instrumentations for this work were:

1. The output of standardized test over the years.
 2. Students' wellbeing, stress level and anxiety during, before and after the standardized test.
 3. Students level of knowledge of learning expectation for the grades under investigation
- In addition, a comprehensive review and analysis of journals, works and literatures on the topic was carried out, with a view of discovering the most effective and workable practices that helped in doing justice to the topic.

Research Procedure

To collect data for this research work, the researcher wrote a letter to the head of school indicating interest to collect information within the school community. This letter gave the details of the intended research work, the data collection process required and the participants in the research. A summary of the details required were:

- Full name
- The full name of the person responsible for handling the request for data (Head of School)
- Date requested.
- Type of information requested.
- Any relevant names
- The reason for the data
- How you will use the data
- Names of any institutions or individuals who will share the data.
- Attach any documents (DocFormat, 2022).

Soliciting Participants

To recruit participants for this research the researchers went through the following steps:

- The researcher made an initial contact with the prospective participants in person or by letters prior to initiating any telephone contact or beginning the research. For minors a written request for approval was sent to parents, teachers, and guidance to approve their participation.
- The researcher provided a means through which the participants can reach the researcher.
- The researcher developed a partnership with the teachers and school community and people that work closely with the prospective participants.
- The researcher made readily available information on the importance of the research work to the school community and the student learnings.
- The school social media platform was also used to solicit for participants.
- The researcher showed friendliness, was personable, and confident with participants and appreciated their participation by saying "Thank you" often.
- The recruitment materials were culturally sensitive recruitment and easy to understand (Ross, 2021).

Informed Consent

The informed consent of participants for the research was obtained by giving adequate information about the research to the potential participants that will aid their decision making and informed participation. This information included:

1. The purpose of the study
2. Expected duration.
3. The study procedure
4. Information on the right to decline or withdraw from participation.
5. Foreseeable consequences of withdrawal or declining
6. Potential risk, discomfort, or adverse effect
7. Prospective benefit of the research
8. Incentives or any other reward for participation
9. Researcher's contact information (Kowalczyk, 2021).

The consent form was issued directly to the adult participants to sign and return indicating their participation, for minors, the consent form was given to their parents via the child's teacher with a page allotted on the consent form for the parent's names and signature. Usually, two signatures from parents are required for more than minimal risk research with no direct benefit to the child (Regents of the University of Michigan, 2022).

Data Collection Procedures

The data for this research was mainly collected from selected journals, books and online materials on the topic and related subjects. However, some other useful data are collected from the intervention plan, which was conducted, these data are:

1. The mock standardized test conducted is scored, the results are compared, analyzed and data collected.
2. The participating teachers filled a survey. The survey was aimed at confirming their perception of standardized test and its effect on them and strategies employed to help students pass the test. The stress level, expectation, and overall state of mind during, after and before the test while getting their suggestions on improvement.
3. The participating students filled up a survey which was aimed at knowing their preparedness for the test, their perceived stress level before, after and during the test while checking their level of collaboration and interaction with their peers.
4. These data were then analyzed, and reasonable inferences made that aided in the research conclusion and recommendations.

Ethical Considerations

Research like any other part of human endeavor is governed by rules and regulations that ensures that researcher worked ethically. Ethical considerations made for this research were:

1. Protect research participants rights and choices.
2. Ensure the validity of the research process.
3. Sustain academic and scientific integrity (Bhandari, 2022).

Thus, ethical considerations in research can be said to be a set of principles that guides the design, practice, and implementation of research. These considerations must always be followed and applied in data collection and other aspect of research, thus, acting as a code of conduct (Bhandari, 2022).

Taking the foregoing into consideration, this research took the following ethical considerations to be the code of conduct for the research process and execution:

- The use of an informed consent form, to ensure awareness and transparency of process.
- Giving the participants the rights of withdrawal from the research process.
- Ensuring confidentiality, anonymity and privacy of participants and information given or obtained.
- Ensuring that participants were not exposed to psychological, emotional, and physical harm.
- Carrying out a debriefing process while ensuring deception was avoided. Thus, sustaining integrity of data collection and the overall research process (StudySmarter, n.d).

Considerations During Intervention

The aim of any research intervention is to achieve a desirable outcome for a process, community or individual (Christian & Steven, 2022). These interventions were expected to not just prevent negative outcomes but should proffer logical, statistical, or scientifically proven methods of obtaining the outcome desired (Christian & Steven, 2022). Bearing the foregoing in mind, this work was able to put in the following considerations during the interventions for the research:

1. **Risk and Benefits:** the intervention for this research was conducted under a controlled situation that limited the range of variability among participants, limited exposure to risk and ensures that benefits can be derived from the implementation of the research in the future (Begun, n.d).
2. **Participants consent:** the intervention for this research was carried out with the utmost consent of the participants without coercion, cajoling, incentivization or deception. This was done to ensure the avoidance of conflict of interest, ensure freedom, and ensure the research result is a true reflection of reality (Begun, n.d).
3. **Use of a control group.** To allow for comparison, evaluation, and assessment of improvement or otherwise, this research had a control group this helped obtaining the correct results rather than a reconstrued expectation.

Considerations During Data Collection

This research was carried out with utmost diligence and secrecy of information while ensuring that:

1. Anomaly and confidentiality was respected.
2. **Beneficence.** This research was done to ensure that the data collection process is of no benefit or harm to the participants, while considering all possibility of consequences linked to research and balancing the risks with the proportionate benefit of the research (Gupta, 2020).

Considerations of Researcher Bias

To reduce bias and ensure correctness of information and the research process the following was implemented:

1. A proper selection of participants, devoid of sentiments, favoritism, or convenience.

This was done to ensure objectivity of the research and elimination of alliance or directing the research results towards a personal expectation.

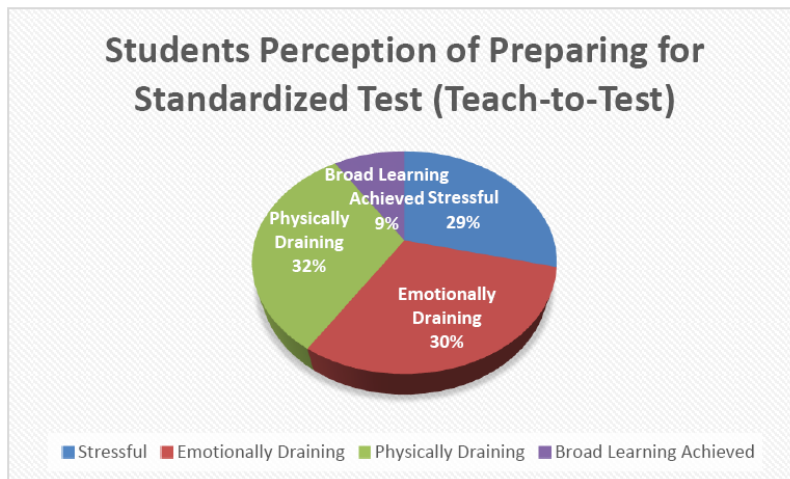
2. Ensuring the research materials used were properly prepared, easy to understand and able to access the required information.
3. Ensuring information used are verifiable, diverse, and broad. This helped in avoiding biases.

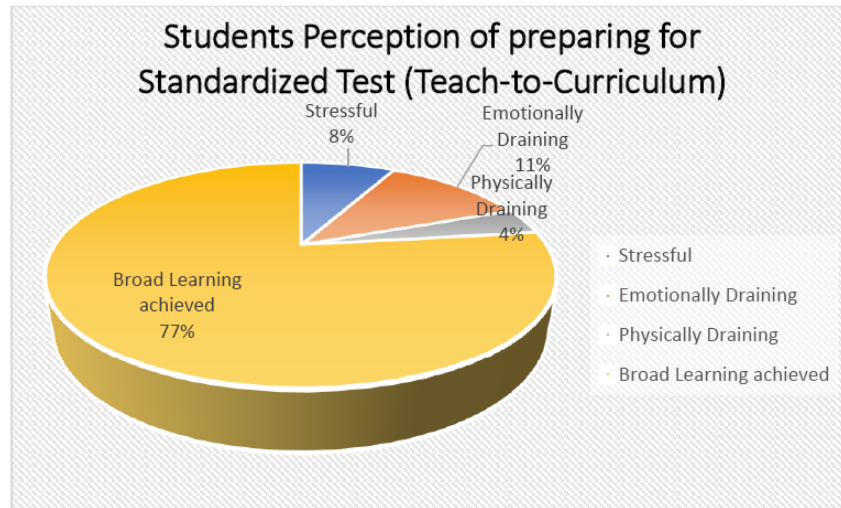
IV. RESULTS

1. **The result of the mock test after grading is as follows:**

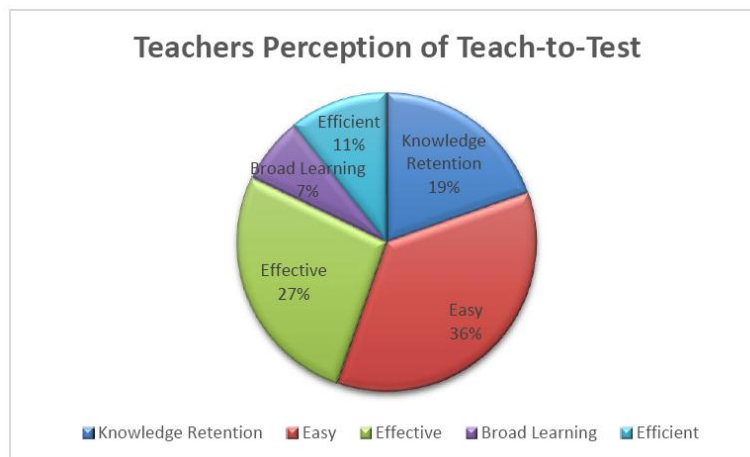
Group One Students (Teach-to-test)	Score	Group Two Students (Teach-to- Curriculum)	Score
Chibuzo	67	Laoye	89
Anne	65	Danladi	86
Ogechi	65	Fatimah	86
Ebenezer	64	Evelyn	79
Edward	64	Lynda	79
Mark	62	John	78
Titilayo	62	Maimuna	77
Fausiyat	61	Emeka	77
Amina	61	Amanda	77
Yohanna	60	Ngan	76

2. **Students’ perception of wellbeing recorded during the survey is summarized below:**





3. Teachers Perception of Teach-to Tech



ANALYSIS OF RESULTS

It can clearly be seen from the results of the mock test that students who were taught based on the curriculum scored better grades compared to the students who were taught based on the teach-to- test format. This clearly shows the depth of knowledge students acquire when taught based on the curriculum.

This resonates adequately with Volante (2014) postulation that “Teaching to the test not only reduces the depth of instruction in specific subjects but it also narrows the curriculum so that non- tested disciplines receive less attention during the school day”. Invariably, this result shows that teaching a narrowed curriculum which is precisely what teach- to test does alienates a reasonable portion of students whose academic strengths are outside tested subjects. Thus, focusing on improving test scores rather than for a wholesome curriculum-based learning disenfranchises the students and limit their learning.

The result of the student’s perception on teach-to-test approach and teach-to-curriculum approach to preparing for standardized test shows clearly the lead of teaching to curriculum in terms of broadness of learning, less stressful, less draining in emotions and physical stress compared to teach-to-test approach. This aligns with the work of Simpson (2016), where she concluded that “the effects of standardized testing on students’ physical and emotional wellbeing are worrisome and equally as deserving of attention as the effects of standardized testing on teaching and learning”. Thus, a greater emphasis on teaching to curriculum ease learning, creates a broader and all-encompassing teaching and learning process while promoting wellness and emotional health of students.

The result of the perception of teachers as regard teach-to-test, shows that teach-to-test approach to learning only serves as an easy and effective way of preparing for standardized test but is greatly lacking in terms of broadness of learning, retention of learning and efficiency. This clearly is in consonance with Brett D. Jones and Robert J. Egley (2008), where they opined that teach-to test has impeded student learning by negatively affecting teachers teaching practices and forcing teachers to teach in ways that promote test-taking

skills over learning for understanding. Therefore, teachers struggle with the problem of wanting to teach for understanding, yet feeling limited in their ability to do so within the context of a high-stakes environment that measures achievement only through standardized test scores. This invariably affects the students directly as they become trained to just pass exams rather than being lifelong strategic learners able to understand and apply learnings.

V. CONCLUSION AND SUMMARY

This project brought to light the roles of standardized testing in encouraging teach-to-test, perception of teachers towards teaching test and standardized testing and how teach-to-test affects students understanding, emotional wellbeing, stress and broadness of learning. The work showed that the practice of teach-to-test affects learning, and it is detrimental to the teaching profession.

Teachers must thus, develop strategic test preparation mechanism, develop skills that increase efficiency of learning, knowledge retention and sustainable teaching and learning system.

Teachers must, therefore, embrace curriculum teaching by using a teach-to curriculum approach, this does not only promote students learning but provides educators, policymakers and stakeholders the right basis of making educational decisions and policies while ensuring students develop an wholesome learning skill that is easily applicable.

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