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# Insider perspectives on systematic provision of quality technical vocational education and training in Zimbabwean tertiary institutions

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## ABSTRACT

Technical Vocational Education and Training (TVET) is defined as an educational process that focuses on the acquisition of practical skills, and an understanding of technologies and related sciences necessary for employment in a particular occupation or trade. The implementation of TVET is on the premise that students develop the requisite skills necessary to increase their employability and for the development of the economy through entrepreneurship. The study sought to ascertain the challenges and proffered strategies of attaining TVET programmes in Zimbabwean tertiary institutions. A qualitative approach was used, and a case study design employed. Two research questions guided the study. The data collection instruments were interviews, document analysis and focus group discussions. The participants were selected through purposive sampling. The study revealed the following challenges: lack of TVET training facilities, poor teaching methods, poor funding, deplorable facilities, and routine assessment of students' competencies. The following strategies were proffered: deliberate continual professional development of TVET lecturers, provision of adequate training facilities, and mobilisation of the requisite financial resources. It was recommended that central government, policymakers, and all TVET providers should deliberately focus on strengthening quality assurance in all the TVET tertiary institutions.

**Contribution/ Originality:** Zimbabwe long embraced the need to provide its young learners with the requisite technical and vocational education. The thrust has become more deliberate with the advent of the nation's Education 5.0 whose two overarching pillars are innovation and industrialisation, which manifest themselves well in TVET. However, the elephant in the room is the TVET quality concern, hence the impetus for this study to have intimate feedback from the shop floor 'practitioners', viz: lecturers and students. Reviewed literature showed paucity on case studies done in Zimbabwe, but elsewhere in global north states.

## 1. INTRODUCTION

Zimbabwe has made significant efforts to promote Technical and Vocational Education and Training (TVET) to enhance graduates' employable skills and boosting economies (Lucas & Claxton, 2009). Previously, TVET programmes were meant for those who would have been assessed not to be academically gifted. However, tides have changed with most professionals, especially in Global South, envying TVET graduates' success stories. One of the outstanding features of TVET is its orientation toward developing graduates with employable skills through

Competency-Based Education and Training (CBET) (Dasmani, 2011). Accordingly, the TVET curriculum should emphasize employable skills and occupational competencies that enable the students to contribute their best to the technological changes and position students for entry into the labour market after graduation (Ayonmike, Okwelle, & Okeke, 2015; Mabhanda, 2016; Woyo, 2013). It, therefore, means TVET prepares students to be furnished with the requisite technical skills necessary for increasing their employability and for the development of the economy through paid employment or self-employment.

The aim of implementing TVET in Zimbabwe was on the premise that students could contribute immensely towards the socio-economic growth of the country after graduation, through the acquired technical and vocational skills (Zengeya, 2012). In Zimbabwe, TVET is incorporated into two levels of education: secondary and tertiary, to come up with an education system that mitigates poverty through the creation of employment (UNESCO, 2012). However, the concern today is not much about the importance of TVET but how to ensure quality and relevance for the socio-economic development of the nation (Anane, 2013; Woyo, 2013) hence this study. The fundamental feature of maintaining quality in TVET enables students to unlock their potential, expand their horizons and be able to meet the demands and changes in the dynamic world of work (Mabhanda, 2016). However, many among the public have a poor perception of education and career in TVET which must be rectified to make it consistent with the national industrial development blueprint (Zhi & Atan, 2021). Consequently, the major concern for the government should be ensuring a relevant and accessible TVET system that is concerned with addressing issues of quality in their institutions (Woyo, 2013). Indeed, observing quality in the TVET system would enhance graduates' employability or jobs creation in line with Zimbabwe's Education 5.0 mantra.

Ordinarily, the quality of TVET is directly related to the achievement of the learning outcomes that fulfill the expectations of key stakeholders, such as, students, parents, employers, and the community in general. Here the outcomes mean the knowledge, skills, and competence achieved at the end of the learning process. However, concerning education, the concept of quality is complex (Morris, 2013) and it is difficult to define as it does not have a single definition that comprehensively describe its meaning (Geressu, 2014; Şandru, 2008; Schindler, Puls-Elvidge, Welzant, & Crawford, 2015). Furthermore, Amare (2005) argues that different views of quality exist which are often confusing and contradictory. In the same vein, Becket and Brookes (2006) opine that quality has different meanings to different stakeholders. In an endeavour to define quality Harvey and Knight (1996) in concurrence with Becket and Brookes (2006) elucidate the different but rather related dimensions of quality which they refer to as, 'quality as exceptional, quality as consistency, quality as fitness for purpose, quality as value for money and quality as transformative'. TVET institution quality is essential to produce qualified and employable graduates. If TVET graduates lack the expertise needed by the labour market and cannot cope with cutting-edge technology and machinery, the efficiency of those graduates would be called into question. There is need to equip graduates with the necessary skills to work in real jobs and advance toward improved working standards and, eventually, better opportunities. It necessitates an appreciation of the existing TVET system's consistency and this program's ability to meet emerging labor market demands, (Gasmelseed, 2021).

### *1.1. Quality as Exceptional*

Becket and Brookes (2006) refer to this dimension as the level where the standards are defined and distinguished. In TVET, this aspect of quality tends to focus on the degree of excellence in inputs, processes, and outputs as they are the major educational elements to address quality. Quality as exceptional according to Mulu (2012) means delivering an exceptional performance that is rarely attainable as it requires very high standards.

### *1.2. Quality as Consistency*

Quality as consistency focuses on the specifications of processes (Mulu, 2012). Similarly, Şandru (2008) indicates that the process of teaching and learning should be done in a logical manner using the most appropriate

teaching methods that make knowledge consistent. This dimension of quality is often called "zero defects" meaning that the product produced by the TVET system should be unblemished.

### *1.3. Quality as the Fitness of Purpose*

In this dimension, quality relates to the goals and expectations of both the internal and external stakeholders which include the teachers, students, administrative staff, graduates, employers, parents, and many others that should be fulfilled (Şandru, 2008). Therefore, quality is measured by the ability to achieve set goals and stakeholders' satisfaction. In this case, TVET graduates satisfy stakeholders if they are equipped with the skills necessary for them to compete in the labour market. Research by Ayub (2017) found that parents' background has a remarkable effect on students' attitudes towards TVET. Most of the respondents' (parents) in her study had a lower economic, educational, and occupational background in society. It can be concluded that parents with lower socioeconomic status in society encourage their children to pursue TVET education. Therefore, parents must be satisfied with the education that their children are receiving in TVET colleges and the outcome. The community may also be involved in curriculum design and implementation to ensure that courses offered are appropriate to the available opportunities and socio-economic development activities in the area (Standing, 2008).

### *1.4. Quality as Value for Money*

This dimension perceives quality in terms of return on investment or expenditure. It focuses on the utilization of inputs by the process in a way that will produce the desired outputs. For example, the government may be interested in producing more graduates at less cost.

### *1.5. Quality as Transformation*

Quality is viewed in terms of the change of performance of the learner from one state to another. This dimension is concerned with empowering and enhancing students to a higher level of knowledge through the learning process (Mulu, 2012). Introducing the youth to certain ethics, to prepare them for the world of work; equipping the learners with skills and attitudes that would lead to their involvement in income generating activities; use of the skills acquired to engage in sustainable livelihood, and to uplift their standard of living and that of their communities by creating employment for self and others.

Although what constitutes quality is debatable, Adebayo, Oyenike, and Adesoji (2009) give a general definition of quality as, "the ability or degree with which a product, service or phenomenon conforms to an established standard, and which makes it to be relatively superior to others". Quality in TVET, therefore, implies the capacity of an educational system to conform to the established and acceptable criteria and standards that are appropriate to the educational programme. However, the acceptance criteria and standards may change depending on the relevance of the system to the stakeholders and higher quality levels are sought (Adebayo et al., 2009). Mishra (2007) opines that quality can also be considered as a monitoring mechanism and the concern for quality will ensure accountability by stakeholders hence the flair to make appropriate decisions. Thus, quality can be achieved when the requirements of all the stakeholders concerned are fulfilled.

Quality in TVET is considered when good and efficient lecturers are available; proper infrastructure, adequate materials, and accessible resources are at one's disposal (Idialu, 2013; Wondaferew, 2021). TVET cannot function properly unless there is high quality in standards of teaching; adequate materials and facilities available, and close monitoring and evaluation of the programme (Ayonmike et al., 2015; Idialu, 2013). High standards in examinations and assessment of students' work should be emphasised to attain quality in TVET (Ibid). The readiness and preparedness of students to face the challenges of the real world of work is what should constitute quality TVET programmes. Students should be able to adapt to the needs of the industry by being innovative and should be equipped with problem-solving skills.

Furthermore, to ensure quality in TVET, quality assurance frameworks must be established and applied to all aspects of the TVET system. Quality assurance is the systematic management and assessment procedure that can be adopted by TVET to monitor performance and ensure the achievement of quality (Maajumdar, Khambayat, Tsesoro-Gayondato, & Solla, 2010). Quality assurance helps to evaluate if TVET is working towards achieving its main objective of producing qualified graduates for paid employment and self-employment (Ayonmike et al., 2015). Shoko, Chikomo, and Chisita (2015) state that quality assurance pervades all the activities that take place in a tertiary institution, such as, the teaching and learning process, recruitment of staff and students, and assessment of students within and outside the college among others. However, over the years TVET programmes in Zimbabwe are bedeviled with numerous challenges that have affected the quality of both the input and output (Mabhanda, 2016; Shoko et al., 2015; Woyo, 2013). Hence the need for a study of this nature.

### *1.6. Statement of the Problem*

The aim of implementing TVET in Zimbabwe is on the premise that students could contribute immensely towards the socio-economic growth of the country after graduation through the acquired technical and vocational skills (Zengeya, 2012). However, there are several concerns being raised about TVET institutions failing to produce graduates with relevant skills required for the world of work (Mabhanda, 2016; Shoko et al., 2015; Woyo, 2013). There are several TVET graduates offloaded into the market annually but their competencies, relatively, fail to satisfy the expectations of most employers. In addition, a considerable number of graduates remain unemployed and are reluctant to see self-employment as an alternative. Therefore, the thrust of the study is to establish the challenges and strategies for attaining quality TVET programmes.

### *1.7. Purpose of the Study*

The purpose of the study was to examine the challenges and strategies of accomplishing quality TVET programmes in Zimbabwe.

### *1.8. Research Questions*

The following research questions were raised to guide the study:

1) What are the challenges of attaining quality TVET programmes in Zimbabwean Institutions?
2) What strategies can be used to address the challenges to achieve quality TVET programmes in Zimbabwean tertiary institutions?

## 2. METHODOLOGY

The research was guided by the interpretive paradigm. An interpretive principle is concerned with the interaction between the researcher and the subjects during data generation. A qualitative approach was adopted. Gall and Borg (2007) note that in a qualitative approach, researchers study participants in their natural settings and they seek to understand the world from the perspective of the individuals who live in the area. A case study was used because it provides a rich and vivid description of events and a clear understanding of respondents' perceptions (Cohen, Manion, & Morrison, 2011). Case (s) often focus on an in-depth exploration of an activity, event, process, or program bound by time (Creswell, 2011). The study was conducted with one Polytechnic College in Zimbabwe. The study was carried out with 12 final year students and 4 lecturers. Purposive sampling was used to choose the lecturers. Lecturers were selected because they were involved in quality assurance. Students were selected using stratified sampling technique. These students were selected because they were exposed to the system for three/four years. They were about to graduate and eventually join the industry.

Data were collected through face-to-face interviews for lecturers, and focus group discussion for students, coupled with documents analysis. Documents such as the register, inventory, termly teaching programmes and

internal and external assessors' reports were used. The interview guide was developed, and pilot tested to ascertain whether the questions designed solicited the intended data. The interviews were conducted through disclosing the purpose of the study based on the permission and willingness of respondents. Two focus group discussion sessions lasting one hour thirty minutes were undertaken. Semi-structured guiding questions to prompt responses from the participants were raised and recorded on an android cellphone. A written transcript of the answers was produced. Documents available were analysed through descriptive narration.

## 3. RESULTS AND DISCUSSION

The major objectives of the study were to establish the challenges faced in attaining quality TVET tuition and to suggest strategies for the realisation of quality in TVET programmes and related products. The challenges were discussed as follows:

### *3.1. Student Oriented Challenges*

#### *3.1.1. Negative Attitude*

The most critical challenge identified by this study was the issue of the negative attitude exhibited by students towards TVET programmes which accounted for a significant decline in academic performance. The students lacked interest in areas of specialisation, and this had a remarkable impact on their results. Respondents reported that sstudents had been used to a curriculum that was too academic and theoretical and they thus had developed a culture of dislike for practical-based courses. This might have militated against the concept of self-employment and job creation which they were supposed to take up after completing their TVET programmes. This is supported by Mahuyu and Makochekanwa (2020) who reported that in countries such as Zimbabwe, TVET has been characterised by low status and poor attitudes in comparison to academic subjects.

Lecturers pointed out that in most cases lack of interest on TVET was caused by the inequalities that have been created by the education system which gives the impression that the non-technical subjects are more important because in most cases TVET students find it very difficult to find jobs in industries. One Lecturer said:

*With the introduction of Education 5.0 the government should make sure that the inequalities that existed in the education system to give more credit to academic subjects and looking down upon practical subjects is eradicated. Instead, the government should now start to support TVET programmes so that it is able to provide good quality vocational education and training comparable to general academic education to avoid suspicion about quality by the society and raise public appeal. TVET graduates face challenges in securing jobs in industries.*

Lecturers indicated that in such cases where students do not have interest in their programmes, lecturers then have an uphill task in getting tasks accomplished as most students do not attend lectures. Some students were neglecting their lectures and only appeared during examinations and as a result, this set of students will perform drastically in their examinations. Students were reported to have poor reading culture and were mostly influenced by peer pressure. Lecturers expressed that because of the negative attitude that students have, some do not attend lectures, delay in submitting their work, and usually the quality of work from such students is deplorable. All these impact on the quality of the graduates that TVET institutions produce who do not qualify for the world of work as they lack the needed skills and competencies.

#### *3.1.2. Inadequate Training Equipment and Resources*

All the participants cited challenges regarding equipment and other learning materials. Equipment was reported as obsolete, and workshops were no longer compatible with current industrial practices. Students reported that they were likely to be exposed to modern equipment in industries for the first time and this would make their lives difficult because they would not be able to operate it.

One student said:

*We have challenges of modern equipment in our Clothing Department. The only modern machines that the college has are lock stitch and industrial over lockers. We would want to have Computer Aided Design equipment for designing and making of our patterns so that we move with the times. We only get to use these during attachment. There is several other modern equipment in textile design and fabric manufacture that we require such that when we complete our course, we will be able to start our businesses in those areas.*

These findings confirmed what Mahuyu and Makochekanwa (2020) established in their study that equipment in most TVET colleges is not in tandem with the current technology used in industries. This was further confirmed by inventory records which revealed that the college had a substantial number of sewing machines which were not working, and in instances they had acquired new machinery, these were not modern either. These findings clearly indicated that quality in TVET highly compromised by inadequate facilities and infrastructure. The absence of up-to-date technology deprives the students of the requisite skills for their trade.

#### *3.1.3. Inadequate Places of Industrial Attachment*

The participants indicated that they did not benefit much from industrial attachment. They lamented very few places of attachment compared to large numbers of students to be attached. One student said:

> *Sometimes we get to places when it is late and when others have already started and in cases like this, we do not benefit much.*

Most of the participants reported that due to challenges with placement some students ended up being attached in an area that was divorced from their areas of specialization. In cases like these students are not exposed to the actual skills and competencies required for their trade. Students revealed that some of the activities they did during industrial attachment were not relevant to their areas of specialisation. This compromised the quality of TVET programmes. This finding is in line with what Mabhanda (2016) found in his study that limited exposure to areas of specialisation is the reason why students lack the right skills for them to be marketable in industries. On this note one student had this to say:

> *We are in an era where industries are in dire need of expertise to run their enterprises, so if we do not get places of attachment in our trade areas it means that we will not be marketable.*

The study also revealed that even if students were attached to their trade areas, they were still not exposed to a wide range of skills because some companies were not operating at full capacity. They indicated that due to shortages of the workforce in industries they were unable to learn in all the sections in the industry, thereby inhibiting them from full exposure. This was also confirmed from the logbooks that students used during attachment which showed that some students did not have work recorded in some sections of the companies they were attached to. Resultantly, training under these conditions would produce a half-baked graduate who is not suitable for the world of work.

### *3.2. College Oriented Challenges*

#### *3.2.1. Procurement Procedures*

Lecturers indicated poor procurement systems within the institutions and bureaucracy in obtaining equipment and other resources that they required. It was reported that procurement was rather cumbersome. The long processes followed often led to delays in procurement and in some cases failure to receive the anticipated consignment.

One lecturer submitted that:

*The budget is facilitated by the Head of the Department, who calls upon all sections to submit lists of items that they needed to use while teaching to initiate the purchasing process. After that the internal requisition is sent to the procurement office where they generate a comparative schedule and then source three quotations from different suppliers. The process of looking for*

*quotations takes a very long time of about one to two months and that delays the teaching and learning and in the end quality of students at the end of the course is compromised.*

The findings of this study are in line with Dzuke and Naude (2015) that in Zimbabwe, public procurement is centralised at the State Procurement Board (SPB) which must regulate and manage the procurement processes for all public entities in Zimbabwe, in line with public procurement legislation. As a result, many projects were behind schedule because of the requirement to comply with SPB processes.

Another lecturer said:

*Sometimes the procurement office fails to identify the right suppliers for our requisitions, and we end up receiving poor quality products that would not last and in cases like these we end up compromising on quality. I think there is need for the procurement office to work together with the members of each section so that they approve the products before they are delivered.*

The findings clearly show that quality education cannot be realised without adequate provision of the required resources.

### *3.2.2. Shortages of Facilities*

The shortage of training facilities such as classrooms, workshops, saloons, garages, kitchens, studios, and many others were also highlighted as challenges that were militating against quality in TVET programmes. These shortages of facilities made lecturers compromise on quality in the delivery of lessons. The lecturers highlighted that demonstration lessons were affected by shortages of materials and that obviously had a negative impact on the production of the graduate who is supposed to have the right skills needed for the labour market.

One lecturer remarked:

*TVET is all about the development of the right skills and competencies and these require a lot of hands-on practice with the appropriate facilities and materials hence lack of these can short-change students and may not fit in the world of work. We have shortages of well-equipped workshops and laboratories. For example, in Clothing Technology most students do not have an idea of how some of the modern machines work because they are used to the ordinary lock stitch and overlocking machines. They will only see and use the machine during attachment if get attached where some of these modern machines are used.*

This was supported by one of the external assessor's reports for 2016 which states that students were not able to design and make patterns using Computer Aided Design because they are not exposed to this while at college. However, some lecturers from other disciplines indicated that TVET facilities like textbooks, machines and workshops were adequate but some needed to be upgraded so that they were in sync with the latest technologies. This concurred with records from the library which showed that some sections had very few contemporary textbooks for the areas that they specialise in. Most books that were available were too old. This is consistent with Woyo (2013)'s findings that TVET institutions in Zimbabwe have an acute shortage of materials and equipment that are required for them to produce a competent graduate. Thus, these shortages of facilities affect the quality of the graduates in terms of market demand. Results from the focus group discussions with students also indicated that the lack of resources in TVET was a perennial challenge for most tertiary institutions in Zimbabwe. The participants said that physical resources including hostels, libraries, computers, and other machines necessary for a conducive environment were not available at the colleges.

### *3.2.3. Poor Administration*

Lecturers believed poor administration can greatly affect the quality of TVET programmes. They reported that although supervisors or Heads of Departments (HoD) were supervising the teaching and learning regularly they still had some challenges.

One participant recounted that:

*HoDs actively ensure assessments are planned and coordinated to achieve quality assessment. Evaluation at the college is done through classroom visits and document checking of lecturers by Senior Lecturers and HODs. The college uses Internal*

*Continuous Assessment (ICA) as an instructional tool to ensure that learning and teaching take place according to the required standards. ICA requires the administration to develop assessment policies for both students and lecturers, to ensure that all tasks meet appropriate standards and are accurately recorded. The management should play a key role in the implementation of ICA which then should execute the general management function and provide resources, namely: materials, personnel, and finance Although management expects lecturers to achieve good results, they often fail to make provisions for the requisite resources.*

The quality and expertise of lecturers, therefore, play very important roles in deciding the students' quality and the skills competency of lecturers should guide them in making influential learning plans.

### *3.3. Government Oriented Challenges*

#### *3.3.1. Poor Conditions of Service*

Poor conditions of service were reported as a hindrance to quality TVET programmes as lecturers were not motivated to work due to poor remuneration. Salaries were reported to be paltrily leading to brain drain as many qualified and experienced lecturers left for greener pastures, mainly to neighbouring countries. This is consistent with Amadike (2007) who argues that poor remuneration is responsible for the workers' poor attitude to work as they may decide to do their own business instead of concentrating on how to improve the quality of teaching and learning. He further sees poor remuneration as a driving force toward brain drain as workers may opt to seek greener pastures.

#### *3.3.2. Inadequate Funding*

Inadequate funding of the TVET programmes was reported as causing a fall in the quality of TVET programmes. Some participants mentioned the lack of funding for them to research and bring innovations into the current teaching and learning. One of the interviewees L2 expressed his view as follows:

> *The government does not provide us with financial support for research although we are expected to engage in some research so that we improve the teaching and learning in TVET. When there is no research being funded the tendency is to relax and use the archaic information available and this affects the quality of TVET programmes.*

This confirms what (Idialu, 2013; King, 2011) found, that in several countries and especially in developing countries, there has been very low funding of TVET programmes. Therefore, there is a need for increasing awareness of the importance of TVET. Thus, if funding is insufficient, the quality and standards in TVET are compromised.

#### *3.3.3. Poor Curriculum Planning and Implementation*

Participants pointed out the ineffective implementation of TVET curriculum. This is how one lecturer expressed his view:

> *The Competency -Based Education and Training that was introduced in TVET institutions has not been fully embraced in our institutions and there is a need to address the challenges we are facing for its successful implementation.*

#### *3.3.4. Shortage of Manpower*

The participants reported a continual shortage of Technical and Vocational experts as a major challenge that is affecting the development and quality of TVET programmes. Those who were interviewed suggested that there is a need to embark on a massive TVET teacher training course to improve the numbers. One lecturer indicated that currently there were only two colleges, Gweru Polytechnic and Belvedere Technical Teachers' College which are functional after the Chinhoyi Technical Teachers' College was turned into a University of Technology. Some of the lecturers who were recruited to teach in TVET institutions did not have pedagogical knowledge therefore some of the teaching methods used ended up compromising the quality of the graduates.

### *3.4. Recommendations Proffered to Realise Quality TVET Programmes in Tertiary Institutions*

a) There should be an improvement in the provision of adequate infrastructure and facilities to produce a graduate with the required competencies desired by the labour market.

b) Adequate and up-to-date technology should be sourced so that students are well equipped with modern technology.

c) Adequate planning and implementation of TVET programmes is required as well as adequate funding of the programmes.

d) The government should embark on rampant training of TVET teachers and offer scholarships for those who want to further their TVET.

e) The government should strive to improve the working conditions of its workers.

## 4. CONCLUSION

TVET is the backbone to the socio-economic problems that Zimbabwe is currently facing. It is of paramount importance that various strategies identified in the study be exploited to curb the challenges that militate against attainment of quality TVET in tertiary institutions. A workable quality assurance mechanism should be put in place, and the TVET Line Ministry should monitor and supervise the training process to ensure that graduates are adequately prepared for the needs of the industry.

## 5. RECOMMENDATIONS

Based on the findings of the study, it was recommended that:

a) Central Government should provide adequate funding for TVET institutions to facilitate provision of adequate and appropriate infrastructural, instructional, and human resources.

b) Since TVET institutions train for the industry, there should be effective collaboration between industry and institutions to ensure development of the requisite attitudes, skills, knowledge, and competencies.

c) The government should ensure relevant training of teachers for TVET and retraining of those already in the system to keep them informed of the best practices and methodological changes.

d) The government should adequately plan, formulate, and implement policies that enhance TVET programmes in tertiary institutions.

e) Society should place more confidence and support of TVET learners as this field is mandated to develop artisans who are urgently required by the industry and nation at large in the nation's quest to realise the fruits of Education 5.0 (Zhi & Atan, 2021).

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**Transparency:** The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.
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