THE FACTORS AFFECTING EFFECTIVE DEVELOPMENT OF SKILLS COMPETENCIES AMONG POLYTECHNIC STUDENTS IN ZIMBABWE: A LECTURER PERSPECTIVE

Watadza, M. L., & Lungu, A.

The Strategic JOURNAL of Business & Change MANAGEMENT
ISSN: 2312-9492 www.strategicjournals.com
Vol. 8, Iss. 3, pp 754 – 772. September 5, 2021. www.strategicjournals.com, ©Strategic Journals

THE FACTORS AFFECTING EFFECTIVE DEVELOPMENT OF SKILLS COMPETENCIES AMONG POLYTECHNIC STUDENTS IN ZIMBABWE: A LECTURER PERSPECTIVE

[1] Watadza, M. L., & [2] Lungu, A.

[1] Faculty of Commerce, Department of Human Resources Management, Zimbabwe Open University, Zimbabwe.12 Barbet Avenue, Nortlea, Gweru, Zimbabwe, monicawatadza@gmail.com

[2] Faculty of Commerce, Department of Business Management, Midlands State University, Zimbabwe. 16 Peterfalk Road, Athlone, Gweru, Zimbabwe, addielungu@yahoo.co.uk

Accepted: August 21, 2021

ABSTRACT

The study sought to establish the factors affecting development of skills competencies among polytechnic students in Zimbabwe: A lecturer perspective. A case study of two polytechnic colleges in the Midlands province was undertaken. A survey of sixty lectures from various departments revealed that both lectures and students have a positive attitude towards the development of skills competencies in Polytechnics. Results of the study showed that the development of skills competencies is influenced by several factors namely; size of the classes, availability of resources, nature of curriculum, admission policy and attitude of lecturers and students. Furthermore, the findings indicated that, the development of skills competencies is affected by the admission policy, nature of the curriculum and the certification of competencies. Hence, for effective development skills competencies the positive attitude of both lecturers and students must be supported, class sizes must be manageable and the programme must be supported with resources.

Key words: *Practical Application, Skills Competencies, Policy Administration, Curriculum, Training*

CITATION: Watadza, M. L., & Lungu, A. (2021). The factors affecting effective development of skills competencies among polytechnic students in Zimbabwe: A lecturer perspective. *The Strategic Journal of Business & Change Management,* 8 (3), 754 – 772.

INTRODUCTION

Education particularly technical education offered by Polytechnics has been seen as an important asset for the development of the industry and nation at large. The demand for graduates that are skilled and competent in their trades has changed the Polytechnic education system. In response to the desire to match the curriculum and the skills needed in the industry, HEXCO (the examining body of Polytechnic examinations) has shifted focus from the theoretical examinations only but it has changed the rules and guidelines to factor in the issue of skills competencies, hence, 60% of the final HEXCO mark is derived from the continuous assessment of skills competencies component and the other 40% coming from the final theoretical examination.

As a result, curriculum in Polytechnics has been reviewed so as to meet the expectations of the industry. The need to produce competent manpower capable of producing goods and services the Zimbabwe economy has seen the adoption of skills competency testing in the Polytechnics. The desire to produce skilled graduates has brought about a lot of responsibility for the Polytechnics as training institutions to focus on competence-based teaching and learning so as to produce skilled graduates capable of running the industry.

Skills competencies means the teaching and learning process focuses on students demonstrating that they have acquired knowledge and skills in line with the expectations of their trade and industry. Skills competency testing appreciates the fact that not all students are good at theory but some are good in the field, hence the need to balance between theory and practice. Thus, this study seeks to assess the practical application of skills competencies in the Polytechnic curriculum.

Munowenyu (1999) argues that the curriculum in Zimbabwe was not producing graduates with adequate technical. The World Bank Group (1997) recommended changing the curriculum to enhance skills training and development. The desire to produce graduates that are skilled and able to learn new skills quickly has transformed the polytechnic education (Brand, 1992). The reason behind skills competence training is to enhance skill training to prepare graduates for their occupational skills for jobs in specific economic sectors and to enhance their skills in starting their own businesses in their trades (Hawke, 2000; Little Lynch, 2000).

Since 2016, the Ministry of Higher and Tertiary Education, Science, Innovation and Technology Development followed the global trend on Technical and Vocational Education and Training (TVET) and took on board Competency-Based Education and Training (CEBT) (Monda, 2017). The move was meant to produce practically-oriented and skilled graduates from Polytechnics and other TVET. As a result, curriculum changes were made through Skills Development Education Research Unit (SDERU) that was tasked to develop a competence-based education and training curriculum programme, accreditation and the registering and monitoring of all technical and vocational education and training (TVET) institutions (Monda, 2017). Work at SDERU is guided by the occupational profiles designed by people from the industry so as to enhance the production of graduates that have mastered specific knowledge and skills that can be used to drive the industry by producing a competent workforce.

Polytechnics are the key drivers of the industry because the vision of setting up Polytechnics was to oil the industry through supplying it with labour force. The Ministry of Higher & Tertiary Education, Science and Technology Development (MHTESTD) adopted the competence based learning in 2016 so as to reduce the skills gap between the classroom at Polytechnics and industry. The students are exposed to practical lessons and people from the industry are involved in training and assessment of students while on industrial attachment and continuous skills assessments at the college. The interaction of students with players from the industry is critical in developing the students' skills and enhancing their acquisition of skills relevant to

The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

their trades, industry and economy of Zimbabwe. Polytechnic education in Zimbabwe at has the following National Certificate, National Diploma, Higher National Diploma and Bachelor of Technology degrees.

A skill is that ability to undertake a given task or generate a solution to a problem (Cedefop, 2014). Jallow (2011) and Weddel (2000) define a competency as a learning outcome that exhibits some changes in skills, knowledge and behaviour required to carry out specific activities and tasks. According to Kouwenhoven (2003) skills competency is the ability to demonstrate knowledge and skills in performing a task that is developed through learner experience and training. Competencies can be linked to specific identified areas of knowledge, skills or attitude and they can be applied to real life situations (Vars & Beane, 2000). The achievement of tasks such as numerical, reasoning, thinking, communication, values and attitude can be attributed to competencies that the learner acquires during the training process. Therefore, competencies can be summarised as a range of skills and knowledge as well as attitude that transforms a learner's behaviour, attitude, and enables them to transfer their learning experiences to certain occupations, tasks or activities at a required minimum standard of expectation.

The specific competencies to be achieved influences the competency based curriculum (Caliper, 2019). The competency based curriculum is also affected by the measurable outcomes to be achieved. In some instances, competencies are affected by lack of progress until the trainee has demonstrated the required level of skills competency and mastery (Fredkin, 2018). Skills are also influenced by the assessments that are carried out. Formative and summative assessment helps in the development of skills. Trainers' education, experience, practical experience on the fundamentals of the trade also has a bearing on the acquisition of skills competencies by learners (Mohamed, 2011). Development of competencies is also based on research which helps to establish current knowledge and skills gap.

Skills competency teaching and learning is cost effective (Burt, 2014). It is cost effective because it is goal directed and no training is done on wrong things. More so, the areas of expertise are increased and this increases craftsmanship (Burt, 2014). Skills competency training enhances the gaining of skills at own pace for the individuals since the training is personalised (Caliper, 2019). Furthermore, skills competency training is not theory based and enhances the application of skills and achievement of higher skills (Fredkin, 2018). Trainees get instant feedback on skills competence and mastery of concept thereby enriching change in behaviour and performance (Loew, 2016).

Several challenges affect the skills teaching and learning process. The development of skills competencies is hindered by the lack of training for the trainers. Voorhees (2001) argue that trainers' attitudes, skills and induction affects skills competency training. In Tanzania, skills competencies training was hindered by poor choice of trainers, trainers abilities not being trusted, poor funding of training programmes and lack of inspection to ensure the adherence to skills training (Mosha, 2012). In some cases, there is lack of follow ups by the trainers on the progress of trainers in the acquisition of specific skills. Sometimes no specific skill competencies information and profiles do affect the identification of competencies. Furthermore, competencies are driven by domain-specific knowledge and skills and not industry-production driven. Skills competency training requires a lot of money and other resources thereby making it expensive for institutions to undertake the practice (Batainah&Tasnimi, 2014). Furthermore, skills competency training is time consuming to implement as there is a lot of concentration on acquisition of certain skills of the subject (Batainah &Tasmini, 2014).

The teaching and learning environment also presents challenges to the acquisition of skills competencies by learners. Poor training facilities,

lack of training equipment and workshops as well as huge class sizes negatively affects the skills competency training process (Tilya &Mafuniko, 2010). This means that if the resources are not sufficient the whole process of skills competency is derailed. Another challenge is the examination system which emphasises written theory examinations that promote memorisation and rote learning. These theoretical examinations do not require trainees to exhibit any level of skill competency and demonstration.

More so, determining performance (competency) standard appropriate for a level may be difficult. The difficulties arise in establishing the methodology to use, the instruments or means of assessing, who will be responsible for the assessment and setting the standard to be used for judgement of performance.

Theoretical Framework

Experiential learning proponents Dewey (1938), Kurt (1946) and Dewey (1958) argues that the acquisition of knowledge and skills in trainees is enhanced when the trainee participates in the learning process. Experiential provides trainees with concrete learning experiences through active involvement in tasks, projects and hands on activities that helps them to gain a range of skills and competencies (Balir, 2016 & Klug, Gerich & Schmitz, 2016). Skills competency training is an experiential phase of trainees that presents trainees with procedures for activities and exposes them skills. The skill and knowledge gained through active trainee construction is better quality compared to that gained through passive trainee learning.

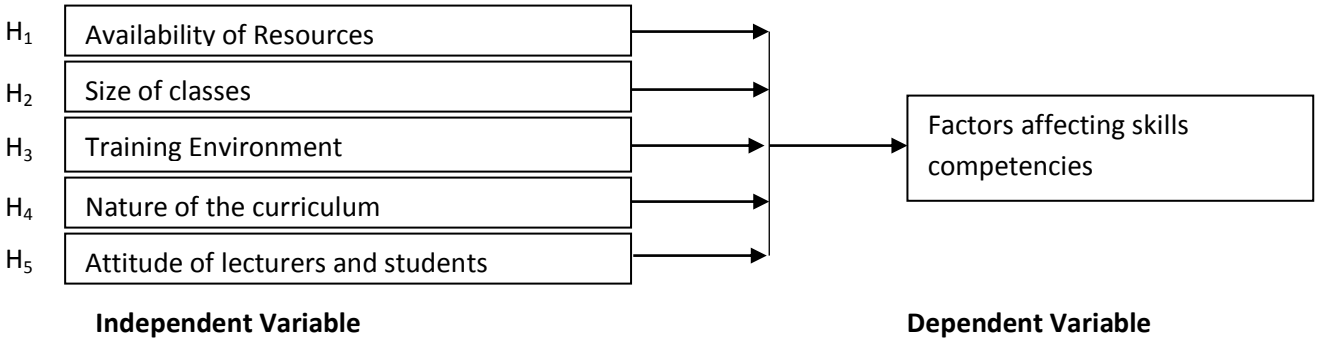

Figure 1: Theoretical Framework

There are various factors that affect effective development of skills competencies among polytechnic students in Zimbabwe. These have been outlined as predictors of effective skills competencies development.

H_1: Availability of Resources

For a successful implementation of a programme there is need for resources to be adequate. Hence absence of resources cripples the implementation programme.The polytechnic system, by all intents and purposes, requires more equipment and adequate infrastructure and is also highly practically oriented in its training contents in all ramifications, therefore, the system is bedevilled with expensive equipment acquisition against dwindling finances coupled with high cost of their maintenance. For example, surveying equipment is very expensive and difficult to come by especially when providing for large classes (Aruku, 2007).

Imasheva et al (2016) indicates that under the conditions of industrial and innovative development, colleges not only have to provide a certain amount of knowledge, but also to teach the future expert to think creatively, independently, to improve, update and develop knowledge. They also substantiate that in the 20th century, comprehensive colleges face a problem of training students possessing knowledge, corresponding to the last achievements of the scientific and technical progress. The first element in the training of such

The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

personnel is the high school, the tasks of which at the present stage are defined as: to give each student profound knowledge of the bases of sciences, to establish a close connection between training and productive work, to improve the preparation of youth for work in the area of goods production, to help choose a profession reasonably. The knowledge of polytechnic bases of the modern, intensively developing production not only will help the youth to quickly master this or that specialty, but will also make it professionally demanded and mobile. Polytechnic education implies the students' theoretical and practical familiarization with the main modern production principles, underlying the nature and society development laws; the formation of students' labor skills and abilities acts as a fundament for future professional training.

Palmer (2019) outlines that many low- and middle-income countries face strong pressures to expand their technical and vocational education and training (TVET) systems and enhance their quality due to financial constraints. Funds are obviously needed to achieve this, but while there tends to be a lot of focus on how much funds are needed (or, rather, the focus is usually on how little funds TVET currently receives), there tends to be much less of a focus on how TVET funds are allocated within the sector and the role that various allocation approaches can have in incentivizing TVET reform priorities (e.g., access, equity, quality, relevance, employment outcomes).

Palmer (2019) goes further to say that in order to understand the relevance of the financial resources in skills development, the following questions need to be taken into consideration. Where does Technical Vocational Education and Training (TVET) funding come from? How are TVET funds spent? How are TVET funds currently allocated? What roles can finance play in achieving TVET reform and national policy objectives? How can countries create the right environment for TVET financing.

H_2: Class Size

Large class size is one of the problems in the educational sector that developing nations have been contending with. The upsurge in population in colleges affects the class sizes and the performances of students become a matter of concern. Class size is the number of students in a given course or classroom, precisely the number of students being taught by an individual lecturer in a course or classroom or the average number of students being taught by teachers in a school or educational system, (Adeyemi, 2008). Class size is almost an administrative decision over which lecturers have little or no control. There are large and small sizes in colleges. The smaller the class, the greater the likelihood is that a lecturer will spend more time with individual students. Large classes present more challenges for classroom management, student control, and marking, planning, and assessment. Lecturers are put under more strain when faced with large classes. In smaller classes, it can be easier for lecturers to spot problems and give feedback, identify specific needs and gear teaching to meet them, and set individual targets for students. Lecturers including engineering lecturers also experience better relationships with, and have more knowledge of individual students. Ajayi and Adeosun (2004) opined that in order to control rising capital cost of education, the average class-size could be increased. These points were also supported by Toth and Montagna (2002) who reported that the increase in enrolment in many colleges as a way of increasing skill to a wide population which has become major concerns of apprentices could definitely lead to an increase in class size. Commeyras (2000) nevertheless, disagreed with these arguments and reported that effective teaching seems unviable for lecturers having large class sizes of 50, 75, 100 or more.

On the other hand, a large class size poses for a greater challenge in skills development in a situation where resources are limited like equipment for practical knowledge. In as much as the student may want to acquire skills to the

maximum but may be deprived to acquire the necessary skills for development due to large class size which limits accessibility of equipment. This then, may resultantly limit their chances of performing effectively when they are engaged in the industry.

H_3: Admission Policy

The admission policy plays a crucial role, it can either hinder nor support effective skills development in colleges. Aka (2015) states that the minimum admission requirement into polytechnic sector is four credits pass from Senior Secondary School Certificate (SSCE) or West African Examinations Council (WAEC). In the recent time when staff unions of polytechnic were agitating for parity with university, the admission requirement is being considered to be harmonized with the five credits pass be the same for university admission. The Joint Admission and Matriculation Board (JAMB) score requirement for polytechnics admission is 180 points while that of the university is also 180 points. The issue at hand now is that all ambitious parents would wish that their wards acquire NC rather than NFC. The majority of candidates who possess five credits pass would opt for 'A' Level. Polytechnic has always been a second-choice institution and certainly not a first choice. This singular notion does not provide polytechnics with the best students. This, therefore, is a big challenge.

H_4: Nature of the Curriculum

The nature of the Curriculum determines the effectiveness of the development of skills competencies for students at polytechnics. The constant review of the curricula which is required from time to time because of progressive technology advances is not being maintained. The fast-changing world requires that curricula be reviewed in line with dictates of the moment. Financial constraint is the major hindrance as the cost of the review is very high and time consuming. Dong (n. d.) opines that a teaching method refers to a relatively stable teaching activity structure framework and activity program put under the guidance of certain teaching concepts or teaching models. The teaching mode is responsible for the relationship, function of the teaching activities and the various elements, so that the teaching process is orderly and operable The new curriculum system is not based on the number of the school hours to simply adjust the proportion of academic and pragmatic courses or to re-arrange the original curriculum content, but according to the needs of the talent training model and professional features in the policy of curriculum and curriculum content to develop, change and maximize. The gist of the new curriculum system construction is to systematically and completely reduce the theory and integrity of the chemical science theory, blur the professional boundaries, and design a curriculum system with the aim of product life cycle from product design to product operation. Conditional colleges should also build a multi-level, modular curriculum system grounded on the idea of personalized training to meet the needs of students' hierarchical and individualized development. The use of CDIO engineering education theory and modern educational technology to advance teaching-driven, problem-oriented, participatory, heuristic, discussion, case teaching and other interactive teaching modes, and design project-driven and exploration-oriented teaching strategies and training program (Shu-lin, Hui& Zhen-gui, 2013).

Humphrey (1992: 61) defines a competence as, "the ability of the learner to put skills and knowledge into action." Theoretical knowledge of electrical engineering, for example, is not adequate without the action of electrifying new factories, houses, dormitories, et cetera. Ellstrom (1997: 267) defines it as the capacity of an individual to successfully handle certain situations or complete a certain task or job.

This capacity may be defined in terms of: • Perceptual motor skills (e.g. dexterity); • Cognitive factors (different types of knowledge and intellectual skills); • Affective factors (e.g. attitudes, values, motivations); • Personality traits (e.g. self-

confidence); and • Social skills (e.g. communicative or cooperative skills). These factors are embraced in Zimbabwean polytechnic curriculum as perceptual motor skills are reflected in practical examinations of short hand, welding, and computer skills, and others. Theory tests which incorporate cognitive factors tend to dominate more than practical tests. The technicians and artisans who act as trainers lack training skills and this tends to compromise the quality of learning process. Many authorities contend that vocational training is still oriented towards technicians with principles of repetitive tailoring-work, performing work as directed (Ellstrom (1997: 268). Secretaries in Zimbabwe, for example, were trained in simple receptionist duties of answering telephones, diarising important errands and appointments for their managers. Nowadays, secretarial course incorporates accounting concepts and some computer skills in order to adapt to the changing work environment. According to the SKA model (Skills, Knowledge and Attitudes or behaviours), the core competences of an effective polytechnic curriculum are skills, knowledge and attitudes. Each core competency is a function of these three components (Williams and Hua, 1999:6). A student who excels in one component of the competency but not in the other two components cannot be seen to have mastered the competence. A distinction is necessary between a competency and a competence. Davies, Ellison and Bowring-Carr (2006: 33) clarify that the term competence recognises a person's 2 demonstrated ability, in terms of skills and knowledge, to meet the minimum standards to fulfil a role in a particular occupation. It relates to the achievement of 'outputs,' that is, a person's ability to produce satisfactory 'results' through carrying out the role. In contrast, Hay Group (in Davies et al 2006: 36) define a competency as a measurable characteristic of a person that is related to effective performance in a specific job, or culture. A competency is not, therefore, a task but a characteristic that enables a person to carry out the tasks of the job. Thus both a competence and competency should be present for a person to be effective. In Competency Based Education and Training (CBT), industry prescribes the competency standards and also suggests practical assessment guidelines for evaluating students' performance. The polytechnic is responsible for developing appropriate learning strategies, assessment materials and professional and academic resources needed to effectively deliver training that will meet the needs of industry-specific competencies. The CBT methodology therefore involves a symbiotic relationship between industry and training providers or polytechnics (Afeti, 2005: 9). DACUM approach to curriculum content determination Mittal, Anand, Singla, Gupta, Gupta and Thukral (1999:35) explain that DACUM (Developing a Curriculum) depends largely on curriculum experts employed in a specific occupational area to determine curriculum content by following a systematic process. As has been mentioned above, the process is rather systematic in procedure. The DACUM approach in Zimbabwean polytechnic curriculum is evident in curriculum reviews done almost every five years. Curriculum reviews done from responding to the needs of the stakeholders may not be that systematic as to warrant being done every five years. Setting and compilation of examination items is done annually by 'curriculum experts.' Most of these polytechnic curriculum 'experts' are mere artisans who are not well versed in curriculum theory, yet they are expected to perform wonders in coming up with sound guidelines of student learning. The HEXCO curriculum department is not spared in this regard as most of the curriculum officers that act as a link between HEXCO and polytechnics are former high school teachers or polytechnic technicians that act as lecturers with no specific pedagogical and ragogical knowledge. 3 In the DACUM approach, suitable experts representing different sectors of employment and functional areas should be identified and asked to participate in a workshop to select the content for a particular programme based on the objectives of the curriculum (Mittal et al, 1999: 35). The DACUM workshop group functions collectively with all development activities taking place when the members are together. A

curriculum expert is the coordinator of the group in taking appropriate decisions by adopting the following procedure: • reviewing the employment opportunities; • reviewing the activity profile; • reviewing the goals and objectives of the curriculum; • reviewing the appropriateness of curriculum areas; • identifying components of knowledge and skills required for developing desired competencies; • structuring knowledge and skills into meaningful learning sequence; and • working out time required for instruction. The procedure outlined by the DACUM approach above comes nowhere near the actual process that culminates in the development of polytechnic curriculum. Even though some form of workshop might be organised, the composition of the members does not normally constitute an expert workshop. HEXCO curriculum board members are Zimbabwean polytechnic principals who make important decisions that affect their individual polytechnics. This arrangement is rather problematic as they have conflicting interests that compromise the quality of polytechnic curriculum effectiveness. Such workshops are normally dominated by principals who decide what to include in certain curricula at the expense of the recommendations of industry.

H_5: Attitude of lecturers and students

The competency of an individual involving his/her work, can be detected through the work behavior and that will be a success indicator for the organization rather than his/her educational level or intelligence. As a result, the present human resource development should emphasize on the competency development. According to Poonsook (2013), a successful transformational leader should develop teachers' competency so that teachers would change their working style. The main factor that affecting the quality of instructional management including the good relationships between teacher and students as well as learning climate management. In addition, teachers' work morale was able to motivate them to provide instructional management (Woranan, 2007). In this line of reasoning, teachers' competencies are essential to improve the quality of the students. The core curriculum of basic education in Thailand recognized the importance of life skills. Therefore life skills development is a major concern in students' learning process. The life skills are expected to be integrated through students' learning process encompassed the transmission of knowledge, skill, attitude, value system on themselves and others, self-defense and self-management. All these activities are expected to be occurred through teachers' instructional activity management (Ministry of Education, 2009).The life skills were congruent with our current daily life that facing drastic change in economic, social, information and news, and technology. Therefore life skills become a necessity for people to possess in order to adjust themselves efficiently while dealing with emotional control and interacting with other persons thus live happily in the society. Structure of the course contents, give practical lessons, give feedback of accomplishments, stimulate students' motivation to process and reflect on the content, and assist them to engage in learning activities (Brophy, 2001). Interaction between student and lecturer supports knowledge construction, motivation, and the establishment of a social relationship. The exchange of information regarding educational content as well as socio-emotional information is important for learning (Johnson, Hornik, & Salas, 2008; Paechter & Schweizer, 2006; Richardson & Swan, 2003). Interaction with peer students also is considered important in improving student's performance. This aspect consists of communication processes, where students exchange information of the course contents and socio-emotional information. Students benefit in the following ways: working in small groups in workshops to construct understanding, socio-emotional support, and learning within a cohesive and positive environment (Brophy, 2001; Jucks, Paechter, & Tatar, 2003).

METHODOLOGY

This study was conducted using a positivist epistemology and quantitative approach. A cross-sectional survey design was used to gather data from a sample of respondents, Polytechnic lecturing staff, with the sole purpose of generalising the findings to the target population. The target population consisted of Polytechnic lectures at two colleges in Zimbabwe during 2019 namely; Gweru Polytechnic and Kwekwe Polytechnic. Lectures from the Engineering, Applied Sciences and Commerce divisions of a particular polytechnic college. Divisional lecturing staff lists were used to compile a sampling frame from which respondents were chosen using an online number generator. A sample of sixty(60) lecturing staff was drawn from the population using simple random methods.

Data was collected using a self-completion questionnaire. A total of sixty questionnaires were distributed to respondents over a period of two weeks in November 2019. The author administered and distributed the questionnaires. Of the total distributed, all 60 were returned and usable, representing a 100%response rate. Permission to conduct the study was sought from and granted by the concerned college authorities. Informed consent for participation was obtained from the respondents. The respondents were assured of the privacy and confidentiality of their contributions. No rewards were offered to the respondents for participating in the study.

The research questionnaire comprised of two sections. The items in the first section solicited data on the respondents' demographic details while those included in section B covered the teaching methodologies used, the practical application of the skills competencies was measured using Likert scale items which had scale points that ranged from 1 ("Strongly disagree") to 5 ("Strongly agree"). The demographic profile of the respondents is presented in next subsection.

FINDINGS

Table 1: Gender of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Males	36	60.0	60.0	60.0
	Females	24	40.0	40.0	100.0
	Total	60	100.0	100.0	

The above indicates that were more males than females that participated in the research study as the fields of acquiring skills are male dominated, the society believes man are more capable than females. 60% were males and 40% were females.

Table 2: Age of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Between 18-27	1	1.7	1.7	1.7
	Between 28-37	7	11.7	11.7	13.3
	Between 38-47	26	43.3	43.3	56.7
	Between 48-57	20	33.3	33.3	90.0
	Between 57-58	4	6.7	6.7	96.7
	Between 58-67	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

The above symbolizes that there were more participants that fall within the periphery of 38 to 47 years followed by those that fall within 48 to 57 years. Though there were a few that fall between 18 to 37years

The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

and 58 to 67 years, results suggest that all the respondents were adults capable of making and evaluating decisions in their work.

Table 3: Division of Work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Applied Sciences	20	33.3	33.3	33.3
	Engineering	29	48.3	48.3	81.7
	Commerce	11	18.3	18.3	100.0
	Total	60	100.0	100.0	

The table above reflects that there are more numbers in the Engineering Department followed by Applied Sciences and Commerce Department. This indicates that all the departments were represented in the study and made their contributions to the study effectively.

Table 4: Qualification of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Post Graduate Degree	14	23.3	23.3	23.3
	Undergraduate Degree	18	30.0	30.0	53.3
	HND	10	16.7	16.7	70.0
	ND	8	13.3	13.3	83.3
	NC	8	13.3	13.3	96.7
	Other	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

Results in table shows that most of the respondents had attained a high level of education. Their responses were assumed to be of value from an academic perspective and information they gave was valid for the research.

Lecturers and students' attitude towards skills competencies

Table 5: Competencies are clearly defined

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	4	6.7	6.7	6.7
	Unsure	7	11.7	11.7	18.3
	Agree	37	61.7	61.7	80.0
	Strongly Agree	12	20.0	20.0	100.0
	Total	60	100.0	100.0	

Results shown in table 5 indicates that most of the respondents agreed that competencies were clearly defined, understood, and accepted by relevant stakeholders.

Table 6: Competencies are defined at a sufficient level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	6.7	6.7	6.7
	Disagree	11	18.3	18.3	25.0
	Unsure	20	33.3	33.3	58.3
	Agree	19	31.7	31.7	90.0
	Strongly Agree	6	10.0	10.0	100.0
	Total	60	100.0	100.0	

The respondents agreed that the competencies are defined at a sufficient level of specificity that they can be assessed.

Table 7: Staff fully participate in reviewing and making decisions about the strongest assessment instruments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsure	13	21.7	21.7	21.7
	Agree	35	58.3	58.3	80.0
	Strongly Agree	12	20.0	20.0	100.0
	Total	60	100.0	100.0	

Most respondents agreed that staff fully participate in reviewing and making decisions about the strongest assessment instruments that will measure their specific competencies.

Table 8: Considering students' perspectives in assessment decisions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	5.0	5.0	5.0
	Disagree	18	30.0	30.0	35.0
	Unsure	14	23.3	23.3	58.3
	Agree	12	20.0	20.0	78.3
	Strongly Agree	13	21.7	21.7	100.0
	Total	60	100.0	100.0	

Findings also indicate that respondents agreed that they consider student perspectives in assessment decisions.

Table 9: Providing formal training for faculty and staff

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsure	7	11.7	11.7	11.7
	Agree	35	58.3	58.3	70.0
	Strongly Agree	18	30.0	30.0	100.0
	Total	60	100.0	100.0	

Respondents also agreed that there must be a provision of formal training for department and staff to learn how to assess competencies and make informed decisions about the strongest instruments.

Table 10: Competency based educational initiative is embedded in planning process

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsure	6	10.0	10.0	10.0
	Agree	36	60.0	60.0	70.0
	Strongly Agree	18	30.0	30.0	100.0
	Total	60	100.0	100.0	

Most of the respondents also agreed that the competency-based educational initiative is embedded within a larger institutional planning process.

Table 11: Linking and aligning competencies with the goals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	6	10.0	10.0	10.0
	Agree	27	45.0	45.0	55.0
	Strongly Agree	27	45.0	45.0	100.0
	Total	60	100.0	100.0	

The table also shows that most respondents agreed that is a direct link and alignment between competencies and the goals of courses, the assessments of competencies are directly linked with the goals of the learning experience.

Table 12: Assessments of competencies are directly linked with

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	8	13.3	13.3	13.3
	Unsure	9	15.0	15.0	28.3
	Agree	27	45.0	45.0	73.3
	Strongly Agree	16	26.7	26.7	100.0
	Total	60	100.0	100.0	

Assessment processes are designed to measure the intended outcomes of the course or major

Table 13: Evaluation assessment processes and methods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsure	15	25.0	25.0	25.0
	Agree	27	45.0	45.0	70.0
	Strongly Agree	18	30.0	30.0	100.0
	Total	60	100.0	100.0	

Furthermore, most respondents agreed that there is need to evaluate assessment processes and methods periodically to identify appropriate revisions, generate assessment results that are reliable and can be replicated and share the results on a regular basis with appropriate stakeholders.

Table 14: Generation of results that are reliable and can be replicated

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	51	85.0	85.0	85.0
	Strongly Agree	9	15.0	15.0	100.0
	Total	60	100.0	100.0	

Institutional culture that is open to change, willing to take risks, and fosters innovations by providing real incentives for participants.

Table 15: Sharing results on a regular basis with stakeholders

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	3.3	3.3	3.3
	Unsure	4	6.7	6.7	10.0
	Agree	38	63.3	63.3	73.3
	Strongly Agree	16	26.7	26.7	100.0
	Total	60	100.0	100.0	

The respondents indicated that there was need to share results on a regular basis to inculcate provision for skills development among students.

Table 16: Culture that is open to change

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	8	13.3	13.3	13.3
	Unsure	23	38.3	38.3	51.7
	Agree	7	11.7	11.7	63.3
	Strongly Agree	22	36.7	36.7	100.0
	Total	60	100.0	100.0	

Respondents indicated that the culture was not open to change. Thereby affecting skills competencies among students at colleges.

Table 17: Appropriateness of curriculum content for skills acquisition

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	21	35.0	35.0	35.0
	Unsure	20	33.3	33.3	68.3
	Agree	19	31.7	31.7	100.0
	Total	60	100.0	100.0	

The current curriculum content is appropriate for skills acquisition.

Table 18: Competency based admission policy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	51	85.0	85.0	85.0
	Strongly Agree	9	15.0	15.0	100.0
	Total	60	100.0	100.0	

Findings reveal that most of the respondents agree that their admission policy is competency-based admission.

Table 19: Perception on curriculum is competency based

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	6.7	6.7	6.7
	Disagree	2	3.3	3.3	10.0
	Unsure	39	65.0	65.0	75.0
	Agree	15	25.0	25.0	100.0
	Total	60	100.0	100.0	

Respondents perceive that the curriculum is competency based

Table 20: Competencies are certified through standardized tests

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsure	13	21.7	21.7	21.7
	Agree	36	60.0	60.0	81.7
	Strongly Agree	11	18.3	18.3	100.0
	Total	60	100.0	100.0	

Results also show that most respondents agree that competencies are certified through standardised tests and lecturers require basic competences to develop learners' skills

Table 21: Lecturers require basic competences to develop learners' skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	42	70.0	70.0	70.0
	Strongly Agree	18	30.0	30.0	100.0
	Total	60	100.0	100.0	

Table 22: Awareness of strengths and weaknesses in implementing skills curriculum

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsure	9	15.0	15.0	15.0
	Agree	33	55.0	55.0	70.0
	Strongly Agree	18	30.0	30.0	100.0
	Total	60	100.0	100.0	

Most of the respondents also agreed that they are aware of their strengths and weaknesses in implementing a skills based curriculum and believe lectures need a lot of training and retraining to enhance their ability of imparting skills.

Table 23: Lecturers need training to enhance their ability of imparting skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	36	60.0	60.0	60.0
	Strongly Agree	24	40.0	40.0	100.0
	Total	60	100.0	100.0	

Table 24: Quality and enough training material is available for trainers & trainees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	6.7	6.7	6.7
	Disagree	24	40.0	40.0	46.7
	Unsure	23	38.3	38.3	85.0
	Agree	9	15.0	15.0	100.0
	Total	60	100.0	100.0	

According to the findings, most respondents disagree that quality and enough training material is available for both trainers and trainees.

Table 25: Standardization of learning guides for uniformity of skills is important

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	47	78.3	78.3	78.3
	Strongly Agree	13	21.7	21.7	100.0
	Total	60	100.0	100.0	

Most of the respondents disagree that sstandardisation of learning guides for uniformity of skills across trades in all colleges is important

Table 26: Culture in trainers is geared towards exams and not skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsure	6	10.0	10.0	10.0
	Agree	47	78.3	78.3	88.3
	Strongly Agree	7	11.7	11.7	100.0
	Total	60	100.0	100.0	

Most of the respondents also agree that the existing culture in trainers and trainees is geared towards exams and not skills.

Table 27: Big class size negatively affects skills competency training

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	41	68.3	68.3	68.3
	Strongly	19	31.7	31.7	100.0
	Total	60	100.0	100.0	

Table 28: Available workshops and equipment are suitable for skills training

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	30	50.0	50.0	50.0
	Unsure	22	36.7	36.7	86.7
	Agree	7	11.7	11.7	98.3
	Strongly Agree	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

Big class size negatively affects skills competency training. Workshops and equipment available are suitable for skills training

Table 29: Perception of policies and programmes in supporting competences

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	19	31.7	31.7	31.7
	Unsure	27	45.0	45.0	76.7
	Agree	14	23.3	23.3	100.0
	Total	60	100.0	100.0	

On the issue of the polytechnic curriculum versus skills competency development, most of the respondents agree that the curriculum, policies and programmes in place fully support skills competences acquisition by students.

Table 30: Alignments can be made between the 21st century and existing skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	6.7	6.7	6.7
	Disagree	24	40.0	40.0	46.7
	Unsure	9	15.0	15.0	61.7
	Agree	14	23.3	23.3	85.0
	Strongly Agree	9	15.0	15.0	100.0
	Total	60	100.0	100.0	

The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

Most of the respondents also agree that alignments can be made between 21st century competencies and the existing learning skills and work habits.

Table 31: Pedagogical & Assessment approaches are necessary to support teaching and learning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsure	9	15.0	15.0	15.0
	Agree	36	60.0	60.0	75.0
	Strongly Agree	15	25.0	25.0	100.0
	Total	60	100.0	100.0	

Most of the respondents agree that pedagogical and assessment approaches are necessary to support teaching and learning of the competences.

Table 32: Perception on coordination between curriculum developers and industry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	17	28.3	28.3	28.3
	Unsure	30	50.0	50.0	78.3
	Agree	11	18.3	18.3	96.7
	Strongly Agree	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

Most of the respondents agree that the coordination between curriculum developers and industry is good and the synergy between the college and industry is ideal for skills development.

Table 33: Synergy between college & industry is ideal for skills development

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	6	10.0	10.0	10.0
	Unsure	17	28.3	28.3	38.3
	Agree	26	43.3	43.3	81.7
	Strongly Agree	11	18.3	18.3	100.0
	Total	60	100.0	100.0	

Table 34: Monitoring & evaluation of skills process is done

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsure	23	38.3	38.3	38.3
	Agree	30	50.0	50.0	88.3
	Strongly Agree	7	11.7	11.7	100.0
	Total	60	100.0	100.0	

Table 35: Curriculum allows for innovations & reforms

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	18	30.0	30.0	30.0
	Unsure	13	21.7	21.7	51.7
	Agree	29	48.3	48.3	100.0
	Total	60	100.0	100.0	

Table 36: Curriculum facilitates basic skills acquisition

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsure	2	3.3	3.3	3.3
	Agree	51	85.0	85.0	88.3
	Strongly Agree	7	11.7	11.7	100.0
	Total	60	100.0	100.0	

Table 37: Curriculum allows the application of skills and attainment of higher skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsure	2	3.3	3.3	3.3
	Agree	29	48.3	48.3	51.7
	Strongly Agree	29	48.3	48.3	100.0
	Total	60	100.0	100.0	

Most of the respondents also agree that the curriculum allows for innovations and reforms, the curriculum facilitates basic skills acquisition and the curriculum allows the application of skills and attainment of higher skills.

Table 38: During OJET, trainees' skills are developed better than in college

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsure	17	28.3	28.3	28.3
	Agree	27	45.0	45.0	73.3
	Strongly Agree	16	26.7	26.7	100.0
	Total	60	100.0	100.0	

Results also indicate that most respondents agree that during OJET, trainees' skills are developed better than in the college.

DISCUSSION

There is a positive attitude of the lecturers towards skills competencies and this must be maintained by all stakeholders involved in the training programmes.The findings are supported by Voorhees (2001) argue that trainers' attitudes, skills and induction affects skills competency training(Batainah &Tasmini, 2014). The development of skills competencies has been found to be negatively affected by several challenges. Results seem to agree with findings by Tilya and Mafuniko (2010) who argue that poor training facilities, lack of training equipment and workshops as well as huge class sizes negatively affects the skills competency training process. This means that if the resources are not sufficient the whole process of skills competency is derailed. Results also corroborate with findings of previous research in Tanzania by (Mosha, 2012) who found out that skills competencies training are poor funding of training programmes and lack of inspection to ensure the adherence to skills training. The study also found out that the development of skills competencies is affected by a number of factors. These findings seem to be in line with arguments put forward by Mohamed (2011), Caliper (2019) and Fredkin (2018) who found out that trainers' education, experience, and practical experience on the fundamentals of the trade also have a bearing on the acquisition of skills competencies by learners.

IMPLICATIONS

Implications for Practice: The development of new learning partnerships with stakeholders in the industry and higher education, pedagogical and assessment practices that stakeholders identify as

being critical for the development of skills competencies to drive the industry is key.

Implications for Policy– skills competencies in vocational education should never be taken as an option but a necessity for the development of manpower critical for national development.

REFERENCES

Abadzi, H. (2015), "Training the 21st-century Worker: Policy Advice from the Dark Network of Implicit Memory", *IBE Working Papers on Curriculum Issues*, Vol. 16, http://unesdoc.unesco.org/images/0023/002355/235521e.pdf

Ananiadou, K., & Claro, M. (2009)21st century skills and competences for new millennium learners in OECD countries. OECD Education Working Papers, No. 41. Paris: OECD Publishing. Retrieved from: http://dx.doi. org/10.1787/218525261154.

Bataineh, K.B. & Tasnimi, M. (2014) Competence Based Language Teaching. *Express, an International Journal of Multidisciplinary Research,* 1(7).

Brand, B. (1992) A vision for vocational-technical teacher education for the 21st century. *Journal of Vocational Education Research,* 17 (2), 1-12.

Burt, N (2014)Six Benefits of a Competency-Based Training and Assessment Approach. Available from: https://www.syspro.com/blog/applying-and-operating-erp/six-benefits-of-a-competency-based-training-and-assessment-approach/. [Accessed 5 January 2020].

Caliper, V. (2019) The Basics and Benefits of Competency-Based Training. Available from: https://calipercorp.com/blog/basics-benefits-competency-based-training/. [Accessed 5 January 2020].

Canto-Sperber, M. and Jean-Pierre Dupuy (2001) "Competencies for the Good Life and the Good Society", in Rychen, D. and L. Salganik (eds.), *Defining and selecting key competencies*, Hogrefe & Huber, http://www.voced.edu.au/content/ngv:18652

Cedefop (2014).Terminology of European education and training policy (Second Edition) – A selection of 130 key terms. Luxembourg: Publications Office. Retrieved from: www.cedefop.europa.eu/EN/Files/4117_en.pdf.

Dede, C. (2014)The role of digital technologies in deeper learning. Students at the Center: Deeper Learning Research Series. Boston, MA: Jobs for the Future.

Dumont, H., Istance, D.,& Benavides, F. (Eds.). (2010)The nature of learning: Using research to inspire practice. Paris: Educational Research and Innovation, OECD Publishing

Fredkin, 2018. Competency Management is the Future of Learning and Development. Available from: https://www.cabem.com/competency-management-future-learning-and-development/.[Accessed 5 January 2020].

Gumbo, S.D. (1986).Vocationalising Curriculum in Zimbabwe: An Evaluation Perspective. Paper presented at the *Vocationalising Education Conference*. London, May 7-9, 1986.

Hawke, G. (2000). Implications for VocED of changing work arrangements. Paper presented to Professional Development Series, *National Dissemination Centre for Career and Technical Education*. Ohio State University: Columbus, Ohio.

Jallow, S.S, (2011) Competency –based Curriculum: Teaching and Assessing Student Competences. UNESCOBREDA Dakar, Senegal. Prepared for the Pan African Conference on Teacher Education and Development (PACTED), Lome, Togo, 13-15 April 2011.

Kouwenhoven, G.W. (2003). Designing for competence: towards a competence based curriculum for the faculty of education of the Eduardo Mondlane University. Doctoral dissertation. Enschede: Twente University.

Loew, L. (2016) Competency Management: Challenges and Benefits. Available from: https://trainingmag.com/competency-management-challenges-and-benefits/.[Accessed 5 January 2020].

Lynch, R.L. (2000) High School Career and Technical Education for the First Decade of the 21st Century. *Journal of Vocational Education Research*, 25 (2), 155-98.

Mandebvu, O.S. (1989)*Pupils Attitudes Toward Technical/Vocational Subjects: An Exploratory Study*. Unpublished Masters thesis, Linkoping University.

Mohamed, A. R. (2011)"Teachers" Professionalism: Prejudices, Problems and Promises. Africa-Asia University Dialogue for Educational Development Report of the International Experience Sharing Seminar", 23 (3), 69-87. Hiroshima University: CICE.

Monda, T (2017)Education, training and industry in Zimbabwe. Available from: https://www.thepatriot.co.zw/old_posts/education-training-and-industry-in-zimbabwe/. [Accessed 5 January 2020].

Munowenyu, E. (1999)The need to offer basic vocational education in Zimbabwe's secondary schools. *Zimbabwe Journal of Educational Research,* 11(1), 43-57.

Strong, M.E. (1990) Administrative leadership issues in vocational education. In: A.J. Pautler, Jr., (Ed). *Vocational Education in the 1990s: Major Issues*. Ann Arbor: Prakken.

Sullivan, J. (undated) Competency Based Education Training, eHow Contributorhttp://www.ehow.com/about_6557185_competency-based-education training.html#ixzz1O7BSP0NM.

Tillya, F &Mafumiko, F. (2010) "The Compatibility between Teaching Methods and Competence-Based Curriculum in Tanzania", *Papers in Education and Development, University of Dar es Salaam, pp 37 – 56.*

Vars, G. F &Beane, J. A. (2000) Integrative Curriculum in a Standards-Based World. Clearinghouse on Elementary and Early Childhood Education, University of Illinois.

Voorhees, R. A. (2001). Measuring What Matters: Competency-Based Learning Models in Higher Education. New Directions for Institutional Research. San Francisco: Jossey-Bass.

Weddel, K.S. (2006) Competence Based Education and Content Standards. Northern Colorado Literacy Resource Centre

World Bank Group, (1997). *Zimbabwe: The Structural Adjustment Participatory Review* .Retrieved from: http://www.worldbank.org/research/sapri/zimbab.htm.