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FROM THE EDITOR – IN – CHIEF

I have watched with admiration the development of Solusi University Research Journal (SUJ) which has now metamorphosed from a local Journal for the publication of Solusi University faculty and students' research outputs to an internationally accredited Journal with its registration into a print publication in the International Standard Serial Number (ISSN) register. With this development, researchers all over the world can now publish their research outputs in this peer reviewed Journal.

In spite of all odds, we are pleased once again to produce the eight edition of the Solusi University Research Journal which is coming out in a new style with International Standard Serial Number. As you are aware maintaining an academic journal could be a herculean task, but we will by the grace of God continue to do our best in keeping the flag flying. All the same, to ensure this journal does not pass into extinction, your support and encouragement will be required at all time. The best you can do in this regard is to submit your articles on a variety of topics for publication in SURJ.

Similarly, the Editorial Board will continue to strive to maintain the high quality that you will always be proud to be associated with as well as ensure that the journal is published bi-annually in the months of June and December. The articles in this edition are: Teachers' Perceptions on the Effectiveness of the Administration of Performance Appraisal in the Evaluation of Teachers' Performance by Chitate, Timely and Ndlovu, Sikhathele; Organisational Orientations and their Effects on the Practice of Marketing by Non Profit Organisations in Bulawayo, Zimbabwe by Zimunya, Florence and Sigauke, Innocent; Dimensions of Early Childhood Development (ECD) Learner Social Development in Bulawayo East Primary Schools by Masuku, Elsa and Makololo, Mary-Jewel; Oral Health Habits: The Case Of Solusi University Community by Masuku, Sophie and Matshisela, Ntandoyenkosi. The articles in this edition will be found highly informative and useful.

In conclusion, we highly cherish the patronage of all our contributors and we will always continue to count on your unalloyed cooperation. As we renew our call for papers, we appeal to contributors to submit an electronic version of their papers not later than two months before publication. Lastly, I sincerely thank all our Editorial Board members for their selfless service to the course of this publication.

Awoniyi, Samuel Adebayo

Editor – in – Chief

Notes to contributors

The Editorial Board of Solusi University Research Journal (SURJ) invites articles on a variety of topics pertaining to research for publications; however book review, articles of particular discipline or specialty area and papers presented at national and international conferences may also be accepted. The journal is published bi-annually in the months of June and December.

Manuscripts should fulfil the following conditions: All manuscripts, written in good English, should be submitted **electronically** as an e-mail attachment (in Microsoft Word) to the Office of Research, Information and Publications. No paper versions are needed.

Abstract. Each article should be summarized in about 100 – 150 words, serving as a brief description of the content of the article and should include research background, what prompted the researcher to undertake the study and population and sample and results.

Manuscripts, including the abstract and references should be typed double-spaced on A4 paper set-up using Times New Roman 12 font size, must not exceed 12 pages and should have the margin of 1.5” for top and left and 1” for right and bottom of the page.

Organization: The background and purpose of the manuscript should be given first, followed by details of methods, materials, procedures and equipment used (where applicable). Findings, discussion and conclusions should follow in that order. Appendices are not encouraged except if considered necessary for the manuscript content to be understood.

The title of the paper, name and address of the author should be on a separate sheet (Address should be departmental or institutional)

References should follow the latest APA format.

All tables, graphs and diagrams should be in the appropriate places in the paper and not on separate sheet.

Each submission will be peer-reviewed. Before the publication of accepted article, corresponding author will receive an electronic version of their

manuscript for final proof reading. It should however be emphasized that changes in content (new or additional results, changes in article title, etc.) are not permitted without the approval of the Editor-in-Chief.

Manuscripts submitted to SURJ should not be submitted for publication elsewhere. All correspondences should be addressed to:

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**Teachers' Perceptions on the Effectiveness of the Administration of
Performance Appraisal in the Evaluation of Teachers' Performance: A
Study on
Khami District Schools of Bulawayo Province**

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Abstract

The study investigated teachers' perceptions on the effectiveness of the administration of performance appraisal in the evaluation of teachers' performance at Khami District primary schools of Bulawayo Province. The population of the study was 400 junior and senior primary school teachers in Khami District. The results revealed that planning and setting of work expectations and periodical reviewing and rating of performance was effectively done as recorded by means of 3.7511 and 3.6155 respectively. Continually monitoring and controlling of performance and developing capacity to perform were slightly effective. On rewarding good performance, the mean of 1.8548 revealed that it was not effective. Suggestions from the open ended questions revealed that for the success of the system, rewards be given in accordance to performance. Some other forms of rewards that can be taken into consideration in acknowledging good performance were highlighted.

Keywords: Administration, Effectiveness, Perceptions, Performance Appraisal, Teacher Performance.

Background

Performance Appraisal is a system that is widely used worldwide to assist in the assessment of workers. It became fashionable in the industry and some commercially related enterprises as an effective tool in establishing a more transparent, formal and fair way of assessing employee performance (Torrington and Taylor, 2008). In Zimbabwe, the system was adopted and used by some departments outside the industry and commerce, for instance, the parastatals and the public service commission which include the department of education among others. In the education sector, the system came into place as an initiation by the

Public Service Commission with the intention of phasing out an appraisal system that had been introduced in July 1990, and had been condemned for dwelling heavily on personality traits for its ratings (Nziramasanga, 1999). Currently, the Civil Service has since introduced the Results Based Management (RBM), another form of performance management. The current performance management system, (RBM), was introduced in 2006, and was fully embraced by all government departments in 2012 (Musingafi, 2013 in Zvavahera, 2014). The system however shares similarities in its administration with the former Performance Appraisal System (PAS). The officer has to plan, set targets and agree with the supervisor. Periodical reviews are done quarterly whilst previously they were done three times a year. Monitoring and developing capacity to perform still continue as they are mandatory for the success of any organisation. Rewards are to be in line with performance.

The administration of the Public Service Commission Performance Appraisal System within the Ministry of Education seemed to be characterized by shortcomings as observed by the researcher. Previous research studies also revealed that the system faced enormous challenges. As a result, the system seemed to be failing to accomplish all of its intended goals. It is therefore against this background that this research study sought to analyse the perceptions of teachers on the effectiveness of the administration of performance appraisal. Focus was on Khami District Primary Schools of Bulawayo Metropolitan Province, Zimbabwe.

The purpose of the study was to find out if the performance appraisal system was being administered as per its proponents and also to find out what factors would be extracted by factor analysis that predict effective administration of performance appraisal. Suggestions from respondents on how the PAS could be improved were also sought.

Methodology

The population of this study comprised junior and senior primary school teachers in Khami District. Convenience sampling was used in the selecting of the 13 schools out of the entire population of 27 schools. The sample of the study was made up of 202 teachers who were approximately 40% of the entire population of approximately 400 teachers. Purposive sampling was used as it was difficult to use stratified random sampling. The reason was that some of the teachers were off station and some of the schools had fewer teachers than what was intended to be sampled. The instrument used was a self-constructed questionnaire with 24 items on 5 point Likert scale of “strongly disagree” to “strongly agree”. One of the items required opinions and suggestions. Data was analysed using descriptive statistics and Factor Analysis. The open ended question was analysed using the sorting method.

Results and discussion

Research question 1

Are the following aspects of performance appraisal effectively done in schools?

- a) **planning and setting of work expectations**
- b) **monitoring and controlling of performance**
- c) **developing capacity to perform**
- d) **reviewing and rating of performance**
- e) **rewarding good performance**

It was established that the respondents perceived the administration of all items on planning and setting of work expectations except one to be effective as indicated by Table 1. This is further clarified by the overall planning average of 3.75 with a standard deviation of 0.50989 which indicates homogeneity. However, on whether there was emphasis on quality rather than quantity, it was perceived that quality was not given much consideration as revealed in the low mean of 1.90.

Table 1: Planning and Setting Work expectations **N=202**

Item	Mean	Std. Deviation	Verbal Interpretation
I always plan for my performance appraisals at the beginning of the year	4.22	.932	Effective
I always submit to my supervisor copies of my appraisal plans after planning at the beginning of the year	4.14	.962	Effective
At the beginning of every period, I and my appraiser sit down and review my job description	3.92	1.114	Effective
My supervisor and I agree on my Key Result Areas, Objectives and Performance Standards at the beginning of the year	4.25	.874	Effective
In the drafting of my appraisal work plans, much emphasis is on quality than quantity	1.90	.719	Ineffective
I always remain with a copy of my appraisal plan for constant referencing during the performance review period	4.27	.930	Effective
I always draft my new appraisals for the coming period soon after my final appraisal each year	3.56	1.188	Effective
Planning average	3.7511	.50989	Effective

Table 2 shows an average mean of 3.0479 with a standard deviation of 0.80037 for continually monitoring and controlling performance. The descriptive statistics indicate that this was slightly effective. Two of the variables were perceived as slightly effective and one, on whether the supervisor conducted lesson observations during the course of the term, was perceived to be effective as indicated by a mean of 3.82 with a standard deviation of 1.258 that indicates heterogeneity of responses. While supervisors do conduct lesson observations, they do not meet the expected requirements.

Table 2: Monitoring and Controlling of Performance

Items	Mean	Std. Deviation	Verbal Interpretation
My supervisor does conduct lesson observations during the course of the term	3.82	1.258	Effective
At my school a minimum of two teacher lesson observations by my appraiser are carried out per term	2.64	1.255	Slightly Effective
My teacher record books (i.e. schemes, plan books, remedial, progress records, registers etc.) are checked by my supervisor weekly	2.69	1.356	Slightly Effective
Continually Monitoring Average	3.0479	.80037	Slightly Effective

The average mean score of 2.9274 on Table 3 reflects that teachers were of the view that developing capacity to perform was slightly effective. All the items indicated that developing capacity to perform effectively was slightly done in schools.

Table 3: Developing capacity to Perform

Item	Mean	Std. Deviation	Verbal Interpretation
I am given all the resources needed in performing my duties	3.23	1.326	Slightly Effective
After assessment, I discuss with my supervisor my strengths and weaknesses	2.80	1.289	Slightly Effective
Beneficial staff training courses are given at my school after areas of weakness have been noted	2.75	1.257	Slightly Effective
Developing Capacity Average	2.92	.75910	Slightly Effective

The findings from developing capacity to perform were however contrary to Mejia et al (2010) who were of the idea that effective performance management requires empowering workers. Regardless of the constraints leading to failure to develop teachers' capacity to perform, the aspect remained the backbone of the system as it had a key bearing on performance. Moorhead and Griffin (1995) asserted that the end product for performance measurement is information which should be used as feedback.

According to Table 4, the results indicate that all aspects in periodical reviewing and rating were effectively done as shown by the overall mean of 3.6155 and a standard deviation of .5168 which shows less variability. All the items were rated as effective except for the item about final rating at times being below three showing a mean of 2.44 and interpreted as being slightly effective. Torrington et al (2009) ascertained that the reviews were needed o concentrate on developmental issues and to motivate workers.

Table 4: Periodical Reviewing and Rating of Performance

Item	Mean	Std. Deviation	Verbal Interpretation
Periodical reviews are carried out three times before the final rating	3.66	1.148	Effective
My final rating is a progression from periodical reviews and ratings done during the year	4.16	.861	Effective
My final rating always rounds up to three and above	4.10	.995	Effective
My final rating is at times below three	2.44	1.421	Slightly Effective
My final rating is fair and not biased	3.79	1.236	Effective
I always set the date for the next appraisal review with my appraiser at the end of my final appraisal meeting	3.54	1.342	Effective
Periodical Reviewing Average	3.6155	.5168	Effective

Table 5 shows the mean for rewarding of good performance as being 1.8548 with a standard deviation of .75224 indicating that rewarding of good performance was ineffective and the standard deviation of .75224 indicates that the responds were in agreement with that. Rewarding good performance was not being implemented well. All the means are very low indicating that all the items were not being implemented well, that is, ineffective. The findings are contrary to what Beardwell and Claydon (2010) postulated that financial motivation and recognition of contribution have a positive bearing on performance.

Table 5: Rewarding Good Performance

Item	Mean	Std. Deviation	Verbal Interpretation
Teachers are rewarded financially for their performance	1.86	1.019	Ineffective
Teachers get promotions for high ratings achieved	1.88	1.020	Ineffective
Teachers who perform below minimum standard are charged	1.83	.884	Ineffective
Rewarding good performance average	1.8548	.75224	Ineffective

Research Question 2

What factors were extracted by factor analysis that predicted effective administration of performance appraisal?

After employing factor analysis, there were adjustments to the original groupings that explained the administration of performance appraisal according to literature. Seven new groupings (aspects) were formed by rotated component matrix that revealed the order of importance of the 7 factors. Table 6 shows the factors as extracted by factor analysis.

Table 6: Factors extracted by Factor Analysis

	Factors Extracted	Variance Accounted For
1	Planning and agreeing	13.844%
2	Rewarding performance	9.265%
3	Rating	8.767%
4	Developing capacity to perform	6.295%
5	Monitoring performance	5.960%
6	Controlling performance	5.679%
7	Competence level	4.843%
	Total variance accounted for	54.654%

The seven new groupings extracted by factor analysis further clarify how much value the respondents attach toward each new aspect. Planning and agreeing accounted for the highest variance of 13.844% indicating that the respondents attached more value to it. Torrington et al (2009) postulated that planning should be done by the employee together with the immediate supervisor. Rewarding good performance was the next with 9.265% and Beardwell and Claydon (2010) asserted that rewards motivate workers to perform higher. Competence level received the least variance of 4.843%.

Research Question 3

What were the other suggestions made by the respondents to improve PAS?

On planning and setting work expectations, the respondents favoured a common agreed standard of rating per grade level. Also quality was over emphasized by the respondents that when planning, it should be given a higher consideration. Upon relief teachers taking up a certain level, performance appraisal is to be undertaken so that quality is not compromised. Under monitoring and controlling of performance, teachers indicated that after any form of assessment, effective discussions on strengths and weaknesses would greatly benefit them. They also wanted to feel that sense of accomplishment which comes with praise for good work done. On developing capacity to perform, the respondents felt that the system was too demanding on their part such that it hinders their performance as they have to race to meet targets and thus are not able to give the students enough time. They also felt that resources should be maximized so that teaching and learning will be facilitated as well as high performance fostered. In order to catch up with global trends in the very fast moving technological era, the respondents were of the idea that laptops be part of the resources for use by classroom practitioners.

The respondents did not comment much on periodically reviewing and rating of performance. However, the senior teachers were not happy that only figures showing their ratings were sent to the Ministry offices after final assessment instead of sending the appraisal report with accompanying notes to explain each individual's performance. Numerous out of station duties by respondents hinder the meeting of set targets.

A lot was said on rewarding good performance but what clearly came out was that extra financial rewards for good performers was needed and that rewards needed to be immediate so that it plays its role of motivating the employees. Beardwell and Claydon (2010) were of the opinion that financial motivation and recognition of contribution have a positive bearing on performance. Organisations must link reward systems to promotions which is one way of overcoming subjectivity and arbitrariness of assessment. If those who perform very well get promoted for their effort and the underachievers get some form of punishment, then reward system gains importance. According to Foot and Hook (2008) appraisal related pay is part of the performance management process and if it is effectively done, it can be of great benefit to the employer and the employee.

Upon rewarding performance, rewards do not have to be uniform but be in relation to performance and years of experience. There has to be a stipulated rewarding system and a standard financial amount per level of performance. Rewards need to be immediate so that it plays its role of motivating the employees. Rewards must solely be based on improved pass rates for the system to benefit the child who is the end product of the education system.

Conclusion

The general perception is that the PAS is not being fully administered as per the proponents and other authorities who wrote about the system. Hence service delivery is no way being improved in the civil service as anticipated. All the five aspects of PAS which are planning and setting of work expectations; monitoring and controlling of performance; developing capacity to perform; reviewing and rating of performance and rewarding good performance need to be given justice if the system is to yield the desired outcome. There is need to focus on rewarding of good performance as it had the lowest mean as it plays a greater role in the system.

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Organisational Orientations and their Effect on the Practice of Marketing by Non Profit Organisations in Bulawayo, Zimbabwe

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Abstract

The study sought to analyse the practice of marketing by non-profit making organisations in Bulawayo, Zimbabwe. The research employed a descriptive research design. The population comprised all employees of non-profits in the Central Business District of Bulawayo. A quota sample of 106 respondents was employed. A 5 point Likert scale questionnaire was developed by the researcher. A pilot study was conducted to establish the reliability of the instrument and a coefficient of 0.9357 was obtained. Descriptive statistics was used for the analysis of data. Results indicated that non-profit organisations were organisation centred rather than customer centred, lowly practiced strategic marketing planning, conducted some form of segmentation, rarely practiced targeting, or use the elements of the marketing mix, or the marketing controls selected in the study, and did not practice positioning.

Keywords: Non-Profit Organisation, Organisational Orientations, Practice of marketing,

Background

Bulla and Starr-Glass (2006) noted that even though marketing was identified as an interesting and powerful concept, non-profit policy makers generally had a limited understanding of marketing theory or of the extent in which exchange transition occurred. Naude and Ivy (1999) conducted a study on the marketing strategies of old and new universities in the United Kingdom and they highlighted the huge changes in the environment in which non-profit making organisations operate. The changes included reduction in government spending resulting in reduced enrolment; the change in status of polytechnics to universities as well as franchised university courses and lastly low entry costs giving rise to both distance and internet based courses. Universities have to compete for students and aggressively market the universities.

According to Stanton, Etzel, and Walker (1991) the attention that is finally being devoted to non-profit was long overdue. These organizations have been run inefficiently as seen by empty hospital beds and empty classrooms. The non-profit organizations can greatly increase its chances of satisfying its contributor and client markets as well as the overall efficiency of its operations if it develops an effective marketing strategy.

According to Kotler and Andreasen (1987), non-profit making organisations could either have organisation centeredness or customer centeredness. Organisation centeredness involves the following cues: (1) the organisation's offering is seen as inherently desirable, (2) lack of organisational success is attributed to customer ignorance, absence of motivation, or both, (3) a minor role is accorded customer research, (4) marketing is defined primarily as promotion, (5) marketing specialists are chosen for their product knowledge or their communication skills, (6) one best marketing strategy is typically employed in approaching the market, and (7) generic competition tends to be ignored. Customer centeredness on the other hand is characterized by (1) reliance on research, (2) a predilection for segmentation, (3) defining marketing broadly, (4) a richer conceptualisation of competition, and (5) the entire organisation becomes fully responsive to customers.

The study was conducted to find out:

1. The extent to which non-profit making organisations in Bulawayo were organization centred?
2. The extent to which non-profit making organisations in Bulawayo were customer centred?
3.
 - (a) The extent to which non-profit making organisations in Bulawayo were practicing strategic marketing planning?
 - (b) The extent to which non-profit organisations in Bulawayo were employing marketing research?
 - (c) The extent to which non-profit organisations in Bulawayo were employing segmentation targeting and positioning?
 - (d) The extent to which non-profit making organisations in Bulawayo were employing the marketing mix and general marketing variable?
 - (e) The extent to which non-profit organisations in Bulawayo were employing marketing controls?
4. Whether there is a relationship between the organisations orientation and the practice of marketing considering the demographic variables?

Methodology

This was a descriptive research design. The population was all employees of non-profits in the central business district (C.B.D) of Bulawayo. A quota system was employed for sampling each type of organisations. Three respondents were selected from each quota and a sample size of 106 was obtained. A questionnaire was developed for data collection. Pilot study was conducted by administering 34 questionnaires and a reliability coefficient of 0.9357 was obtained. Data was analysed using descriptive statistics.

Results and Discussion

Research Question 1

To what extent are non-profit making organisations in Bulawayo organisation centred?

The organisational centeredness average mean indicates frequent practice of organisational centeredness with a mean of 2.4659 and standard deviation of .64681 as shown by Table 1. The item with a mean of 1.1818 regarding services

Table 1: Organizational Centeredness

N = 88

Variable	Mean	Std. Deviation	Verbal Interpretation
We regard the service(s) we offer as inherently desirable	1.1818	.57825	Always practiced
Marketing consists mainly of advertising and promotion	2.7614	1.38127	Fairly practiced
We place great value on the communication skills of our marketing personnel when recruiting them	2.3068	1.51132	Fairly practiced
Knowledge of the service(s) is critical for our marketing personnel when recruiting them	2.3068	1.48833	Fairly practiced
We use the same marketing strategy for all our clients	2.9773	1.32159	Fairly practiced
Lack of knowledge on the value of our service(s) may have led to non-use of the service by some clients.	2.5000	1.19385	Frequently practiced
Organisational centeredness Average	2.4659	.64681	Frequently practiced

that were being offered was viewed as inherently desirable as the verbal interpretation indicated that it was always practiced. The standard deviation of 0.57825 indicates that the respondents were homogeneous in their responses. Kotler and Andreasen (1987) stated that the organisation centered organization should exhibit desirable offerings.

Research Question 2

To what extent are non-in Bulawayo customer centred?

Table 2 shows a measure of customer centeredness. Most variables on customer centeredness were rated in the region of 2.51 to 3.50 indicating that they were fairly practiced.

Variable	Mean	Std. Deviation	Verbal Interpretation
Customer research play a major role in the organisation	2.8409	1.48468	Fairly practiced
We plan with our competitors in mind	2.8523	1.62268	Fairly practiced
We have particular persons designated to deal with marketing	3.3750	1.35877	Fairly practiced
All our planning and analysis begins and ends with the client	3.0000	1.32179	Fairly practiced
We constantly employ research to track changes in client perceptions, needs and wants	3.5682	1.34588	Rarely practiced
In our planning we regard or market as a combination of many smaller sub -segments that deserve separate programs	3.1591	1.37202	Fairly practiced
Customercenteredness Average	3.1326	1.03889	Fairly practiced

The customer centeredness average of 3.1326 and standard deviation of 1.03889 suggested that on the whole non-profit making organisations in Bulawayo are organisation rather than customer centred when we compare with Table 1. The standard deviation of 1.03889 however indicated that the organizations are heterogeneous in their responses. Kotler and Andreasen (1987) further stated that the customer centered organisation should be characterised by being reliant on research and being responsive to customers.

Research Question 3(a)

To what extent are non-profit making organisations practicing strategic marketing planning?

Table 3(a) indicates that most non-profit organisations determine organisation wide objectives, missions, and specific goals to which marketing strategies must contribute as indicated by a mean of 1.9659 and also assess external environmental threats and opportunities that can be addressed by marketing in the interest of achieving greater organisational success as indicated by the mean of 1.9205. However this may not be strategic marketing per se but strategic management which is broader and general. The strategic marketing average was 3.1321, an indication that the organisations were indifferent in their strategic marketing planning. Moore (1989) as cited by Naude and Ivy (1999) suggested that organization serious about marketing must have a strategic plan. Michael, Hamilton, and Dorey (1995) model emphasised strategy formulation, mission definition and objective formulation taking into account the internal and external analysis.

Table 3(a) Strategic Marketing Planning **N = 88**

Variable	Mean	Std. Deviation	Verbal Interpretation
We determine organisation wide objectives, mission, and specific goals to which marketing strategies must contribute	1.9659	1.23595	Always practiced
We assess external environment threats and opportunities that can be addressed by marketing in the interest of achieving greater organisational success.	1.9205	1.06373	Always practiced
We evaluate present and potential organisation resources and skills to take advantage of the opportunity or repel the threat identified in the external environment analysis.	2.0227	1.06109	Frequently practiced
We determine the marketing mission, objectives, and specific goals for the relevant planning period	3.5682	1.42873	Rarely practiced
We formulate long term strategic marketing plans	3.7273	1.60979	Rarely practiced
We formulate short term marketing plans	3.9318	1.42873	Rarely practiced
We use input from marketing researches in our marketing planning	3.9659	1.39332	Rarely practiced
We conduct market forecasts	3.9545	1.30348	Rarely practiced
Strategic Marketing planning Average	3.1321	.95618	Fairly practiced

Research Question 3(b)

To what extent are non-profit organisations employing marketing research?

From Table 3(b) it is evident that marketing research was rarely practiced. The fairly practiced rating for the conducting of marketing research could actually be as a result of not viewing marketing research as systematic and co-ordinated hence accommodating any form of information or intelligence gathering as marketing research. The marketing research average of 3.6599 augments this and the standard deviation of 1.25516 indicates that the respondents were heterogeneous in their responses.

Variable	Mean	Std. Deviation	Verbal Interpretation
We conduct planned researches to assist in decision making situations	3.4773	1.31287	Fairly practiced
We conduct the following types of research:			
Short and long run forecasting	3.5455	1.14379	Rarely practiced
Business trend studies	3.5341	1.20295	Rarely practiced
Competitive offering studies	3.6591	1.19276	Rarely practiced
Measuring of market potentials	3.5341	1.21247	Rarely practiced
Market share analysis	3.7841	1.26354	Rarely practiced
Determination of market characteristics	3.5341	1.41380	Rarely practiced
Sales analysis	3.6591	1.35516	Rarely practiced
Marketing Research Average	3.6599	1.35516	Rarely practiced

Research Question 3(c)

To what extent are non-profit organisations employing segmentation targeting and positioning?

The information in Table 3(c) suggests that the organisations conduct some form of segmentation. The mean scores for the first five variables range from 2.5227 to 3.3977 indicating that they are fairly practiced. All the responses for these variables are heterogeneous indicating that the respondents are not in agreement with each other. The non-profit organisations rarely develop their differences with those competitors serving the same markets as indicated by the mean of 3.7727 and standard deviation of 1.56102 suggesting heterogeneity of responses. The segmentation, targeting, and positioning average reflect fair practice as indicated by a mean of 3.2917 and standard deviation of 1.90419.

Table 3(c) Segmentation, Targeting and Positioning

Variable	Mean	Std. Deviation	Verbal Interpretation
We group our clients into different groups with separate concerns and offer them different services accordingly	2.5227	1.14447	Fairly practiced
We regard our market as a combination of many smaller sub-segments that deserve separate marketing progress	2.6591	1.06011	Fairly practiced
We use specific variables to divide our market into different subgroups in need of specific programs	2.8636	1.24274	Fairly practiced
We divide our market into distinct groups of clients who might merit separate services	2.8295	1.23383	Fairly practiced
We develop separate services for each of the different groups in the market	3.3977	1.28242	Fairly practiced
We develop our differences with those competitors serving the same markets as us and then communicate those differences	3.7727	1.56102	Rarely practiced
Segmentation, Targeting & Positioning Average	3.2917	1.90419	Fairly practiced

Doyle (1994) noted that it is important to segment markets because segmentation results in better matching of customer needs, enhanced profits, enhanced opportunities for growth, customer retention, targeted communicating, stimulation of innovation, and market segment share.

Research Question 3(d)

To what extent do non-profit making organisations employ the marketing mix and general marketing variable?

From Table 3(d) it would suggest that most of the marketing mix variables are either fairly practiced or rarely practiced by most non-profit organisations. None of the variables scored as either always practiced or frequently practiced. This may suggest the absence of a coordinated program or tactical marketing plan. The results show that most of the organisations did not have a marketing department and did not employ a person with specific qualifications in marketing. These are indicated by the means of 4.00 and 4.08 respectively. The organisations

also rarely employed new product development, product life cycle analysis, assessment of donor needs, and branding as indicated by the means of 3.6023, 3.8736, 3.3750, and 3.5568 respectively. All the standard deviations indicate that the respondents were heterogeneous in their responses. The marketing mix average indicated that it was rarely practiced by a mean of 3.5424 and standard deviation of 1.2101 meaning that the respondents were heterogeneous in their responses.

Table 3(d) Marketing Mix and other Marketing Variables

Variable	Mean	Std. Deviation	Verbal Interpretation
A marketing department exists	4.0000	1.56102	Rarely practiced
We employ a person(s) with a specific qualification in marketing	4.0795	1.41601	Rarely practiced
We employ the following in our marketing operation:			
New product development	3.6023	1.43471	Rarely practiced
Product life cycle analysis	3.8736	1.42897	Rarely practiced
Assessment of donor needs	3.3750	1.28932	Rarely practiced
Branding	3.5568	1.47670	Rarely practiced
Event planning	3.1034	1.44701	Fairly practiced
Assessment of client needs	2.9659	1.67777	Fairly practiced
Setting of pricing objectives	2.9659	1.45783	Fairly practiced
Physical access for our services	2.8636	1.55498	Fairly practiced
Public relations and publicity	2.8523	1.45854	Fairly practiced
Advertising	3.1136	1.44184	Fairly practiced
Sponsorship	3.4205	1.44414	Fairly practiced
Exhibitions	3.2500	1.43238	Fairly practiced
Corporate identity	3.3182	1.64384	Fairly practiced
Packaging	3.8068	1.58192	Fairly practiced
Merchandising	3.9545	1.42158	Rarely practiced
Selling	4.0227	1.41403	Rarely practiced
Sales promotion	4.0682	1.40439	Rarely practiced
Direct marketing	4.0455	1.42158	Rarely practiced
Marketing Mix Average	3.5424	1.2101	Rarely practiced

Research Question 3(e)

To what extent are non-profit organisations employing marketing controls?

The information in Table 3(e) indicates that only complaint handling systems are fairly practiced while the rest of the marketing controls considered are rarely practiced. None of them is either always practiced or frequently practiced. The marketing controls and evaluation average also suggests rare practice as

shown by a mean of 3.7462 and standard deviation of 1.15552.

Table 3(e) Marketing Evaluation and controls

Variable	Mean	Std. Deviation	Verbal Interpretation
We conduct the following:			
Market share analysis	3.8864	1.26338	Rarely practiced
Image tracking	3.8977	1.25065	Rarely practiced
Client satisfaction surveys	3.6477	1.38995	Rarely practiced
Client performance ratings	3.6818	1.36916	Rarely practiced
Marketing audits	4.1250	1.36300	Rarely practiced
We institute complaint and suggestion handling systems	3.2386	1.46996	Fairly practiced
Marketing Controls & Evaluation Average	3.7462	1.15552	Rarely practiced

Research Question 4

Is there a relationship between the organisations orientation and the practice of marketing considering the demographic variables?

Table 4 indicates that customer centeredness has a low association with marketing practice, marketing evaluation and controls, marketing mix, marketing research and strategic planning with r of 0.524, 0.528, 0.445, 0.456 and 0.570 respectively and has a weak association with segmentation, targeting and positioning with r of 0.292. Organisational centeredness has a low association with strategic marketing planning with r of 0.412 and a weak association with segmentation, targeting and positioning, marketing mix, marketing evaluation and marketing practice with r of 0.252, 0.398, 0.30, and 0.391 respectively. It however shows a moderate association with marketing research with r of 0.645 as shown by Table 4 below.

Table 4: Relationships between variables with at least a weak association using the coefficient correlation r

Independent Or Moderating Variable	Strategic Marketing Planning (SMP)	Marketing Research (MR)	Segmentation Targeting Positioning (STP)	Marketing Mix (MIX)	Marketing Evaluations Controls (EVA)	Marketing Practice (Total)
Customer Centeredness	0.570	0.456	0.292	0.445	0.528	0.524
Organisational Centeredness	0.412	0.645	0.252	0.398	0.30	0.391
Gender	0.169	0.368	-0.031	0.133	0.292	0.201
Age	0.286	0.613	-0.206	-0.137	-0.41	-0.161

The regression analysis shows a positive relation between customer centeredness and marketing practices. The R squared reflects that 27 percent of the variables that affect marketing practice are associated with customer centeredness. According to Burns and Bush (2000), there a low association in all these relationships save for the relationship between customer centeredness and segmentation, targeting, and positioning which is said to be weak. Gender was also found to be positively correlated with the practice of marketing research, strategic marketing planning, and marketing evaluations and controls. Organisational centeredness was positively related to segmentation, targeting and positioning as well as the marketing mix variables.

Conclusion

The practice of marketing by non-profit making organisations in Bulawayo, Zimbabwe is not integrated. The organisations are not customer centred and as a result strategic marketing planning, marketing research, segmentation, targeting and positioning, the marketing mix and marketing controls are not systematically implemented as suggested by the theoretical benchmarks. In addition, there is a significant relationship between organisational orientation and marketing practice.

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Dimensions of Early Childhood Development (ECD) Learner Social Development in Bulawayo East Primary Schools

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Abstract

The study was conducted to find out the dimensions in Early Childhood Development (ECD) learner social development. The study comprised of a two stage sampling where 10 schools from the 24 in the population were randomly selected. Next was the purposive selection of Grade 0 to Grade 2 teachers. Fifty (50) teachers and 150 pupils were selected. One research instrument was used for teachers. A pilot study was carried out. The research question was analysed using descriptive statistics and factor analysis. Item communalities ranged from .676 to .870 for teacher's questionnaire. Findings from the research revealed that ECD learners' social development comprised of learner acceptance of others, learner use of IT, learner emotional development, learner social development, learner interaction with others, learner non-verbal communication development, and learner health lessons.

Keywords: Early Childhood Development, Learner Social Development.

Background

The need for holistic development of children is appreciated globally. Woodhead (2005) suggested that a right to development was one of the basic principles of the United Nations Convention on the Rights of the child. Several articles all over the world were specific about protecting and promoting children's development on the realization of numerous sources such as, culture, beliefs, values, scientific knowledge as well as theories. In Early Childhood Development (ECD), children were the active participants, hence they needed to be adequately guided and protected. The government of Zimbabwe recognized the right of every child to a standard of living adequate for his or her physical, mental, spiritual,

moral and social development. Pipes and Trahms (1993) suggested that care givers should provide adequate and appropriate care to children, since developmental deficiencies that occurred during this stage were difficult to reverse.

Social development was mostly needed in the classroom situation. The environment, in which a child was groomed, provided a child with opportunities for communicative experience, which motivated the child to perform well at school. Social development was important in that it could impact many of the other forms of development a child experienced. Healthy relationships with peers allowed children to adjust to different school settings and challenges. Children with a strong self-esteem and better language skills had better chances of resolving differences with peers and children with a positive attitude had better relationships.

The Education Act of Zimbabwe (1987) amended in 1996 stipulated that every child should have the right to education. In (1999) the Nziramasanga Commission recommended the development of an expanded Early Childhood Development (ECD) programme to ensure that every child got access to ECD education at least for one year prior to grade one. The Education Policy of (2004) required that all the primary schools in Zimbabwe should integrate ECD into the mainstream primary school education system. Berk (2000) suggested that the development was generally divided into three broad categories: Physical development; Cognitive development; and Social emotional development.

ECD services should observe signs of child abuse or changes in a child's behaviour or the failure to develop. The Early Childhood Development Teacher Training Manual (1999) suggested that the curriculum encouraged children to play, explore and to initiate their own learning activities and it also took into consideration individual differences.

In Zimbabwe, the introduction of Early Childhood Education was meant to develop the pupil from zero to eight years. The development must be in domains that included physical, intellectual and social. Rutter and Rutter (2003) suggested that Erik Erikson argued that the emotional and social development of a human being took place in eight phases of which the first four stages dealt with early childhood's emotional and social development. Social development was

purported to be part of the ECD classes in Zimbabwe but was not examined as much as the intellectual and physical domains. Both intellectual and physical domains were easily assessed in the ECD classes. Social development was usually presupposed to be taking place. Appreciation of the factors that made up ECD learner social development could be used to gear the teacher's lesson plans in order to maximize the success of learners in both the academic and the social realms of their lives. It was against this background that the researcher examined the dimensions in learner ECD social development in Bulawayo East Primary Schools in Zimbabwe.

Social Development in ECD learners was inadequately assessed in the classrooms in comparison with the intellectual and the physical domains. According to such theorists as Gessel (1880-1961), Piaget (1896-1980) and Vygotsky (1896-1934), some form of uniformity should take place in all these domains. Zimbabwe recently introduced ECD which had as one of its aims social development of 3-8 year olds. Intellectual and physical domains were easily assessed but little was done for social development. It was against this background that this study examined the dimensions in ECD Social Development in Bulawayo East primary schools in Zimbabwe using the theories of social development as basis of the examination.

The purpose of the study was to find out factors that make-up ECD social development as extracted by factor analysis as perceived by teachers.

Theoretical Framework

Social development referred to the development of social skills and emotional maturity that were needed to forge relationships and relate to others. Developing empathy and understanding the needs of others was also included in the area of social development. In order to develop socially, children needed to interact with their peers and adults in a socially acceptable way. Developing good social skills was necessary for them to be able to eventually form healthy relationships and fit into various social scenarios comfortably. The researcher used the maturationist theory which believed that development in a child was a biological process that occurred involuntary; also the environmentalist theory which believed that the child's environment shaped learning and behavior and the constructivist theory which believed that when children interacted with the

environment and the people around them, learning and development took place. These theories were propounded by Gesell according to Dalton (2005), and Gronlund (2006). These theories were used to examine the dimensions in ECD social development of learners in Bulawayo East primary schools.

Methodology

The target population for the study consisted of all ECD schools and ECD teachers and pupils in Bulawayo East Primary Schools. This study used a two stage sampling. The researcher randomly selected 10 schools from the population of 24. The next stage was the purposive selection of Grade 0 to Grade 2 teachers. Fifty teachers and 3 pupils per teacher were selected. The total number of students was 150. Each teacher was selected with three randomly selected pupils from his class. A pilot study was carried out to test the reliability of the research instrument which was determined using items communalities that ranged from .676 to .870.

A questionnaire of the five point Likert scale of strongly agree to strongly disagree was used to collect data from the teachers. Respondents were required to choose an option which tallied with their views and opinions regarding given statements

Data was collected, coded and analysed using Statistical Package for Social Science (SPSS) version 16. The data was presented in frequency tables. Data was analysed using descriptive statistics and factor analysis.

Results and discussion

What factors make-up ECD social development as extracted by factor analysis as perceived by teachers?

The sample that was used for the study was adequate as indicated by the Kaiser-Meyer-Olkin test of 0.523 and the Bartlett's test was significant at 0.000. The item communalities ranged from 0.563 to 0.870. This indicates that the items were reliable as they were above 0.36. The total variance explained was 75.966% which means that the researcher was able to explain 75.96% of factors associated with ECD social development. These factors were learner self-control, learner acceptance of others, learner use of IT in class, learner emotional development, learner social development, learner interaction with others, learner non-verbal

communication, and learner health lessons. Any factor of 3.51 and above was considered to be taking place in the schools.

According to Table 1 the teachers were undecided whether the learner self-control was a factor that made up ECD social development as indicated by means of 3.2955, 3.4773, and 3.0455 on the three items. The teachers were homogenous on the item of ECD learners being able to negotiate with others but heterogeneous in their responses on the other two items. The factor loading ranged from .676 to .763 and the total variance explained was 21.192%. Sel

Table 1: Learner Self-control

Item	Mean	Std.	Factor Loading
My ECD learners are able to negotiate with others.	3.2955	.84473	.763
My ECD learners take turns fairly.	3.4773	1.08047	.762
My ECD learners can control tantrums.	3.0455	1.22856	.676
Average Learner Self-control	3.2728		
Total variance explained – 21.192%			

Learner acceptance in Table 2 was another factor that made up ECD social development. All the items indicated that the teachers agreed with this and the standard deviations show that the teachers were homogeneous in their responses. The means were 3.8409, 3.8409, 3.9545, and 4.1136 for the 4 items and the standard deviations were .90655, .85453, .60360, and .71673 respectively indicating homogeneity in the responses. The factor loading ranged from .614 to .836 and the total variance explained was 11.942%.

Table 2: Learner Acceptance of Others

Item	Mean	Std.	Factor Loading
My ECD learners accept others despite physical challenges.	4.1136	.71673	.836
My ECD learners usually come to school willingly.	3.8409	.90655	.711
My ECD learners mix well with other races.	3.8409	.85453	.693
My ECD learners mix well with other tribes.	3.9545	.60360	.614
Average Mean forLearner Acceptance of Others	3.9374		
Total variance explained – 11.942%			

Table 3 shows the means of 4.1136, 3.8409, and 3.8409 on items making up learner use of IT in class and they show that teachers agreed about these factors that they contributed to ECD social development. The standard deviations of .71673, .90655, and .85453 respectively indicated that the teachers were homogeneous in their responses. Factor loading was between .693 and .836 with total variance being 9.464%.

Table 3: Learner Use of IT in Class

Item	Mean	Std.	Factor Loading
My ECD learners participate in IT lessons with teacher.	4.1136	.71673	.836
My ECD learners participate in IT lessons with others.	3.8409	.90655	.711
My ECD learners participate in IT lessons on their own.	3.8409	.85453	.693
Average Mean	3.9318		

Total variance explained – 9.464%

Learner emotional development in Table 4 was chosen as another factor that contributed to ECD social development. The two items had a mean of 4.1364 and 4.1818 with standard deviations of .72862 and .80853 respectively indicating that the respondents agreed to this factor and were homogeneous in their responses. The factor loadings were .829 and .811 respectively and the total variance explained was 8.323%.

Edgar (2008) suggested that if technology is used appropriately, it could enhance children's cognitive and social abilities.

Table 4: Learner Emotional Development

Item	Mean	Std.	Factor Loading
My ECD learners are able to express frustration effectively.	4.1364	.72862	.829
My ECD learners are able to express anger effectively.	4.1818	.80853	.811
Average Mean for Learner emotional development	4.1591		

Total variance explained – 8.323%

The teachers agreed that learner social development was a factor that affected ECD social development. In Table 5 the means were between 4.0000 and 4.4394 with all the standard deviations of .65682, .74136, and .85117 showing homogeneity. The factor loading was between .635 and .822 with total variance explained of 7.144%.

Table 5: Learner Social Development

Item	Mean	Std.	Factor Loading
My ECD learners are able to play with others in groups	4.4394	.65682	.822
My ECD learners are able to adjust to situation as they come.	4.0000	.74136	.712
My ECD learners are My ECD learners are able to work with others in groups	4.0909	.85117	.635
Average mean for Learner Social development	4.1768		

Total variance explained – 7.144%

Evans (2007) suggested that social and moral development concerned values, behaviours and attitudes which children learnt from their family and community. He further went on to say that parents and caregivers were the first social and moral teachers.

Table 6 shows that learner's interaction with others was another factor noted. The teachers agreed on this factor as seen by means of 4.2955 and 4.0758 that it contributed to ECD social development. The standard deviation of .54896 and .70572 respectively indicated that teachers were in agreement with the responses.

Table 6: Learner's Interaction with Others

Item	Mean	Std.	Factor Loading
My ECD learners are able to interact with others.	4.2955	.54896	.827
My ECD learners are able to share with others.	4.0758	.70572	.815
Average mean for Learner's interaction with others	4.1857		

Total variance explained – 6.949%

There was also non-verbal communication development that was noted to contribute to factors affecting ECD social development. Table 7 shows that the teachers agreed that ECD learners interact with others non-verbally as indicated by the means of 4.1136 and standard deviation of .86181 which indicated

homogeneity. They also agreed that ECD lessons catered for gender differences as indicated by the mean of 4.0758 and standard deviations of .70572 showing homogeneity of responses. The total variance explained was 5.948%.

Table 7: Non-Verbal Communication Development

Item	Mean	Std.	Factor Loading
My ECD learners interact with others non-verbal.	4.1136	.86181	.902
My ECD lessons cater for gender differences.	4.0758	.70572	.437
Average mean of Non-verbal communication develop	4.0947		

Total variance explained – 5.948%

On the factor of learner health, table 8 shows the mean for ECD learners learning about HIV/AIDS to be 3.2273 which meant that the teachers were undecided and the standard deviation of .51823 showed homogeneity of responses. On the item of ECD learners that were socially developed and performed well the mean was 4.3182 indicating that the teachers agreed on this item and the standard deviation of .63388 shows homogeneity of teachers' responses. The overall mean for learner health was 3.7728 indicating that teachers agreed that pupils learnt about health matters.

Table 8: Learner Health

Item	Mean	Std.	Factor Loading
My ECD learners learn about HIV/ AIDS.	3.2273	.51823	.752
My ECD learners that are social developed perform well.	4.3182	.63388	.624
Average mean for learner health	3.7728		

Total variance explained – 5.003%

Conclusion

Social development of learners in ECD classes was taking place in Bulawayo East Primary Schools. The major dimensions in ECD social development as perceived by the teachers were learner acceptance of others, learner use of IT, learner emotional development, learner social development, learner interaction with others, learner non-verbal communication development and learner health lessons. Learner self-control was not seen as a factor that made up social development even though it was extracted by the factor analysis.

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Oral Health Habits: The Case Of Solusi University Community

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Abstract

Oral health is one of the most important aspects of total health but it is neglected by most people. Most people only visit the dentist when they have oral health problems. Researches have shown that most diseases like heart diseases emanate from the bacteria found in the mouth. This study therefore sought to learn the oral health habits of people living in the Solusi University Community. The population of the study was all individuals in the Solusi University Community. Convenient sampling was done by visiting homes in the student married quarters and workers in their offices and those who were available filled in the questionnaire. This was a quantitative study using a structured self-constructed questionnaire. Descriptive statistics was used to analyse the data. The findings indicated that most people know that it is necessary to brush teeth frequently and some knew that they needed to floss although a number of them seemed not to know what flossing was. Thirty percent of the respondents stated they only changed their tooth brush when it became necessary and 55% changed their tooth brushes every three months. A number of the respondents had oral problems. It was recommended that the Solusi University Community be educated in oral health care.

Keywords: Halitosis, Oral Health, Gum disease

Introduction

Oral health is of paramount importance to the overall health of individuals. In the article your “Oral health and your overall health” found in Dental Health for Adults (2009), it was posited that gum disease was linked to diabetes, heart disease and stroke, pregnancy complications, pancreatic cancer, chronic kidney disease and rheumatoid arthritis. Yau-Hua, Yu-Lin, Wai, & Hsu-

Ko (2011) concurred with the above that gum disease causes other diseases and is linked to the general health of the individual.

In the same vein, Pirisi (2003) stated that gum disease caused systemic inflammation and heart diseases. In the article, Pirisi (2003) expounded that gum disease was indicated by red, swollen, and bleeding gums and was called gingivitis. This was caused by plaque that builds up along the gum line. Pirisi (2003) went on to say that this caused inflammation and infection. The bacteria from the mouth moved to the blood stream causing all kinds of diseases.

Grassi (2012) came up with seven diseases that might be linked to poor oral hygiene. These included gum disease, heart and cardiovascular diseases, pancreatic cancer, dementia, obstructive pulmonary disease, pneumonia and rheumatoid arthritis. Not only does bad oral hygiene cause diseases, but it also caused bad breath (halitosis). Moyana (2014) alleged that bad odours in the mouth are caused by bacteria on the back of the tongue due to failure to brush the teeth properly and failing to floss. Flossing removed the food in between the teeth. Other reasons for bad breath according to Moyana were the food eaten, respiratory tract infections, gum disease, systemic illnesses like diabetes, liver disease, kidney disease, lung disease, sinus disease, and acid reflux disease. Moyana (2014) went on to say that bad breath caused by poor oral hygiene could be eliminated by daily brushing teeth, tongue and gums after meals, flossing, and rinsing with mouthwashes. There was also the need to visit the dentist regularly for teeth cleaning and checking according to Albert (2014). We must not forget drinking plenty of water to encourage saliva production and to wash away the bacteria in the mouth (Katz, n.d.; Tse, 2014).

Solusi community does have a clinic but lacks doctors and dentist who might be the source for disseminating knowledge to the community about health issues especially dental health. People suffer from tooth decay and tooth aches and sometimes use non conversional medicine as ways of alleviating their problem. The purpose of the study was therefore to determine the oral health habits of the Solusi University Community.

Methodology

A self-constructed questionnaire was administered to people in the Solusi community. A convenient sample was used to pick the people. Those that were

available at the time the questionnaire was administered were used. Homes and offices were visited and whoever was available received the questionnaire. The data was collected, coded and analysed using Statistical Package for Social Science (SPSS) version 16. Data was analysed using descriptive statistics.

Results and Discussion

Research Question 1

What are the oral hygiene habits of the Solusi Community?

A number of questions were asked regarding the oral habits of the people living at Solusi University. On the question of how many times in a day do respondents brush their teeth, 65% of them said they brushed twice a day and only 10% brush their teeth three times a day. This is indicated on table 1. This might mean that people have two meals a day or they do not brush their teeth after every meal. Most of the respondents leave around the campus and therefore are able to brush their teeth three times a day after every meal. The American Dental Association recommends brushing teeth at least twice a day according to Cunningham (2011). This way it helps remove food and plaque in which later if not removed can cause tooth decay. The plaque also causes bad breath and to minimize this problem, one has to brush their teeth often.

Table 1: Frequency of teeth brushing

	Frequency	Percent
Once a day	9	22.5
Twice a day	26	65.0
Three times a day	4	10.0
More than three times a day	1	2.5
Total	40	100.0

When the respondents were asked if they also brushed their tongue, Table 2 indicates that 82.5% affirmed that they did, 12.5% were honest to disagree regarding the matter. Wagner (2012) stated that desisting from brushing the tongue leads to tooth decay and allows the introduction of oral diseases. This suggests that ignoring to brush the tongue causes the corrosion of the tooth. Not brushing the tongue according to Danser, Gomez, Van der Weijden (2003) causes the bacteria to produce volatile sulphur compounds that later cause periodontal health and diseases. They further articulated that the tongue is the home for oral

micro-organisms which occupy the back of the tongue hence the possibility of the bacteria moving back to the teeth after brushing. One can conclude that it is not enough to brush the teeth only but there is need to go a step further by brushing the tongue as this can halt the expansion of bacterial activity in the mouth.

Table 2: Brushing of tongue

	Frequency	Percent
Yes	33	82.5
No	5	12.5
Sometimes	1	2.5
Total	39	97.5
Missing System	1	2.5
Total	40	100.0

One of the most important things that need to be done to care for the teeth is flossing. Some of the participants in the study were not conversant with the term flossing and this was a limitation to the study. Nevertheless, 17.5% confirmed that they did not floss and 12.5% were flossing three times a day. The majority, 30.0% flossed once a day according to Table 3. Some of them, 10% indicated that they flossed more than three times a day which left the researcher wonder whether they were actually conversant with the term floss. Twenty percent of them did not respond to the question indicating that they did not know what it means to floss and they actually are not doing it. According to Cunningham (2011) flossing protects gum and by flossing one removes the plaque in the places where gums and the teeth meet. This is important because if the tartar builds up it may lead to gingivitis (red swollen gums) and if not checked also, it may lead to periodontitis (severe inflammation of tooth and bone loss).

Table 3: Frequency of flossing teeth

	Frequency	Percent
Once a day	12	30.0
Twice a day	4	10.0
Three times a day	5	12.5
More than three times a day	4	10.0
Never	7	17.5
Total	32	80
Missing System	8	20.0
Total	40	100.0

A study conducted by Sambunjak et al. (2011) to assess the effects of flossing and brushing of teeth as compared to brushing teeth alone, showed that flossing plus brushing teeth was beneficial in preventing gingivitis. This shows the importance of flossing as overall it will prevent a number of diseases related to bad oral habits.

From Table 4, a large number of the participants (55%) confirmed that they changed their toothbrush every 3 months and 30% change their toothbrush whenever it looked beaten up. According to the American Dental Association webpage (2011), it is recommended that a toothbrush should be replaced approximately every three to four months or sooner if the bristles are frayed. Bristles become worn and may lose its effectiveness. Clinical researches show that a new brush removes plaque better than a worn out brush. It is because of this reason that the Oral-B institute has Oral-B toothbrushes and toothbrush heads that contain blue Indicator® bristles that fade to signal when to replace them (American Dental Association. n.d.). Tangade, Sha, Ravishankar, Tirth, and Pal (2013) observed that with the increase of toothbrush flaring plaque also increased, it therefore means that the 30% who change the toothbrush whenever the brush is beaten up, they may be in danger of the diseases associated with unhealthy mouth.

Table 4: Frequency of tooth brush change

	Frequency	Percent
Every 3 months	22	55.0
Every 6 months	6	15.0
Whenever my toothbrush appears beaten up	12	30.0
Total	40	100.0

According to Table 5, some 2.5% of the respondents take four minutes to brush their teeth, while 25.0% take three minutes, 37.5% take two minutes and 35.0% take only one minute to brush their teeth. According to Harvard Medical School (2008), brushing of teeth should take at least two minutes. For effectiveness every individual has to take time in cleaning his or her teeth, the 65% from the study show that they understand the value of time in cleaning their teeth.

Table 5: Length of tooth brushing

	Frequency	Percent
1 minute	14	35.0
2 minutes	15	37.5
3 minutes	10	25.0
4 minutes	1	2.5
Total	40	100.0

Table 6 shows that 65% of the participants confirmed that they used fluoride toothpaste when they were brushing their teeth. Only 5% use salt when brushing and 30% employ the herbal toothpaste. According to the American Dental Association (2011) fluoride toothpaste helps remove plaque, a film of bacteria that forms on teeth and gums every day. It contains mild abrasives to remove debris and residual surface stains and fluoride to strengthen tooth enamel and re-mineralize tooth decay as well as other materials. Some believe that with the increase in demand for natural products, most of the toothpaste manufacturers now produce herbal toothpastes. This type of toothpaste does not contain dyes or artificial flavours. Many herbal types of toothpaste do not contain fluoride or sodium lauryl sulphate which is an irritant and is thought to cause cancer. The respondents varied in their responses, given the outstanding information about toothpastes, the respondents are in the right track in using the various toothpastes.

Table 6: Type of Toothpaste used

	Frequency	Percent
Fluoride toothpaste	26	65.0
Herbal toothpaste	12	30.0
Salt	2	5.0
Total		100.0

Table 7 shows that people know about the proper hygiene as 97.5% of the sample disagreed with sharing the toothbrush with others. The Center for Disease Control and Prevention (CDC) (2013) recommends that no one should share a toothbrush with someone else. There is an exchange of body fluids and increase risk for infections, and it is particularly an important consideration for persons with compromised immune systems or infectious diseases. Lock et al. (2006) found that sharing of tooth brushes by hepatitis C patients posed a health risk of infecting the other person.

Table 7: Toothbrush sharing

	Frequency	Percent
Sometimes	1	2.5
Never	39	97.5
Total	40	100.0

According to Table 8, a lot of people have oral health problems. Most of them have bleeding gums as indicated by 25%, bad breath indicated by 17.5%, dry mouth indicated by 2.5%, tooth ache by 15.0%, and painful gums by 12.5%.

Some of the respondents did not respond to this question (27.5%) possibly because they do not have oral health problems. Cunningham (2011) believes that an unhealthy mouth can harm the rest of the body, leading to heart diseases and respiratory illness. This is supported Grassi (2012) who postulated that one of the most common diseases due to poor oral hygiene is gum disease, heart and cardiovascular disease, pancreatic cancer, dementia, obstructive pulmonary disease, pneumonia and rheumatoid arthritis.

The study done by Mohamed et al. (2013) about the association between oral health status and type 2 diabetes mellitus among Sudanese adults concurred with other studies by finding that the oral diseases were prevalent among people with type 2 diabetes mellitus.

Table 8: Oral Problems experienced

	Frequency	Percent
Dry mouth	1	2.5
Bad breath	7	17.5
Bleeding gums	10	25.0
Painful gums	5	12.5
Toothache	6	15.0
Total	29	72.5
Missing System	11	27.5
Total	40	100.0

Only 2 (5%) of the participants visit the dentist annually according to Table 9 and 38 (95%) do not visit the doctor unless they have a problem. Oral-B institute (n.d.) recommends that everyone have dental visits every six months for the maintenance of healthy teeth and gums. They further go on to say that this is essential as the dentist or the dental hygienist, will evaluate the health of gums, perform a head and neck examination and examine the mouth for any indications of oral cancer, diabetes or vitamin deficiencies. Looking at the poor turnout of the community to the dentist, it means that people will have problems in the long run. Chrisopoulos (2013) suggested that there is an increase in costs associated with dental care, however, prevention is less expensive than trying to take care of the problems related to dental hygiene.

Table 9: Dental visits

	Frequency	Percent
Once a year	2	5.0
Never unless I have a problem	38	95.0
Total	40	100.0

Table 10 shows that an outstanding number of respondents, 87.5%, claimed that they never visited the dentist for teeth cleaning. According to Albright (2014) regular dentist check-ups prevents gum diseases, help detect oral cancer, having healthy smile, and maintenance of good oral health. It is of paramount importance to visit the dentist for check-ups as this prevents the ills of poor health care.

Table 10: Frequency of Dental cleaning

	Frequency	Percent
Once a year	4	10.0
Never	35	87.5
Missing System	1	2.5
Total	40	100.0

Table 11 shows that all respondents take in sugary stuff. Morris (2013) articulated that sugary stuff leads to high blood pressure, diabetes and heart disease. The author continued to say that 25% of teens are in the verge of having type 2 diabetes or are already diabetic and 80% of the teens have diets that are setting them up for heart disease. Soda, for example, contains citric acid that has been shown to cause tooth decay. Morris (2013) added that artificial sweeteners (that maybe calorie free) increases sugar cravings and poses some risk to the teeth. The reason for the tooth decay is failure to brush the teeth after taking sugar rich foods.

Table 11: Consumption of sugary foods

	Frequency	Percent
Always	14	35.0
Sometimes	26	65.0
Total	40	100.0

Table 12 shows that 82.5% of respondents sometimes brush their teeth after taking the sweet foods. Only 10% always brush their teeth. According to Carr (n. d), after eating carbohydrate rich foods, the bacteria release acids that lead to the erosion of the enamel causing cavities. Carr (n.d.) continued to recommend not to immediately brush the teeth after taking acid food since they penetrate the enamel and make it soft so that there is enamel erosion when brushing. It is important then to note that while it is important to brush teeth after every meal, caution should be taken on when it is done.

Table 12: Brushing teeth after eating sugary foods

	Frequency	Percent
Always	4	10
Sometimes	33	82.5
Never	2	5.0
Not at all	1	2.5
Total	40	100.0

Table 13 indicates that 65% of respondents are either somewhat informed about oral care, a little informed or not at all informed. Only 32.5% are well informed about oral care. This might be the reason why 87.5% do not have their teeth routinely cleaned or why 95% never visit their dentist unless they have a problem. It is important for the community to be educated on oral hygiene as studies indicate that lack of oral hygiene lead to a lot of health problems (Yau-Hua, Yu-Lin, Wai, & Hsu-Ko, 2011).

Table 13: Are you well informed about oral care?

	Frequency	Percent	Valid Percent	Cumulative Percent
Very much	13	32.5	33.3	33.3
Somewhat	9	22.5	23.1	56.4
A little	12	30.0	30.8	87.2
Not at all	5	12.5	12.8	100.0
Total	39	97.5	100.0	
Missing System	1	2.5		
Total	40	100.0		

From Table 14, it appears like those who are well informed about oral care do take time to teach their children about oral care. This is indicated by 25% stating that they do inform their children and 52.5% indicating that they somewhat, a little or not at all. 17.5% stated that it was not applicable to them possibly because they do not have children. The Delta Dentist Plan Association (2013) did a survey on children's oral health and they stressed the importance of children going to the dentist at the age of one year and also being taught how to brush and floss their teeth to prevent cavities.

Table 14: Do you take time in teaching your children about oral care?

	Frequency	Percent	Valid Percent	Cumulative Percent
Very much	10	25.0	26.3	26.3
Somewhat	6	15.0	15.8	42.1
A little	12	30.0	31.6	73.7
Not at all	3	7.5	7.9	81.6
Not applicable	7	17.5	18.4	100.0
Total	38	95.0	100.0	
Missing System	2	5.0		
Total	40	100.0		

Conclusion

From this study, it is apparent that the people in the Solusi University Community need a lot of education about oral health. Even though the community members know the necessity of brushing their teeth, they fail to floss their teeth and yet this is one of the major requirements for oral health. Most of them seem to have oral health problems like dry mouth, bad breath, bleeding gums, painful gums or toothache. These problems are generally caused by poor hygiene. There is a need for the people in this community to visit their dentist regularly for teeth cleaning and oral check-ups and not wait until they have a problem.

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