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EDITORIAL

With the upcoming Monsoon and this June issue, I take the opportunity to extend the seasons greetings and best wishes. Like everytime, these months were again very special. With the listing of journals by UGC, International yoga day and some periodic break to conduct the research for the researchers, I think its great opportunity for the researchers to study the real effect on the society. I am pleased to present this issue of Voice of Research in green with greenery and joy all around. This spirit insists me to ask the authors to conduct some research on current issues and come up with new theories. Well, we are here with this issue with the positive attitude and commitment of the potential researchers. To highlight the problems related to education and psychology and social sciences this issue includes the studies related to the problems faced by woman teachers, self-evaluation, self-efficacy and some other variables, cooperative learning, social adjustment problems, challenges in teaching practice exercise, concept mapping, yoga and quality of life, yogasana vs wall support balancing, personality and self-actualising values. To highlight the issues related to humanities and technology this issue presents customer relationship management, employee relationship management, human resource development, job satisfaction among employees, challenges of handicraft artisans, ethics in tourism and econometric assessment of water consumption. The issue rich with variety of topics includes the much talked and widely celebrated yoga as well water management which is the need of time.

Singh focus on the problems faced by woman teachers, Dixit studies the relationship between self-evaluation and self-efficacy, Dave focusses on cooperative learning, Rajalekshmi presents the social adjustment problems of adolescent orphans, Mungure investigates the major challenges in the implementation of teaching practice exercise, Singh talks of concept mapping, Hegde, Metri, Chwadhary, Natesh Babu and Nagendra discuss the effects of yoga on cardiac health sleep quality, mental health and quality of life; Lavi stress on balancing yogasana vs wall support whereas Sandhu and Kaur evaluates the personality correlates of self-actualising values. To clarify the issues related to humanities and technology Agrawal talks of impact of customer relationship management, Ritesh and Mehrotra studies innovative attributes of employee relationship management, Rohit tries to relate human resource development, Gupta and Garg investigates job satisfaction among employees, Shah and Patel studies problems and challenges faced by handicraft artisans, Sharma reviews evolution, creation and application of ethics in tourism whereas Maheta and Bhatt conducts an econometric assessment of water consumption.

On the whole this green issue of Voice of Research presents the recent trends and issues by addressing the problems and presenting the solution to the issues of students, teachers, professionals, investors, parents, family, society as well nation. I am sure, this issue will add to the enthusiastic readers and researchers and Voice of Research is able to draw the necessary attention of the concerned people, authorities and departments on the related issue.

Regards,
Avdhesh S. Jha
Chief Editor

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A CRITICAL STUDY ON THE PROBLEMS FACED BY WOMEN TEACHERS OF GOVERNMENT COLLEGES WITHIN IMPHAL URBAN AREA, MANIPUR

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Abstract

He Govt of India already launched nationwide universalisation of higher education for a knowledge based society under the scheme of RUSA. Thereby, many universities and colleges have been establishing at different locations of different states. But, by the simply establishments of institutions of higher education, the dream of nation could not be fulfilled without the consideration of problems of woman teachers working at colleges. To uplift the women, there is a need to have more women teachers in higher education, as a woman can alone understand another woman's feelings and emotions. In Manipur also, still there is a need to strike a balance to create a prosperous country. Even though there is an increased in female teachers, there is few lady teacher in rural areas. Lack of security, material amenities like hostel, quarters, transport, medical facilities and lack of support from the families. In short they are facing problems related to social, political, economic and service matter etc. These problems are not only concerned with woman teachers in rural but urban as well. If these problems are not taken seriously and examined, the education towards the young aspirant, enthusiastic students will naturally decline. This paper tries to find out, not only the problems faced by the woman teachers working at govt. colleges within urban area of Imphal, but, some of remedial measures to be taken in order to improve Higher Education in Manipur under vision of the quality higher education.

Keywords: *Women teachers, problems, critical study, Manipur, Imphal*

The significance of higher education was stressed by Kothari commission (1964-65) that *" Indian Education needs a drastic reconstruction, almost a revolution, we need to introduce work experiences as strengthen the centers of advanced studies and strive to attain in some of our Universities at least, higher International standards; to lay special emphasis on the contribution of Teacher and research; and pay particular attention to education and research in agriculture and allied sciences"*

Higher education is a must in order to have exquisite society as in a society; we do need intellectuals and educated people. It will promote the general power of the mind, so as, to produce, not mere specialist, but cultivated men and women. There will be transmission of common culture and standards of citizenship. It will lead to advancement of learning through research work, it will also instruct in skill suitable to play on the decision of labour. Higher education has to play in national development.

While in the history of Manipur, the first college ever established was Dhanamanjuri College in 1946. It was affiliated to Calcutta University and later affiliated Gauhati University in 1948, finally, it was transferred to the Manipur university as Manipur University was established as first state University in 1980. Till 1951-52, DM College remained the only Government College in the state , though several private colleges also established. For the first time in the history of Manipur, the first women college of the state was established in 1965-66 and named as the Ghanapriya Women's College. These two colleges remained being co-educational and other was meant only for women until 1970's. Several private colleges converted into Government colleges. Yet several private are still mushrooming. These colleges were set up to meet the demand of the rapid growth population, on the other; several teachers were also recruited for **the** purpose.

According to a report given by College Development council, Manipur University, there are 34 Government Colleges employing 1355, Government Aided Colleges employing 609 teachers, permanently affiliated private colleges and permitted private colleges are 21 and 3 in total, employing 1115 and 84 teachers, The total number of colleges existing in Manipur are 73 and employing 3163 teachers in the hill and valley districts of Manipur.

Table 1 - Showing Total no. of Colleges and Teachers in Manipur. (Source: CDC-MU)

SI. No	Status of College	No. of College	No. of Teachers
1	Govt. College	34	1355
2	Govt. Aided College	08	609
3	Private College	25	1115
4	Permitted Private College	06	84
Total		73	3163

Table 2 - Showing no. Teachers of six Govt Colleges in gender wise within Imphal Urban Area (Source: MU)

SL	Name of the college	Female teacher	Male teachers	Total
1	DMC Sc	45	93	138
2	DMC Arts	30	49	79
3	DMC Com	15	19	34
4	Imphal College	35	54	89
5	Manipur College	42	44	86
6	GPW College	59	28	87
Total		226	297	513

Table 3 - Showing Student Enrollment Growth chart of six Govt Colleges within Imphal Urban Area. (Source: CDC- MU)

SL	Name of the college	2003-04	2004-05	2005-06	2006-07
1	DMC Sc	1207	1317	1210	1435
2	DMC Arts	1541	1559	1318	1575
3	DMC Com	416	400	350	413
4	GP Women's College	1400	1428	1397	1616
5	Imphal College	1460	1313	—	1243
6	Manipur College	561	446	—	286

Table 4 - Showing Growth of Colleges in Manipur (Source: Development of Education in Manipur by M. Shanti Devi)

SL. No	Year	Total No. of Colleges
1	1946-48	01
2	1950-51	01
3	1960-61	02
4	1970-71	12
5	1980-81	24
6	1990-91	29
7	1996-97	64

Number of Private And Government Colleges (HRD Report-2011-12)

State	Private Unaided	Private Aided	Total Private	Government	Total
Manipur	06	08	14	18	32

Enrolment in Private and Government Colleges in Manipur (HRD Report-2011-12)

Private Unaided	Private Aided	Total	Govt	Total
3,799	14,043	17,842	31,050	48,892

Enrolment of the Colleges in Manipur (HRD Report-2011-12)

Male	Female	Total
43,715	49,278	92,993

Gross Enrolment Ratio in Higher Education (18-23 Years) in Manipur (HRD Report-2011-12)

All Categories			SC			ST		
Male	Female	Total	Male	Female	Total	Male	Female	Total
32.3	34.4	33.4	76.7	72.4	74.5	24.8	20.5	22.7

Women teachers' role in higher education is very vital and crucial. There will be no quality in higher education, if the status of woman teachers is too low. It is therefore, necessary to look into the problems relating to the status of women teachers of four Govt. colleges within Imphal Urban Area of Manipur.

Justification of Work

our freedom was given to us after a great struggle and sacrifice, after centuries servitude to foreign rule and the youths of our nation should not take it for granted. In particular, men and women studying in colleges and university have responsibility, as they are now adults. They should give their equal contribution in building this nation great. A nation is great when both the male and female are well educated. Women should not be ignored, as they also the part of the society, their contribution towards the nation's struggle resulted In Independence. They have a source of immense untapped power in the womenhood.

Higher education is an important stages of education in which students take up a particular field of study and even go for higher research. In such a stage , a teacher's role in-crucial and vital. He should be the lamp in the darkest night. Special care and attention should be given to the students, their emotions and needs should be understood. They are the young pillars of the nation and it is in the hand of the teacher to make great builders of the nation. The progress of the nation is not possible, if denied facilities of education to women. The education of women had gradually become popular and some of those who had tasted the fruits of modern education had taken seriously to the work of women's uplift.

To uplift the women, there is a need to have more women teachers in higher education, as a woman can alone understand another woman's feelings and emotions. In Manipur, during 1947-48, female teachers were non-existence. There was a late start as well as a slow growth in women's education but they were in the forefront of higher education in Manipur, during 196o's. Still, there is a need to strike a balance to create a prosperous country.

Even though there is an increased in female teachers, there is few lady teacher in rural areas. Lack of security, material amenities like hostel, quarters, transport, medical facilities and lack of support from the families. In short they are facing problems related to social, political, economic and service matter etc. These problems are not only concerned with woman teachers in rural but urban as will. If these problems are not taken seriously and examined, the education towards the young aspirant, enthusiastic students will naturally decline. The quality education which is the burning issue in our society will never be fulfilled but remain a question mark.

Statement of the Problem

The present study can be stated as given below: " A Critical Study On The Problems Faced By Woman Teachers Of Government Colleges Within Imphal Urban Area, Manipur "

Definition of Key words used

A. Woman Teachers: Those woman teachers who are serving as regular teachers of different subjects in different Government Colleges in Imphal Urban Area; B. Higher Education: Stages of Higher education is imparted after higher secondary education (10+2); C. Problem: It is related to the problems of social, economic, personal, administrative and infrastructure.

Objectives of the Study

To find out the level of social problem of woman teachers; To find out the level of economic problem of woman teachers; To find out the level of personal problem of woman teachers; To find out the level of academic and administrative problems of woman teachers; To find out the level of infrastructural problem of woman teachers and To find out the remedial measures in order to solve different problems relating to the woman teachers

Hypothesis of the Study

The level of social problem of woman teachers of Government Colleges is very high; The level of economic problem of woman teachers of Government Colleges is also very high; The level of personal problem of woman teachers of Government Colleges is not negligible.

The level of academic and administrative problems of woman teachers of Government Colleges is also not negligible and

The level of infrastructural problem of woman teachers of Government Colleges is very significant.

Methodology of the Study

The research methodology for the study decided as descriptive survey method to find out the different levels of problem status of six Government College Teachers within Imphal Urban Area.

Population & Sample

The present study is restricted only to regular woman teachers of six Govt. College with special reference to Imphal Urban areas, the entire regular woman teachers of the session 2015-16 of six Govt, colleges in Imphal Urban Area constituted the population. The investigator has selected 100 woman teachers working in the 6 Govt, colleges in Imphal Urban area belonging to different subjects. The names of the six government colleges from which data were collected: (1) D.M College of Science, (2) D.M College of Arts, (3) D.M College of Commerce, (4) G.P Women College, (5) Imphal College and (6) Manipur College.

TOOL USED : Considering the present study, a questionnaire, which has been developed by the researcher himself, was used. Careful precautions were taken by the investigator to restrict the length of the questionnaire. The questions are consisted of 50 questions.

(a) 10 on social problem, (b) 10 on economic problem, (c) 10 on personal problem, (d) 10 on academic and administrative problems and (e) 10 on infrastructural problem,

Statistical Techniques Used

The following statistical techniques are used: (1) Simple percentage, (2) Mean average and (3) Graphical representation.

Delimitation

The study was restricted only to woman teachers of Government Colleges 'with special reference to Imphal Urban Area. The entire 'Women teachers of the 2015-2016 of 6 Government Colleges in Imphal Urban Area constituted the population.

ANALYSIS AND INTERPRETATION:

Hypothesis-1: To find out the Social Problem of Woman Teachers of Govt. Colleges.

Table 6 - Social problem level of woman teachers.

SL	Question No.	Un-Problem response	%	Problem response	%	N
1	1	94	94%	06	06%	100
2	2	52	52%	48	48%	100
3	3	100	100%	00	00%	100
4	4	37	37%	63	63%	100
5	5	25	25%	75	75%	100
6	6	89	89%	11	11%	100
7	7	95	95%	05	05%	100
8	8	53	53%	47	47%	100
9	9	86	86%	14	14%	100
10	10	35	35%	65	65%	100
		Un-problem	66.60%	Problem	33.40%	

Interpretation: 48% of women teachers did not attend the meeting called by local clubs, govt or NOGs. It not good sign for the popularization of teacher profession in society; 63% of total woman teachers did not involve total literacy programme. It is also not good sign; 75% of sample did not become the member of Parent-Teacher Association; 47% of woman teacher did not think that woman teachers are having high status in society; 65% of the woman teachers in Govt. Colleges were found to be members of NGOs, Local Club and association, while maximum of them i.e., 35 % of them were the members of the any organisation; Conclusion: it can be concluded that the overall social status of women teacher working govt colleges is found to be as 66.6%, while 33.4% of them were found to have social problems. Thus, the first hypothesis that, "The social problem of woman teachers of six Government College is very high" is rejected.

Hypothesis-2: To find out the Level of Economic Problem of Woman Teachers.

Table 7 - Economic problem level of woman teachers.

SL	Question No.	Un-Problem response	%	Problem response	%	N
1	1	97	97%	03	03%	100
2	2	94	94%	06	06%	100
3	3	84	84%	16	16%	100
4	4	100	100%	00	00%	100
5	5	100	100%	00	00%	100
6	6	76	76%	24	24%	100
7	7	98	98%	02	02%	100
8	8	100	100%	00	00%	100
9	9	90	90%	10	10%	100
10	10	100	100%	00	00%	100
		Un-problem	93.90%	Problem	06.10%	

Un-Problem % = 93.9%, Problem %= 06.1%

Interpretation: 97% of the woman teachers were found to be satisfied with their present salary while 3% of them were far from satisfaction; 16% out of 100% of sample agreed to have extra-earning income to meet their requirement. However, 84% was against to it; Again 100% of the woman teachers have the means of transportation like, Bike, Scooter, and Car etc; 90% of the woman teachers of government colleges were satisfied the toilet facility being available at their home, whereas 10% of them were against its opinion; Hence, the second hypothesis, "The level of economic problem of woman teachers of government colleges is also very high" is rejected as teachers who do not face the problem were found at 93.90%.

Hypothesis-3: To find out the level of Personal Problem of Woman Teachers.

Table 8 - Personal problem level of woman teachers.

SL	Question No.	Un-Problem response	%	Problem response	%	N
1	1	78	78%	22	22%	100
2	2	94	94%	06	06%	100
3	3	98	98%	02	02%	100
4	4	66	66%	34	34%	100
5	5	48	48%	52	52%	100
6	6	77	77%	23	23%	100
7	7	24	24%	76	76%	100
8	8	82	82%	18	18%	100
9	9	90	90%	10	10%	100
10	10	96	96%	04	04%	100
		Un-Problem	75-30%	Problem	24.70%	

% of Un-Problem = 75.30%

% of Problem = 24.70%

Interpretation: Out of the total sample, 22% of the woman teachers did both home and outside, while 78% of the woman teachers of government colleges was found doing the household work in their family; 34% of women teachers are not satisfied towards the period of maternity, whereas 66% were satisfied; 52% of sample agreed that woman are biologically weak, however, 48% of them did not; 90% of the woman teachers were of the opinion that students were satisfied with their teaching performance, but 10% of them did not have such views; A large percentage i.e., 96% of the total sample of woman teachers of government colleges hold that woman teachers are must in college; Therefore, the 3rd hypothesis, "The Personal problem of woman teachers in government colleges is very high" is also rejected as overall level of woman teachers who do not faced personal problem is found at 75.3%.

Hypothesis-4: To find out the level of Academic and Administrative Problem of Woman Teacher.

Table 9 - Academic and Administrative problem level of woman teachers.

SL	Question No.	Un-Problem response	%	Problem response	%	N
1	1	95	95%	05	05%	100
2	2	94	94%	06	06%	100
3	3	74	74%	26	26%	100
4	4	20	20%	80	80%	100
5	5	84	84%	16	16%	100
6	6	38	38%	62	62%	100
7	7	97	97%	03	03%	100
8	8	94	94%	06	06%	100
9	9	13	13%	87	87%	100
10	10	96	96%	04	04%	100
		Un-Problem	70.50%	Problem	29.50%	

% of Correct response = 70.50%, % of Incorrect response = 29.50%

Interpretation: 95% of the woman teachers were found to take classes regularly and punctually, while 5% of them did not; 94 % of the woman teachers were found strictly following the examination and evaluation system as per rule, but 6% of them did not; 74% of them agreed that their respective principals conducted periodical examinations regularly, while 26% of them felt the needs to conduct; 80% of them felt the shortage of teachers while 20% of the woman teachers did not feel the shortage of teachers; 84% of the woman teachers think that it is necessary to extend cooperation towards principal and staffs but not confine only to teaching while 16% of them felt unnecessary to co-operate to principals; 62% of the woman teachers feel that the syllabus and curriculum was not suitable to the needs of the society. But 38% was against to it; Maximum no. of the woman teachers i.e. 97% are able to complete the syllabus on time, whereas 03% of them couldn't; Almost all the woman teachers i.e., 94% responded positively towards regular college inspection by the concerned authority while 6% of them did not feel the need; 87% of the woman teachers did not agree that there is effective transfer policy of government college teachers, while 13% of them felt the transfer policy effective; 96% of them maintained personal diary relating to college duties, while 4% of them did not; Conclusion: Academic and administrative status of woman teachers, is quite high at 70.5%, while 29.5% did not. Hence, the 4th hypothesis that, "The academic and administrative problem of woman teacher of government college is not negligible" is rejected.

Hypothesis-5: To find out the level of Infrastructural Problem of Woman Teachers.

Table 10 - Infrastructural problem level of Woman Teachers.

SL	number	Un-Problem response	%	Problem response	%	N
1	1	06	06%	94	94%	100
2	2	17	17%	83	83%	100
3	3	46	46%	54	54%	100
4	4	31	31%	69	69%	100
5	5	53	53%	47	47%	100
6	6	08	08%	92	92%	100
7	7	45	45%	55	55%	100
8	8	28	28%	72	72%	100
9	9	18	18%	82	82%	100
10	10	100	100%	00	00%	100
		Un-Problem	35.20%	Problem	64.80%	

Un-Problem% = 35.20%

Problem % = 64.80%

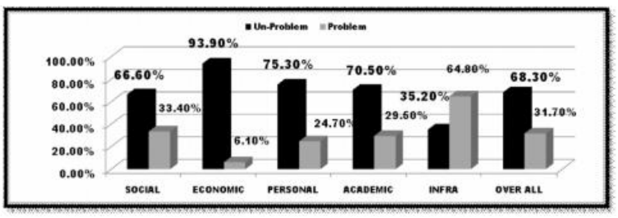
Interpretation: Only 6% of the total sample liked the existing condition of their respective college building whereas majority of 94 % did not feel satisfaction; 54% of women teachers responded that they could not find adequate no. of teachers at college, whereas, 46% was against to it; 69% of sample did not find separate common rooms for male and female teachers at their college, whereas, 31% found; 92% of sample did not find audio-visual teaching aids at their college; 72% of teachers were against the availability of sport and game materials at college; 82% responded of the woman teachers of government colleges reported negatively on having good library while maximum no. of teachers i.e. Only 18% positively; Conclusion: it shows that the level of infrastructural problem is high at 64.80 %, the 5th hypotheses that "the level of infrastructural status of 6 govt. Colleges is very significant" is accepted.

Table 11 - Area wise overall level of Problem Status of Woman Teachers of Govt. Colleges in Imphal Urban Area.

SI. No.	Area	Un-Problem	Problem
1	Social Status (SS)	66.60%	33.40%
2	Economic Status (ES)	93.90%	06.10%
3	Personal Status (PS)	75.30%	24.70%
4	Academic & Administrative Status	70.50%	29.50%
5	Infrastructural Status (JS)	35.20%	64.80%
	OVER ALL	68.30%	31.70%

Overall level of Un-Problem % = 68.30%

Overall level of Problem % = 31.70%



Interpretation: The overall level of woman teachers of govt, colleges who do not face problems is found as 68.30% out which 31.70% have the problems, which shows that their status is so high. The highest problem level is found at 64.80 % in the infrastructural status. It shows that there are poor infrastructure in the govt. colleges, namely ; class rooms, common rooms, teaching-learning materials, sports materials and library facility.

Main Findings of the Study

The first hypothesis that, "The social problem of woman teachers of six Government College is very high" is rejected as the overall social status of women teacher working govt colleges is found as 66.6%; The second hypothesis, "The level of economic problem of woman teachers of government colleges is also very high" is rejected as teachers who do not face problem found at 93.90%; The 3rd hypothesis, "The Personal problem of woman teachers in government colleges is very high" is also rejected as overall level of woman teachers who do not faced personal problem of government colleges is found at 75.3%; The 4th hypothesis that, "The academic and administrative problem of woman teacher of government college is not negligible" is rejected as Academic and administrative status of woman teachers, is quite high at 70.5%; The 5th hypotheses that "The level of infrastructural problem of 6 govt. Colleges is very significant" is accepted. It shows that the level of infrastructural problem is high at 64.80 %; The overall level of status (all parameters) of woman teachers of Govt. colleges who do not have problems, is found as high at 68.30%; However, the highest problem level is found at 64.80 % in the infrastructural area. It shows that here are poor infrastructures in the four govt colleges, in the area of : class rooms, teaching-learning materials, sports materials and library facility.

Remedial Measures for further Improvement

All women teachers need to attend social functions, festivals and other ceremonies for popularity in society; Women teachers also need to involve in social literacy programme as the compulsory duty of teachers; Women teachers needs to be a member of Parent-Teacher's Association; All women teachers needs to respect the teaching profession as one of the noblest professions like social engineers; The co-curricular activities must be treated as credit course as per Manipur University regulation for compulsory involvement among the students in co-curricular activities. Women teachers should not engage in other jobs for extra source of income, as it effects her family and job too; Women teachers should have freedom to use their salary as per their plan; Govt. must hike the pay scale of the teacher as per UGC from time to time; Teachers should not confine only his/her domestic work; they must have enough time to prepare teaching materials for effective teaching; Govt. need to give adequate period of maternity when the health problem comes; Woman should try to understand themselves that they are not at the level of male from biological point of view; Male teachers need to respect women teachers that women have extra qualities; Women teachers need to follow strict the examination & evaluation system as per rule; The shortage of teachers should be filled up by appointing equal ratio between male and female teachers; Woman teachers should extend more cooperation towards principal and staff in addition to their duty; Woman college teachers should try to transect the syllabus like male teachers; Women teachers must extend cooperation towards college authority during inspection by the competent authority; Women need to join election duty to maintain their status as same like to male teachers; There should be systematic transfer and posting policy to reduce gender inequality; Women teachers needs to maintain personal diary relating to college duty for effective education; Teaching performance of the college teachers should be assessed by "Teaching Efficiency Scale" In order to improve teaching performance among teachers; Govt. needs to construct the shortage of class rooms at earliest; There should be a separate common room for male & female teachers; There should be separate toilet facility for the woman and male teachers; The strengthening of different laboratories at the colleges is the need of the hour; The colleges need to have enough sports & games infrastructures for a healthy life; The college libraries should be automated with modern technology for quick and free assess; The college libraries should try to procure and subscribe new books and journals as per new syllabus.

Bibliography

Chandra,Ramesh, Trends in Higher Education, Kaplaz Publications, New Delhi, 2005

Chube S.P, History of Indian Education, Vinod Pustak Mandir, Agra, 2003

Dahiya, S. Bhim, Higher Education in India: some Relection Karma, Publishers, New Delhi, 1996

Devi Jamuna, Education in Manipur, Rai Pravina Brothers, Imphal, 1989

Devi, M. Shanti, Development of Education in Manipur, Rajesh Publications, New Delhi, 2001

Oak A W, History of University Eduation, Annual Publication Pvt. Ltd. New Delhi, 2005.

Power K B, Status of of Women in Education, The Indian Publications, Ambala Cantt, 1988.

R K Jallajit Singh, A Short history of Manipur, O K Store, Imphal, 1967

Th. Mangoljao Singh, Western Education in Manipur, volume-1,2,3, Students Store

ORIENTATION TOWARDS SELF-EVALUATION OF SECONDARY STUDENT TEACHERS IN RELATION WITH THEIR TEACHING SELF-EFFICACY AND SOME OTHER VARIABLES

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Abstract

Evaluation is the key factor in entire teaching-learning process. The main purpose of evaluation is to judge the strength and weakness of learners and teaching learning process to ensure the quality in education. Self-evaluation can be defined as the process in which individual itself evaluates the results of its own efforts. This study was conducted to know the present status of orientation towards self-evaluation of secondary student teachers and its relationship with their teaching Self-Efficacy. To know the effect of their gender, area of residence, and learning experiences on their orientation towards self-evaluation of secondary student teachers, was the second objective of the study. The findings of the study showed a positive relationship between Self-Evaluation and Teaching Self-Efficacy of secondary student teachers. Gender and academic qualification were found as the significant effectors of Self-Evaluation.

Keywords: *Self-Evaluation, Teaching, Self-Efficacy*

Evaluation is the key factor in entire teaching-learning process. The main purpose of evaluation is to judge the strength and weakness of learners and teaching learning process to ensure the quality in education. Evaluation has many forms of examinations (written, oral, experimental, project work, etc.) and strategies (summative, formative, external and internal) to assess and make decision about the attainment of decided academic goals. Though evaluation has much potential to ensure the quality of learning process but the over emphasis on external or teacher made examinations is harming more than strengthen. Due to this type of evaluation students are being just externally motivated to achieve a good grade than engaging in master level of learning. This is the utmost time to rethink about an important evaluation process named 'self-evaluation'. Modern researches also laid emphasis on it. Self-evaluation has been found useful in various fields and for various good reasons. This evaluation process is frequently used by institutional assessment. It is based on the belief that one can evaluate him/her self more accurately than other person.

Self-Evaluation: Self-evaluation can be defined as the process in which individual itself evaluates the results of its efforts. It aims at the improvement or the modification of these efforts, when necessary (Kellis, et.al. 2010). According to Ahmad (2008, pp. 454) Self-evaluation is the process of evaluating one's own performance or behaviour. Self-evaluation, as the term suggests that in this process students make judgments about their own achievement, learning activities, and decisions about action they need to take for further progress in their learning. The main characteristics of the self-evaluation are the self satisfaction with their own learning process and the result of the work. In order to do this, they need to have a clear grasp of the goals of the learning and of the criteria to be applied in judging how well the goals have been attained.

Steps of Self-Evaluation: Self-evaluation is a well structured process. There are six steps that have to follow to complete a cycle of evaluative process. Formative Assessment and Summative Assessments, both are going spontaneously. MacMillan and Hearn (2008) described three steps that are associated with each other. Self-monitoring, evaluation in the regard of pre assumed goals of the learning, and structuring of forming new strategies to accomplish the task in effective manner, are the three steps of evaluation process. Motycka, et.all (2010) indicated four steps in Criteria-referenced evaluation. These four steps are the understanding of the educational objectives, Work according to plan, Attainment of Feedback, and Formation of new objectives and strategies. But the process of Self-Evaluation can be clearly described in six cyclical steps. These steps are related with each other. These six steps can be seen in following figure-1

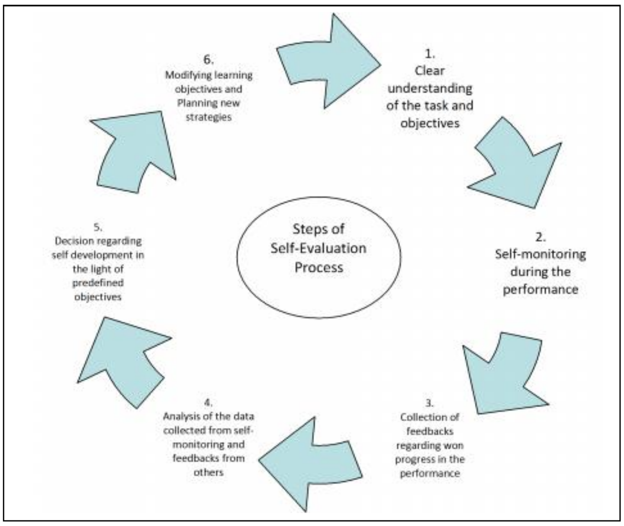


Figure-1 Steps of Self-Evaluation

The most important factor of self-evaluation is self-dependency and accountability of students about their own evaluation process. Self-evaluation is also defined as the tool of self-reflection.

Teaching Self-Efficacy: Defining the concept of self-evaluation Ahmad (2008,p.454) says that self-Efficacy is a person's belief about whether he or she can successfully engage in and execute a specific behaviour. Bandura (1977) has defined self-efficacy as one's belief in one's ability to succeed in specific situations or accomplish a task. One's sense of self-efficacy can plays a major role in how one approaches goals, tasks, and challenges. In the same manner self-efficacy towards action research means one's belief in one's ability to successfully and efficiently conduction of action research in specific situations. Self-efficacy has lots of significance in the teaching learning process. The optimum level of self-efficacy motivate individual to be well determined to achieve mastery at any task. People, with a strong sense of efficacy believe, can accomplish even difficult tasks. They see these as challenges to be mastered, rather than threats to be avoided (Bandura, 1994). Efficacious people set challenging goals and maintain strong commitment to them. In the face of impending failure, they increase and sustain their efforts to be successful. They approach difficult or threatening situations with confidence that they have control over them. Having this type of outlook reduces stress and lowers the risk of depression (Bandura, 1994). Choudhary & shahabuddin (2007) found a positive relationship of self-efficacy with academic achievement and internal level motivation of student. In this study Teaching Self-Efficacy is defined as the individuals believe about its own capability towards the conduction of teaching task with appropriate manner in a given specific situation and time.

Rationale of the Study

Teaching self-efficacy is a key component in teaching learning process. It is responsible for good teaching behaviour and boosting the success rate at any task. In the process of self-efficacy, an individual continuously evaluate its activity to be confident to say anything about their capacity. The success and failure of the work paves the level of self-efficacy of an individual and this thing effect to related work too. So, theoretically both concepts must be associated with each other. But the relationship between both concepts is not reviled yet in Indian academic context. So, this study was conducted to find out the relationship between both concepts. On the other hand Self-evaluation is a potentially powerful practice because of its impact on student performance through enhanced self-efficacy and increased intrinsic motivation. Evidence about the positive effect of self-evaluation on student performance is particularly convincing for difficult tasks (Maehr & Stallings, 1972). When students assess themselves, they become active in their learning and evaluating process. In order to becoming a lifelong learner, the habit and competency of self-evaluation is also important. Solan , Andreadakis and Xantakou (according to Kellis, et al., 2010) states that self-evaluation can be used as a pedagogical process for developing the students responsibility and self-awareness. Baleghizadeh & Masoun (2014) found a significant effect of self-assessment on the goal orientation of student. They found that students benefited from involvement in the assessment process. Among the three goal orientation scales, learning goal orientation significantly increased as a result of inclusion of the self-assessment element in EFL classes. The learners got more learning-oriented through applying self-assessment during the course. Thus, Teacher should encourage self-evaluation to make students active participants in their education. In short self-evaluation can assist students to - be a accountable learner; be confident in their learning process; be aware about their weakness and strength of learning behavior; be aware about the progress of their learning; be in the controlled situation from where they can add or change their learning strategies according to their leaning needs; be a lifelong learner; and be able to find a continuous improvement opportunity too.

So, it will be beneficial for our education system to aware, motivate, and train our teachers and students to be self evaluator of their own work. This holistic work should be started from the teachers. Our teacher training program should be integrated with this evaluative process. Ross, Rolheiser, Hogaboam-Gray, & Anne(1998), Ross, Hogaboam-Gray & Rolheiser (2002), and McDonald & Boud (2003) fond that the training programmes are effective to develop the skill to be self-evaluated learner and provide motivation to do so. Therefore it would be beneficial to start this activity from pre-teacher training program. To solve this purpose some questions like, what is the present status of orientation towards self-evaluation of secondary student teachers; is there any difference in the level of awareness towards self-evaluation of students on the ground of their gender, area of residence, and parental academic status, should be answered. This study was carried out to answer these questions.

Objectives of the study

To know the level of orientation towards self-evaluation of Secondary Student Teachers. To investigate the effect of Secondary Student Teachers' gender, and academic qualification on their orientation towards self-evaluation. To investigate the effect of Secondary Student Teachers' academic streams on their orientation towards self-evaluation. To know the relationship between orientation towards Self-Evaluation and Self-Efficacy of secondary student teachers.

Hypotheses of the study

There is no significant difference between the obtained mean scores of female and male Secondary Student Teachers on SEOS (Self-Evaluation Orientation Scale).; There is no significant difference between the obtained mean scores of UG and PG degree holder Secondary Student Teachers on SEOS.; There is no significant difference between the obtained mean scores of Secondary Student Teachers on SEOS on the basis of their academic streams (General, Commerce and Science); There is no relationship between the obtained mean scores on SEO scale and TSE scale of secondary student teachers.

Methodology

The present study falls in the domain of descriptive study as it intends to investigate the level of orientation towards self-evaluation of Secondary Student Teachers. Survey method was used in this study. Secondary Students Teachers of Ahmedabad district were identified as the population of the study. The sample of the study was randomly selected. Cluster sampling method was used to select the sample from the population. There 133 Secondary Student Teachers of three B.Ed. colleges of Ahmedabad district were selected in the sample. There were 75 female and 58 male students in the sample. There were total 71 general, 35 commerce and 27 science streams' secondary student teachers in the sample. Self-Evaluation Orientation Scale (SEOS) constructed and validated by researcher and Teaching Self-Efficacy Scale(TSES) constructed and validated by Keraliya (2011) were used to know the level of orientation towards self-evaluation and Teaching Self-Efficacy of secondary student teachers respectively. There are 27 items in the SEO scale. There were five points (5= Strongly Agree, 4=Agree, 3=cannot say anything, 2=Disagree, and 1=Strongly Disagree) allotted to response on the scale. The values of Cronback Alpha reliability and Split-half reliability were 0.88 and 0.87 respectively. Scale has Face validity. According to experts' opinions, all items were found fit to measure Secondary student teachers' orientation towards Self-Evaluation. The value of cliffs' Consistency index's 'C' for AGO scale was 0.58. The value of cliffs' Consistency indices 'C' was indicating the good uni-dimensionality of the scale. TES scale was developed and validated by Keraliya (2012). There were 34 items in the scale. Cronback Alpha and Split-half reliability were calculated with the help of SPSS. The values of Cronback Alpha reliability and Split-half reliability were 0.87 and 0.86 respectively. Cliffs' Consistency index 'C' was calculated with the help of NRTBV program developed by Rathod (2001). The value of cliffs' Consistency index's 'C' for Teaching Self-Efficcy scale was 0.30. The value of cliffs' Consistency index 'C' was indicating the good unidimensionality of the scale.

Procedure of the Collection and Analysis of the Data

With the prior permission of the principal, researcher visited the randomly selected B.Ed. colleges. The researcher explained the purpose for which the study was being conducted and Secondary Student Teachers were requested to respond on the scale. After responding the Secondary Student Teachers, responded scale sheet were collected. Descriptive and inferential statistical techniques were used to analyze the data. Mean, median, S.D., kurtosis, and skewness were calculated in descriptive statistics. t-ratio, and Pearson 'r' were used to test the hypothesis of the study. All calculation was conducted with the help of SPSS.

Analysis and Interpretation of the Data

The details of data analysis and its interpretation is discussed according to the objectives of the study.

Objective-1: The first objective of the study was to find out the orientation towards Self-Evaluation of Secondary student teachers. To solve this purpose the SEOS was administered to the sample. The responses on a five point scale were assigned with the score as 4, 3, 2, 1 and 0 marks for strongly agree, agree, cannot say, disagree, and strongly disagree respectively. There were 27 items in the scale and the maximum score for each item was four. It was possible to score 0 to 108, and 54 could be the average score for each respondent. The result of the study shows that the range of achieved score on SEOS by secondary student teachers was 37 to 85. There were 12% Secondary student teachers achieved less than 50% (54) marks on SEO scale. There were 54.1%, 16.5%, and 2.3% Secondary student teachers who have scored more than 60%, 70%, and 75% marks on SEO scale respectively. There was not a single secondary student teacher who could score more than 80% score on SEO scale. The Mean and SD of the score were 65.5 and 9.36 respectively. The value of skewness and kurtosis were -0.295 and -0.368 respectively. The value of skewness was showing negative skewness of the data, means the number of high scorer secondary student teachers were more than low score achiever in respect of mean score of the data on SEOS. On the basis of above discussion it is reviled that the orientation of secondary student teachers towards self- evaluated learning were moderate level. Above description can be seen in figure-2 too.

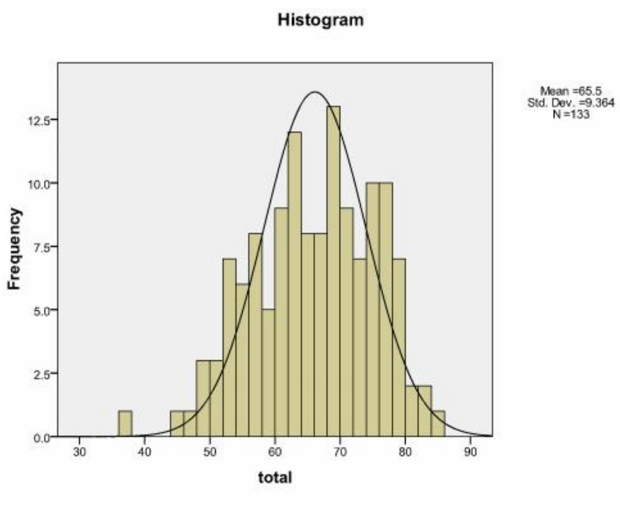


Figure 2: Frequency histogram for Self-Evaluation

Objective-2: There were two null hypotheses tested to serve the purpose of second objective of the study. Null hypotheses-1 was tested to know the effect of gender on the level orientation towards self-evaluation at 0.05 level of significance. The detail of the testing of the hypothesis is given in table-1.

Table 1 - Mean, SD, and t-ratio in reference to gender

Gender	Number of Secondary students Teachers	Mean	SD	t-ratio
Female	75	67.48	8.38	2.84
Male	58	62.95	10	

The observation of the Table-1 shows that there were 75 female and 58 male Secondary student teachers in the sample. The t-ratio of the mean difference was 2.84, which was significant at 0.01 level. So the null hypothesis-1 was not accepted and it was found that the female Secondary student teachers (M=67.48, SD= 8.38) were significantly more oriented than male Secondary student teachers (M=62.95, SD=10). Null hypotheses-2 was tested to know the effect of academic qualification on the level orientation towards self-evaluation at 0.05 level of significance. The detail of the testing of hypothesis is given in table-2.

Table 2 - Mean, SD, and t-ratio in reference to qualification

Qualification	Number of Secondary students Teachers	Mean	SD	t-ratio
UG	86	64.33	9.10	1.98
PG	47	67.66	9.55	

The observation of the Table-1 shows that there were 86 UG and 47 PG degree holder Secondary student teachers in the sample. The t-ratio of the mean difference was 1.98, which was significant at 0.05 level. So the null hypothesis-2 was not accepted and it was found that the PG Secondary student teachers (M=67.66, SD= 9.55) were significantly more oriented towards Self-evaluation than UG Secondary student teachers (M=64.33, SD=9.10).

Objective-3: Null hypotheses-3 was tested to know the effect streams on orientation towards Self-evaluation of Secondary Student teachers. Mean, SD and F-ratio were calculated to test the null hypothesis-3. The detail of the testing of the hypothesis is given in table -3.

Table 3 - Number, Mean & SD, in reference to Academic streams

Streams	No. Of secondary student teachers	Mean	SD
General	71	66.32	9.55
Commerce	35	64.20	6.944
Science	27	65.04	11.48

Table-3 shows that there were 71, 35 and 27 secondary student teachers related with General, Commerce and Science streams respectively. The mean values of obtained scores on SEO scale by secondary student teachers related with General, Commerce and Science streams were 66.32, 64.20 and 65.04 respectively. The SD values of obtained scores on SEO scale by secondary student teachers related with General, Commerce and Science streams were 9.55, 6.944 and 11.48 respectively.

To test the null hypothesis-3, *F*-ratio was calculated based on the values of mean and SD of the obtained scores by secondary student teachers on SEO scale. Details about this calculation are given in table-4.

Table 4 - F-values of the obtained scores on SEO scale by secondary student teachers related with different streams

Source of Variance	Sum of squares	Df	Mean squares	*F*-ratio
Between the streams (SSbgs)	113.136	2	56.568	0.642
Within the groups (SSwgs)	11460.112	130	88.155	
Total	11573.248	132		

Table-4 shows that *F*-ratio was calculated to know the difference between the mean scores of obtained scores on SEO scale by secondary student teachers related with different streams. The value of *F*-ratio was 0.642, which was not significant at 0.05 level. So null hypothesis was accepted and it established that there was no significant difference in orientation towards Self-Evaluated learning of different streams respondents. This thing can be seen in Figure-2 too.

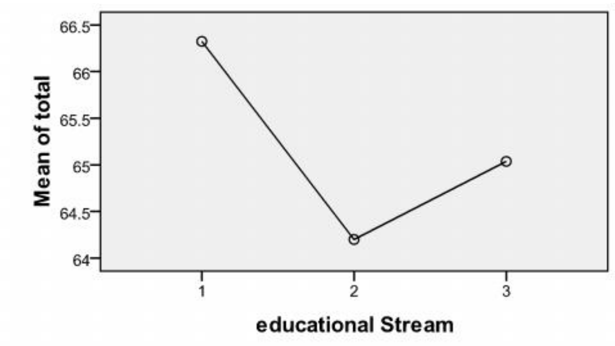


Figure 3 - orientation level of Self-Evaluation of Secondary Student Teachers

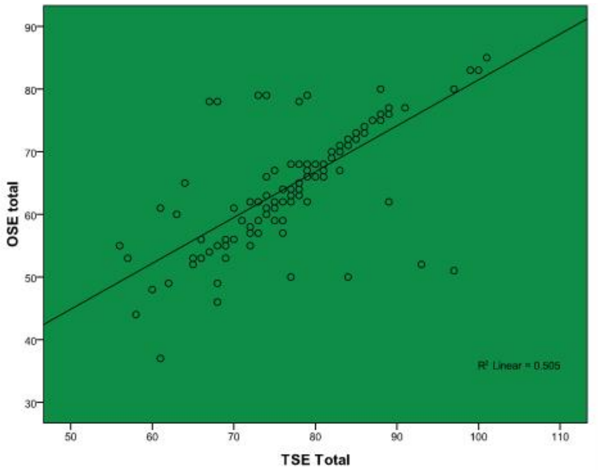
Note : 1= General, 2= commerce, , and 3= Science

Objective-4: to know the relationship between orientation towards Self-Evaluation and teaching self-Efficacy H04 was tested. The details of the calculation are given in table-6.

Table 8 - Correlation between the obtained scores of secondary student teachers on SEO scale and TSE Sale

Variables	Numbers of Participants	Mean	SD	Value of Correlation	Significance Level
Orientation towards Self-Evaluation	133	65.50	9.36	0.71	Significant at 0.01 level
Teaching Self-Efficacy	133	78.20	9.09		

Table-8 shows that a positive correlation(r =0.71) was found between the obtained scores on SEO scale and TSE scale of secondary student teachers. According to Best & Kahn(2012, p.388) the obtained Pearson 'r' correlation value was showing substantial level of positive relationship between Orientation towards Self-Evaluation and Teaching self-efficacy of secondary student teachers. Thus, it was concluded that a significant substantial level of positive relationship between Orientation towards Self-Evaluation and Teaching self-efficacy of secondary student teachers was found. This thing can be seen in given figure -3



Findings of the Study

Secondary Student Teachers were showed moderate level of orientation towards Self-evaluation. Significant difference was found in the level of orientation towards Self-evaluation of female and male Secondary Student Teachers. Female Secondary Student Teachers were found more oriented towards Self-Evaluated learning than male. Significant difference was found in the level of orientation towards Self-evaluation of UG and PG Secondary Student Teachers. PG degree holder Secondary Student Teachers were found more oriented towards Self-Evaluated learning than simply UG degree holder students. There was no significant difference in orientation towards Self-evaluation of Secondary Student Teachers on the ground of their academic streams. A moderate level of relationship between orientation towards Self-evaluation and Teaching Self-Efficacy of secondary student teachers.

Educational Implication of the Study

Though the Secondary Student Teachers were showed moderate level of orientation towards Self-evaluation but their average mean score on Self-Evaluation orienttion Scale was just 65. The highest score, they could be achieved on SEOS was 108. So if we want to make our Secondary Student Teachers more capable towards Self-evaluation then prospective teacher should be oriented towards it. Orientation and training program should be organized. A significant difference was found between the levels of orientation towards Self-evaluation of Secondary Student Teachers on the ground of gender differences and academic qualification. Female Secondary Student Teachers were found more orient than male Secondary Student Teachers. So there is a need to pay more attention on male students during training and orientation programs. A moderate level of relationship between orientation towards Self-evaluation and Teaching Self-Efficacy of secondary student teachers was reviled that shows the importance of self-evaluation in learning process. Teacher Educators should be motivated to promote self-evaluative process in their teaching practices to achieve good academic outcome.

References

Ahmad, M. (2008). *Comprehensive Dictionary of Education*. New Delhi: Atlantic Publishers and Distributors (p) LTD

Baleghizadeh,S. & Masoun, A. (2014). The Effect of Self-assessment on EFL Learners' Goal Orientation, Iranian Journal of Applied Linguistics (IJAL), Vol. 17, No. 1, March 2014, 25-48.

Bandura, A (1977). Self-Efficacy: Towards a unifying theory of behavioral change. *Psychological Review*. **84** (2): 191–215. doi:10.1037/0033-295x.84.2.191. PMID 847061. Retrieved on 6th December 2016 from https://en.wikipedia.org/wiki/Self-efficacy

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York: Academic Press. (Reprinted in H. Friedman [Ed.], *Encyclopedia of mental health*. San Diego: Academic Press, 1998). http://www.uky.edu/~eushe2/Bandura/BanEncy.html

Chowdhury, M. S. & Shahabuddin, A, M. (2007). Self-efficacy, motivation and their relationship to academic performance of Bangladesh collage students, *collage quarterly*, vol.10, No1. Retrived from http://www.senecac.on.ca/quarterly/2007-val10-num01- winter/ Chowdhary_ Shabuddin.

Huiqing Zheng, Jianbin Huang, and Ying Chen(2012).Effects of Self-assessment Training on Chinese Students' Performance on College English Writing Tests. *Polyglossia* Volume 23, pp.33-42. Retrieved on 12th January, 2014 from *r-cube.ritsumei.ac.jp/.../4-Effects%20of%20Self-assessment%20Training.... on 21 november 2013.*

Kellis,I; Vernadakis, N; Albanidis, E; & Kourtesses,T.(2010). The development of a student's self-evaluation scale(SBSS) in multicultural physical education class setting. Educational research and Review.Vol.5(11), pp.637-645.

Keraliya, B.(2012). Teaching Self-Efficacy of Primary Student teachers Prathamik, Unpublished M.Ed. Dissertation, Ahmedabad: Gujarat Vidyapith.

Maehr, M. & Stallings, R. (1972). *Freedom from external evaluation*, *Child Development*, 43, 177-185.

Mcdonald, B., David Boud (2003).The Impact of Self-assessment on achievement: The effects of self-assessment training on performance in external examinations. *Assessment in Education: Principles, Policy & Practice. V0l 10, Issue 2,pp.209-220.* Retrived on 10th December 2013from http://www.tandfonline.com/doi/pdf/10.1080/0969594032000121289#.UtZLk_tAfys

Motycka, C; Rose, R.L. & Brazeau, G. (2010). Self-Assessment in Pharmacy and Health Science Education and Professional Practice. American Journal of Pharmaceutical Education. 74(5):85. Retrieved on 10th November 2013 from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2907850/

Rathod, N.S. (2001). *NRT VB: A computer program and its manual for the statistical calculation for test development and validation* (A floppy disk and its computer printout). (In Gujarati). Department of Education, Bhavnagar University.

Ross, John A.; Rolheiser, Carol; Hogaboam-Gray, Anne(1998). Effects of Self-Evaluation Training on Narrative Writing (Research Report funded by Social Sciences and Humanities Research Council of Canada, Ottawa (Ontario).; Ontario Dept. of Education, Toronto) . Retrived on 10th December 2013 from http://eric.ed.gov/?id=ED424248.

Ross,J.A; Hogaboam-Gray, A. & Rolheiser, C. (2002).Student Self-Evaluation in Grade 5-6 Mathematics Effects on Problem- Solving Achievement. Educational Assessment,Vol.8, Issue 1, pages 43-58, Retrived on 12th December 2013 from http://www.tandfonline.com/doi/abs/10.1207/S15326977EA0801_03?journalCode=heda20#.Uw8m7c6habE

COOPERATIVE LEARNING: PEDAGOGY IN HIGHER EDUCATION

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Abstract

Without disproving the importance of traditional teacher-led discussions in class, an increasing number of teachers are acknowledging the worth of allocating group work to their students. It is a false notion that cooperative learning is a replacement for the methods we use at present for teaching-learning rather it can be used to augment or enhance learning. This paper discusses the key elements of cooperative learning: positive interdependence, individual accountability, promotive or face to face interaction, interpersonal and small group skills and group processing. The research validating effectiveness of this method is summarized. The paper outlines the methods for implementing cooperative learning in higher education for successful learning to take place. The common hurdles in the implementation of cooperative learning and how to overcome them are discussed in the present study. The present study may lead to the enhancement of practices and approaches.

Keywords: *Cooperative learning, pedagogy, higher education*

With increasing number of teachers identifying and acknowledging the worth of working as a unit, we cannot refute the fact that traditional teacher led instruction is becoming an obsolete way of learning. Despite the fact that students learn more by active participation, there is reluctance to integrate the traditional lecture method classes into a cooperative learning environment. It is a false notion that cooperative learning is replacement for the methods we use at present for teaching-learning. It can be used to augment learning by the students by implementing the cooperative learning method. The teachers allocate more time in preparing their interactions with students and arranging their curricula, instead they can plan to enhance student-student interaction. In a learning environment accomplishing a goal is the prime concern. Thus each goal is organised in such a way that there is effective learning. This directs us to learning in a cooperative way. Cooperative learning involves students working together in small groups to accomplish shared goals. (Gillies, R., 2007). Small groups are formed to promote learning by each member in the group or unit. It is often seen that slow learners may cease work of the task given in case of hindrance or inability to comprehend the subject matter, but by working in a group the weak students may get assistance and certainty to carry on and hold up. The weak students get facilitation by other students and the stronger ones can fill in the gaps in their own work. When the bright students know that the others are relying on them, they become more accountable for their group members and work with more enthusiasm. It can be advantageous as it induces a sense that every member in the group is accountable to each other, also getting no restrictions in carrying on their work which ultimately enables them to get perfection and hold over their task and subject matter at hand.

Cooperative Learning

In the early 1900s the concept of social interdependence was formulated by Kurt Koffka who was one of the founders of Gestalt school of psychology. He emphasized that groups working as one unit had members interdependent on each other which could vary. In 1920s and 1930s, Kurt Lewin redefined interdependence as a change in the state of any one member will affect the group as a whole. The members of the group have an impact on each other. In the late 1940s, Morton Deutsch, redefined Lewin's reasoning about social interdependence and gave a theory of cooperation and competition (Deutsch, 1949, 1962). The elements for cooperative learning (Johnson, D. & Johnson, R., 2010) are as- Positive interdependence: All the members of the group are linked to and dependent on each other. All the members harmonize to achieve the desired goal. If one of the members is not successful to do his part of work then the whole group has to face the undesirable outcome. Individual accountability: All members of the group are responsible and liable for the work they do and its mastery. Promotive interaction: All members provide help and feedback to complete the task at hand. Here encouragement is provided by members to each other in order to successfully complete the group work. Interpersonal and small group skills: Interpersonal skill is interaction with each other by expressing ones opinion, listening and acceptance by all group members. Small group skills is giving turn to each member to speak, sharing views, decision making by accepting everyone's viewpoint. Group processing: It is reflecting on group work, choose actions that were helpful and discard the ones that were not helpful. Changes necessary are recognised to be implemented in group work in future. Thus cooperative learning in education with the implementation of these elements can promote successful learning.

Research Validating Cooperative Learning in Higher Education

While cooperative learning may be new to some but it has been implemented in certain countries. Various researches have been conducted and validate the effectiveness of learning in cooperative environment. Boyer (1990) stated that for any democratic environment or country, cooperation is the key element. He therefore encouraged students to work in a group cooperatively or collaboratively as cooperation is as important as competition. Much of the research has been conducted as field experiment. The study by Slavin (1980, 1983) had control and experimental group where practical techniques were used. The duration was of two weeks. The variables that were studied were academic achievement, self esteem, mutual concern, intergroup relations, attitude towards school and ability to work cooperatively. The studies by Cooper et al., 1990, Goodsell et al., 1992 also support the fact that cooperative learning is a better method as compared to traditional method of learning. The reason for the effectiveness of this method is that the students get feedback from their peers and understanding of the subject is made effective by this way. (New Horizons, 2008). Johnston et al (1981) in their review used three procedures which were: voting method, effect size method and the z-score method. They compared cooperation, cooperation with intergroup competition, interpersonal competition, and individualistic effort. A total of 122 reviews were done. The result of the study point out that cooperative learning is helpful to increase the academic achievement and also interpersonal relationship. Cooperative learning is practiced in professional education (Cinelli, Symons, Bechtel & Rose-Colley, 1994; Glendon & Ulrich, 1992). Research by Strom & Strom, 2003; Lie 2008; Goodwin, 1999 support the fact that by cooperative learning the students become effective communicators, listeners and leaders. Astin (1993) studied 22 outcomes and 88 factors and concluded that interactions among students, interaction among student and teacher were effective tool for learning. His result also stated that formal curriculum is not so important as how students learn in cooperative environment. The traditional method of teaching was not as effective as collaborative learning. Terenzini and Pascarella (1994) reviewed books, book chapters, monographs, journal articles, technical reports, conferences, papers and research reports on student learning. They also gave supplementary bearing to the fact that collaborative and cooperative learning is effective as compared to traditional method of teaching-learning. Collaborative learning is effective tool for active learning by students at university level. Students can master content and skills by this method. The social skills are enhanced by cooperative learning and students endeavour for incessant enhancement.(Williams, 2007). A research done in cooperative learning in high school and college chemistry courses, it was found that the students who got 50th percentile when studying with traditional method got 64th percentile when studying with cooperative learning method. Positive interaction effect was seen similarly in college courses studying with cooperative method of learning. (Bowen, 2000). In introductory physics course, on collection of pre-post test gains in force concept inventory scores, it was found that in interactive engagement there was an average gain two standard deviations greater than traditional method of teaching. (Hake, R. R, 1998). Similar study done in engineering capstone design courses it was seen that learning by collaborative method was more fruitful than traditional method of teaching and students learning in interactive session or collaborative method outperformed those with traditional method. (Terenzini et al, 2001). In comparison to the student taught in a competitive learning environment the students taught cooperatively have higher self esteem and better social skills and also had better perspective and attitude about the subject. (Johnson et al, 1998). In physical chemistry class, the attitude of students towards group activities was found out. It was seen that students felt group work and interaction was positive to enhance their learning. (Towns et al, 2000).

Implementing Cooperative Learning in Higher Education

Cooperative learning can be implemented in classrooms, but all methods or techniques followed at one time will not be fruitful. Gradually approaching towards this method will tend the instructor to be familiar with the way to go about the method and students to comfortable with the new technique. The suggestive methods given by Johnson et al. (1998), Oakley et al. *(*2004) and Smith et al. (2005) are as: Forming teams: Instead of students choosing their own teams, the teacher can form teams. The reason behind this is that students with same ability may cluster, making the group homogeneous. Groups formed should be heterogeneous in nature. It should include students with diverse abilities such as intellectual ability, cognitive and learning styles and interests. Before forming teams, questionnaire can be given to students to determine their abilities and interests. Thus when selecting members of groups, students can be selected on the basis of questionnaire or can be selected randomly. The task or assignment is then decided and given to the students. Encouragement and guidance at the beginning of task or assignment is needed so that students can proceed in the right direction. Initial plan is to be discussed with the teacher or instructor so that useful suggestions can be given. Regular check of the activities to be carried out in future is to be discussed or written in flow chart form. A checklist can be prepared for the activities to be done. Students should be given freedom to make their own choices or plan of action. Students will provide their contribution in the task given. The instructor will evaluate the student. An individual student as well as the whole group is assessed. Students can provide feedback and state improvements that can be done to improve group work. Jigsaw: Groups are set up. Each member of the group is given material to learn and also teach his group members. Students discuss how to teach the topic and the important points of the topic are discussed. After practice, students teach each other followed by test or assignment. Think Pair-Share: All the students are given a topic and time is given to think silently about the topic or question posed by the teacher. Students are then paired up and the thoughts are shared. Then each member in the pair shares his thoughts with other pairs and exchange of ideas takes place. Three step interview: Groups are formed. Then each member will choose his pair to be his partner. The pair ask each other questions and discuss the subject matter at hand. In the next stage, the pairs may reverse their tasks. Later, all the members of the team discuss with each other their opinion and discuss the gist of the subject matter. The three steps include initial discussion with members of the pair, later their functions are turned around. All the members of the team discuss their response. Round Robin: Small groups may be formed. Open ended question is posed before the students. The students will think about the answer. Time is given for thinking various answers. The students will share the answers with each other after thinking in round robin way. One member is selected to record the responses given by all the members of the team. The answers are to be discussed until told to cease the discussion. Three minute review: It is also thought to be a time for reflection of all that has been done, said or discussed. The instructor may at any point stop the discussion going on and ask the students to think, review and reflect on the discussion or the answers given by each member. The members are given three minutes to review. The members may also clarify their doubts during this period. Answers are given to the questions being posed to clarify doubt. Numbered heads together: Groups are formed. The members of the group are given numbers. Questions are posed to the groups. The particular number of all the groups gives answer to the question. The teacher may call out any number and all the numbers of groups give answer to the question posed.

Overcoming Obstacles in Implementation of Cooperative Learning

Large group size takes many resources for the implementation of learning. Hence smaller groups are recommended. A group size of three to four students is good and effective learning with less time takes place. Carrying out the learning session without any icebreaking is ineffective. Student-student and teacher student interaction in general to be carried out first followed by the activities. Students' working without any understanding of use of cooperative learning is futile. Hence activity or session to be conducted to make them acquainted with the benefits of cooperative learning. Acceptance of views and opinion of others is important. If this is not followed by students then it may lead to clash of opinion. Communication or interaction forms the basis of this learning; hence it should be clear and not biased or hostile in nature. Interaction skills can be taught first and implemented during the learning process. Stagnation is a problem in group work. Monitoring the group activity will not let the goal go haywire. Constant helping, being a part of the group, reinforcement boosts the learning process. Randomly assign and monitor the group activities which will keep the group active. Random groups are desired as learners can build rapport with all members. Divergence is anticipated at each interaction session. Efforts to be made that each member pairs up or is a part of every other member of the group. Students choosing their own groups may lead to them getting off task. Burdening the students with complex task will lead them to go to the wrong path. Simple tasks to be taught first followed by complex ones without assuming that students will be able to complete the task without assistance. Short activities to familiarize them with the activities to be conducted later can be implemented in class. The way for working in groups can be taught first. Coordination, teamwork and positive interpersonal relationship in group is essential. Practise followed by feedback on how to work together successfully is to be practised. Grading the students should be fair. Students should not give grades to each other which may create havoc in the session while learning. Students can assess themselves but with guidance and verified by the teacher.

Conclusion

Cooperative learning is well-researched but not employed in the classroom. Cooperative learning is not bound by fixed procedures and practises and variations are there to suit the need of the hour. It is flexible in nature and tailored to suit the goal, needs, environment of the learning session. Nonetheless, research validating the cooperative learning in classrooms supports the use of it in higher education. Amalgamation of the essential elements: positive interdependence, individual accountability, promotive interaction, interpersonal and small group skills and group processing will lead to the successful implementation of cooperative learning in its proper right. It can be used to suit a variety of disciplines in higher education. Various techniques to implement are suggestive ways to execute it in classrooms along with the tactic to overcome obstacles in its implementation. A range of activities beyond the content-centred goal gives a robust opportunity for learning and divergent thinking. The evaluation of student's activities is an arena shaped with many alternatives. Moreover students' evaluating the group members and themselves promotes their active engagement in learning.

References

Astin, A.W. (1993). *What matters in college: Four critical years revisited.* San Francisco, CA: Jossey-Bass

Bowen, C. W. A Quantitative Literature Review of Cooperative Learning Effects on High School and College Chemistry Achievement. *J. Chem. Ed.* 2000, *77*, 116–119.

Boyer, E. (1990). *Scholarship reconsidered.* Lawrenceville, NJ: Princeton University Press Cinelli, B., Symons, C.W., Bechtel, L., & Rose-Colley, M. (1994). Applying cooperative learning in health education practice. *Journal of School Health, 64,* 99–102.

Cooper, J., Prescott. S., Cook, L., Smith L., Mueck R. & Cuseo J. (1990). *Cooperative Learning and College Instruction.* Long Beach, CA: California State University Foundation.

Deutsch, M. (1949). A theory of cooperation and competition. Human Relations, *2*, 129-152.

Deutsch, M. (1962). Cooperation and trust: Some theoretical notes in M. Jones (Ed.), Nebraska symposium on motivation, pp. 275-319. Lincoln, NE: University of Nebraska

Gillies, R. M. (2007). *Cooperative learning: Integrating theory and practice.* Los Angeles: Sage.

Glendon, K., & Ulrich, D. (1992). Using cooperative learning strategies. *Nurse Educator, 17,* 37–40.

Goodsell, A., Maher, M. & Tinto, V. (1992). *Collaborative Learning: A Sourcebook for Higher Education*. University Park, PA: National Center on Postsecondary Teaching, Learning, and Assessment.

Goodwin M.W. (1999). Cooperative Learning and Social Skills: What Skills to Teach and how to Teach Them. *Intervention in School and Clinic,* 35(1), 29-33.

Hake, R. R. Interactive-Engagement vs. Traditional Methods: A Six-Thousand-Student Survey of Mechanics Test Data for Introductory Physics Courses. *Am. J. Phys.* 1998, *66*, 64–74.

Johnson, D.W., Maruyama, G., Johnson, R., Nelson, D., & Skon, L. (1981). Effects of cooperative, competitive, and individualistic goal structures on achievement: A meta analysis. *Psychological Bulletin, 89*(1), 47–62.

Johnson, D. & Johnson, R. (2010). *Cooperative Learning Institute & Interaction group company*

Johnson, D., Johnson, R. & Houlbec, E. (2009). *Circles of learning* (6th ed.). Edina, Minnesota, *Interaction Book company*.

Johnson, D. W.; Johnson, R. T.; Smith, K. A. (1998). *Active Learning: Cooperation in the College Classroom*, (2nd ed.); Interaction Book: Edina, MN. s

Johnson, D.W., Johnson, R.T., & Smith, K.A. (1991). *Active learning: Cooperation in the college classroom.* Edina, MN: Interaction.

Lie, A. (2008). *Cooperative Learning: Changing Paradigms of College Teaching.*

New Horizons for Learning. (2005). *Cooperative Learning.* Retrieved from http://www.newhorizons.org/strategies/cooperative/front_cooperative.htm

Oakley, B.; Felder, R. M.; Brent, R.; and Elhajj, I. Turning Student Groups into Effective Teams. *J. Student Centered Learning* 2004*, 2*(1), 9–34.

Slavin, R.E. (1980). Cooperative learning. *Review of Educational Research, 50*(2), 315–342.

Slavin, R.E. (1983). When does cooperative learning increase student achievement? *Psychological Bulletin, 94*(3), 429–445.

Smith, K. A.; Sheppard, S. D.; Johnson, D. W.; Johnson, R. T. Pedagogies of engagement: Classroom-based practices. *J. Engr. Education* 2005*, 94*, 87-101.

Strom P. & Strom R. (2003, April). *Student evaluation of cooperative learning: The Interpersonal Intelligence Inventory*. Presentation to the Annual Meeting of the American Educational Research Association, Chicago, IL.

Terenzini, P. T.; Cabrera, A. F.; Colbeck, C. L.; Parente, J. M.; Bjorklund, S. A. Collaborative learning vs. lecture/discussion: Students' reported learning gains. *J. Engr. Education* 2001, *90*, 123-130

Terenzini, P.T., & Pascarella, E.T. (1994). Living with myths – undergraduate education in America. *Change, Jan./Feb.,* 28–32.

Towns, M. H.; Kreke, K.; Fields, A. An Action Research Project: Student Perspectives on Small-Group Learning in Chemistry. *J. Chem. Ed.* 2000, *77*, 111–115.

Williams, R. B. (2007). *Cooperative Learning: A Standard for High Achievement.* Thousand Oaks, CA: Corwin Press.

SOCIAL ADJUSTMENT PROBLEMS OF ADOLESCENT ORPHANS IN THE CLASSROOM

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Abstract

Present study aims to explore the social adjustment problems connected with adolescent orphans in the classroom. Investigator selected Lack of Co-operation, Feeling of Insecurity and Inferiority Complex as 3 variables and based on these constructed a tool namely Adolescent Orphans Adjustment Problems Inventory. The tool was standardized and distributed among 130 adolescent orphans in 10 orphanages in 5 districts of Kerala. It includes 65 adolescent orphan boys and girls from 66 rural adolescent orphans and 64 urban adolescent orphans. After the analysis and interpretation of data the investigator comes to the conclusion that both the rural and urban adolescent orphans have social adjustment problems in the classroom. The study revealed that adolescent orphan boys have more social adjustment problems than that of girls.

Keywords: *Social adjustment problems, lack of co-operation, feeling of insecurity, inferiority complex, adolescence, orphans*

Adolescence is a period of transition when the individual changes physically and psychologically from a child to an adult. This transition involves psychological, emotional, social and intellectual changes. The developmental changes that occur during adolescence cause varying degrees of disturbances in them. The period of transition leaves its mark on the individual's behaviour, as they feel unsure of themselves and insecure in their status and hence naturally they sometimes become aggressive, frustrated and withdrawn. It creates some adjustment problems in them. It is more serious in the case of adolescent orphans. A child who doesn't experience the warmth of love and sympathy of parents tends to develop certain adjustment problems. Such a child behaves indifferently and develops isolation, adjustment problems, anger and fear. When they come to a normal classroom setup it will reflect in their adjustment patterns. Present study is an attempt to find out the social adjustment problems of adolescent orphans in the classroom.

Need and Significance of the Study

Today even a normal person cannot adjust fully with the various life situations. The problem is very acute in the case of orphans especially adolescent orphans. Basic needs like individual care, attention, love, warmth, feeling of security, etc are not adequately met in an institutional set up. As a result they grow up with poor mental health and adjustment problems. Adolescent orphans in an institutional setup may not get individual attention, love, care, recognition, approval and sympathetic understanding. It causes so many problems in them. When they become mingled with normal non- orphan students in the classroom, so many conflicts will occur in their mind. It will lead them to have certain adjustment problems in the classroom. Personal experiences of the investigator while working as a teacher and the societal needs develop an interest in the investigator to study the classroom adjustment problems of the adolescent orphans.

Objectives

To find out social adjustment problems of adolescent orphans in the classroom. To compare the social adjustment problems of adolescent orphans in the classroom on the basis of the locality of the school. To compare the social adjustment problems of adolescent orphans in the classroom on the basis of gender.

Hypotheses

Adolescent orphans have social adjustment problems in the classroom. Adolescent orphans in the urban area have more social adjustment problems in the classroom than that of adolescent orphans in the rural area. Adolescent orphan boys have more social adjustment problems in the classroom than that of adolescent orphan girls.

Methodology

Considering the different aspects of the study, it was decided to adopt Normative Survey Method for the present study. It is the most commonly and widely used methods of descriptive research in behaviour sciences.

Tool

The tool used in the present study is Adolescent Orphans' Adjustment Problems Inventory. In order to establish the content validity of the tool, investigator conducted discussion with experts and after that the investigator decided social adjustment problems that are to be considered in the present study. These are Lack of Co-operation, Feeling of Insecurity and Inferiority Complex. Congruent validity of the items in the Adolescent Orphans' Adjustment Problems Inventory is established by calculating the Rank Correlation between the rank of 10 adolescent orphans that was find out through the scores obtained to them from the administration of the tool and the rank given by the teacher, who teaches them in the school, on the basis of their adjustment problems in the classroom. Split Half Method is used to find out the reliability of the inventory. The correlation (r) between the two sets of score was calculated as 0.64 and the reliability of the whole inventory (R) is 0.78. It was found out that the test is a reliable one.

The 21 statements in Adolescent Orphans' Adjustment Problems Inventory are prepared on the basis of the components of social adjustment problems. Seven statements are constructed for each component.

Sample

In the present study 130 adolescent orphans were selected from 10 orphanages in 5 districts of Kerala. It includes 65 adolescent orphan boys and girls from 66 rural adolescent orphans and 64 urban adolescent orphans.

Analysis and Interpretation

Hypothesis 1: Adolescent orphans have social adjustment problems in the classroom.

Table 1 - Statistical Measures of the Social Adjustment Problems of Adolescent Orphans in the Classroom

Sl. No.	Components of Social Adjustment Problem	Maximum Score for Each Component	Mean	Percentage of mean	S.D.
1	Lack of co-operation	35	16.94	48.4	3.93
2	Feeling of insecurity	35	22.47	64.2	4.93
3	Inferiority complex	35	22.74	64.97	4.57
Total		105	62.15	59.19	9.45

It can be concluded from the Table 1 that the mean score of social adjustment problems of adolescent orphans in the classroom is 62.15 which is 59.19% of the total score 105. It indicates that adolescent orphans in the classroom have social adjustment problems. The S.D. is 9.45. This indicates that the scores are not very much scattered from the mean. It can be interpreted that adolescent orphans have social adjustment problems in the classroom. Hence, the hypothesis (H1) is accepted.

Hypothesis 2 Adolescent orphans in the urban area have more social adjustment problems in the classroom than that of adolescent orphans in the rural area.

Table 2 - Test of Significance of the Scores of the Social Adjustment Problems of Adolescent Orphans in the Classroom on the Basis of Locality

Locality	Sample Size	Mean	S.D.	C.R.	Level of Significance
Rural	66	194.06	30.66	0.15	Not Significant
Urban	64	194.78	23.67		

Table 2 indicates that the critical ratio between the mean scores of the adolescent orphans in the rural and urban areas is 0.15. It is less than the table value (1.98) at 0.05 level. Hence, it is not significant. Therefore, it can be interpreted that there is no significant difference in the social adjustment problems of rural and urban adolescent orphans. By considering this, the hypothesis (H2) is rejected.

Hypothesis 3 Adolescent orphan boys have more social adjustment problems in the classroom than that of adolescent orphan girls.

Table 3 - Test of Significance of the Scores of the Social Adjustment Problems of Adolescent Orphans in the Classroom on the Basis of Gender

Gender	Sample Size	Mean	S.D.	C.R.	Level of Significance
Boys	65	199.91	25.83	2.34	0.05
Girls	65	188.88	27.90		

Table 3 indicates that the critical ratio between the mean scores of the adjustment problems of adolescent orphan boys and girls is 2.34. It is higher than the table value (1.98) at 0.05 level. So it is significant at 0.05 level. Hence there is significant difference in the social adjustment problems of adolescent orphan boys and girls at 0.05 level. Since the mean of adolescent orphan boys (199.91) is higher than that of adolescent orphan girls (188.88), it can be concluded that adolescent orphan boys have more social adjustment problem in the classroom. Hence, the hypothesis (H3) is accepted.

Conclusion

Orphans are socially isolated group. They have almost lost their self respect and experience strong inhibitions that prevent them from coming to the forefront of activities that get attention. From the above analysis and interpretation, it can be concluded that Adolescent orphans in the classroom face some social adjustment problems. They have least adjustment problem related to 'lack of co-operation' but suffering the 'feeling of insecurity' and 'inferiority complex'. Moreover there is no significant difference in the adjustment problems of rural and urban adolescent orphans in the classroom. Adolescent orphan boys have more adjustment problems in the classroom than that of girls. By utilizing the community resources and financial assistance of government, PTA etc the school authorities should organize various programs for the betterment of orphans. Let them make a drastic change in their make assumptions that they are unwanted social stigmas. On the other hand make them believe that they are equivalent like any other children and have the power and potentialities to touch the heights.

References

Alisauskas A, Simkiene G(2013). *Teachers' experiences in educating pupils having behavioural and / or emotional problems*. Spec Educ. 1(28):62–72

Allem, S. (1992).*Personality Disorder among University Students*. Journal of Indian Academy of Applied Psychology, 18, PP.79-81.

Alisauskas A, Simkiene G.(2013). *Teachers' experiences in educating pupils having behavioural and / or emotional problems*. Spec Educ;1(28):62–72.

Atilola O, Balhara YPS, Stevanovic D, Avicenna M, Kandemir H.(2013). *Self-reported mental health problems among adolescents in developing countries: results from an international pilot sample*. J DevBehavPediatr ;34:129–37.

Atilola O.(2015). *Cross-cultural child and adolescent psychiatry research in developing countries*. Global Ment Health. 2015;2.

Anita DG, Vohra AK, Subash S, Khurana H.(2003). *Prevalence of psychiatric morbidity among 6 to 14 yrs old children*. Indian J Community Med. 28:133–7.

Baral, B.N. (1969).*Some Factors of Social Adaptability amongst Students of Higher Secondary Grade of West Bengal*. Unpublished doctoral dissertation, university of Cal., Calcutta

Bongers IL, Koot HM, Ende J, Verhulst FC(2004). *Developmental trajectories of externalizing behaviors in childhood and adolescence*. Child Dev;75(5):1523–37

Dhillon, G. K. (1979). *A Comparative Study of the Personality Characteristics, Adjustment and Motivational Level of Non-Participant and Participant Children of Secondary Schools in Physical Activities*. Unpublished doctoral dissertation, Punjab University, Punjab.

Harland P, Reijneveld SA, Brugman E, Verloove-Vanhorick SP, Verhulst FC.(2002). *Family factors and life events as risk factors for behavioural and emotional problems in children*. Eur Child Adolesc Psychiatry ;11(4):176–84.

Kaplan SJ, Palcovitz D, Salzinger S(1998). *Physical abuse risks for adolescents of psychiatric disorders*. American Journal of Psychiatry.155(7):954–59.

Monck E, Graham P, Richman N(1994). *Adolescent girls: background factors in anxiety and depressive states*. Br J Psychiatry. 34(3):317–332.

Mcgiving, Jill. (2000). Kashmir's Orphaned Thousands. *Journal of South- Asia,* 9(2).PP 11-16.

Ojha SP, Jasmin M, Chapagain M, Tulachan P(2013). *Educational and Behavioural Problems among Sheltered Homeless Children. J* Nepal Med Assoc., 52(191):457–61.

Pandey, B.B. (1979). *A study of Adjustment Problems of Adolescent Boys of Deoria and their Educational Implications*. Unpublished doctoral dissertation, Gor. University, Gorakhpur.

Pathak R, Sharma RC, Parvan UC, Gupta BP, Ojha RK, Goel NK(2011). *Behavioural and emotional problems in school going adolescents*. Australasian Med J.: 4(1):15–21.

Patel V, Flisher AJ, Hetrick S, McGorry P.(2007). *Mental health of young people: a global public-health challenge*. Lancet ;369:1302–13013.

Raju, M.V.R. & Rahamtulla. (2007).*Adjustment Problems among School Children*. Journal of the Indian Academy of Applied Psychology, 33, PP.73-79.

Sarojini, S. (1971). *Personality Problems of Pupils of Age Group 8 to 16 years*. Unpublished doctoral dissertation, Madras University, Madras.

Sprah L. (2008).*Survey of domestic violence among young adolescents in Slovenia*. PsychiatrDanub ; 20:208–16.

Singh CG, Sodhi MK. (2012).*Impact of family conflict on the psychosocial behaviour in male adolescents*. J Nepal PaediatrSoc; 32:124–31.

Singh B, Udainaya R.(2009*). Self-efficacy and well-being of adolescents*. J Indian AcadApplPsychol ; 35:227–32.

Singh, R. (1975). *A Study of Creativity among Tenth Class Students in Relation to Their Adjustment and Sex*. Unpublished doctoral dissertation, Punjab University, Punjab.

Vijayalakshmi K, Kumar CV, Rajamanickm H, Cherian A.(2007). *Child rearing practices and psychological problems of children*. Nurs Midwife Res J ;3(2):49–56.

AN INVESTIGATION OF THE MAJOR CHALLENGES THAT ENCOUNTER SCIENCE AND MATHEMATICS STUDENT TEACHERS IN THE IMPLEMENTATION OF TEACHING PRACTICE EXERCISE IN MOROGORO MUNICIPALITY

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Abstract

This paper investigated the major challenges that encounter science and mathematics student teachers during the implementation of teaching practice exercise in Morogoro Municipality. Morogoro Teachers college, Lupanga practicing school and Morogoro secondary school were used in the data collection. Despite the experiences that science and mathematics student teachers enrich during teaching practice exercise, they also encounter some challenges which in one way or another can hamper their ability to derive maximum benefit in becoming effective and competent science and mathematics teachers through teaching practice exercise.The study employed qualitative approach with a case study design where Key informant interview, observation focus group discussion and documentary review were the main methods of data collection. The 34 respondents were purposively involved in data collection. Content analysis was used to analyze data thematically. The major challenges revealed by the study were the lack of raking of practicing schools and improper allocation of science and mathematics student teachers, improper time frame to start teaching practice, inadequate funds, lack of teaching and learning resources, lack of cooperation and support as well as lack of the involvement in extra co-curricular activities. The researcher recommend the Ministry of education, teachers' colleges and practicing secondary schools to be aware of the challenges that hamper science and mathematics student teachers to achieve their desired outcome that is to become effective and competent science and mathematics teachers through teaching practice exercise.

Keywords: *Teaching Practice, Challenges, Implementation, Science and Mathematics Student Teachers, Teachers' Colleges, Practicing Schools.*

Teaching Practice (TP) is a school experience or a practice component of becoming a teacher as it exposes student teachers in the actual teaching and learning environment (Perry, 2004). During teaching practice, a student teacher is given the opportunity to try the art of teaching before actually getting into the real world of the teaching profession (Kiggundu and Nayimuli 2009). Despite the experiences that science and mathematics student teachers enrich during teaching practice exercise, they also encounter some challenges which in one way or another can hamper their ability to derive maximum benefit from the teaching practice exercise (Foncha, Abongdia & Adu, 2015).

An understanding of the science and mathematics student teachers' challenges that they encounter during teaching practice, teacher training colleges can develop awareness of the challenges that induce a negative attitude towards teaching profession as they are real exposed to the working environment that they could work after graduation (Kabilan and Izzaham 2008). In this regard, it is needful for teacher training colleges in Tanzania to reconsider and review the ways of overcoming these challenges to the science and mathematics student teachers so as to enable them to achieve their desired outcomes in the teaching profession.

Major Challenges That Encounter Science and Mathematics Student Teachers during Implementation of the Teaching Practice Exercise

In this study the major challenges faced by science and mathematics student teachers in the implementation of teaching practice are explained by different scholars in different countries as follows hereunder.

Lack of laboratories in practicing schools, Daluba (2012) argued that the allocation of the student teacher is not fairly conducted as most of the science and mathematics teachers are allocated in the schools with no science laboratories hence it becomes difficult to learn and practice science practical. This makes them to end up with theoretical teaching during teaching practice that is contrary to what they are supposed to do in teaching and learning process. This is also supported by Christopher (2010) who conducted his study on teaching science in Tanzania and revealed that one of the challenges for science teachers is the lack of conducting science practical in schools due to the lack of laboratories in schools.

The improper time frame for attending teaching practice and duration to stay in the field, In case of time, it is like a tradition that the student teachers go to the teaching practice exercise at the same time for all colleges. This brings a scramble in the schools especially on how to accommodate them in the same school. The study conducted by Gujjar, Naoreen, Saifi & Bajwa (2010) in Pakistan revealed that 41.69 % of prospective teachers were assigned subjects which were not of their choices due to the large number of the student teachers who attended teaching practice at the same time. Also Azeem (2011) in Pakistan revealed that there was no proper planning for the teaching practice before its commencement, for example the orientation to teaching practice and the awareness to the student teachers on schools of their choices. In Tanzania the study conducted by Komba and Kira (2013) revealed that there was overcrowding of the student teachers in the practicing school due to the same period of teaching practice in all training colleges. These result to lack of the required load in teaching as the student teachers will scramble for the teaching periods. This has led to the student teachers to teach subjects which are not of their specialization.

In case of the time to stay in the teaching practice, Ranjan (2013) in India, Kiggundu and Nayimuli (2009) and Quick and Sieborger (2005) in South Africa revealed that there was no enough time for observing student teachers whether they had improved their teaching after getting first and second assessment as they needed to be seen several times for more improvement. Also they argued that time for the teaching practice is not enough to cover all skills in teaching, as during TP student teachers are doing two things as they have to plan the lesson and teach while they have assignments for the fulfilment of their academic qualifications. In Tanzania, Mahende and Mabula (2014) in their study revealed that majority of student teachers had a difficult in classroom management and organization, classroom control, student-teacher interaction, selection and effective use of teaching methods, useful and timely use of teaching materials and confidence. Hence, it was recommended that teaching practice should be changed to internship due to the shortage of time in practicing schools.

Lack of funds /resources to support teaching practice implementations. The study conducted in Pakistan on teaching practice by Azeem (2011) revealed that there was a shortage of working tools such as lesson plan books as well as teaching and learning materials due to the limited funds. The study conducted in Zimbabwe by Mapfumo, Chitsiko and Chireshe (2012) and in Tanzania by Kileo (2008); Komba and Kira (2013) on teaching practice revealed that during teaching practice there was problem of fund and which result to low allowance for student teachers which resulted to stay few days in the field.

Challenges in classroom activities and adaptation have also been pointed out by different scholars in their studies. The study conducted by Mau (1997) in Singapore revealed that during teaching practice exercise the student teachers were lacking varieties of classroom activities which can draw attention and motivate the learners in learning. The study conducted in Nigeria by Afe (2002) revealed that during teaching practice the attention was devoted to only teaching as if that is all there is to prepare teachers for the internship period. Other extra-curricular activities were not catered for and this makes the present approach in teaching practice to be very far from the ideal. The study conducted by Mbunda (1992) revealed that during teaching most of the student teachers in Tanzania were not creative in designing the classroom activities after teaching. The study conducted by Mahende and Mabula (2014) in Tanzania also revealed that most of student teachers lack the classroom interaction with students when teaching.

The other challenge that face science and mathematics teachers is the supervision part which might affect the intended outcome of the Teaching practice exercise. The study conducted by Mau (1997) in Singapore and in Tanzania by Komba and Kira (2013) revealed that during teaching practice exercise the supervisors were not flexible enough to guide, advise and discuss with the student teachers on the strengths and weaknesses revealed during the teaching. This is a problem as the student teachers need a constructive feedback on what went on in the classroom during teaching for example how they start the lesson, mastery of subject matter, how the objectives were stated and other skills observed by the supervisor that will improve their teaching. Apart from that supervisors lack the same orientation in the assessment during teaching practice (Yusuf & Ajidagba, 2010). In view of these Jekayinfa (2000) in Nigeria argued that irrespective of their occupational status supervisors should have the same orientation and similar disposition to matters bordering on teaching and learning. In additional to that, the study conducted by Jekayinfa, Yahaya, Yusuf, Ajidagba, Onyie, Oniyangi and Ibraheem (2012) in Nigeria revealed that most of the supervisors do not assess the subjects of their specialization which could be difficult to assess the subject matter knowledge of the student teachers especially for the ones specializing in science and mathematics.

Lack of support and cooperation from the practicing schools and teachers colleges is also a challenge facing science and mathematics teachers during practice. The study conducted by Mau (1997) in Singapore revealed that during teaching practice exercise there is very limited support and cooperation from the subject teachers in the practicing school to the student teachers. Similarly Ajayi (2007) and Okebukola (2007) in Nigeria as well as Ranjan (2013) in India revealed that during teaching practice there is inadequate cooperation both from the practicing schools management and the teacher training institutions themselves. In Tanzania Mahende and Mabula (2014) and Mchomvu (2004) observed that during teaching practice most of subject and class teachers do not cooperate with the student teachers as well as the training institutions. These suggested that there is a need for strengthening the teaching practice exercise specifically the collaboration between training institution teaching practice office and the practicing schools so as to minimize the challenges emanating from miscommunication during the teaching practice exercise.

Different literatures by different scholars in different countries have tried to explain the challenges that face student teachers during the implementation of teaching practice exercise in general. No particular study has been conducted specific for the science and mathematics student teachers to investigate the major challenges that encounter science and mathematics student teachers during the implementation of teaching practice in Morogoro Municipality. Therefore this study aimed to fill the gap.

General and Specific Objectives

The general purpose of this study was to investigate the major challenges that encounter science and mathematics student teachers in the implementation of teaching practice exercise. Specifically the study intended to investigate the major challenges that encounter science and mathematics student teachers in the implementation of teaching practice exercise in Morogoro Municipality. The specific objective followed by the key research question hereunder as follows.

What are the major challenges that science and mathematics student teachers encounter in the implementation of teaching practice exercise in Morogoro Municipality?

Methodology

Study Area: This study was conducted at Morogoro Municipality where Morogoro teachers' college, Lupanga practicing school and Morogoro secondary school were obtained through simple random sampling. Two heads of secondary schools, eight science and mathematics tutors and twenty four science and mathematics student teachers were purposively selected.

Research Design and Data Collection: The study employed a qualitative research approach with a case study design. Qualitative data on the major challenges that encounter science and mathematics student teachers during the implementation of teaching practice in Morogoro Municipality were collected by using key informant interviews, documentary review, observation and the focus group discussion.

Data Analysis: Data were analysed through content analysis. In depth descriptions of specific themes based on research objective and its related question was provided as most of the data were in form of words.

Results and Discussions

The study investigated the major challenges that encounter science and mathematics student teachers during the implementation of teaching practice in Morogoro Municipality. The major challenges revealed during teaching practices by science and mathematics student teachers were presented and discussed in details hereunder as follows.

Lack of Raking of Practicing Schools and Improper Allocation of Science and Mathematics Student Teachers: The allocation of student teachers in schools at Morogoro municipality is done haphazardly due to the lack of information from the practicing schools. The lack of information from teachers colleges to the practicing schools is because raking of schools is not conducted prior to teaching practice in order to see which schools will be fit for science and mathematics students for example the schools with science laboratories. Interviews with the heads of schools revealed that the coordinators from the teachers college do not conduct the raking always before the teaching practice so that the heads of schools can inform them of their requirements. They just use the previous information to send their student teachers which always results to overcrowding of student teachers, miscommunication and lack of shelter as there is no space in the staffroom and hence have to stay outside the school premises due to poor organization. In insisting on this, one head of the practising school said:

"...they have to inform us first that they will bring their student teachers because nowadays there are many colleges brings the student teachers at the same time, so we have to give them the limited number of student teachers that we can accommodate and mentor them in our school ..."

The quote implies that raking has to be conducted properly to give the TP coordinator a clear picture of the schools with science laboratories and that with no laboratories, these will make the heads of schools and heads of departments to prepare and receive well the student teachers. These findings are in line with the finding of Ranjan (2013) who conducted the study in India and revealed that there is always no good communication between the practicing school and the training colleges which always affects the performance of the student teachers in their TP as the school management and the staffs reject to be with them in their practices as they were not informed prior to teaching practice.

Improper Time Frame to Start Teaching Practice: During focus group discussion with science and mathematics student teachers, it was revealed that the time they used to go for their teaching practice is not appropriate as they go at the end of March something which make them to miss the best part of the school timetable and end up meeting with students doing their midterm tests, and ready to start midterm break and Easter holidays. This reduces the number of days for teaching practice that are practically reduced to three and half weeks from the planned eight weeks according to the teaching practice framework. Due to this the student teachers do not get enough time to practice teaching skills related to what they learnt in the college so as to improve their teaching profession. Therefore, it can be said that there is no proportionality between theory learnt in the college and practice in the practicing schools due to few days that the student teachers have to stay in the schools during TP. Hence student teachers do not get enough time to practice science and mathematics teaching skills toward becoming competent in teaching science and mathematics. These findings are also supported by the documentary review of the teaching practice report of 2015 which argued that the teaching practice starts very late due to the late provision of funds by the Ministry of education which affects the whole planning process of conducting TP violating the timetable of both teachers colleges and practicing schools.

Inadequate Funds to Science and Mathematics Student Teachers: Science and mathematics student teachers get low funds to support them during TP something which lead to meagre allowances allocated in terms of transport, per diems and sometimes the students are given half of the amount on the start of TP with the pretence that they would be given the other half when the rest of the funds arrive. The remaining allowances are provided but not on time which demoralizes the student teachers during TP due to life difficulties when waiting for it.

During documentary review, the teaching practice report of 2015 also revealed that the allowances did not reach the student teachers on time which is one of the factors that has lowered the efficiency in teaching as student teachers are demoralized. Also the findings are in line with the findings of Kileo (2008) and Komba and Kira (2013) in their studies in Tanzania who revealed that the funds are always very low to support teaching practice exercise.

Lack of Teaching and Learning Resources in the Practicing Schools: During the interviews with tutors and the focus groups discussions with student teachers both categories indicated that in the teaching practice there were no teaching and learning resources especially for science student teachers such as laboratories to practice science skills and other materials such manila sheet and models. It could be better if these student teachers were creative enough to improvise local teaching and learning resources. These findings are in line with what Christopher (2010) in Tanzania who found out that one of the challenges in conducting science practical is the lack of laboratories in schools and the change of the curriculum/examinations in having alternative to practical rather than having real practical. Also the findings are in line with those of Mapfumo *et al*., (2012) who conducted the study in Zimbabwe and revealed that there was shortage of teaching and learning facilities in the practicing schools during teaching practice

Lack of Cooperation and Support in the Practicing Schools: During interview with tutors, it was revealed that student teachers in the practicing schools do not get any cooperation and support from the school teachers as they just give all periods to student teachers and leave them without mentoring. Focus group discussions and the researchers observation of the student teachers during teaching practice revealed that there were very poor support and cooperation from the host teachers as the student teachers were given periods to teach by subject teachers and left assuming that they were capable to teach like experienced teachers. These findings concur with those of Mau (1997) who conducted the study in Singapore and revealed that during teaching practice exercise there was very limited support and cooperation from the subject teachers and heads of departments in the practicing school to the student teachers.

Lack of Involvement into Other Co-curricular Activities during Teaching Practice Exercise: The failure of the student to engage in other co-curricular activities during TP seems to be a challenge facing them as it is part and parcel of the teaching practice. Tutors' interview and student teachers' focus group discussions revealed that they did not involve into the other activities apart from classroom teaching as they were not involved by the school management. During observations the researcher did not see the student teachers involving themselves in extra-curricular activities such as being teacher on duty, counselling of student and involving in sports and games.

Conclusion and Recommendations

The teaching practice exercise for science and mathematics student teachers at Morogoro Municipality seemed to have a lot of challenges that hampered them to achieve the desired outcome during teaching practice exercise in the practicing secondary schools. The researcher recommends that the Ministry of education should allocate enough funds for the teaching practice exercise and on time to facilitate the exercise as well as allocating proper time frame for the teaching practice exercise. On top of that the teachers' college should conduct raking very early so as to identify the schools that will fit science and mathematics students for the practice and lastly the practicing schools should provide support and cooperation to the student teachers as well as involving them in different activities during teaching practice exercise. Lastly the science and mathematics tutors and the student teachers should be creative enough to construct teaching and learning resources in the difficult environment (Improvisation).

References

Afe, J.O. (2002). *Reflections on becoming a teacher and the challenges of teacher education*. University of Benin Inaugural Lecture in NUC 2002. Nigeria Universities Inaugural Lecture Series Abuja: NUC pp/305-327.

Ajayi, K. (2007). Emergent Issues in Teacher Education and Professionalization of Teaching in Nigeria. *African Journal of Historical Sciences in Education, 3*(1), 5-25.

Azeem, M. (2011).Problem of prospective teachers during teaching practice. *Academic Research International, 1*(2), 308-316.

Christopher, V. (2010).*The teaching of science in primary schools: Its relevance and application to pupils' lives in Tanzania. A case study of Kinondoni District.* Unpublished Masters of Education (Science Education) Dissertation, University of Dar es Salaam, Tanzania.

Daluba, N.E. (2012). Evaluation of resource availability for teaching science insecondary schools: Implications for Vision 20:2020.*Journal of Emerging Trends in Educational Research and Policy Studies, 3*(3), 363-367.

Foncha, J. W , Abongdia, J. F & Adu, E.O (2015). Challenges encountered by student teachers in teaching english language during teaching practice. *Int J Edu Sci, 9(2),* 127-134.

Gujjar, A.A., Naoreen, B., Saifi, S., & Bajwa, J.M. (2010).Teaching practice: Problems and Issues in Pakistan. *International Online Journal of Educational Sciences, 2*(2), 339-361.

Jekayinfa, A.A. (2000). *The essence of lesson presentation in teaching practice*. Nigeria: Ilorin Haytee and Publishing Co. Ltd.

Jekayinfa, A.A., Yahaya L.A., Yusuph, A., Ajidagba, U.A., Onie, A.O., Oniyangi, S.O., &Ibraheem, T.O. (2012).Lecturers' assessment of teaching practice exercise in Nigerian universities. *Journal of Education and Practice, 3*(4), 79-85.

Kabilan M. K, & Izzaham R.I. R,(2008). Challenges faced and the strategies adopted by a Malaysian English language teacher during teaching practice. *English LanguageTeaching* 1(1), 87-95.

Kiggundu E., &Nayimuli, S. (2009). Teaching practice: A make or break phase for student teachers. *South African Journal of Education*, *29*(3), 345-358.

Kileo, O.I. (2008). *The quality of teacher preparation for teaching in primary schools*. Unpublished M.A. Dissertation, University of Dar es Salaam, Tanzania.

Komba, S.C., & Kira E.S. (2013). The effectiveness of Teaching practice in improving student teachers' teaching skills in Tanzania. *Journal of Education Practice, 4(*1*),* 157-163.

Mahende, G.A.,& Mabula, N. (2014).Is teaching practice for grading or improvement? Examining student teachers' perception and experience at the University of Dar es Salaam, Tanzania. *African Education Research Journal, 2*(1), 1-11.

Mapfumo, J.S., Natsirayi. C. N.,& Chireshe, R. (2012).Teaching practice generated stressors and coping mechanisms among student teachers in Zimbabwe, *South African Journal of Education, 32*(2*)*, 155-166.

Mau, R. (1997). Concerns of student teachers: Implication of improving practicum. *AsiaPacific Journal of Teacher Education, 25*(1*)*, 55-65.

Mbunda, P. (1992). *Teachingpractice report.* University of Dar es Salaam.

Mchomvu, I.J. (2004). *Student teachers' perception on the value of teaching practice at the University of Dar es Salaam*. Unpublished Masters of Arts in Education Dissertation, University of Dar es Salaam, Tanzania.

Okebukola, P. (2007). Innovation and best practice teacher education in Nigeria. A lead paper presented at the 1st International Conference on Teacher Education, Faculty of Education, University of Lagos, 25thJune, 2007.

Perry, R (2004). Teaching practice for early childhood: A guide for students. From< http://www. Routledge. com catalogues./0418114838.pdf.>.

Quick, G., & Sieborger, R. (2005). What matters in practice teaching? The perceptions of schools and students. *South African Journal of Education, 25*(1*)*, 1–4.

Ranjan, R. (2013). A study of practice teaching programme: A transitional phase for student teachers. *Voice of Research, 1(*4), 24-28.

Yusuf, A., & Ajidagba, U.A. (2010).Stakeholders' assessment of Millennium Development Goals (MDGs) capacity building of basic school teachers for the implementation of universal basic education in Nigeria. *African Journal of Historical Sciences in Education, 6* (2)*,* 80-91.

CONCEPT MAPPING: AN INNOVATIVE EDUCATIONAL TOOL

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Abstract

Today Concept map is one of the popular techniques which can be used as educational tool. In this paper the researcher reports the use of concept map in education. In the study researcher selected 80 students randomly of class XI C.B.S.E. randomly, two groups has been formed by the researcher and each group consists 40 students and labelled as Control group and experimental group. Students in the experimental group were subjected to treatment using Concept maps while students in the control group were taught using the traditional method of teaching for Biology. Pre-test and Post-test for both the groups was conducted. The data was analysed using t test. Result revealed that the score of mean and standard deviation of post-test of experimental group is more than the score of mean and standard deviation of post-test of control group and there is a statistical significant effect of concept map over traditional teaching method on academic achievement of students.

Keywords: *Concept Map, Traditional Teaching, Academic achievement, Biology*

Concept maps were first introduced by Novak as a researcher tool. They are also geographical tools for organizing and representing knowledge. Concept maps include concepts usually enclosed in circles or boxes of some type and relationship between concepts indicated by a connecting line linking two words on the line. It also referred as linking words or linking phrases that specify the relationship between the two concepts.

Meaning: A concept map is a diagram of nodes, each containing concept labels which are linked together with directional lines. The concept nodes are arranged in hierarchical levels that move from general to specific concepts. Concept map is not only visual tool for organizing ideas but also a method to trigger quick association.It is also a nonlinear approach and a way to investigate the aspects of a multifaceted topic.The biology concept maps drawn at the conclusion of instructional units to elicit further collaboration with school students. Concept map is one of the effective methods of assessing student knowledge, comprehension, synthesis and evaluation. Concept maps stresses key areas of scientific thinking that influencestudent's ability to solve problems scientifically.Concept map helps learner to learn , researcher to create knowledge, writer to write and evaluator to assess learning and also scientific thinking, reasoning and effective communication which are more desirable skills to succeed in biology learning.

Steps:*Prepare Project:*The first step is preparation step where one will initiate and focussed on the project , issue or topic.Focus on participant and make a schedule.*Generate ideas:*The second step is to generate the statements that explain all activities that address the focussed topic or issue.*Structure ideas:*The third step is including two steps where one will sort out the similar statements and piled up them and name them with their description. Each statement is rated on 1-5 scale.*Compute maps:*In this step the sorted and rating inputs are represented in the map form. Two major statistical analyses are used, the first is multidimensional scaling that takes the sort data across all participants and develops the basic map where each statement is a point on the map and statements that were piled together by more people are closer to each other on the map. The second analysis is cluster analysis that takes the output of the multidimensional scaling and partitions the map into groups of statements or ideas, into clusters.*Interpret maps:*This is fifth step in which one will interpret the various maps.*Utilize Maps:*The sixth and last step is utilize map where one can address the original focus. With the help of using maps.The maps not only used as a visual framework for operationalizing the program. But also used as the basis for developing measures and displaying results.The concept maps not only help the individual but also help the certain group of people to learn the various skill and techniques. It also helps the students to understand biology subject in depth and in easy way.Concept maps make the biology topics more interesting, clear and easily understandable.

Advantages: It helps to organize information on a topic effectively.It fascinates meaningful learning.It allows to indicate clearly the relative importance of each idea.It is an active evaluation.It can be used in a large class setting either individually or collaboratively, by giving the students a partially filled concept map, or a few concepts to fill on the maps.

Disadvantages of Concept Map Assessment: Students are not familiar with concept mapping evaluation and may find it scary.Concept mapping issued either as a quick evaluation in class to check students' conception on a topic or as an overview of an evaluation, this may frustrates some students.Individual feedback can be time-consuming, clear assessment criteria and grading are required for all parties so that students and assessors are fully aware of how the performance will be judged.

Objectives: To develop concept maps for teaching biology subject for class XI C.B.S.E board.To study the effectiveness of concept maps in terms of achievement in biology subject of class XI. To compare the academic achievement of students studying through concept map & traditional method for teaching biology

Hypothesis: There will be no significant effect of concept maps in terms of academic achievement of students.There will be no significant difference between the academic achievement of students studying through concept map and traditional method for teaching Biology.

Research Design: For the present study sample of 80 students was drawn from XI grade students from two schools at Nagpur city of Maharashtra state, India Both the schools were affiliated to Central Board of Secondary Education, New Delhi. In the study two tools are used as such Self developed test and Concept maps. In self developed test, researcher asked objective questions to the students of class XI.Researcher made test of 20 marks from the topics. In the test each question had four options & child had to tick the correct answer. In concept maps, researcher shown the topics in the form of diagrammatic representation to the students.Researcher selects a topic and identifies related keywords or phrases. Rank the keywords from the theme on paragraphs and arranged concept in diagrammatic representation and added linking lines.

Data Collection & Analysis: In present study the sample was selected using purposive random sampling technique Pre-test- Post-test Control group design was employed. The subjects were assigned to the experimental & control group by random procedure. The self-developed criterion reference test was used as pre and post-test to know the achievement of both the group. The control group was taught through traditional method of teaching whereas experimental group was taught using concept map. After completion of unit the same criterion reference test was administered as post-test.The t-test was used to test the significance of the difference between two means scores of the students on criterion reference test for achievement

Table 1 - t-test analysis of the performance of students of Experimental group

Group	Test	Number of students	Mean	Standard deviation	T value
Experimental Group	Pre test	40	7.325	2.73	8.89
	Post test	40	14.65	3.07	

Table 2 - The performance of students of control and experimental group on post test

Group	Test	Number of students	Mean	Standard deviation	T value
Control Group	Post test	40	8.95	2.78	6.77
Experimental Group	Post test	40	14.65	3.07	

The Table no 2 indicates that mean value mean of Post-test of control group is 8.95 and experimental group is 14.65. The calculated value of „t is 6.77 is significant at .01 level and .05 level. The student of the experimental group achieved more score at Post-test than control group. The comparison between groups revealed that the performance of Experimental group was better than that of Control group. Hence it proves the effectiveness of concept map in terms of achievement.

Conclusion: The concept mapping method for teaching biology to the students of class XI has proved more effective on the achievement of students. The develop concept mapping for teaching biology subject for class XI has proved more effective. Post-test proves more effective that the pre-test of experimental group. The result also revealed that the post test score of experimental group is also more than the post test score of control group which proved that concept mapping techniques is more effective than the traditional method in teaching biology to class XI of C.B.S.E board.

References

Anderson-Inman, L., Ditson, L. A., &Ditson, M. T. (1998, June). Computer-based concept mapping: Promoting meaningful learning in science for students with disabilities. *Information Technology and Disabilities, 5*(1–2). Retrieved September 6, 2005, from http://www.rit.edu/~easi/itd/itdv5n12/article2.htm

Kight, K. S. (1998). *Using Inspiration to organize reading and writing*. Retrieved September 6, 2005, from http://www.strategictransitions.com/ldarticle.htm

Novak, J. D. (n.d.). The theory underlying concept maps and how to construct them. Retrieved September 6, 2005, from http://cmap.coginst.uwf.edu/info/printer.html

O'Neil, H., Jr., &Schacter, J. (1997). Test specifications for problem-solving assessment. *CSE Technical Report 463*. Los Angeles, CA: National Center for Research on Evaluation, Standards, and Student Testing. Retrieved September 6, 2005, from http://www.cse.ucla.edu/CRESST/Reports/TECH463.PDF

Pellegrino, J. W., Naomi Chudowsky, N., & Glaser, R. (Eds.). (2001). *Knowing what students know: The science and design of educational assessment*. Committee on the Foundations of Assessment, Board on Testing and Assessment, Center for Education, National Research Council. Washington, DC: National Academy Press. Retrieved on September 6, 2005, from http://www.nap.edu/books/0309072727/html/

Plotnick, E. (1997, June). Concept mapping: A graphical system for understanding the relationship between concepts. ERIC Digest. Syracuse , NY : ERIC Clearinghouse on Information and Technology. (ERIC Document Reproduction Service No. ED407938). Retrieved September 6, 2005, from http://www.ericdigests.org/1998-1/concept.htm

EFFECTS OF YOGA ON CARDIAC HEALTH SLEEP QUALITY, MENTAL HEALTH AND QUALITY OF LIFE OF ELDERLY INDIVIDUALS WITH CHRONIC AILMENTS: A SINGLE ARM PILOT STUDY

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Abstract

There is a high prevalence of chronic health problems in elderly persons which significantly affects their mental health, sleep quality and quality of life (QoL). Practice of yoga known to enhance physical and mental health. Present pilot study intended to evaluate the effects of Integrated Yoga (IY) practice on sleep quality, mental health and QoL of elderly individuals suffering from chronic health condition(s). Twenty-eight elderly persons residents of Bangalore, India (13 males) within the age range 65-80 years (with group mean±SD; 68.8±5.4 yrs) having chronic health problem(s) underwent 1 month of IY, 60 minutes/day for 6 days/week. We excluded the subjects if they; had compromised cardiac functioning; were on sleep medication; underwent abdominal surgery; were on anti-psychotic medications; had exposure to any form of yoga in past one year. All the subjects were assessed for cardiac variables, mental health parameters, sleep quality and quality of life at baseline after one month. It was observed a significant decrease in pulse rate (p<.001), respiratory rate (p<.001), Systolic BP (p=.001), Diastolic BP (P<.001), perceived stress (p<.001), fasting sugar (p<.001, -11.97%), anxiety (p<.001), depression, (p<.001), along with significant improvements in sleep quality (p<.001) and quality of life (p<.002) after one month of IY intervention compared to baseline.

***Keywords**: Elderly, Yoga, Quality of life, Sleep, Anxiety, Depression*

Ageing is a natural and unavoidable part every living being which is characterized by variety of physical and mental changes. Evidences reported that approximately more than 88% of elderly people suffer from one or more chronic health problems (Hoffman et al, 1996). In a survey report 82% of elderly had one or more chronic health problems and 65% had multiple health problems (Wolff et al, 2002). Osteoarthritis, diabetes, Parkinson's disease, stroke, musculoskeletal disorders, cardiovascular disorders, dementia, etc. are the most common chronic problems reported by elderly (Cathleen et al, 2006; Nanette et al, 1992). Chronic health problems in elderly, often affects the physical, mental, and social life of elderly. It is evident that chronic problem in elderly are strongly associated with to poor sleep quality, impairment of mental health and reduced QoL (Foley, et al, 2004). Presence of chronic health problems in elderly, make them more dependent on care givers; feel lonely, and depressed. Several cross-sectional studies have shown that 9-23% of elderly people having a chronic disorder suffer from depressive disorders (Felton, et al, 2010). Suicide rate among the elderly is almost double compared to general population and 80% of the suicidal cases in elderly known to have depressive syndromes (Conwell et al, 1996). There is strong association of ageing with sleep problems (Haimov et al, 1994). Sleep problem includes the symptoms such as difficulty in falling asleep; waking up; awaking too early; needing to nap; and not feeling rested. A longitudinal study among 9000 elderly persons after three years of follow up, reported a more than 50% of elderly subjects had at least one of the symptoms of sleep problem frequently (Foley et al, 1995). Chronic health problem is considered to be one of the contributing factors for sleep problems in elderly (Foley, 1995). A Longitudinal study has reported the association of sleep problem and increased mortality rate among elderly persons (Pollak et al, 1990).

Yoga

Yoga is a form of mind-body intervention and a popular alternative and complementary therapy. Scientific evidence recommends the yoga practice in several physical and mental health conditions (Lin et al, 2011). Several scientific investigations have shown the effectiveness of yoga improving sleep quality (Chen 2009), quality of life (Mareles et al, 2006) and mental health (Bussing, 2012) in various chronic health conditions. Yoga practice shown to be effective in enhancing QoL in several chronic health conditions such as breast cancer, osteoarthritis, chronic low back pain etc. the Yoga is one among the most ancient sciences (Telles, and Naveen, 1997). Practice of yoga by persons suffering from chronic disease shown to improve symptoms and disease progression in many diseases like diabetes, hypertension, Parkinson's disease, multiple sclerosis etc (Alijasir et al, 2010). There are evidences for usefulness of yoga practice in elderly individuals. A randomized controlled trial study showed significant improvement in QoL following three months of yoga intervention in healthy elderly living in old age homes. It improves cardiac autonomic function, cardio respiratory fitness, nerve conduction, and it also improves cognitive functions and psychological health (Tran MD et al, 2001). A significant number of scientific studies proved the safety and efficacy of yoga in an elderly population (Hariprasad et al, 2013). It is proved to be effective in physical, physiological and psychological domains in an elderly population (Gonçalves LC et al, 2011). To the best of our knowledge no previous studies have looked into effects of yoga on mental health, sleep quality and quality of life in elderly with chronic health problems. With this background, this pilot study was planned to see the impact of one yoga practice on physiological parameters, psychological health, sleep and quality of life of elderly people.

Methodology

Participants: We screened 50 elderly persons within age group between 60-80 years, who were residents of local community apartments of south Bangalore, India for study criteria.

Inclusion criteria and exclusion criteria: We selected the elderly persons; of any gender; within the age range 60 to 80 years; who did not had exposure to any form of yoga practice in the last one year; who had at least one chronic health condition.

We excluded the subjects if they had; history of recent surgery; any kind psychiatric problems; compromised cardiac functioning; been on psychotic medication or sleep medication.

Procedure: We followed convenient sampling method. Advertisement was carried out through newspapers and flyers in different local nearby apartments in south Bangalore, India. 35 subjects fulfilled eligible criteria among these 4 declined for participation and 3 discounted in the middle of study due to some personal reasons. Finally Twenty-eight elderly (13 males; group average age±SD= 68.8±5.4 yrs) completed the study successfully.

Outcome measures: All the following variables were done at baseline and after one month of yoga intervention.

Cardiac variables- Systolic BP, diastolic BP, heart rate (using Omran BP monitoring system), Fasting blood glucose level using *Gluconorm* glucometer

Psychological variables - Anxiety and depression (using Hopsital Anxiety Depression Scale-HADS), Perceived stress (using Cohen's Perceived stress Scale-PSS), Quality of life - Using Quality of life and Life satisfaction scale, Sleep quality (using Pittsburg sleep quality index)

Assessment tools: - Hospital Anxiety Depression Scale (HADS)-Hospital Anxiety Depression Scale Questionnaire: Depressive and anxiety symptoms were measured using this questionnaire. HADS Questionnaire has 14 items, seven items related to anxiety symptoms and seven item related to depressive symptoms. A score greater than or equal to 11 shows that the subjects have a significant number of symptoms of anxiety or depression corresponding to confirm cases (Straat et al, 2013). Perceived stress- Cohen's perceived stress scale (CPSS) (Cohen et al, 1983). It is one of the most frequently used tools for measuring psychological stress. It is a self-reported questionnaire that was designed to measure "the degree to which individuals appraise situations in their lives as stressful" (Rao et al, 2017). Sleep quality- Sleep quality was assessed using Pittsburg sleep quality index. Pittsburg sleep quality index: is an effective instrument useful for measuring subjective sleep quality and sleep disturbances in older people. A score of five and above indicated clinically significant sleep disturbances. Numerous studies using the PSQI in a variety of the older adult population internationally have supported high validity and reliability (Carole et al, 2012). Quality of Life Quality of Life Enjoyment and Satisfaction Questionnaire- This is one of the most widely used instruments to assess psychological distress. The Q-LES-Q is a self-report instrument designed to measure satisfaction and enjoyment in various domains of functions like physical health, work, household duties etc. (Lee et al., 2014).

Intervention: All the subjects underwent one month of yoga practice (detailed in table 1). The practices included in the module were chosen from the interventions in previous studies. Daily Yoga session was consisted of loosening practices, yoga postures-asanas breathing practices-pranayama, yogic relaxation techniques and meditation-dhyana. Yoga session was total 60 minutes every day from 6am -7am, 6 days a week for 1 month.

Analysis: Scoring of all self reported questionnaires were done following the instructions mentioned in the manual of the respective questionnaire. Data was analyzed using SPSS version 10. Paired sample t test and Wilcoxon's signed rank test were used assess prepost changes.

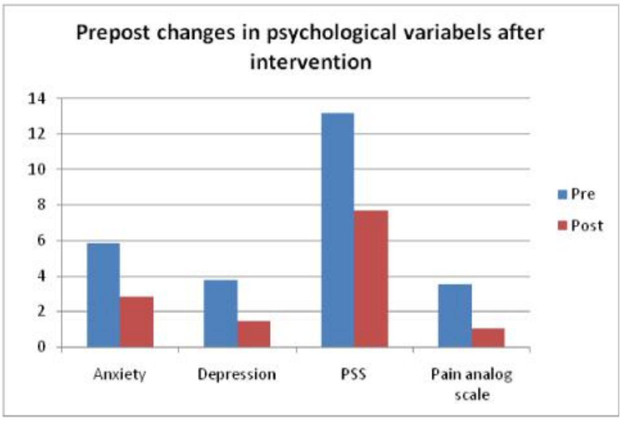
Results: Cardiac variables: There was significant decrease in pulse rate (p<.001-6.44%), respiratory rate from (p<.001,-19.23%), Systolic BP (p<.001, -8.57%), Diastolic BP (p<.001,-6.58%), Fasting Sugar (p<.001,-11.97%) in post intervention assessments compared to baseline.

Psychological variables : We observed a significant reduction in perceived Stress (p<.001,-41.73%), anxiety (p<.001,-51.83%), depression (p<.001,-60.95%), along with a significant improvement in sleep quality (p<.001,-55.56%), QoL (p<0.001, 14.96), life satisfaction (p=.002, 11.30%) in post intervention compared to baseline.

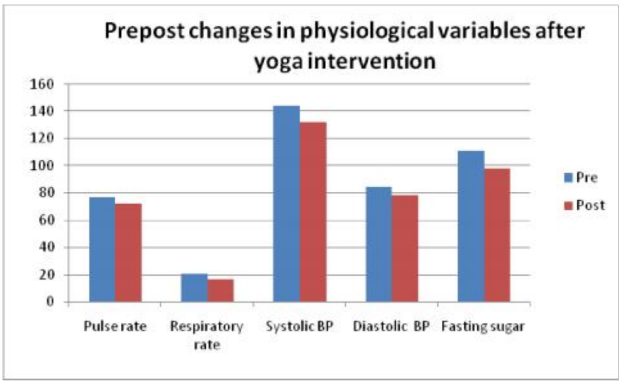
Table1 - Shows Pre-post changes in all variables after one month of yoga practice

SL No	Variables	Pre [Mean ± SD]	Post [Mean ± SD]	% Change	df	P values
1	Pulse rate	77.11 ±7.05	72.14 ± 6.20	-6.44	27	<.001**a
2	Respiratory rate	20.43 ± 4.26	16.50 ± 4.56	-19.23	27	<.001**a
4	Systolic BP	144.18 ± 19.49	131.82 ± 17.35	-8.57	27	=0.001*a
5	Diastolic BP	84. 07 ± 9.97	78.54 ± 7.98	-6.58	27	<.001**a
6	Fasting sugar	111.04 ± 19.45	97.75 ± 14.09	-11.97	27	<.001**b
7	Anxiety	5.86 ± 3.76	2.82 ± 2.40	-51.83	27	<.001**b
8	Depression	3.75 ± 3.38	1.46 ± 1.53	-60.95	27	<.001**b
9	Sleep quality index	6.43 ± 3.66	2.86 ± 1.86	-55.56	27	<.001**b
10	PSS	13.18 ± 5.19	7.68 ± 3.79	-41.73	27	<.001**a
11	Pain analog scale	3.50 ± 3.11	1.07 ± 1.49	-69.39	27	<.001**b
12	Quality of life	73.54± 10.54	84.54 ± 8.78	14.96	27	<.001**a
14	Satisfaction scores	4.11± 0.74	4.57± 0.50	11.30	27	=.002*b

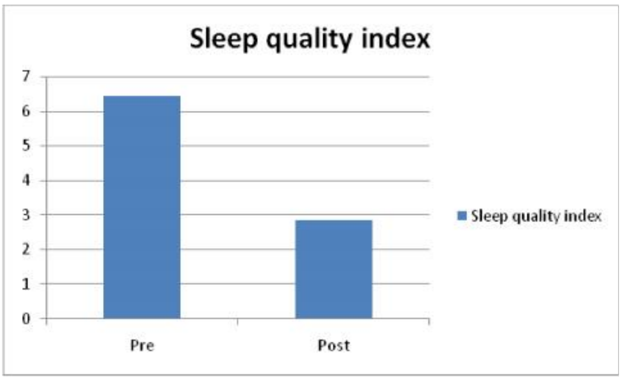
Graph 1 - Pre-post changes in all physiological variables after one month of yoga practice



Graph 2 - Pre-post changes in all psychological variables after one month of yoga practice



Graph 3 - Pre-post changes in all sleep quality after one month of yoga practice



Discussion: This study intended to evaluate the effect of one month yoga practice on cardiac variables, sleep quality, mental health and QoL of elderly persons suffering from chronic health problems. We observed a significant improvement in cardio-respiratory fitness parameters (by improved heart rate, systolic BP, diastolic BP and respiratory rate), mental health (reduction in perceived stress, anxiety and depression), sleep quality (by Pittsburgh's sleep quality Index- PSQI) and QoL after one month of yoga intervention compared to baseline. These results are supported by various earlier studies done in the same population. Previously a study by Bowmen (1997)[1] assessed effect of 6 weeks of yoga training on heart rate and blood pressure in healthy elderly people. There was a significant decrease in heart rate and no significant change was reported in systolic blood pressure. In the present study we observed significant decrease in heart and systolic and diastolic BP following 4 weeks of yoga intervention this difference in the results of these two studies could be difference in the forms of yoga. Another study by Kuei-Min Chen (2009), studied the effects of six months silver yoga practice on sleep quality, depression, and self-perception of health status of 62 community dwelling elderly and compared it with control group (n=62). This study reported a significant improvement in mental health components, sleep quality and quality of life. Similarly, results of our study are in supports of previous study results. However duration and form of yoga, used and subjects in both the study are different. In our study we found significant improvement in one month of integrated yoga intervention however our study was single group prepost design. In randomized controlled trial by Hariprasad (2013) assessed the effect of six month yoga intervention on sleep quality and QoL in elderly people living in old age homes. In this study significant improvement in sleep quality and environmental domain of QoL was observed in yoga group and no improvement was noticed in control group. Similarly in results of present study is supported by previous study (Hariprasad et al, 2013). However subjects in our study were elderly persons had chronic health problems and were living with their family also duration of the yoga intervention was one month, whereas in previous study (Hariprasad et al, 2013) elderly persons were health subjects, living in old-age homes and duration of yoga intervention was six month. Our study reported a significant improvement in sleep and QoL even with such short term intervention as compared to previous study (Hariprasad et al, 2013) the reason could be subjects with type of yoga practice and subjects with chronic health problems are more sensitive to such interventions compared to control group. Goncalvas (2011) assessed effect of 14 weeks yoga intervention (twice weekly) on flexibility and QoL these results support the findings of the resent study. This study reported significant improvement QoL. In the present study we also found significant improvement in QoL following one month yoga intervention. Previously, Manjunath and Telles, 2005, assessed the effects of yoga and Ayurveda combined therapy on sleep quality and quality of life in geriatric population in this they found significant improvement in sleep quality. Similarly in our study also we observed significant improvement in sleep quality.

Mechanism

Possible mechanism behind these findings could be; Practice of Yoga is known to reduce sympathetic tone (Sengupta et al, 2012) through down regulation of the hypothalamus-pituitary- adrenal axis and enhances the deep physical and psychological rest 33, which helps in reducing the heart rate and blood pressure 34 practice of yoga improves the physical activity 35 (Field et al., 2013), psychological wellbeing 36. Different kinds of yogic relaxation techniques 37, different types of yogic breathing practices might have helped them to reduce anxiety 38. This study is having few limitations such as 1) Lack of control group 2) small sample sizes

Conclusion

This pilot study suggests a potential role of yoga practice in improving sleep quality, mental health and QoL of elderly individuals with chronic ailments. However, further randomized controlled studies need to be performed to confirm the present findings.

Conflict of Interest: None

References

Aljasir, B., Bryson, M., & Al-shehri, B. (2010). Yoga practice for the management of type II diabetes mellitus in adults: a systematic review. *Evidence-Based Complementary and Alternative Medicine*, *7*(4), 399-408.

Bowman, A. J., Clayton, R. H., Murray, A., Reed, J. W., Subhan, M. M. F., & Ford, G. A. (1997). Effects of aerobic exercise training and yoga on the baroreflex in healthy elderly persons. *European journal of clinical investigation*, *27*(5), 443-449.

Büssing, A., Michalsen, A., Khalsa, S. B. S., Telles, S., & Sherman, K. J. (2012). Effects of yoga on mental and physical health: a short summary of reviews. *Evidence-Based Complementary and Alternative Medicine*, *2012*.

Carole SMYTH ,2012, The Pittsburgh Sleep Quality Index (PSQI), General Assessment Series from The Hartford Institute for Geriatric Nursing, New York University, College of Nursing,Issue Number 6.1, Available online at www.hartfordign.org

Catherine Woodyard. Exploring the therapeutic effects of yoga and its ability to increase quality of life. Int J Yoga. 2011 Jul-Dec; 4(2): 49–54.

Cathleen S. Colón-Emeric and Kenneth G. Saag, 2006, Osteoporotic fractures in older adults, Best Pract Res Clin Rheumatol. 2006 Aug; 20(4): 695–706.

Chen, K. M., Chen, M. H., Chao, H. C., Hung, H. M., Lin, H. S., & Li, C. H. (2009). Sleep quality, depression state, and health status of older adults after silver yoga exercises: cluster randomized trial. *International journal of nursing studies*, *46*(2), 154-163.

Conwell Y, Duberstein PR, Herrmann JH, Caine ED. (1996) Relationship of age and axis I diagnoses in victims of completed suicide: a psychological autopsy study. Am J Psychiatry; 153: 1001–08

Dhansoia, V., Bhargav, H., & Metri, K. (2015). Immediate effect of mind sound resonance technique on state anxiety and cognitive functions in patients suffering from generalized anxiety disorder: A self-controlled pilot study. *International journal of yoga*, *8*(1), 70-73.

Dhar HL. Emerging geriatric challenge. J Assoc Physicians India 2005;53:867-72

Felton, B. J., Revenson, T. A., & Hinrichsen, G. A. (1984). Stress and coping in the explanation of psychological adjustment among chronically ill adults. Social science & medicine, 18(10), 889-898.. 9 (Susan K. Roepke* & Sonia Ancoli-Israel2010)

Field, T., Diego, M., Delgado, J., & Medina, L. (2013). Yoga and social support reduce prenatal depression, anxiety and cortisol. *Journal of bodywork and movement therapies*, *17*(4), 397-403.

Foley, D. J., Monjan, A. A., Brown, S. L., & Simonsick, E. M. (1995). Sleep complaints among elderly persons: an epidemiologic study of three communities. *Sleep: Journal of Sleep Research & Sleep Medicine*.

Foley, D., Ancoli-Israel, S., Britz, P., & Walsh, J. (2004). Sleep disturbances and chronic disease in older adults: results of the 2003 National Sleep Foundation Sleep in America Survey. Journal of psychosomatic research,56(5), 497-502.

Gonçalves LC, de Souza Vale RG, Barata NJ, Varejão RV, Dantas EH. Flexibility, functional autonomy and quality of life (QoL) in elderly yoga practitioners. Archives of gerontology and geriatrics. 2011 Oct 31;53(2):158-62.

Haimov, I., Laudon, M., Zisapel, N., Souroujon, M., Nof, D., Shlitner, A., ... & Lavie, P. (1994). Sleep disorders and melatonin rhythms in elderly people. *Bmj*, *309*(6948), 167.

Hariprasad, V. R., Sivakumar, P. T., Koparde, V., Varambally, S., Thirthalli, J., Varghese, M., ... & Gangadhar, B. N. (2013). Effects of yoga intervention on sleep and quality-of-life in elderly: A randomized controlled trial. Indian journal of psychiatry, 55(7), 364.

Hariprasad, V. R., Sivakumar, P. T., Koparde, V., Varambally, S., Thirthalli, J., Varghese, M., ... & Gangadhar, B. N. (2013). Effects of yoga intervention on sleep and quality-of-life in elderly: A randomized controlled trial. *Indian journal of psychiatry*, *55*(7), 364.

Hoffman, C., Rice, D., & Sung, H. Y. (1996). Persons with chronic conditions: their prevalence and costs. *Jama*, *276*(18), 1473-1479.

Hornick T, Aron DC, 2008: Managing diabetes in the elderly: go easy, individualize. Cleve Clin J Med ; 75;(1.);70-8.

José Luís Pais-Ribeiro a,c, Mark P. Jensen. Validity of four pain intensity rating scales Maria Alexandra Ferreira-Valente. PAIN_ 152 (2011) 2399–2404

Koparde V. Short term effects of yoga therapy in elderly (MD Thesis). Bangalore, India: National Institute of Mental Health and Neurosciences (NIMHANS); 2011

Kowal, P., Chatterji, S., Naidoo, N., Biritwum, R., Fan, W., Ridaura, R. L., ... & Snodgrass, J. J. (2012). Data resource profile: the World Health Organization Study on global AGEing and adult health (SAGE). *International journal of epidemiology*, *41*(6), 1639-1649.

Lee, Y. T., Liu, S. I., Huang, H. C., Sun, F. J., Huang, C. R., & Yeung, A. (2014). Validity and reliability of the Chinese version of the Short Form of Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q-SF). Quality of Life Research, 23, 907–916.

Lin, K. Y., Hu, Y. T., Chang, K. J., Lin, H. F., & Tsauo, J. Y. (2011). Effects of yoga on psychological health, quality of life, and physical health of patients with cancer: a meta-analysis. *Evidence-Based Complementary and Alternative*

Medicine, *2011*.

Manjunath, N. K., & Telles, S. (2005). Influence of Yoga & Ayurveda on self-rated sleep in a geriatric population. *Indian Journal of Medical Research*, *121*(5), 683.

Mereles, D., Ehlken, N., Kreuscher, S., Ghofrani, S., Hoeper, M. M., Halank, M., ... & Holzapfel, N. (2006). Exercise and respiratory training improve exercise capacity and quality of life in patients with severe chronic pulmonary hypertension. *Circulation*, *114*(14), 1482-1489.

Nanette K. Wenger , October 1992 ,Cardio vascular disease in the elderly., Current problems in Cardiology, Volume 17, Issue 10, Pages 615–690

Narendran, S., Nagarathna, R., Narendran, V., Gunasheela, S., & Nagendra, H. R. R. (2005). Efficacy of yoga on pregnancy outcome. *Journal of Alternative & Complementary Medicine*, *11*(2), 237-244.

Newberg, A. B., Wintering, N., Khalsa, D. S., Roggenkamp, H., & Waldman, M. R. (2010). Meditation effects on cognitive function and cerebral blood flow in subjects with memory loss: a preliminary study. *Journal of Alzheimer's Disease*, *20*(2), 517-526.

Oken, B. S., Zajdel, D., Kishiyama, S., Flegal, K., Dehen, C., Haas, M., ... & Leyva, J. (2006). Randomized, controlled, six-month trial of yoga in healthy seniors: effects on cognition and quality of life. *Alternative therapies in health and medicine*, *12*(1), 40.

Panjwani, U., Gupta, H. L., Singh, S. H., Selvamurthy, W., & Rai, U. C. (1995). Effect of Sahaja yoga practice on stress management in patients of epilepsy. *Indian journal of physiology and pharmacology*, *39*, 111-111.

Park, H. S., Kim, Y. J., & Kim, Y. H. (2002). The effect of yoga program on reduced blood pressure in elderly's essential hypertension. *Journal of Korean academy of nursing*, *32*(5), 633-642.

Ullal, A., Parmar, G. M., & Chauhan, P. H. (2013). Comparison of glucometers used in hospitals and in outpatient settings with the laboratory reference method in a tertiary care hospital in Mumbai. *Indian journal of endocrinology and metabolism*, *17*(9), 688.

Pollak, C. P., Perlick, D., Linsner, J. P., Wenston, J., & Hsieh, F. (1990). Sleep problems in the community elderly as predictors of death and nursing home placement. *Journal of community health*, *15*(2), 123-135.

Pratap V (1969). Difference in magnitude of response to yogic and non yogic conditions: A synopsis of an exploratory study. Yoga Mimamsa; 12:9-18

Rao, M., Metri, K. G., Raghuram, N., & Hongasandra, N. R. (2017). Effects of Mind Sound Resonance Technique (Yogic Relaxation) on Psychological States, Sleep Quality, and Cognitive Functions in Female Teachers: A Randomized, Controlled Trial. *Advances in mind-body medicine*, *31*(1), 4.

Santaella, D. F., Devesa, C. R., Rojo, M. R., Amato, M. B., Drager, L. F., Casali, K. R., ... & Lorenzi-Filho, G. (2011). Yoga respiratory training improves respiratory function and cardiac sympathovagal balance in elderly subjects: a randomised controlled trial. *BMJ open*, bmjopen-2011.

Sengupta, P. (2012). Health impacts of yoga and pranayama: A state-of-the-art review. *International journal of preventive medicine*, *3*(7).

Straat, J. H., Van der Ark, L. A., & Sijtsma, K. (2013). Methodological artifacts in dimensionality assessment of the Hospital Anxiety and Depression Scale (HADS). Journal

Telles, S., & Naveen, K. V. (1997). Yoga for rehabilitation: an overview. Indian Journal of Medical Sciences, 51(4), 123–127.

Tran, M. D., Holly, R. G., Lashbrook, J., & Amsterdam, E. A. (2001). Effects of Hatha yoga practice on the health related aspects of physical fitness. *Preventive cardiology*, *4*(4), 165-170.

Uebelacker, L. A., Epstein-Lubow, G., Gaudiano, B. A., Tremont, G., Battle, C. L., & Miller, I. W. (2010). Hatha yoga for depression: critical review of the evidence for efficacy, plausible mechanisms of action, and directions for future research. *Journal of Psychiatric Practice®*, *16*(1), 22-33.

Vaishali, K., Kumar, K. V., Adhikari, P., & UnniKrishnan, B. (2012). Effects of YogaBased Program on glycosylated hemoglobin level serum lipid profile in community dwelling elderly subjects with chronic type 2 diabetes mellitus–a randomized controlled trial. Physical & Occupational Therapy in Geriatrics,30(1), 22-30.

Vestergaard-Poulsen, P., van Beek, M., Skewes, J., Bjarkam, C. R., Stubberup, M., Bertelsen, J., & Roepstorff, A. (2009). Long-term meditation is associated with increased gray matter density in the brain stem. *Neuroreport*, *20*(2), 170-174.

Vestergaard-Poulsen, P., van Beek, M., Skewes, J., Bjarkam, C. R., Stubberup, M., Bertelsen, J., & Roepstorff, A. (2009). Long-term meditation is associated with increased gray matter density in the brain stem. *Neuroreport*, *20*(2), 170-174.

Wang, J., Xiong, X., & Liu, W. (2013). Yoga for essential hypertension: a systematic review. *PloS one*, *8*(10), e76357.

Wolff, J. L., Starfield, B., & Anderson, G. (2002). Prevalence, expenditures, and complications of multiple chronic conditions in the elderly. *Archives of internal medicine*, *162*(20), 2269-2276.

Wolff, M., Sundquist, K., Lönn, S. L., & Midlöv, P. (2013). Impact of yoga on blood pressure and quality of life in patients with hypertension–a controlled trial in primary care, matched for systolic blood pressure. *BMC cardiovascular disorders*, *13*(1), 111.

BALANCING YOGASANA VS WALL SUPPORT BALANCING YOGASANAIN DLST AND SLCT SCORES

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Abstract

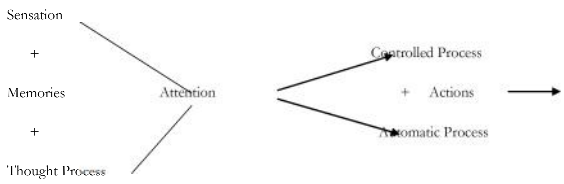
Attention is the behavioral and cognitive process of selectively concentrating on a discrete aspect of information, whether deemed subjective or objective, while ignoring other perceivable information. Yoga is the process through which one can calm down the mind and which can improve attention. Two-group pre-post randomized design with sample size (n=119) of normal students who are in the age range of 13-15 years. Students who have any chronic illness and mental illness, and those who are not willing to participate were excluded. Experimental group (n= 61) with Mean±SD:13.27+1.03 is for whom standing balanced asanas are given and control group (n= 58) with Mean±SD:13.20+1.18 here, standing balancing asanas with wall support is given for 30 days, 50 min/day. DLST and SLCT were measured before and after the intervention. Standing balancing asana showed significant change in DLST total score, net score (p-value <0.000), but no significant change in DLST wrong score (p-value= 0.083), there is a significant change in SLCT total score and net score(p-value<0.000), there is no significant change in SLCT wrong score (p-value 0.499). Wall support balancing postures shows significant change total score, net score(p-value<0.000), there is no significant change in DLST wrong score (p-value=0.038), there is a significant change in SLCT total score, net score (p-value <0.000), also significant change in SLCT wrong score (p-value <0.001). Performing balancing posture found improvement in score of SLCT and DLST. School children can be benefited with addition of yoga

***Keywords**: Attention, School children, Yoga, Balancing Posture, SLCT, DLST.*

Attention is a chronic condition starting in childhood that least to lack of awareness causing a disterbance in performance and activity. Attention is the behavioral and cognitive process of selectively concentrating on a discrete aspect of information, whether deemed subjective or objective, while ignoring other perceivable information. Attention has also been referred to as the allocation of limited processing resources(Anderson, 2010). A mechanistic understanding of attention is necessary for the elucidation of the neurobiological basis of conscious experience(Knudsen, 2007). Attention consist of education,psychology,cognative neuroscience. Areas of active investigation should be determining the source of the sensory cues and signals that generate attention(Chavajay & Rogoff, 1999). Attention can mainly be classified into (a) Sustained attention ability to focus on one specific task for a continues amount of time without being distracted and (b) Selective attention is the ability to select from many factors or stimuli and to focus on only one that you want, while filtering out other distractions. (c) Alternating attention is the ability to switch your focus back and forth between the task that required different cognitive demands. (d) Divided attention is the ability to do two or more responses or react to multiple demands at same time, it is often reffered as multitasking.

The Nature of Attention and Consciousness

Attention is the way by which we actively take a limited amount of information from the huge amount of information available through our senses, stored memories, and other cognitive processes (De Weerd, 2003; Rao, 2003). It includes both unconscious and conscious processes (Jacoby, Lindsay, & Toth, 1992; Merikle, 2000). By dimming the lights on many stimuli from outside (sensations) and inside (thoughts and memories), we can highlight the stimuli that interest us. This high focus increases the ability respond fastly and accurately to interesting stimuli.



Heightened attention paves the way for memory processes. We are more likely to remember information to which we paid attention than information we ignored. Psychologists believes that attention and conciousness are same. Now, however, they acknowledge that some active attentional processing of sensory and of remembered information proceeds without our conscious awareness (Bahrami, Carmel, 2008)(Shear, 1997). Attention and consciousness form two partially overlapping sets(DiGirolamo, G. J., & Griffin,2003)(Srinivasan, 2008). Conscious attention has three purposes in playing a causal role for cognition. First, it helps in monitoring our interactions with the environment. Through such monitoring, we maintain our awareness of how well we are adapting to the situation in which we find ourselves. Secondly, it assists in connecting past memories and our present sensations to give us a sense of continuity of experience. Such continuity may even help as the base for personal identity. Third, it helps us in controlling and planning for our future actions. We can do it based on the information from monitoring and from the connection between past memories and present sensations.

Yoga: *Yoga* is a 3000- year old tradition which has been practiced in India. It is now considered as a holistic approach to health and it is classified by National Institutes of Health as a form of complementry and alternative medicine(Williams, Steinberg, & Petronis, 2003). Regular practice of *Yoga* helps to bulid a better connectivity between the mind and body through a series of postures, breathing exercises, and meditation. It can be a important tool for stress reduction(Lipton, 2008). The benefits of *Yoga* include reduction in stress and tension, increased strength, balance and flexibility of muscles, lowered blood pressure (Lipton, 2008). *Yoga* is a way of life, consists of four components which are physical postures to develop strength and flexibility, breathing exercises to decrease respiratory cycles, deep relaxation technique to enhance ability to release anxiety, and meditation practice to increase stress regulation skill (Nagarathna & Nagendra, 2013). *Yoga* is an ancient traditional science of holistic living that includes the practices of specific postures, breathing practices, pranayama and meditation. *Yoga*, in its simple essence, is a technique to achieve control over the modification of mind and balancing the lifestyle (PYS). *Yoga* is an ancient mind-body practice developed in India years ago, According to traditional scriptures, the ultimate goal of *yoga* is achievement of super consciousness state and self-realization, *yoga* can be used to improve overall health and well-being (Muktibhodhananda, 1998). *Yoga* practice involves distinct techniques such as physical postures (asana), controlled breathing (*pranayama*), deep relaxation (*yoganidra*), and meditation (Muktibodhananda, 2013). *Yoga* offers several practices that help in mastery over the modifications of the mind (Satyananda, 2013). through the process of calmness of mind -*mana prashamana upaya* (Bl, 1993).To reach a state of balanced functioning of the mind-body complex (Vireshwarananda, 2000).Yoga is a traditional system of India postulated by Patanjali is his yoga aphorisms. The malady of deteriorated social and ethical values to enhanced/greed, though strong and violent attractions (*räga*) and repulsions (*dveña*) in life, called as *kleças*, this enhanced räga and *dveña* (Muktibodhananda, 2013). They are rooted in uncontrolled speeded up thoughts. Sage *Väsiñöha* in his accomplished book called *Yogaväsiñöha* (LYV 3.6.32) defines yoga as a tool to calm down the mind (*Manaù praçamanopäyaù yoga ityabhidhéyate).*

Yoga and attention: Research on the efficacy of yoga for increasing mental, emotional, physical, and behavioral health characteristics in school programs is a recent but increasing field of inquiry. This systematic review of research on school-based yoga interventions published in peer-reviewed journals offers analysis that identified many publications. The studies that are from these publications were conducted primarily in the United States (n = 30) and India (n = 15) since 2005, where the majority of studies (n = 41) conducted from 2010 onwards. About half of the publications were of studies at elementary schools most (85%) were conducted within the school timetable, and most (62%) also conducted a formal school-based yoga program. There was many changes in yoga intervention characteristics, including overall duration, and the number and duration of sessions. Most of these published research trials are preliminary in nature, with numerous study design limitations, including less sample sizes (median = 74; range = 20-660) and weak research designs (57% RCT's, 19% uncontrolled trials), as it would be guessed in an infant research field. These publications suggest that yoga in the school setting is a viable and potentially efficacious strategy for improving child and adolescent health and therefore worthy of continued research (Khalsa & Butzer, 2016). One pilot study was done with 24 school children and intervention period was twice a week for 6 week. And in this study, they measured motor and executive function, physical self-concept, and anxiety-related behavior. The result showed no significant improvement in movement and executive differences outcome. (Richter, et.al, 2016).The study which was done on attention with single group pre-post and sample size was 60 girls. Intervention period was 5 days of IYM. In this they measured self-esteem(SE) and attention. Result showed that IYM can improve the attention and SE (Sethi JK, Nagendra HR, 2013).the another study with two group pre-post design and 40 girls and boys (9-12 years). Yoga intervention period was 16 session within 2 months. Results showed that there were significant improvement in attention and hyperactivity symptoms (Venkatesan, 2008). there is one more study with two group pre-post design and 200 school children with age range group was 7-9 year. In this study, they measured cognitive functions (attention and concentration) the yoga intervention period was 3 months and later at 3 month follow up. Result showed that yoga was as effective as physical activity in improving cognitive performance (Mayasandra S. Chaya, 2012).

Yogasana: A module of yogic posture that include posture like garudasana, uthita hasta padhasasana, vrikshasana, veerbadrasana (phase 3), natrajasana and tandav asana were include in the intervention which are specially deals with enhancing attention provide attention. Gradually garudasana is termed as eagle pose, tandavasana stands for lord shiva's dance, natrajasana is termed as lord shiva pose, vrikshasana stand for tree poture and veerbhadrasana is termed as warrior posture. These specific balancing posture enhances the attention in each and every individual. This study with randomized controlled design measured physical fitness, cognitive performance, self-esteem, and teacher-rated behavior and performance, in school children where children with age group of 8-13 years were selected. *Yoga* and physical exercise are useful inclusions to the school schedule, with physical exercise enhancing social self-esteem is the conclusion made by study (Telles, Singh, et.al., 2013). Study with Single group pre –post design and the sample size is n=175 and *yoga* intervention period 10 days and the measurement of the study are State and trait anxiety. Result showed that there was significant reduction in *Yoga* intervention reduced both anxiety (Gupta, 2006). One more study was done on *Yoga* education and school students for 11 weeks. Outcomes measures are mood, anxiety, perceived stress, resilience, and other mental health. Result suggest that addition of yoga is good in a secondary school that has role of playing a protective or preventive role in maintaining mental health (Khalsa, S.B.S, 2012).

Studies on SLCT: There are four studies with different interventions which has influenced on SLCT a measure of attention. One among these is matched paired control study on school boys and remaining three were cross over design on adult male group. Students under two educational system i.e., The Gurukula Education System (GES) and Modern Education System (MES) had positive improvement on SLCT but GES found to be far better (Rangan, R., Nagendra, H. R., Bhatt, 2009). Study conducted on Yoga University students assessed on the four different stages of meditation i.e., *Ekagrata, Dharana* and *Dhyana* immediately before and after each session. Following Dharana and *Chanchalata* net SLCT score increased and decreased respectively and other two didn't had influence on scores (Kumar, 2009). Subjects following Cyclic Meditation and Supine Rest resulted in higher to lower degree of changes in net SLCT score respectively and reduction in wrong score in former sessions but not in later sessions (Sarang, S.P., & Telles, 2007). Eight hundred nineteen school students were selected in a study in an age range between nine and 16 years (M = 12.14; SD = 1.78 years) and they were checked once for the cancellation task which showed that both age and sex influenced performance on the SLCT.(Pradhan & Nagendra, 2008)

Studies on DLST: There were two studies available that shows immediate effect of different relaxation techniques on DLST, SLCT, and State anxiety. One study consisted of both male and female who underwent a month of *Yoga* Instructor's Course, participants were from different parts of the world. This study resulted in improvements in DLST, SLCT, and State anxiety scores following 20 minutes of Deep Relaxation Technique (Khemka, Nagarathna,et.al, 2009). Similarly, experienced male *yoga* practitioner was participated in three different sessions i.e. Cyclic Meditation, Supine Rest, and review of scientific literature 25 Control (no intervention) in equal period of time found significant enhancements of score in DLST, Letter Copying, and circle dotting task performance only after Cyclic Meditation whereas there were no changes occur seen following Control intervention (Subramanya, P., & Telles, 2009).

Purpose of the study

Yogic practices help in improving overall cognitive functions. There are specific asanas for specific purpose that are discussed in various ancient texts. Present day researches are increasing in finding the therapeutic effects of yoga where significant results are being found. Most of the studies till now that are done on yoga and attention didn't pay much attention on balancing postures and so present study is focused on finding the effect of standing balancing postures on attention.

Assessment tools: SLCT -Cancellation tests require visual selectivity and a repetitive motor response. A six-letter cancellation test was administered to assess functions such as selective and focused attention, visual scanning, and the activation and inhibition of rapid responses. The six letter cancellation test has been used in similar type of design on Indian population(Natu, M. V., & Agarawal, 1997).The six-letter cancellation task worksheet consists of an array of random alphabets, A-Z, in 14 rows and 22 columns. Students were asked to sit with the worksheet distributed to each one. The instructions are given asking them to cancel as many target digits as possible in the specified time. They are asked to cancel as their wish whether horizontally, vertically, or selecting a particular letter one at a time randomly in the row. Finally, after knowing the test instructions they are asked to start the test, each test was conducted for 90 seconds on a standard stopwatch. DLST- Digit letter substitution test contains flexibility at mind level, visual scanning, attention and psychomotor speed of processing information. It is used with same type of design on Indian population(Natu, M. V., & Agarawal, 1997). DLST worksheet consists a row of random digits,1-9, in 8 rows and 12columns. The coding sheet contains instructions about the test with example of substituting a specific letter for specific digit 1-9, the same code is applicable to entire test. Subjects were instructed to make their choice of letter substitution process, whether horizontally, vertically, or selecting a particular digit randomly in the row one at a time. In given time of 90 seconds' substitute as many target digits as possible.

Data Analysis

All variables were reported in mean ±standard deviation. A paired t test was used to run the statistical test. Statistical significance was set up at P< 0.05. Data was analyzed using r-studio version (1.0.136 – 2009-2016). As data was normally distributed parametric test was set to run the test. To check within group Pre- Post changes paired sample t- test was used.

Result: Yoga-Without wall support- Standing balancing asana showed significant change in DLST total score and net score (p-value <0.000), but no significant change in DLST wrong score (p-value 0.083), there is a significant change in SLCT total score and net score(p-value<0.000), there is no significant change in SLCT wrong score (p-value 0.499). Control-With wall support- Wall support balancing postures also shows significant change total score and net score(p-value<0.000), there is no significant change in DLST wrong score as it changed from (p-value 0.038), there is a significant change in SLCT total score and net score (p-value <0.000), there is also significant change in SLCT wrong score (p-value <0.001).

Table 1 - Within group analysis is done using paired sample t-test

Variable	Without wall support				With wall support			
	Mean±SD		% change	p-value	Mean±SD		% change	p-value
	Pre	Post			Pre	Post		
DLST TOTAL	31.00±10.63	51.52 ±11.98***	48.48	0.000	29.41±10.03	51.79 ±12.37***	48.21	0.000
DLST WRONG	0.00±0.00	0.11±0.45	0	0.083	1.64e-02±0.13	0.26±0.89*	99.74	0.038
DLST NET	30.78±11.00	51.34 ±12.17***	48.66	0.000	29.39±10.05	51.52 ±12.29***	48.48	0.000
SLCT TOTAL	19.98±7.34	29.86 ±9.98***	70.43	0.000	18.08±7.71	30.64 ±10.77***	69.36	0.000
SLCT WRONG	0.17±1.08	0.29±0.88	99.71	0.499	1.64e-02±0.13	0.59±1.23***	99.41	0.001
SLCT NET	19.81±7.54	29.57±9.87***	70.43	0.000	18.07±7.73	30.05 ±10.72***	69.95	0.000

Discussion- Highlights of Findings: The present study focusses mainly on standing balancing asanas on SLCT/DLST scores in children and the results showed that there is significant improve in SLCT/DLST scores can be significantly improved through focusing practices. Balancing asanas with wall support also have given similar results comparatively. Comparison with earlier findings- Study that is done on children to find the effect of relaxation practices on attention had showed the similar results with present study saying that yogic relaxation (CM) can increase attention levels compared to supine rest Both CM and SR led to improvement in performance, as assessed by SLCT, but the change caused by CM was larger than SR(Pradhan & Nagendra, 2010). Here, in this study both wall support and balancing asanas shows similar result i.e., significant result in increasing SLCT scores. In a study on suryanamaskara followed by supine rest showed improvement in attention measured using DLST (Javadekar P, 2012) and this can be compared with present study which is giving significant improvement in attention levels after practice of balancing asanas. Study done to see the effect of surya namaskar on sustained attention using SLCT resulted that practice of surya namaskar may give significant improvement sustained attention in orphans boys(Devi, Ganpat, 2015).

Mechanism: Yoga means a state of being in which a person can remain steady, calm, and comfortable with our physical body and mind totally aware. In classical yoga text, Gheranda Samhita and Hatha Yoga Pradipika, many asana describe for being healthy and prevent the health problems (Niranjananad, 2012).Yogasanas are classified according to either stages of difficulty of performance or dynamic/static practices. Dynamic asanas are those that involves dynamic movements of the body, they include sequences such as surya namaskar, pawanamuktasana series, dynamic pascimottanasa and sasanka, bhujangasana. Static practices are done with no or little movement of the body, often remaining in one position for a few minutes or more. They are intended to massage the internal organs, glands and muscles as well as to relax the nerves throughout the body. They are specially concerned with tranquility and calming down of mind thus increasing cognitive functions. Balancing asanas come under the static asanas category and thus help to increase the attention which is one of cognitive function

References

Anderson, J. R. (2010). Cognitive psychology and its implications. *Cognitive Psychology and Its Implications*. https://doi.org/San Francisco

Bahrami, B, Carmel, E. a. (2008). Unconscious orientation processing depends on perceptual load. *Journal of Vision*, *8*(3), 1–10.

Bl, A. (1993). *Vasisthadarshanam* (2nd ed.). Madras: Indian Heritage Trust.

Chavajay, P., & Rogoff, B. (1999). Cultural variation in management of attention by children and their caregivers. *Developmental Psychology*, *35*(4), 1079–90. https://doi.org/10.1016/j.concog.2008.12.008

DiGirolamo, G. J., & Griffin, H. J. (2003). *Encyclopedia of cognitive science. Consciousness and attention. In L. Nadel (Ed.),* (Vol. 1). London: Nature Publishing Group.

Gupta, N. et. a. (2006). Effect Of Yoga Based Lifestyle Intervention On State And Trait Anxiety, *50*(1), 41–47.

Javadekar P, M. N. (2012). Effect Of Surya Namaskar on Sustained Attention in School Children. *J Yoga Phys Ther*, *2*(2), 110. https://doi.org/10.4172/2157-7595.1000110

Khalsa, S.B.S, H.-S. et . a. (2012). Evaluation of the Mental Health Benefits of Yoga in a Secondry School/ : A Preliminary Randomized Controlled Trial. *The Journal of Behavioral Health Services & Research*, *39*(1), 80–90. https://doi.org/10.1007/s11414-011-9249-8

Khalsa, S. B. S., & Butzer, B. (2016). Yoga in school settings: a research review. *Annals of the New York Academy of Sciences*, *1373*(1), 45–55. https://doi.org/10.1111/nyas.13025

Khemka, S. S., Rao, N. H., Nagarathna, R. (2009). Immediate effects of two relaxation techniques on healthy volunteers. *Indian J Physiol Pharmacol*, *53*(1), 67–72.

Knudsen, E. I. (2007). Fundamental components of attention. *Annual Review of Neuroscience*, *30*, 57–78. https://doi.org/10.1146/annurev.neuro.30.051606.094256

Kumar, S., T. S. (2009). Meditative states based on yoga texts and their effects on performance of a letter-cancellation task. *Percept Mot Skills*, *109*(3), 679–689.

Lipton, L. (2008). Using yoga to treat disease: an evidence-based review. *JAAPA/ : Official Journal of the American Academy of Physician Assistants*, *21*(2), 34–6, 38, 41. https://doi.org/1534735409331456 [pii]\r10.1177/1534735409331456

Mayasandra S. Chaya, H. N. el . a. (2012). Effect of yoga on cognitive abilities in school children from a socioeconomically disadvantaged background/ : A randomized controlled study. *The Journal of Alternative and Complementary Medicine*, *18*(12), 1161–1167. https://doi.org/10.1089/acm.2011.0579

Mukthibhodhananda, swami. (2002). *Hatha Yoga Pradipika* (3rd ed.). Munger, Bihar, India: Yoga Publication Trust.

Muktibodhananda, S. (2013). *Hatha Yoga Pradipika* (fourth). Bihar: Yoga Publication Trust,Ganga Darshan,Munger,Bihar,India.

Nagarathna, R., & Nagendra, H. (2013). *Integrated Approach of Yoga Therapy* (2nd ed.). Bangalore: Swami vivekanda yoga prakshana.

Natu, M. V., & Agarawal, A. K. (1997). Testing of stimulant effects of coffee on the psychomotor performance: an exercise in clinical pharmacology. *Indian Journal of Pharmacology*, *29*(1), 11–14.

Pradhan, B., & Nagendra, H. (2010). Immediate effect of two yoga-based relaxation techniques on attention in children. *International Journal of Yoga*, *3*(2), 67–9. https://doi.org/10.4103/0973-6131.72632

Pradhan, B., & Nagendra, H. R. (2008). Normative data for the letter-cancellation task in school children. *International Journal of Yoga*, *1*(2), 72–75. https://doi.org/10.4103/0973-6131.43544

Rangan, R., Nagendra, H. R., Bhatt, R. (2009). Effect of yogic education system and modern education system on sustained attention. *Int J Yoga*, *2*(1), 35–38.

Richter, S., Tietjens, M., Ziereis, S., Querfurth, S., & Jansen, P. (2016). Yoga Training in Junior Primary School-Aged Children Has an Impact on Physical Self-Perceptions and Problem-Related Behavior. *Frontiers in Psychology*, *7*, 203. https://doi.org/10.3389/fpsyg.2016.00203

Sarang, S.P., & Telles, S. (2007). Immediate effect of two yoga-based relaxation techniques on performance in a letter-cancellation task. *Perceptual and Motor Skills*, *105*(1), 379–385.

Saraswati, swami niranjananad. (2012). *Gherada Samhita*. Munger, Bihar,India: Yoga Publication Trust.

Satyananda, S. S. (2013). *Four Chapters on Freedom* (2nd ed.). Bihar: Yoga Publication Trust,Ganga Darshan.

Sethi JK, Nagendra HR, G. T. (2013). yoga improves attention and self-esteem in undeprivileged girl student. *Journal of Education and Health Promotion*, *55*(2). https://doi.org/10.4103/2277-9531.119043

Shear, J. (1997). *Explaining consciousness: The hard problem*. Cambridge: MIT Press.

Srinivasan. (2008). Interdependence of attention and consciousness. *Progress in Brain Research*, 168, 65 –75.

Subramanya, P., & Telles, S. (2009). Performance on psychomotor tasks following two yoga-based relaxation techniques. *Percept Mot Skills*, *109*(2), 573–576.

Telles, S., Singh, N., Bhardwaj, A. K., Kumar, A., & Balkrishna, A. (2013). Effect of yoga or physical exercise on physical, cognitive and emotional measures in children: a randomized controlled trial. *Child and Adolescent Psychiatry and Mental Health*, *7*(1), 37. https://doi.org/10.1186/1753-2000-7-37

Thounaojam memtonbi Devi, Tikhe Sham Ganpat, et al. (2015). Surya namaskara training for enhancing selective attention in orphan boys/ : A randomized control study. *Saudi Journal of Sports Medicine*, *15*(1), 37–40. https://doi.org/10.4103/1319-6308.149534

Venkatesan, M. S. A. & J. M. S. (2008). Effect of yoga on children with attention deficit/hyperactivity disorder. *National Academy of Psychology, India*, *53*(2), 154–159.

Vireshwarananda, S. (2000). *Srimad Bhagavad Gita* (2nd ed.). Chennai, India: Sri Ramakrishna Math Printing Press Mylapore.

Williams, K., Steinberg, L., & Petronis, J. (2003). Therapeutic Application of Iyengar Yoga for Healing Chronic Low Back Pain. *International Journal of Yoga Therapy*, *13*(1), 55–67.

PERSONALITY CORRELATES OF SELF ACTUALISING VALUES

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Abstract

Human life will never be understood unless its highest aspirations are taken into account. Growth, Self actualization, the quest for identity and autonomy, challenging the limits of intellectual potential and the yearning for excellence are a universal human tendency. Endowed with an innate striving to exercise and elaborate their interests, individuals naturally tend to seek challenges, to discover new directions and perspectives and to actively internalise and transform personality characteristics. The personality temperament acts as a useful theoretical construct for understanding inherent potentialities of actualization (J. Guthrie Ford, 1991). This study was designed to examine the link between Personality and Self actualizing values: Time competence (Tc), Inner directedness (I) and Self actualizing values (SAV). A total of 247 (114 males and 133 females) participants between the age range (45-60) years were involved from different areas of Punjab, Chandigarh and Delhi. The Personal orientation inventory (Everett L. Shostrom, 1964) was used to assess the Self actualizing values and NEO-PI-R (Costa and McCrae, 1992) was used for measuring personality traits. Results from the study revealed a distinct pattern of association between these variables.

Keywords: *Self actualizing values, SAV, Tc, I, Personality traits.*

The more we learn about man's natural tendencies, the easier it will be to tell him how to be good, how to be happy, how to be fruitful, how to love and how to fulfill his highest potentialities. The ultimate goal of realising one's potential and leading a life filled with a profound sense of commitment constrains a balanced view of the self and understanding one's self is probably the greatest intellectual challenge for human beings. Psychologists have been using the concept of Self actualization to describe those who are immensely successful in realising their potential (Maslow, 1943; Goldstein, 1934). The concept of Self Actualization has been best described and developed by *Abraham Maslow* (1943,1954,1968) as the pinnacle in the hierarchy of human needs.

Maslow's Hierarchy Of Needs: The most basic drives are *physiological*, the body craves food, water, oxygen, sleep, sex, freedom of movement and a moderate temperature. After that comes the need for *safety,* these needs operate mainly on a psychological level. Once an individual has managed a certain level of physical comfort then he will seek to establish a certain level of consistency and stability in this chaotic world. Then the desire for *love and belongingness*, this need comes into view when the physiological and safety needs have been satisfied. Maslow's this need combines the twin urges to give and receive love and then the quest for *self esteem*, which focusses on a need for achievement and a need for power. Then comes the *Cognitive need,* which explains the desire of an individual to know, comprehend, explore and analyse the world in which he excels. The *Aesthetic need,* reveals the need of the individual to relate to symmetry, beauty and order. Beyond these needs comes the need for *Self Actualization,* which is the desire to become more and more what one is, to become everything that one is capable of becoming. Uppermost in the pyramid of needs is *Self Transcendence*, that describes those people who help others attain Self actualization. Daniels (2001) suggested that Maslow's ultimate conclusion that the highest levels of Self actualization are transcendent in their nature may be one of his most important contributions to the study of human behaviour and motivation A study by Brennan, T. P., & Piechowski, M. M. (1991) presented a theoretical framework for personal growth of an individual leading to self-actualization. They found that the self-actualizing individuals assessed in their study shared some common characteristics, like they had a similar outlook towards life and concern for humanity and its future. They have energy, intensity, and the persistence to work towards high ideals and they also have a capacity to inspire others towards similar ideals. When studying the life histories of the self actualising individuals, it was found that they share childhood giftedness, disruptive life experiences, emotionally difficult and and intense life-affirming experiences. Mathes, E.W., (1982) examined Self-Actualization, Creativity and Meta Values. Since values have a biological biases so Rogers and Maslow suggested that they should be studied empirically. Maslow followed a strategy to ask people who are open to experience i.e., self-actualizing people, what they value. As a result of Maslow's enquiry a set of qualities called Metavalues by Maslow were listed, a partial list of these values includes goodness, beauty, truth, unity, uniqueness, dichotomy transcendence, aliveness, perfection, necessity, order, completion, justice, simplicity, playfulness, richness, effortlessness, self-sufficiency, meaningfulness, and love. Maslow suggested that this list of Metavalues can be taken as an approximation of the good. Eugene made an attempt to replicate Maslow's results by correlating Self actualisation scores with endorsement of Metavalues. Highly significant and positive correlations were obtained suggesting that Maslow's proposal of Metavalues was correct.

Maslow (1971/1993) portrays self-actualization in two ways, first as a suite of personality characteristics of advanced personality development and second as a direction of development that one moves toward gradually. A general view of an active, integrating organism with the potential to act from a coherent sense of self can be found in humanistic theories of personality, postulating an actualizing tendency (Maslow, 1955; Angel, 1963; Rogers, 1963). Several personality theories posit a highest stage that parallels Maslow's (1968) stage of Self actualization. Examples include ego integrity in

Erikson's (1959-1994) psychosocial development, the integrated stage of Loevinger's (1976) ego development (ED), universalising faith in Fowler's (1981) model of faith development and interindividual self understanding in Kegan's (1982) model of the evolving self. The highest stage in thesetheories and Maslow's highest stage share a focus on exceptionally advanced, psychosocial maturity, the pinnacle of progressively increasing capacities to think deeply, complexly and richly about the self and others.

Personality: Personality is an abstraction used to explain the coherent patterning over time and space of

affects, cognitions, desires and the resulting behaviours that an individual experiences and expresses. Personality is generally defined as the individual's unique and relatively stable patterns of behaviour, thoughts and emotion (Berger, 1990). Personality is a habit and behaviour structure that is acquired during social life or it is dynamic regulation system of psychophysics components that lead individuals to know themselves and adapt to their environments (Eren, 2000). An individual's personality will determine the limits of happiness, success and fulfilment in his/her life. If an individual can accommodate changes that occur within him and maintain healthy relationships with others, then he will create his own adaptation system (Öztemel 2010), but at the same time if the emotional, biological and

mental changes cannot be ntegrated with the environment, then the individual is bound to face internal conflict and has difficulty adjusting with his environment and his fellow beings. Personality concerns individual differences and individual differences can be found on any dimension imaginable, but a consensual framework has been widely adopted in the form of the *five-factor model* (Digman 1990, Goldberg 1981, McCrae & Costa 2003). The five factors are most commonly labeled *extraversion, neuroticism, agreeableness conscientiousness, and openness to experience*. In this view, these broad dimensions are key determinants of behaviour, and the aggregation of information resulting from a person's placement on these dimensions gives a reasonably good snapshot of what that person is like. In order to examine relationship between personality traits, emotional intelligence and happiness among university students, Khosroshahi, J. B., Abad, T. H., Abassi, N. M., (2012) conducted a descriptive and analytical study on a sample of 200 (100 male and 100 female) students. Research questionnaires such as Revised NEO Personality Inventory (NEO- PI-R), Schutte Emotional Intelligence Scale, and Oxford Happiness Questionnaire were used for data collection. Findings showed that there is a positively significant relationship between happiness and personality traits such as extroversion, openness, agreeableness and conscientiousness. Furthermore, it was demonstrated that happiness had a negatively significant correlation with neuroticism.

Dahl, J. R., Wakefield, J. A., Kimlicka, T. M., Wiederstein, M., and Cross, J. H., (1983) examined the relationship between the personality dimensions of 'neuroticism', 'extraversion', 'psychoticism', from the Eysenck Personality Questionnaire (EPQ) and 'self-actualization', measured by the Personal Orientation Inventory (POI) for 212 undergraduate students. The two major scales of the POI (Time Competence and Inner Directed) both separately and as a combined measure of Self actualization were correlated with the scores obtained on the EPQ. The results showed the hypothesised significant negative relationship between neuroticism and Self-actualization and the hypothesised significant positive relationship between extraversion and Self-actualization. No significant relationship between psychoticism and self-actualization was found.

Hypotheses

Neuroticism would have a significant negative association with Time Competence (Tc), Inner Directedness (I) and Self Actualising Values (SAV) dimensions of Self actualisation. Extraversion and Openness to Experience would have significant Positive association with Time Competence (Tc), Inner Directedness (I) and Self Actualising Values (SAV) dimensions of Self actualisation. Agreeableness and Consentiousness would have a significant positive association with Time Competence (Tc), Inner Directedness (I) and Self Actualising Values (SAV) dimensions of Self actualisation.

Research Design: Using the incidental sampling technique, a total sample of N=247 participants (n for females = 133 and n for males = 114) contributed for the study. *The subjects were screened based on the criteria*: Education: The minimum educational qualification was 10th grade. Age range : 45-60 years Participants belonged to different parts of Punjab (Faridkot, Bathinda, Moga, Patiala, Nabha), Chandigarh and Delhi. The data was collected from both working (such as Teachers, Advocates, Doctors, Air Force

Officers, Bankers, IT Professionals, Professors, etc) and non working (House Makers, Landlords, etc) class. Variables: The big five personality traits i.e., Neuroticism, Extraversion, Openness to experience, Agreeableness and Consentiousness are studied in association with the two basic scales of Self actualisation i.e., Inner directedness and Time competence along with the self actualising values (SAV) subscale of the POI out of a total of 10 subscales each of which measures a conceptually important element of Self actualisation (Everett L. Shostrom, 1964 : POI Edits Manual) *Scales used*: POI (everett l. Shostrom, 1964) was used to assess Self Actualization and The NEO Personality Inventory Revised (NEO-PI-R) (Costa & McCrae, 1992) was used to measure the personality of individuals, based on the five-factor model of personality. The Personal Orientation Inventory (POI) questionnaire (Shostrom, 1962, 1964, 1974) was used in this study. The questionnaire consists of 150 items; each taking the form of two contrasting statements addressing the same issue, from which the subject must pick the one that applies to him or her best. These items provide the scores for the twelve POI scales. The POI questionnaire was chosen as the measure of self actualisation because of its popularity as a valid and comprehensive tool for assessing levels of self actualisation (Knapp, 1990). In particular, the POI has high resistance to faking a positive impression of self actualisation (Braun & LaFaro, 1969), it is validated on test-retest reliability (Klavetter & Morgan, 1967), shown to be relatively stable over time (Knapp, 1990), and uninfluenced by social desirability (Shostrom, 1974; Warehime & Foulds, 1973). The NEO Personality Inventory Revised (NEO-PI-R) (Costa & McCrae, 1992) was used to measure the personality of individuals, based on the five-factor model of personality, which includes the dimensions of Extraversion, Neuroticism, Agreeableness, Openness to experience and Conscientiousness. The five personality dimensions are each divided into six facets. The NEO-PI-R has 240 items (Costa & McCrae, 1992). Costa and McCrae (1992) report test-retest reliability coefficients (over six years) for Extraversion, Neuroticism and Openness varying from 0,68 to 0,83 and for Agreeableness and Conscientiousness (over three years) of 0,63 and 0,79 respectively. Costa and McCrae (1992) showed construct validity for the NEO-PI-R for different gender, race and age groups. Procedure: The participants were approached on the basis of incidental sampling from different parts of Punjab, Chandigarh and Delhi. The POI and the NEO PI R were administered to all the participants. These scales are basically self administering, hand scoring for the scales and the subscales was integrated in the light of the norms that have been established. To test the framed hypotheses about the associations between the big five personality traits and the Inner directedness (I), Time Competence (Tc) and Self Actualising Values (SAV) dimensions of Self actualisation, correlation analyses was used.

Results and Discussion

The purpose of this study was to analyse the associations between the Big five personality traits i.e., Neuroticism, Extraversion, Openness to experience, Agreeableness and Consentiousness and three dimensions of Self Actualisation (Time competence, Inner Directedness and Self Actualising Values). Results from the correlation analyses obtained from the data, lent strong support to the significant association of the big five personality traits and dimensions of Self actualisation. The correlation coefficients obtained from Pearson correlations between the Big Five Personality traits and Self actualizing values are given in Table I. Certain positive and negative correlations, most of them being significant while a few non significant correlations have been arrived at.

Table 1 - Scale correlations between the Big Five Personality Traits and Self Actualizing Values (Tc, I, SAV)

PERSONALITY TRAITS	SELF ACTUALIZING VALUES		
	Tc	I	SAV
N	-0.14*	-0.15**	-0.16**
E	0.14*	0.06	0.17**
O	0.19**	0.18**	0.11
A	0.19**	0.18**	0.29**
C	0.17**	0.13*	0.33**

**values significant at 0.01 level, *values significant at 0.05 level

Bold values are statistically significant, values more than 0.15 are significant at 0.01 level and more than 0.12 are significant at 0.05 level.

Scale correlations between Neuroticism and Tc, I and SAV: The correlation value between Neuroticism and Time Competence (Tc) was computed to be -0.14*, which is negatively significant at 0.05 level. The correlation value between Neuroticism and Inner directedness (I) were computed to be -0.15**, which is negatively significant at 0.01 level. The correlation value between Neuroticism and Self actualising Values (SAV) was computed to be -0.16**, which was again negatively significant at 0.01 level. Neuroticism was proposed to have a negative association with all three dimensions of Self actualisation used in this study and the hypotheses has been supported. There is significant negative association between Neuroticism and Self actualisation and there is substantial evidence in the literature in support of the same (Prasad, M., 2016; Rafatpanah, M., Seif, D., Alborzi, S., Khosravani, M., 2016; Khosroshahi, J. B.,Abad, T. H., Abassi, N. M., 2012; Momeni, M., Anvari, M. R.A., Kalali, N. S., Raoofi, Z., Zarrinehis, A., 2010; Dahl, R. J., Wakefield, J. A., Kimlicka, T. M., Wiederstein, M., Cross, H. J., 1983). In an extensive meta-analysis done by DeNeve & Cooper (1998) using nine literature search strategies and 137 personality traits, it was concluded that happiness is significantly and positively predicted by Emotional stability. Hills & Argyle (2001) studied the association between happiness and emotional stability and Emotional stability was strongly associated with happiness.

Scale correlations between Extraversion and Openness to Experience and Tc, I and SAV: In the second hypotheses it was proposed that Extraversion and Openness to experience will have a significant positive association with the three dimensions, Tc, I and SAV of Self actualisation. The correlation value between Extraversion and Time Competence (Tc) was computed to be 0.14*, which is positively significant at 0.05 level. The correlation value between Extraversion and Inner directedness (I) was computed to be 0.06, which is positive but non significant. The correlation value between Extraversion and SAV was computed to be 0.17**, which is positively significant at 0.01 level. The correlation value between Openness to Experience and Time competence (Tc) was computed to be 0.19**, which is positively significant at 0.01 level. The correlation value between Openness to experience and Inner Directedness (I) was computed to be 0.18**, which is positively significant at 0.01 level. The correlation value between Openness to experience and Self Actualising Values (SAV) was computed to be 0.11, which is positive but non significant. The proposed hypotheses about the significant positive relationship between Extraversion and the three dimensions of Self actualisation and Openness to experience and the three dimensions of Self actualisation has been accepted. There is a significant positive association between extraversion and Openness to experience traits of personality and Self actualization and there is substantial evidence from literature in the support of the same (Rafatpanah, M., Seif, D., Alborzi, S., Khosravani, M., 2016; Khosroshahi, J. B., Abad, T. H., Abassi, N. M., 2012; Momeni, M., Anvari, M. R. A., Kalali, N. S., Raoofi, Z., Zarrinehis, A., 2010; Lucas et al., 2008; Dahl, R. J., Wakefield, J. A., Kimlicka, T. M. Wiederstein, M., Cross, H. J., 1983). In an extensive meta-analysis done by DeNeve & Cooper (1998) using nine literature search strategies and 137 personality traits, happiness was predicted by extraversion and openness to experience. Furnham & Cheng, (1999) studied personality, demographic correlates of happiness and mental health and found that extraversion was the major correlate of happiness.

Scale correlations between Agreeableness and Consentiousness and Tc, I and SAV: In the third hypotheses it was proposed that Agreeableness and Consentiousness will have a significant positive association with the three dimensions, Tc, I and SAV of Self actualisation. The correlation value between Agreeableness and Time competence was computed to be 0.19**, which is positively significant at 0.01 level. The correlation value between Agreeableness and Inner directedness was computed to be 0.18**, which is positively significant at 0.01 level. The correlation value between agreeableness and SAV was computed to be 0.13*, which is positively significant at 0.05 level. The correlation value between Consentiousness and the Time Competence (Tc) was computed to be 0.17**, which is positively significant at 0.01 level. The correlation value between Consentiousness and Inner Directedness (I) was computed to be 0.13*, which is significant at 0.05 level. The correlation value between Consentiousness and Self Actualising Values (SAV) was computed to be 0.33**, which is significant at 0.01 level. The proposed hypotheses about the significant positive relationship between Agreeableness and the three dimensions of Self Actualisation and Consentiousness and the three dimensions of Self actualisation has been accepted. There is a significant positive association between agreeableness and consentiousness traits of personality and Self actualization and there is substantial evidence from literature in the support of the same (Rafatpanah**,** M., Seif, D.,Alborzi, S., Khosravani, M., 2016; Khosroshahi, J. B., Abad, T. H., Abassi, N. M., 2012**;** Momeni, M., Anvari, M. R. A., Kalali, N. S., Raoofi, Z., Zarrinehis, A., 2010; Lucas et al., 2008). In an extensive meta-analysis done using nine literature search strategies and 137 personality traits (DeNeve & Cooper, 1998) happiness was predicted by agreeableness and conscientiousness. Hence all three hypotheses have been supported by the correlation analyses obtained and previous research has also lent strong support to the same. The Big five personality traits are significantly associated with Self actualisation dimensions.

The personality temperament acts as a useful theoretical construct for understanding inherent potentialities of actualization (J. Guthrie Ford, 1991). Our main aim in this study was to understand the role of personality in attaining self actualization. Self actualization has deep roots in personality, which reflects a direction in the study of Self actualisation to specify Self actualising factors in terms of personality traits. Further research is recommended for better understanding the relationship between personality and Self actualization.

References

Bahadori Khosroshahi, J., Hashemi Nosrat Abad, T., & Mashinchi Abassi, N. (2012). The relationship between personality traits, emotional intelligence and happiness among university students. *Journal Of Kermanshah University Of Medical Sciences (J Kermanshah Univ Med Sci), 16*(6), 473-479.

Brennan, T. P., & Piechowski, M. M. (1991). A Developmental Framework for Self-Actualization: Evidence from Case Studies. *Journal of Humanistic Psychology, 31*(3), 43-64. doi:10.1177/0022167891313008

Costa, P. T., & Mccrae, R. R. (1988). From catalog to classification: Murrays needs and the five- factor model. *Journal of Personality and Social Psychology, 55*(2), 258-265. doi:10.1037//0022-3514.55.2.258

Costa, P.T., Jr, & McCrae, R.R. (1997). Longitudinal stability of adult personality.In R.Hogan, J.Johnson and S. Briggs (Eds), Handbook of Personality Psychology .San Diego, CA: Academic Press.

Dahl, R. J., Wakefield, J. A., Kimlicka, T. M., Wiederstein, M., & Cross, H. J. (1983). How the personality dimensions of neuroticism, extraversion and psychoticism relate to self-actualization. *Personality and Individual Differences, 4*(6), 683-685. doi:10.1016/0191-8869(83)90123-x

Deneve, K. M., & Cooper, H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin, 124*(2), 197-229. doi:10.1037/0033-2909.124.2.197

Emmons, R.A. (1995). Levels and domains in personality: an introduction. Journal of Personality

P. H., & M. A. (2001). Emotional stability as a major dimension of happiness. *Personality and Individual Differences, 31*(8), 1357-1364. doi:https://doi.org/10.1016/S0191-8869(00)00229-4

Furnham, A., & Cheng, H. (1999). Personality as predictor of mental health and happiness in the East and West. *Personality and Individual Differences, 27*(3), 395-403. doi:10.1016/s0191-8869(98)00250-5

Khosroshahi, J. B., & Nosrat Abad, T. H. (2012). The relationship between personality traits, emotional intelligence and happiness among university students. *Journal of Kermanshah University of Medical Sciences,16*(6). doi:10.1107/s0108270113015370/sk3488sup1.cif

Maslow, H.A. (1962). Human Potential, Phenomonological Approaches. Some Basic Propositions of a Growth and Self Actualization Psychology. 189-192

Maslow, A.H. (1965). Self Actualization and Beyond. New England Board of Higher Education.

Maslow, A.H. (1968). Toward a Psychology of Being. Second Edition, 10, 135-145. New York, Toronto, London.

Maslow, H.A. (1970). Motivation and Personality. New York, California, England

Mathes, E. W. (1978). Self-Actualization, Metavalues, And Creativity. *Psychological Reports, 43*(1), 215-222. doi:10.2466/pr0.1978.43.1.215

Maslow, A. H. (1980). *The farther reaches of human nature.* Harmondsworth: Penguin Books.

M. R., D. S., M. K., & S. A. (2016). Prediction of Self-actualization Based on Personality Traits and Self-Awareness among Gifted Students. *Journal of health sciences and surveillance system, 4*(4). doi:10.15417/1881

M. M., Akhavan, M. R., Anvari, Kalali, N. S., Z. R., & A. Z. (n.d.). The Effect of Personality on Happiness: A Study in the University of Tehran.

Prasad, M. (2016). An Analysis of Relationship between Happiness and Personality: A Literature Review. *Asian journal of multidisciplinary studies, 4*(1).

IMPACT OF CUSTOMER RELATIONSHIP MANAGEMENT ON INDIAN BANKING SECTOR

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Abstract

Globalization and technology improvements have exposed companies to a situation with tough competition. In this new era, companies are focusing on managing customer relationships in order to efficiently maximize revenues. Today marketing is not just developing, delivering and selling, it is moving towards developing and maintaining long term relationships with customers. Relationship marketing is becoming important in financial services. CRM is an opportunity that banks can avail to rise above minor advantages by developing actual relationships with their customers.

Keywords: *impact, customer relationship, CRM, customer relationship management, Indian banking*

A bank is a very important institution of modern business world. It serves as a barometer of country's economic progress. Today faster economic development cannot be thought about without the existence and development of banks. Thus a bank is an institution which accepts deposits from the public and which grants loans and advances to those who are in need of funds. In a free enterprise economy, commercial banks operate like any other business and are mainly concerned with the maximization of their private gains. Along with, profit maximization, banks should also seek to Customer Relationship Management (CRM) in order to retain their customers for the long run. Banks are facing greater challenges than ever before in executing their customer management strategies. Intensifying competition, proliferating customer contact channels, escalating attacks on customer information, rising customer expectations and capitalizing on new market opportunities are at the top of every bank executive's agenda.

In looking for ways to drive growth, banks need to evaluate their customer management strategy. Do they currently have a CRM solution that is capable of delivering - Consistent and cost-effective customer service? Customer-aligned products and services? And Enhanced customer loyalty and long-term value?

What is Customer Relationship Management? *Customer relationship management* entails all aspects of interaction that a company has with its customer, whether it is sales or service-related. While the phrase *customer relationship management* is most commonly used to describe a business-customer relationship, CRM systems are used in the same way to manage business contacts, clients, contract wins and sales leads. Customer relationship management solutions provide you with the customer business data to help you provide services or products that your customers want, provide better customer service, cross-sell and up sell more effectively, close deals, retain current customers and better understand who your customer are. The primary reason for the emergence of CRM is the change in the marketing environment. Today marketing model is changing from the product-centered approach to customer-centered approach. The business strategies of banks center around three vital issues i.e. product (services), process (technologies), personnel (people). This implies that the banks provide a large number of services to their customers with the help of the technology available to them. Expansions and improvement in customer service gain practical relevance on account of above mentioned factors. Today banks have – To assess the present and future needs of customers, To set up business development goals and strategies to achieve it, To manage and promote various services and To adapt to changing environment in the market.

What should a CRM offer? A world-class CRM solution needs to embody six core "qualities" in order to support a company's ability to acquire new customers, increase retention and ultimately, increase profitability. In order to address the market pressures banks are facing, a CRM solution must be: 1. Agile in its deployment – To allow new products and services to be implemented by the bank in a creative and rapid manner as required over time. 2. Consistent in its execution of customer processes – To ensure processes, technology and management deliver a consistent customer treatment strategy across all channels in the enterprise platform. 3. Scalable in its design and capacity – To allow for the bank's future growth, whether through improved organic strategies or acquisitions. 4. Effective in its integration of business intelligence – To provide clear insights into customer preferences by integrating business intelligence and applying it to support product development and customer treatment strategies. 5. Measurable in its results – To allow reporting of operational, strategic and customer service goals to measure if programs are achieving real ROI for the bank. 6. Secure in its handling of customer information – To ensure absolute security and privacy around all information held and transmitted through the system.

Objective of the Study

The main objective of the present study will be to assess the awareness of CRM, to analyze the level of customer centric from both customer and employee point of view and to evaluate the service quality offered by the banks.

Review of Literature

Several studies have been conducted pertaining to relationship marketing and customer loyalty. Relationship Marketing is becoming important in financial services (Zineldin, 1995). If a bank develops and maintain a solid relationship with its customers, its competitor cannot easily replace them and therefore this relationship provides for a sustained competitive advantages (Gilberts Choi, 2003). Webb and Mohr (1998) establish that 30 percent of respondents reported that CRM influenced their purchased decision. Success of a service provider depends on the high quality relationship with customers (Panda, 2003) Customer retention is economically more advantageous than constantly seeking new customers

(Verhoet,2003: Reichheld and Sasser, 1990). Numerous studies insisted the significance of customer relationship management.

Research Methodology

The banks taken for the study were SBI, PNB, BOB, ICICI Bank, HDFC Bank. For the study, both Primary and Secondary data have been collected. The primary data has been collected through questionnaires and telephonic interviews with the managers at the respective banks. For the secondary source of information the websites the banks were used. The questionnaire contained questions both open-ended and close-ended. A comparative analysis of all the banks taken for the study was made.

Findings and result

Table1 - Methods of gathering customer information

Methods	SBI	PNB	BOB	ICICI BANK	HDFC BANK
Website	√			√	√
Business Meeting	√	√		√	√
Intermediaries				√	√
Reference	√	√	√		
Account Opening Form	√	√	√	√	√
Survey	√		√		
Over the Counter				√	√

Table 2 - Methods of interacting with customers

Methods	SBI	PNB	BOB	ICICI BANK	HDFC BANK
Call Centre	√	√	√	√	√
E-mail	√	√		√	√
Service desk				√	√

While analyzing CRM process of the various banks, it is seen from Table 1 that there are many similarities and differences in collecting information about customers. Table 2 reveals that the technology of interacting with customers is also more or less the same. As per the data collected via questionnaire prepared for the employees one thing that is quite evident is that they are fully aware about the customer relationship management. The employees are trained how to deal with the customers and their problems and queries. Due to the emergence of the concepts of CRM one thing that is quite sure is that they are quite aware of their role. Though there are some problems but still they can be managed. The above details regarding the type of customer services offered gives a feedback that they know their job well. There are areas that they need to work on sand they are working on them too. Customer is like God for any organization, therefore the banks should try to assess the needs of their customers and honestly satisfy them. They should provide efficient services to their customers and also maintain quality standards of their services. They should maintain continuous availability of their services and inform them about introduction of new schemes and services in their banks. They should try to safeguard the interest of their customers and try to avoid any unfair practices going on in the organization. They should maintain mutual exchange of ideas in order to know the increasing expectations of the customers for the better functioning of the organization. The banks have to maintain a positive attitude towards customers so that they can anticipate the problems of the customers, take measures to solve them and in case of need, take immediate measures for the redressal of their grievances. In doing so banks should keep in mind the following observations made by Mahatma Gandhi— A customer is the most important person ever in the bank premises. A customer is not dependant on the bank personnel …… rather they are dependent on him. A customer is not interruption of their work …….. he is the purpose of it. The bank employees are not doing any favour by giving them the opportunity to do so. A customer is not someone to argue or match wits with. Nobody ever won an argument with a customer. A customer is a person who brings us his wants. It is our job to handle them profitably to him and to ourselves.

Conclusion

Banking is, and for a long time to come, will remain a customer oriented business. If one can satisfy the customer effectively, then the customer becomes his client. Now the question arises how to satisfy the customer? The answer is "*put the customer first*". Marketing begins with a frame work by providing good services or satisfying the customer effectively and efficiently. It ends with organizing the business and activity of the banks in such a way that the customer's needs and expectations are identified and satisfied in the best possible manner.

References

CRM In Banking Concepts and Cases, The ICFAI University Press, Hyderabad, Customer Relationship Management – Emerging Concepts, Tools and Applications, Tata McGraw Hill, New Delhi, pp. 3-25.

Berry, L.L (1983), "Relationship Marketing", in Berry, L.L Shostack.G.L and Upah.,G.D (Eds), Emerging perspectives of Service Marketing, American Marketing Association, Chicago, IL, PP. 25-8.

Boldgett, J.G; Wakefield, K.L and Barnes, J.H (1995), "The effect of customer service on customer complaining behavior", Journal of Service marketing, Vol.9, No.4, PP 31-42.

Calik.N and Batla, N.F (2006), "Consumer satisfaction and Loyalty derived from the perceived quality of individual banking services" a field study in Eskisehir from Turkey", Journal of financial services marketing , Vol.10, No.4, PP 135-49.

Shikha Agrawal(2009), "An empirical study of customer services in selected commercial banks of India"

Websites of SBI

Websites of PNB

Websites of BOB

Websites of ICICI

Websites of HDFC

INNOVATIVE ATTRIBUTES OF EMPLOYEE RELATIONSHIP MANAGEMENT AND ITS IMPACT ON RETENTION IN SOFTWARE INDUSTRY

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Abstract

This study investigated a common phenomena of present day burning issues of various organization related with the question that Why do Indian Software professionals leave their organizations? Due to cut throat competition the retention of employees has emerged as a vital issue for software industries. Due to turnover tendency of employees companies are suffering with not only to lose their employees financially infact in day to day future and in house confidentiality of projects along with customer and image building dents are also become a security threat to them in order to sustain their smooth functioning and growth. In this paper researcher has tried to analysis the concept and other associated factors in the light of various dimensions which play an important role to affect the same. Researcher has also thrown light on the concept of Innovative attributes of employee Relationship Management through which the bond of both employees and employers can be strengthened to act as a bridge between the both.

Keywords: *Innovative Practices, Employee Relationship Management, Dimensions of ERM, Packages of ERM etc.*

Innovative practices in employee relationship management are mandatory for organizations to survive in the high technology atmosphere of the 21st century in Global market. Guarantee of employment can no longer be used to generate commitment (Meyer, Allen, & Topolnytsky, 1998). As a result, workers today do not expect to develop their careers in only one organization (Nussbaum, 1991, Carson & Bedeian, 1994). Cooper-Hakim and Viswesvaran (2005) estimate an average of five changes of organization throughout a career. Since it is no longer possible to secure jobs, companies attempt to ensure employability and, to that end, invest in developing their people to enhance their potential mobility. Thus, there is now a demand for managerial strategies appropriate for this scenario in order to retain good employees through practices such as awards, promotions, compensation, and training (Buckingham & Coffman, 1999 , Barros, 2007).

It is important for organizations to foster linkages for people to remain, but it is also important to assess the nature of these bonds. Affective bonds are those that engender stronger ties since they are associated with an organization's goals and values. On the other hand, bonds based on instrumental exchanges might make it less attractive for people to leave the organization since they would be losing investments and gains already obtained (McElroy, 2001a; Morrow, 2011; Steel & Lounsbury, 2009; Sethi & King, 2008).

ERM is a linkage that individuals may develop towards multiple aspects of their work environment. It can be enacted either as an attitude, behaviors (or behavioral intentions), or as a binding force. Commitment can be analyzed in relation to a wide range of foci - the organization, group or team work, work itself, career, and unions, among others.

To cope with the dynamics of today's world and achieve a greater commitment from their employees, organizations have to changed their internal environment and ways of conducting the work through initiatives of Employee Relationship Management. This environment of change is consequently demanding new policies and ERM management practices that are specifically aimed at retaining people, because they become increasingly trained to work in an environment of uncertainty and technological sophistication. Unstable environments demand more action and cooperation from the workforce, which calls into question the relative values of work, remuneration, leisure, personal life and organizational citizenship (Tonelli *et al.*, 2002).

According to Grant (2003), when individuals perceive the tasks they are given is appropriate to their skill level, interests and knowledge, and believe that their work is recognized, they tend to value the organization's contributions to these factors and strengthen linkages with it, such as commitment and entrenchment. Bastos, Rodrigues, Moscon, Edington and Pinho, argue that commitment is seen as a factor that enhances organizations' chances to successfully address turbulence and transitions.

Turnover

Employee turnover represents a critical problem to an organization in terms of loss of talent, additional recruitment and training costs (Loi, et al., 2006).Turnover is the separation of an individual from an organization (Nettle et al.,2011). This may be voluntary, where an employee leaves by choice, Even though the organization may have preferred the individual had stayed. Alternatively, it may be involuntary, and in this situation the organization initiates the Separation (fires the employee) and, presumably, the individual would have preferred to stay. Turnover is easier to measure than retention. Average annual turnover, or the Wastage rate (Nettle et al.2011), is the number of terminations per year divided by the Number of active employees in the same year, given as a percentage (Waldman & Arora, 2004). Retention in a larger firm can be measured by the specific number of people hired in a particular year (for example 2011) who are still employed in the following year (2012) or in subsequent years, divided by number of people hired in 2011 as a percentage. Waldman and Arora 's (2004) example shows that measuring the turnover rate might hide the fact it is the new hires that are leaving rather than people from different cohorts.Thus,different situations will require different strategies to change the pattern (Waldman & Arora,2004).

Over View of Turnover Facts

Kuruvilla and Ranganathan (2008) found every software firm in India reported increase in turnover rates in recent years (ranging from 15% to 20% per year) with an average of 20% turnover rates annually. In early 2011, turnover rates in top 5 Indian IT companies were reported to be at a three year high (Everest Research Group 2011). In the year 2010, major Indian software suppliers like Tata Consultancy Services (TCS) reported an annual turnover rate of 14.1% while at Infosys it was 17.1% in the second quarter of 2010 (Economic Times 2010). In the same year, Wipro, another major supplier reported annual turnover rates of 23% (Ghosh and Das 2010). The turnover rates were slightly lower before 2009. For the last quarter of 2008, the annual turnover rates for TCS, Wipro and Infosys were 11.9%, 11.9% and 11.8 % respectively (Kumar 2009). Switching companies has become so acute that some IT firms are finding it hard to include turnover rates in their quarterly performance reports (Tejaswi 2010).

The turnover problem is aggravated by the fact that smaller Indian IT companies are facing even higher turnover rates than the big IT suppliers like Wipro, TCS and Infosys (Acharya and Mahanty 2007; Rai 2005). The problem of turnover is intensified for mid-sized and smaller companies as a consequence of the massive recruitment drives undertaken by their larger rivals. Large companies are able to attract employees from smaller rivals through better pay packages and other incentives (Iyer and Sengupta 2010). Annual turnover rates in small and medium sized IT companies in India are now in the range of 25-30% (Tejaswi 2010) with some mid-sized firms battling with turnover rates as high as 40% among their project managers (Sengupta and Mishra 2010).

Literature Review

In the early 70s the relationship between employers and employees in work place was more of a collective relationship which involves collective bargaining where representatives of both employer and employees meet to negotiate on matters related to pay, terms of employment and working conditions, representatives of employees are known as "**Trade Union"** (Henderson 2008). Organizations were encouraged to recognize and work with trade unions so as to improve the employment rights of workers through collective bargaining (Marchington and Wilkinson 2005). Edwards (2003) described the relationship between employer and employee as a system where both parties have common and divergent interest, this is a situation where employer and employee communicate their requirement and views to one another in terms of agreement on work related issues.

An employee's relationship with an organization is shaped by HRM actions such as recruiting, appraising performance, training, and benefits administration through which employees come to understand the terms of their employment (Rousseau & Greller, 1994). A major function of ERM practices is to foster an appropriate environment (Rousseau & Greller, 1994) and employees' interpretation of their employer's .ERM practices affect this concern and ultimately their perception of contract fulfillment or breach will affect their commitment to the organization.

The improvement in management of employee relationships in organizations brings more positive aspects to the firm than just increased employee motivation (Grant, 2007; Gegax & Grimme, (2006) and promises employees greatest possible satisfaction of their individual needs; while to the employers, it promises increased attraction, retention, motivation and performance of employees (Schweitzer & Lyons, 2008; Keim & Fritsch, 2008; Wargborn, (2009) and improves employee morale (Harrison et al.2001) .Burns (2012) declared that good employer-employee relations are essential for different reasons. These reasons might include: - Employees who are inspired to work produce better and more results; The level of competency of the staff in-creases because of their drive to become better and The Concern for employee is required to be improved because employees who have good relations with their employer are usually viewed as good customer consultants.

Concept of Employee Relationship Management- A Key To Success Of An Organization : ERM plays a very vital role for a company's sound growth. It is a combination of two terms i.e. Employee and Relationship Management.

Employees: Employees are the valuable assets for every organization. When the employees work collectively and contribute equally then a company will have higher prospects of achieving desired goal. On the other hand, if employees engage themselves into constant conflicts & misunderstandings, then this will absolutely disturb the working of the company. Therefore the employees must have a sound relationship with each other to perform with their best ability and also enjoy their work.

Relationship Management: Relationship management is a concept which is all pervasive now-a-days. Almost every organization is putting their interest in building relationships with the people around them like their customers, partners, employees etc. Relationship Management is a structured managerial process which focuses on building and managing sound relationships with customers, suppliers, partners etc. with the objective of achieving desired goals. Acknowledging and respecting other's competencies is the important basis for building strong relationships.

Employee Relationship Management (ERM): When a company manages a relationship with its employees by using some technologies and by following a focused approach for resolving all problems that are related with the relationship between a company and its employees is known as Employee Relationship Management (ERM). The main focus of ERM system is to strengthen the bond between the employer & the employee and ensures that both the parties are enjoying a healthy relationship within the healthy workplace environment. Apart from this the employer keeps on equipping with information and training (Siebel, 2006). It also provides employee satisfaction otherwise any of the kind of dissatisfaction will directly affect the employee productivity and overall workplace environment.

ERM can be defined as the relationship between representative manager or employer and the employee, which are aimed at building and maintaining commitment, morale and trust in order to create a safe and productive working environment

(Singh and Kumar, 2011). This is an individualistic approach where the company interacts and handles the problems on individual basis. There are some of the important aspects which can be seen after successful implementation of ERM i.e. increases employee loyalty status, morale, turnover rate, communication. And achievement of all this in concern of employee is as important as in concern of customer. According to Gillenson and Sanders (2005) for achieving the above aspects a company must go through a set of activities. First and foremost as well as one of the important step is to make the employee to feel that the employer knows him and cares about him personally.

Fig.1 ERM focus

ERM can also be understood as employment relationship. Edwards (1992) explains employment relationship as a process of negotiating the outcome of work done and the working conditions between the employers and employees, who are working together with the perception of mutual dependence.

Characteristics of Employee relationship Management (ERM) - Personalized approach: This is an individualistic approach as the focus of the company is on building relationship with each and every employee i.e. each of the employee is being given equal importance. Identify objectives: Identification of areas to be involved in ERM and the problems which a company is willing to look after must be done so that the application of ERM can be done accordingly. Ascertain employee needs: A company comprises of various employees who all are different from each other in various ways like age-group, gender and also the job performed by them. So a company can find out the needs of their employees by using both formal and informal channels. Balance between personal & professional life: Generally, many employees found it difficult to make a proper balance between their personal life and professional life, which can have negative effects on the goals of the company. ERM helps out in understanding and also provide space to employees so that they can discuss their point of view with the employer. Effective communication channels: It is one of the very important aspects in making strong relationships. And ERM focuses on making it more flexible, open and honest. So that the employees can share their experiences about the positive results and also about the problems faced by them. On-going process: ERM is an on-going process which keeps on implementing new solutions, new applications, look after to the problems etc. Regular monitoring: ERM keeps a regular check over the employee's relationship with employer in order to avoid any kind of discrepancy and also if there is any chance of any gap then this gap is being filled as soon as possible.

Need For Employee Relationship Management (ERM): There are numerous endless reasons which are very important that contribute towards the growth and success of an organization. This is the smartness of the organization that how it effectively uses the strategies to come up with innovations so that it can render the smooth retention by applying these fruitful outcomes of the organization. For the strengthening of bond between the both employee and employer the need of ERM is required, few aspects are - For increasing employee retention/ Talent retention: Every company focuses on retaining their present employees as the cost of losing an employee will be a loss for a company. And recruiting a new employee calls for expenditure. So employee retention is necessary by reducing employee turnover rate for reducing the cost incurred due to loss of an employee. For boosting employee's morale: When a company wishes to gain high level of growth then its employees must be motivated to make their best effort for accomplishing their job. They must actually enjoy their work then only they will be able to put their best effort. For increasing employee's loyalty with the organization: It is necessary to provide a good level of comfort in all terms which increases the level of satisfaction among the employees. And this will be a key to increase employee's loyalty. For improving the level of revenue and profit: A reduced employee turnover rate ensures that the company will be earning more of profits and revenues.

Concept and Objective of Innovative Attributes of Employee Relationship Management: Motivating the men in the organization is the main aim of innovative process. Over the past three decades the world has seen enormous growth in information technology. Innovative Employee Relationship Practices places tremendous value on providing Quality, Service, and Innovation through employees possessing and exhibiting the right attitude and who take Ownership and Accountability for their work product. So the organization adopting policies and program to attract and retain a dedicated, loyal and long-term work force. Innovative programs foster long-term employment satisfaction and high employee retention.

Figure 2: Dimensions of Employee Relationship Management.

Some of these Benefits Include - A comprehensive benefit package that includes medical, dental, vision and life insurance; A retirement plan and matching contribution program; Free voluntary bus transportation to all of the locations; An effective safety program that rewards employees who are accident free; Regular opportunities and training for advancement; Paid holidays, paid jury leave and paid bereavement leave; Service bonuses and end-of-season incentive pay; An annual orientation program; A discretionary profit sharing program; A cost free Employee Assistance program (EAP); Access to an on-site preschool and childcare facility etc for family welfare and Scholarships to the children of employees going to school & college.etc.

Innovative practice may include the following principles:- Division of Work- Specialization allows the individual to build up experience, and to continuously improve his skills. Thereby he can be more productive. Authority- The right to issue commands, along with which must go the balanced responsibility for its function. Discipline- Employees must obey, but this is two-sided: employees will only obey orders if management plays their part by providing good leadership. Unity of Command- Each worker should have only one boss with no other conflicting lines of command. Unity of Direction- People engaged in the same kind of activities must have the same objectives in a single plan. This is essential to ensure unity and coordination in the enterprise. Unity of command does not exist without unity of direction but does not necessarily flows from it. Subordination of individual interest- (to the general interest). Management must see that the goals of the firms are always paramount. Remuneration- Payment is an important motivator although by analyzing a number of possibilities, Fayal points out that there is no such thing as a perfect system. Centralization (or Decentralization)- This is a matter of degree depending on the condition of the business and the quality of its personnel. Scalar chain (Line of Authority)- A hierarchy is necessary for unity of direction. But lateral communication is also fundamental, as long as superiors know that such communication is taking place. Scalar chain refers to the number of levels in the hierarchy from the ultimate authority to the lowest level in the organization. It should not be over-stretched and consist of too-many levels. Order- Both material order and social order are necessary. The former minimizes lost time and useless handling of materials. The latter is achieved through organization and selection. Equity- In running a business a 'combination of kindliness and justice' is needed. Treating employees well is important to achieve equity. Stability of Tenure of Personnel- Employees work better if job security and career progress are assured to them. An insecure tenure and a high rate of employee turnover will affect the organization adversely. Initiative- Allowing all personnel to show their initiative in some way is a source of strength for the organization.

Employee Relationship Management Dimensions: Employers and employees come together because they both have needs, which they feel the other will help them fulfill. By coming together an employment relationship is formed, with obligations on both sides. No employment relationship occurs in a vacuum and it is important to realize that there is a range of contexts within which it occurs and which, to varying degrees, impinge upon the relationship. One of these is the legal context, and at the level of the individual there is a legally enforceable contract between employee and employer. It has also been suggested that the employment relationship can be perceived as a psychological contract.

Based on literature review below are some innovative factors of HRM has been mentioned that are having importance with reference to employee retention good practices.

S. No.	Dimension	Meaning
1.	Corporate identity (Alessandri, 2001, Holtzhausen and Fourie, 2009)	Good corporate image leads to good reputation which ultimately leads to good relationships.
2.	Job satisfaction (Kidwell et al., 1997, Liao et al., 2004)	It is the outcome which is a positive feeling in employees about their work performance.
3.	Work redesign (Hackman and Oldham, 1980, Hackman and Oldham, 1976, Kuo et.al, 2010)	It is about redesigning the job characteristics by considering the expectations of the employees. A job characteristics model has been developed for this purpose.
Work Redesign has its own five dimensions:		
4.	Skill Variety (Hackman and Oldham, 1976, Kuo et.al., 2010)	Refers to different skills and talents of employees required for performing a job successfully.
5.	Task identity (Hackman and Oldham, 1976, Kuo et.al., 2010)	Refers to completion of job with identifiable results.
6.	Task significance (Hackman and Oldham, 1976, Kuo et.al., 2010)	Refers to the impact of job on others work as well as on external environment.
7.	Autonomy (Hackman and Oldham, 1976, Kuo et.al., 2010)	Employee must have freedom and independence for carrying out the job allotted.
8.	Feedback (Hackman and Oldham, 1976, Kuo et.al., 2010)	This is about a clear and information about the work performed by the employee.
9.	Psychological Contracts (Argyris, 1960, Rousseau, 1995, Rousseau, 2004, Gough and Hick, 2009)	An unwritten agreement which is psychological in nature, between an employer and its employee for carrying out agreed practices.
10.	Interpersonal orientation (Yi-Feng and Tjosvold, 2007)	Employees must focus on building good interpersonal relationships because it will help them in many a ways by ultimately enhancing the growth of the company.
11.	Trust (Siemieniuch & Sinclair, 1999, Liao et al., 2004, Holtzhausen and Fourie, 2009)	It plays an important role in putting all business aspects together. It came be seen when people exchange information.
12.	Organizational Commitment (Jaworski and Kohli, 1993, Hunt et al., 1989; Meyer and Allen, 1997, Meyer and Allen, 1991, Allen and Meyer, 1990, Colbert and Kwon, 2000, Quarles, 1994)	It is about committed employees, who all have the following features: ✓ More inclined to make personal sacrifices for their organizations. ✓ Connect themselves with the goals and objectives of the organization. ✓ Devote extra time to work ✓ Feel proud of being the member of the organization.
Organizational Commitment has three dimensions:		
13.	Affective Commitment (Meyer and Allen, 1991, Kuo et.al., 2010)	Refers to the emotional attachment and involvement of the employee towards his company

14	Continuance Commitment (Meyer and Allen, 1991, Kuo et.al., 2010)	Refers to continuous relationship with the company even after retirement, in the form of pension, transfer of knowledge, self-investment etc.
15	Normative Commitment (Meyer and Allen, 1991, Kuo et.al., 2010)	When employee become obligated to be with the company due to some social norms.
16	Job motivation (Joensson, 2008)	This is about motivating the employee about the job by way of financial and non-financial incentives.
17	Job variety (Mishra and Spreitzer, 1998, Kuo et.al., 2010)	This refers to the various types of tasks involved in the job.
18	Work performance (Yi-Feng and Tjosvold, 2007)	Through good level of commitment the performance of employees can be enhanced which is ultimately beneficial for the company performance.
19	Competence (Spreitzer's, 1995, Kuo, et. al., 2010)	When an employee has full faith in him that he has skills through which he can perform his job well.
20	Self-determination (Spreitzer's, 1995, Kuo, et. al., 2010)	When employees have the freedom of performing their job in their own way.
21	Self-confidence (Singhal and Chatterjee, 2006)	When an employee has got full faith in own self and believes that he can do such job, then it is self-confidence.
22	Working hours and sick leave (Griffeth et. al., 2000)	These aspects helps the HR department to evaluate employee's behavior towards the organization.
23	Health and safety (Joensson, 2008)	The health and safety issues of employees must be taken care of; otherwise it can affect the productivity and profitability of the organization.
24	Internal relations (Liao et. al., 2004)	This is an alternative term for relationship between employer and employee.
25	Communication (Holtzhausen and Fourie, 2009, Singh and Kumar, 2011, Carac¸a & Carrilho, 1996)	It is necessary that the goals and objectives must be properly communicated to the employee. And also there must be an open communication between employer and employee.
26	Employee behavior (Liao et. al., 2004, Hornung and Rousseau, 2007)	This refers to the attitude and reaction of an employee towards other employees and also towards employer.
27	Pay satisfaction (Griffeth et. al., 2000)	This explains about the satisfaction incurred out of the salary received by an employee.
28	Productivity (Bolton and Houlihan, 2009)	Healthy relationship between an employer and an employee can lead to increase the productivity of the organization.
29	Innovation (Liao et. al., 2004)	Innovations can decrease the reasons of conflict and make the employer and employee to work in unified form.
30	Attendance (Bolton and Houlihan, 2009)	It is important in concern of every employee as each employee must attendant every event of the organization and this will help both the employer and the employee in collaborate.
31	Predicted turnover (Griffeth et. al., 2000)	The turnover rate of employees can be predicted on the basis of some behavioral constructs. This prediction can help organizations in making their future plans.
32	Conflict (Lewin, 2001, Liao et al., 2004)	Conflict refers to the disagreement or difference of opinion between two or more parties about something relevant.
33	Employee empowerment (Kuo et.al., 2010, Fox, 1998, Spreitzer, 1995, Liden et al., 2000, Conger and Kanungo, 1988, Thomas and Velthouse, 1990)	This is about instilling a positive power in the employees which is psychological in nature and this also increases a sense of belongingness.
34	Conditions of respect (Liao et al., 2004)	Refers to those aspects where the employee or the employer is in the state of giving or taking respect.
35	Conditions of support (Liao et al., 2004)	Refers to those conditions where the employer must support his employee or vice-versa.
36	Justice perception (Liao et al., 2004)	This is about the perception of the employee where he believes that he will be provided with justice whenever he gets into a problem.
37	Relationships with superiors (Liao et al., 2004)	To maintain relationship with superiors will be very beneficial for the subordinate in various concerns.
38	Self-satisfaction (Liao et al., 2004)	This is a very important feature which must be present in every employee otherwise he won't be able to give his best.
39	Self-learning (Liao et al., 2004)	Employees must have this attitude so that they can learn various things which are not being taught.
40	Knowledge sharing (Liao et al., 2004, Krogh, 2002)	Dissemination of knowledge by an individual to others who all might be his competitors.
41	Organizational citizenship behavior (Liao et al., 2004, Bell & Menguc, 2002, Joensson, 2008)	It is an employee's behavior which goes beyond the job expectations just for the betterment of the organistaion. It is discretionary in nature.
42	Teamwork (Hornung and Rousseau, 2007)	It refers to a situation where the employees come up as a team and work together for achieving desired goals.
43	Collaboration (Yi-Feng and Tjosvold, 2007)	For building a strong relationship between an employer and an employee, both have to collaborate with each other through trust and emotional involvement.
44	Working environment (Liao et al., 2004)	It is one of the important dimension as it affects the behavior of the employees
45	Cultural differences (Yi-Feng and Tjosvold, 2007)	An organization is a combination of employees who belong to different cultural backgrounds. So the organization needs to manage this difference and get the highest level of output.
46	Employer-employee power imbalance (Lewin, 2001, Liao et. al., 2004)	A situation where there is a need for formal justice body for resolving a conflict between an employer and employee.
47	Employee loyalty (Joensson, 2008, Siebel, 2006)	High employee loyalty status can bring good level of customer satisfaction.
48	Ontological commitments (Liao et. al., 2004, Elst & Abecker, 2002, Correa da Silva et al., 2002)	Means having same understanding for shared vocabulary. It helps providing solutions to the problem in information sharing.
49	Technology (Liao et. al., 2004)	Technology has helped in improving employer-employee relationship in the form of software for managing information related to employees.

50	Employee attachment (Joensson, 2008)	When an employee starts feeling emotional attached to company then he works for the company with highest level of loyalty and efficiency.
51	Customer focus (Hornung and Rousseau, 2007)	The main focus of the employer and the employee must be on customer satisfaction
52	Employee discrimination (Lewin, 2001, Liao et. al., 2004)	This is a negative aspect faced by the employees where the employer shows a biased behavior towards the employees.
53	Employee participation (Joensson, 2008, Summers and Hyman, 2005, Fuller et al., 2006)	It is about the right of employee to participate in organizational decision-making.
54	Perceived organizational support (Whitener, 2001, Liao et. al., 2004)	This implies the understood level of support from the side of organization.
55	Company performance (Summers and Hyman, 2005)	This can get affected by the employee participation as well as the relationship between employer and employee.
56	Social identification (Joensson, 2008, Haslam, 2001)	It refers to the importance of the employee in an organization.
57	Workforce control (Bartram 2011, Dulebohn et al., 1995; Jacoby, 1991)	One of the employee management system is workforce control where the description is towards controlling the employees of an organization.
58	Compensation systems (Huselid et al., 1997, Bartram 2011)	Companies must follow a systemized mechanism for distributing salaries and bonuses among the employees.
59	Flexible workforces (Huselid et al., 1997, Bartram 2011)	Employees must be flexible in terms of working so that in the time of requirement they can do the work of other departments as well.
60	Quality improvement practices (Huselid et al., 1997, Bartram 2011)	Companies must try to make quality improvement practices while building strong relationships with employees.
61	Emotional security (Sewell, 1998, Bartram 2011)	Company must provide emotional security to their employees i.e. they must keep on employee's emotions

Glipmses of Innovative Packages of Employee Management Relationship Management: ERM packages being offered by various companies are 1) Office Intranet (Employee Relationship Management) – By VRM This ERM application facilitates with instant and effective interaction between the employer and its employees. This makes proper management and dissemination of information to relevant users can take place through a secured channel of interaction. Also provides knowledge libraries and reference documents which are fully safe. It helps the HR Department of a company in various ways like in recruitment & selection, training & placement, competence and career management, time management, internal communications, improve employer-employee relationship, etc. 2) HR Solutions - Provided by Blue Apple This company offers various HR solutions as such Process Automation, 360 Degree Appraisal, Induction Process, Employee Retention and Employee Relationship Portal. 3) PowerERM – Connecting Employees with the Organization (Octaware Technologies)

This helps in exploring the hidden potential and talent of the employees. It provides a matrix of intelligent processes and a structured approach with a main focus on linking people, strategy and performance. 4) Employee Relationship Management Solutions (Provided By- KRINA WEB) Offers a collection of tools which are as follows- Focuses on strengthening corporate communication and culture; Through enterprise portal it promotes learning about company products, services and customers in an easily accessible format; Help employees in making effective customer interactions; Provide forums for the purpose of open communication for the employers and employees; Helps in managing the performance of the employees; Promotes employee loyalty and commitment through convincing and offering benefits to them; Make the work of HR department easier and let them concentrate on strategic issues; Helps in retaining talented employees and also focuses on reducing turnover rate; and Provides effective rewards for building employee's morale. 5) Employee Relationship Management (Offered by Wipro): It offers a well-organized structure to manage the employees of an organization. Basically, it includes Employee Performance Management (EPM) solutions under talent management which helps in accurate assessment and easy development of employees, performance appraisals, workforce planning, training and development. These solutions are offered by using the Business Process Outsourcing (BPO) or Software as Service (SaaS) model. 6) Talent Management service- It offers the following:

Learning Technology Solutions

Technology Consulting: This is about clarifying the technical queries raised by the employees; Integrate and maintain the production support services

Content Development

This is about researching and gathering information which is relevant for development new theories and techniques & specifically for guiding the employees for the smooth working of the organization. It involves information related to product, processes, technology etc. Consulting Services: Provides consulting facilities which provides ways to enhance performance levels, carries our training need analysis, strategize ways to make the training process most beneficial. Documentation Services: Provide services through which the company can prepare documents containing technical aspects, end user perspectives and then publishing it. Employee Helpdesk- It provides extended hours service where it offers case management by using integrated ways, voice recording facility which enhances the quality of query handling, language support etc.

Conclusion

These employee relationship management practices can have many different effects on the work of an organization; they can enhance perception and strengthen corporate communication, foster learning, increase employee involvement, provide real time access to company training, targets information to employees based on their interests, streamline performance management, manage resources, encourage loyalty and commitment, raise productivity, encourage innovation levels, reduce turnover and retain human talent. The study is beneficial to the management and employees of software organizations and it highlights the importance of good practices in the management of employee relationships. The study contributes towards a framework for further research by filling the existing gaps in the field of employee relationship management. Following that, the organizations would commit to addressing each key issue of perception by identifying perception gaps that exist and thereby implementing appropriate change programmes for the growth of an organization.

References

Abott, K. (2006),A Review of Employment Relations Theories and Their Application 48 Problems and Perspectives in Management, 1/2006 pp. 187 -199.

APA (2013) Resources for Employees , APA Centre for Organizational Excellence.

Boyle, T. A. (2006) " Towards Best Practices for Managing Manufacturing Flexibility",Journal of Manufacturing Technology Management, 17(1), pp. 16 -21.

Brown, W.(2004), "The Future of Collectivism in the Regulation of Industrial Relations",Lecture to Manchester Industrial Relations Society, 40th Anniversary.

Clark, K.F (2001), What businesses are doing to attract and retain employee -becoming an employer of choice. Employee Benefit Journal. March, pp. 34 -37.

Cordova, E. (l990), "Collective Bargaining" , Comparative Labour Law and Industrial Relations in Industrialized Market Economies, pp. 151-177.

Cully, M. Woodland S., O Reilley A. & Dix, G. (1999), Britain at Work: As depicted by the 1998 Workplace Employee Relations Survey, Routledge: London .

Dessler, G. (2000). Human resource management . Prentice Hall: USA Dunlop, J.T. (1958). Industrial Relations Systems. Cengage Learning, New York .

Fajana, S. (2000). Industrial Relations in Nigeria: Theory and Features (2ndEd.) Labofin and Company. Lagos, Nigeria.

Fidler, J. (1981),The British Elite: Its Attitudes to Class, Status and Power, Routledge & Keagan Paul, London.

Fox, A. (1966). Industrial Sociology and Industrial Relations. Royal Commission Research Paper Number. 3. HMSO; London Graham.

J.Amos, B.& Plumptre, T. (2003). Principles for good governance in the 21st century. Policy Brief No. 15. Institute on Governance, Ontario, Canada.

Grant, A. M. (2007), Relational Job Design and the Motivation to Make a Pro-Soci Daft RL, Marcic D 2010. Understanding Management. 7 th Edition. Scarborough: Nelson Education Ltd.

Dewitt DB, Hernandez CG (2003). Development and Security in South East Asia: The People . Surrey: Ashgate Publishing Limited.

Donaldson B, O'Toole T (2007). Strategic Market Relationships: From Strategy to Implementation . 2nd Edition. Chichester: John Wiley and Sons Ltd. Ford D, Gadde LE, Hakansson H, Snehota I (2003). Managing Business Relationships. 2ndEdition. Chichester: John Wiley and Sons.

Gilley JW (2006). The Manager as a Politician . West port: Praeger Publishing.Hartline MD, Bejou D (2004). Internal Relationship Management: Linking Human Resources to Marketing Performance . New York: Best Business Books.

Houser J, Osman KS (2010). Evidence- based Practice: An Implementation for Health Care Organizations Burlington: Jones and Barlet Learning.

Hunt M, Lara TM, Hughey AW 2009. Establishing and maintaining organizational trust in the 21st century. Industry and Higher Education,23(2): 71-77.Institute of Leadership and Management 2007.

Man-aging the Employment Relationship Super Series Boca Raton: CRC Press.Jackson DN. (2009). Building and Maintaining Customer Relationships at LA-Palm Royal Beach Ho-tel, Ghana. Doctoral Dissertation, Unpublished. Ghana: University of Cape Coast.

Jansen RJG, Curseu PL, Vermeulen PAM (2013). Information processing and strategic decision-making in small and medium-sized enterprises: The role of human and social capital in attaining decision effectiveness. International Small Business Journal,31(2): 192-216.

Jeon H, Choi B (2012). The relationship between employee satisfaction and customer satisfaction. Journal of Services Marketing,26(5): 332-341.

Jones D, Sinnett J (2011). Living Your Dream Forever Alresford: John Hunt Publishing.

Kehoe RR, Wright PM (2013). The impact of high performance human resource practices on employees' attitudes and behaviors. Journal of Management,39(2): 366-391.

Kleinaltenkamp M, Ehret M (2006). Relationship theory and business markets. Journal of Business and Industrial Marketing , 21(2): 23.

Lusch RF, Vargo SL (2006). The Service-dominant Logic of Marketing: Dialog, Debate, and Directions . New York: M.E. Sharpe Inc.McDermott AM, Conway E, Rousseau.

DM, Flood PC (2013). Promoting effective psychological contracts through leadership: The missing link between HR strategy and performance. Human Resource Management , 52(2): 289-310

Strohmeier S (2013). Employee relationship management-Realizing competitive advantage through information technology? Human Resource Management Review,23(1): 93-104.

Wellman JC, Kruger SJ (2004). Research Methodology for Business and Administrative Sciences. 3rd Edition. Cape Town: University Press.

Yang Y, Stafford TF, Gillenson M (2011). Satisfaction with employee relationship management systems: The impact of usefulness on systems quality perceptions. European Journal of Information Systems, 20(2): 221-236

HUMAN RESOURCE DEVELOPMENT: POLICIES AND PRACTICES IN PRIVATE SECTOR BANKS IN GUJARAT

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Abstract

The banking sector has been an instrument for the economic development of any nation and its role in a developing country like ours is of vital importance. The banking activities worldwide are undergoing rapid diversification. Technological changes have become the very essence of the banking sector and the Indian banking sector is also prone to these changes. In order to maintain their status in the competitive environment, banks have to concentrate in developing their human resources. In any organization, the quality and amount of productivity mainly depends on the skill and interest of its employees. Therefore, every business organization should take the lead for upgrading the skills and knowledge of its employees for the mutual benefit and progress. In this direction "Human Resource Development (HRD)" is an essential process for every organization in order, to optimally utilize its human resource and in turn to attain its designed objectives. Like any other industrial organization, banking sector is also highly dependent on the quality of HRD practices for the motivation of its employees. An effective implementation of HRD activities would result in excellent organizational climate for the people to be competent and productive. Nevertheless, it is not only the implementation of HRD practices but also their review from time to time helps the banking institutions maintain their status in the competitive environment.

Keyweords: *HRD, Policy, Practice, Banking*

HRD is development process where it focuses on improving the existing capabilities of employees and helping them to acquire new capabilities required for the achievement of organizational and individual goals. HRD is an organizational framework for improving and developing their human capital for which the management implement certain sub-systems or methods. HRD is an organizational framework for improving and developing their human capital for which the management implement certain sub-systems or methods.

The intended purpose of implementing such HRD instruments is to gain a competitive edge in market place through a competent and capable work force. Methods of HRD can focus on teaching the necessary skills to the employees on the job, more specific abilities that help to accomplish any task or responsibilities in an organization; it improves technical and communicative skills which improves the efficiency of employees. There are different types of mechanisms which are employed to implement HRD in an organization viz.;Performance Appraisal; Potential Appraisal and Development; Career Planning; Training and Development; Career Development; Organizational Development; Role Analysis; Employee Welfare and Quality of Work Life; Self-Renewal and Institution Building; Rewards; Quality Circles, Task forces and Assignment Groups; and Employee Counseling and Coaching

These sub-systems or instruments may vary depending on the size of the organization, the internal environment, the support and commitment of the top management, the competitive policies, etc. These sub-systems are designed to develop the competencies of employees and improve the overall organizational climate.

Role of Top Management in HRD

The importance of the development of HR (individuals, teams, inter-teams and the organization) is being seen and expressed in policy documents of the various banks. However, unfortunately, the dilemma of business versus people is still an obsession with most of the banks. While the top management verbally supports the development of people in action, they perceive business as more important, and this difference between 'saying' and 'doing' is clearly reflected in what happens in the banks. Over concern with business, resulting in the neglect of human resources is a short-sighted policy. Building human resources may help in the long-run in achieving business goals. Hence, the choice must be made between the short-term and the long-term goals. The various roles and related action strategies/mechanisms are shown in table 1.

Table 1 - Top Management's Roles and Action Mechanisms for HRD

Roles	Action Mechanisms
Building HRD image and climate	Develop Corporate Policy for HRD.
Attracting Competency	Involve the HRD Personnel in business policy, put demands on HRD, use HRD
Integrating HRD in line management	Emphasis HRD as lien responsibility, start operational division and action research and develop effective systems
Building HRD as a special function	Take interest in HRD and provide support

Role of HRD Personnel in Banks: Success of HRD in banks calls for clear understanding of the roles to be played at different levels. In a large organization like banks, such identification of organizational positions which can make critical contribution to the smooth introduction and implementation of HRD is very much desirable. It is felt that critical positions in banks which require clear and deep understanding of HRD are four, viz., top management, HRD manager, line managers and unions.

Role of HRD Managers: A management innovation like HRD can be initiated and institutionalized only with a deep commitment and involvement of the top-most managers in an organization. But, between the acceptance of the idea by top management and its institutionalization lies the process of giving shape, flesh, blood and life to it. Top management requires at least one person to begin and sustain this process. Irrespective of the various labels used by different organizations, that person is the HRD manager. If the HRD manager is placed in the Head Office, an important role for him would be to formulate the bank's HRD policies. These then would be discussed by the top management as well as other levels of managers to make it a desirable and yet achievable policy. After establishing personal credibility, comes the role of designing new HRD mechanisms and systems. This should be done through research and participation of the relevant groups of managers and employees. Research and participation in design make the new systems more valid and acceptable. The role of HRD managers at the Head Office and Regional Office tends to differ in detail though not in spirit. Implementation of the overall HRD policy is the main task of the regional functionary while formulation of policy is that of the Head Offices. All India common interventions in terms of new systems may be formalized by the Head Office but generally proper usage and credibility about them is the responsibility of the Regional Office. A major special responsibility of the regional HRD managers is to provide expert assistance to regional management and branch managers to explore more humanistic and research based approaches to solve their recurring problems. The HRD manager must constantly invite feedback directly and indirectly about his own behavior and the activities of the department. This is crucial for modeling the spirit of HRD as well as for continued relevance and credibility of the HRD function.

Role of the Unions in HRD: An important but least visible challenge to trade unions lies in the need to respond to the diverse sets of expectations and aspirations of employees. They are trapped between the factors calling for change and forces opposing the change. Unions can play important roles in setting the stage, designing and participating in HRD programmes, thereby attempting to integrate them into their representational role in the organization. On the other hand, over a period of time, these efforts are likely to build a higher involvement of the employees, create more satisfaction and give expression to workers aspirations. The pressures for change are so high that the unions need to modify their traditional role at the work place and start focusing on developmental roles. Developmental roles which unions can play are 1) initiation of HRD; 2) communication; 3) counseling; 4) education and training; 5) welfare; 6) role in family and vocational guidance; and 7) research.

Table 2 - Role of Unions Traditional Roles Focus: Economic Well-being Developmental Role Focus: Psychological and Social Well-being

Traditional Roles Focus: Economic Well-being	Developmental Role Focus: Psychological and Social Well-being
Bargainer	Explorer
Negotiator	Trainer
Fire-fighter	Educator
Agitator	Counsellor
Grievance handler	Collaborator
Game-player	Motivator
Blackmailer	Facilitator
Crisis dealer	Communicator

Review of Literature: The review has given a good insight into the theoretical and practical aspects of the research study. Hence the selected works have been reviewed and presented here. Muktar N. Khan (1990), has stated that manpower resources are in fact a double edged weapon, if they are misused; they lead to economic retardation of a country. An effective HRD programme should include (a) proper HRD strategy, (b) adequate manpower development procedures and (c) a specialized motivational plan. He has opined that in this age of changing technology, human resource development is a pre-condition both for maintaining and for developing the national economy. Shankar. K (1992), recognizes the importance of training for the development of human resources and organizational development. He suggests bringing innovations in training. He further says that evaluation of training is the most important because what is relevant today may not be relevant tomorrow. There is a need to know the effectiveness of training programmes conducted by banks in India, on the basis of different evaluation parameters. Salokhe Vidya A (2003), strongly reported that, H.R. policies of each bank should be uniformly reoriented; there should be special training program for bank employees, transparent performance appraisal system and post appraisal interview, and separate career counseling and training information cell'. The bank may evolve appropriate modifications to the existing mechanisms of employee welfare and have HRD professionals appointed in the Banks. Rajesh Kumar R. L. (2007), highlighted that full fledged HR policies are essential to improve the performance of Co-operative Banks in India. He strongly suggested the need of human resource training and development which in turn will result in Human Resource Development. He also felt the need of full-fledged staff training centers well equipped with modern training aids in every District Co-operative Bank.

Rationale: For the development and growth of any organization, human resource is the basic requirement and most important resource. Therefore, the continuous attraction, development and retention of the human resources become a prerequisite for excellence (competitive advantage) for every organization.The Banks have to understand that the capital and technology, considered to be the most important pillars of banking are replicable, but not human capital, which needs to be viewed as a valuable resource for the achievement of competitive advantage. The long-term vision for India's banking system is to transform itself from being a domestic one to the global level may sound far-fetched at present. To take up this industry to the heights of international excellence requires combination of new technologies, better processes of credit and risk appraisal, treasury management, product diversification, internal control, external regulations and human resources at the most. Development of human capital is therefore the most important challenge before banks and the human resource management systems in banks need to gear itself to face up to this task. It is an opportune time that HR practices in banks undergo a complete transformation to suit the needs of the knowledge economy. More important, banks will not only have to re-skill their employees, they also need to retain and nurture talent. This in turn would be possible only if the HR policy framework in banks provides for clear career path planning and an enabling environment which will help employees to develop & excel in their tasks. Workforce of any bank is responsible to a large extent for its productivity and profitability. Efficient human resource management and maintaining higher job satisfaction level in banks determine not only the performance of the bank but also affect the growth and performance of the entire economy. So, for the success of banking, it is very important to manage human resource effectively and to find whether its employees are satisfied or not. Only if they are satisfied, they will work with commitment and project a positive image of the organization. The present research work makes an effort to study the satisfaction level of HRD policies and practices prevailing among employees of selected private sector banks in four major cities of Gujarat.

Objectives

To investigate the various facets of HRD policies and practices like – Recruitment and Selection, Training and Development, Job Satisfaction, Performance Appraisal, Compensation, Promotion, Quality of Work Life, Motivation, Career Development and Employee Retention in selected private sector banks of four major cities of Gujarat. To investigate the impact of HRD policies and practices on managerial effectiveness of selected banks of Gujarat. To compare the contribution of various HRD mechanisms in the development of human resources. To identify the problems in the existing HRD systems in selected private sector banks suggesting suitable remedial measures.

Hypothesis: The familiarity of HRD philosophy, practices and measures etc., do not differ between the employees of the selected private sector banks functioning in Gujarat state. There is no significant difference between different socio-demographic characteristics of bank employees like, age group, designation, educational qualifications and length of service. There is no significant difference in HRD policies and practices followed in the selected private sector banks operating in Gujarat state. There is an association between the different dimensions of HRD policies and practices and the corresponding levels of satisfaction experienced by the bank employees in their selected private sector banks.

Scope of the Study

The present paper is based on the study of HRD policies and practices of the selected five private sector banks of four major cities of Gujarat. ICICI, HDFC, AXIS, KOTAK MAHINDRA and INDUSIND BANK

Sample Design

The population of study is the employees of the selected private sector banks of Gujarat. It includes the different types of employees working presently including clerks and officers in the private sector banks in Gujarat. Twenty employees from each bank of each city were selected by convenient sampling method. In this way, 400 employees (20 employees x 5 banks x 4 cities = 400 respondents) were selected to be the sample of the present study. The number of selected employees is shown in table 3.

Table 3 - Number of selected employees of the study

No.	Name of the Bank	Number of Respondents				Total
		Ahmedabad	Surat	Rajkot	Vadodara	
1.	ICICI Bank	20	20	20	20	80
2.	HDFC Bank	20	20	20	20	80
3.	Axis Bank	20	20	20	20	80
4.	Kotak Mahindra Bank	20	20	20	20	80
5.	IndusInd Bank	20	20	20	20	80
	Total	100	100	100	100	400

Research Instrument: Questionnaire was prepared to collect the primary data from the employees. Questionnaire was divided into two sections: (A) Demographic profile of the respondents and (B) Respondent's perception on different aspects of HRD policies and practices adopted by the bank. The second section of the questionnaire consisted of about 50 close ended statements with a specific piece of information that seems to them to be appropriate and 50 statements based on five point Likert scale to test the impact of all the variables related to HRD policies and practices prevailing in the bank. The ten (10) major parts/variables considered under the study are viz., Recruitment and Selection, Training and Development, Job Satisfaction, Performance Appraisal, Compensation, Promotion, Quality of Work Life, Motivation, Career Development and Employee Retention

Sources of Data Collection: The present study covered both primary as well as secondary data. The primary data has been collected using structured questionnaire covering close-ended statements and five point Likert scale. The present study used secondary data related to the study which are extracted from the various sources like websites, thesis, dissertation, journals and past studies.

Tools and Techniques of the Study: The responses of 400 respondents of different selected banks of four major cities have been properly classified and tabulated in properly devised statistical tables. The data collected by way of questionnaire were compiled in tabular form along with the graphs so that the analysis can be made easy. Analysis is also done with the help of pie and bar charts and graphs. The descriptive statistics used for interpretation for data analysis are viz., Frequencies, Percentage (%), Mean, Standard Deviation, F-test (Analysis of Variance: ANOVA)

Data Analysis and Interpretation

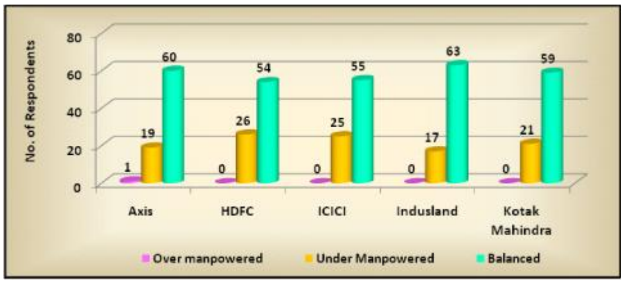
Respondents' Perception About Recruitment And Selection Practices (Manpower Capacity)

Table 4 - Respondents' Perception on Manpower Capacity of Bank

Manpower Capacity	Axis		HDFC		ICICI		Induslnd		Kotak Mahindra		Total (Out of 400)	
	N	%	N	%	N	%	N	%	N	%	N	%
Over Manpowered	1	1.25	0	0	0	0	0	0	0	0	1	0.25
Under Manpowered	19	23.75	26	32.50	25	31.25	17	21.25	21	26.25	108	27.00
Balanced	60	75.00	54	67.50	55	68.75	63	78.75	59	73.75	291	72.75

Source: Compiled Primary Data.

Graph 1 - Respondents' Perception on Manpower Capacity of Bank



The above table 4 provides the information on the respondents' perception about manpower capacity of the selected banks. Majority of 63 (78.75%) respondents of IndusInd bank reported that bank has balanced manpower capacity followed by Axis Bank (75.00%) and Kotak Mahindra bank (73.75%). 26 (32.50%) respondents of HDFC bank indicated under manpower capacity and only 1 (1.25%) respondent of Axis bank said that their bank is over manpowered. From the above table, among 400 respondents, 291 (72.75%) revealed the opinion that selected banks have balanced manpower, 108 (27.00%) respondents reported that selected banks registered under manpower capacity. At the same time, only 1 respondent (0.25%) said that banks have over manpowered capacity. It can be inferred that, majority of 72.75% employees of selected banks reported that banks have balanced manpower.

Respondents' Perception About Training And Development Practices (Purpose of Training and Development Programmes)

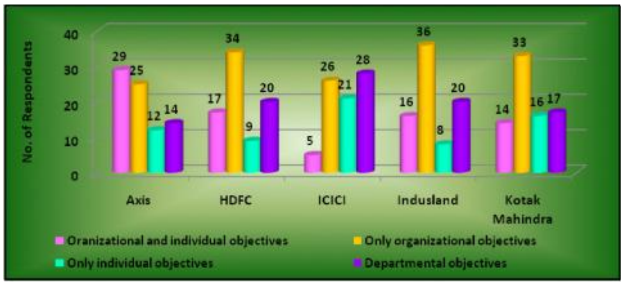
Table 5 presents data regarding respondents' perception about purpose of training and development programmes of the selected banks. Maximum of 36 (45.00%) respondents of IndusInd bank described that the training and development programmes of the bank are only to serve organizational objectives. 29 (36.25%) respondents of Axis bank expressed that training and development programmes of the bank are to serve organizational and individual objectives, 21 (26.25%) respondents of ICICI bank portrayed that training and development programmes of the bank are to serve only individual objectives and finally 28 (35.00%) respondents again of ICICI bank reported that training and development programmes of the bank are to serve departmental objectives as well.

Table 5 - Respondents' Perception on Purpose of Training and Development Programmes of Bank

Purpose of Training and Development Programmes	Axis		HDFC		ICICI		Indusln d		Kotak Mahindr a		Total (Out of 400)	
	N	%	N	%	N	%	N	%	N	%	N	%
Organizational and Individual Objectives	29	36.25	17	21.25	5	6.25	16	20.00	14	17.50	81	20.25
Only Organizational Objectives	25	31.25	34	42.50	26	32.50	36	45.00	33	41.25	154	38.50
Only Individual Objectives	12	15.00	9	11.25	21	26.25	8	10.00	16	20.00	66	16.50
Departmental Objectives	14	17.50	20	25.00	28	35.00	20	25.00	17	21.25	99	24.75

Source: Compiled Primary Data.

Graph 2 - Respondents' Perception on Purpose of Training and Development Programmes of Bank



From the tabulated data, out of 400 respondents, 154 (38.50%) expressed their views that training and development programmes of the bank serves only organizational objectives, 99 (24.75%) respondents reported that training and development programmes of the bank serves only department objectives, 81 (20.25%) respondents described that training and development programmes of the bank serves both organizational and individual objectives whereas 66 (16.50%) respondents were of opinion that training and development programmes of the bank serves only individual objectives. The study resulted that, majority of 38.50% employees expressed their opinion that training and development programmes of the bank serves only organizational objectives.

Respondents' Perception About Recruitment And Selection Practices (Well Defined, Scientific and Rigorous Recruitment and Selection System)

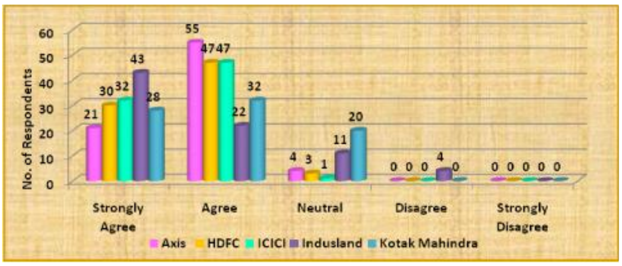
Table 6 - Respondents' Perception whether Recruitment and Selection System of Bank is Well Defined, Scientific and Rigorous

Name of Bank	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%	N	%
Axis	21	13.64	55	27.09	4	10.26	0	0	0	0
HDFC	30	19.48	47	23.15	3	7.69	0	0	0	0
ICICI	32	20.78	47	23.15	1	2.56	0	0	0	0
IndusInd	43	27.92	22	10.84	11	28.21	4	100.00	0	0
Kotak Mahindra	28	18.18	32	15.76	20	51.28	0	0	0	0
Total (Out of 400)	154	38.50	203	50.75	39	9.75	4	1.00	0	0

Source: Compiled Primary Data.

Table 6 exhibits the information on the respondents' opinion whether the recruitment and selection system of selected banks is well defined, scientific and rigorous. From the tabulated data it is depicted that majority of 43 (27.92%) respondents of IndusInd bank strongly agreed, 47 (23.15%) respondents of HDFC and ICICI bank agreed, 11 (28.21%) respondents of IndusInd bank remained neutral and 4 (100%) respondents of same IndusInd bank disagreed that recruitment and selection system of selected banks is well defined, scientific and rigorous.

Graph 3 - Respondents' Perception whether Recruitment and Selection System of Bank is Well Defined, Scientific and Rigorous



Further it is interpreted that out of 400 respondents, 203 (50.75%) respondents agreed, 154 (38.50%) respondents strongly agreed, 39 (9.75%) respondents remained neutral whereas only 4 (1%) disagreed with the statement that recruitment and selection system of selected banks is well defined, scientific and rigorous. The study concluded that, maximum of 50.75% employees agreed that recruitment and selection system of selected banks is well defined, scientific and rigorous.

Respondents' Perception About Training And Development Practices (Training Programmes are Periodically Reviewed and Improved)

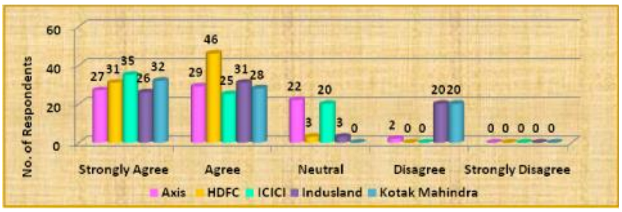
Table 7 discloses data with respect to respondents' opinion whether training programmes are periodically reviewed and improved. Interpreting the data it is reported that majority of 35 (23.18%) respondents of ICICI bank strongly agreed, 46 (28.93%) respondents of HDFC bank agreed, 22 (45.83%) respondents of Axis bank remained neutral and 20 (47.62%) respondents of IndusInd as well as Kotak Mahindra bank disagreed with the statement that training programmes of their bank are periodically reviewed and improved.

Table 7 - Respondents' Perception whether Training Programmes are Periodically Reviewed and Improved

Name of Bank	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%	N	%
Axis	27	17.88	29	18.24	22	45.83	2	4.76	0	0
HDFC	31	20.53	46	28.93	3	6.25	0	0	0	0
ICICI	35	23.18	25	15.72	20	41.67	0	0	0	0
IndusInd	26	17.22	31	19.50	3	6.25	20	47.62	0	0
Kotak Mahindra	32	21.19	28	17.61	0	0	20	47.62	0	0
Total (Out of 400)	151	37.75	159	39.75	48	12.00	42	10.50	0	0

Source: Compiled Primary Data

Graph 4 - Respondents' Perception whether Training Programmes are Periodically Reviewed and Improved



Further it is interpreted that out of 400 respondents, 159 (39.75%) respondents agreed, 151 (37.75%) respondents strongly agreed, 48 (12.00%) respondents remained neutral whereas 42 (10.50%) disagreed that training programmes of their bank are periodically reviewed and improved. The study derived at conclusion that maximum of 39.75% employees agreed that training programmes of their bank are periodically reviewed and improved.

Findings: Majority of 72.75% employees of selected banks reported that banks have balanced manpower. Out of 400 respondents, maximum 38.50% employees expressed their opinion that training and development programmes of the bank serves only organizational objectives. Among 400 respondents, maximum 31.00% employees responded that career opportunity is highly responsible factor for their job satisfaction. From the total 400 respondents, majority of 33.50% employees described that confidential records are used by the banks for performance appraisal. It is inferred that maximum of 50.75% employees agreed that recruitment and selection system of selected banks is well defined, scientific and rigorous. From 400 respondents, maximum of 39.75% employees agreed that training programmes of their bank are periodically reviewed and improved. Out of 400 respondents, majority of 48.00% respondents strongly agreed that their bank provide comfortable working environment like space, light, seating arrangement, air condition, etc. Majority of 44.00% employees among 400 respondents strongly agreed that performance appraisal system of their bank is growth and development oriented.

Limitations of the Study: This study is primarily focused on the primary data taken from the selected five private sector banks functioning only in the State of Gujarat. The employees' perception of HRD policies and practices may differ in other states of India. As there may be a wide gap in HRD practices of the sampled private sector banks, comparisons may not be fully viable. Sometimes employees themselves do not seem to be sure what they feel about the prevailing HRD practices and have answered whatever came in their mind but researcher did not have enough time to check and recheck from employees their final answer about various aspects of HRD practices which may be considered an important limitation of sample survey. It was felt that employees were cautious while replying to various especially in the matter of question relating to relationship between employees and their bosses. In order to get correct answers sometimes one had to ask number of side questions and had to create confidence in employees that their replies will not be revealed to anyone else. Still one cannot be very sure that every respondent had replied that what he really feels about his level of satisfaction. The limited time period of the study at the disposal of the researcher is also limitation. Opinions of the respondents may change over time and situation. The present study is confined to the study of HRD policies and practices in the selected private sector banks in Gujarat for a period of 5 years i.e. from the year 2011-2012 to 2015-2016.

Recommendations: The bank organizations should ensure of having adequate manpower. The shortage of manpower may affect the delivery of banking products as well as use of technology. Strong support from top-level bank managers should be provided to the employees for organizational development by understanding employees' issues, having discussion with them, encouraging employees' by creative ideas for work, etc. The bank management should arrange induction based on the job training to facilitate employees' development and improve their skill, knowledge and performance. Apart of training, banks should encourage their employees for effective interaction with peers and mentors through a well structured mentoring programme. Career planning process should be strengthened in the banks as huge chunk of employees at middle levels are found stagnated. So, banks could expand avenues for promotion by inter-bank promotions and mobility. Instead of skill based rewards, performance and productivity based rewards should be implemented by the management. Management should make aware about the allowances and fringe benefits to the employees.

Bibliography

Bhattacharyya, Dipakkumar, (2006), "Human Resource Planning", Excel Books, New Delhi, Second Edition.

Das, Subhash Chandra, (2015), "The Financial System in India: Markets, Instruments, Institutions, Services and Regulations", PHI Learning Private Ltd., New Delhi, pp.576-584.

Goel, S. L. and Gautam, P. N., (2005), "Human Resource Development in the 21st Century–Concept and Case Studies", Deep and Deep Publications Pvt. Ltd., New Delhi, pp. 77-86.

Indian Institute of Banking and Finance (2009), "Principles and Practices of Banking", MacMillan Publishers India Ltd., New Delhi, Second Edition.

Kaptan, S. S. and Choubey, N. S. (2003), "Indian Banking in Electronic Era", Sarup & Sons, New Delhi, First Edition.

Mohapatra, Shakti R. and Acharya, Debidutta, (2012), "Banking and Insurance", Dorling Kindersley (India) Pvt. Ltd., New Delhi, pp.6-22, 77-86.

Rao, V. S. P., (2005), "Human Resource Management", Excel Books, New-Delhi, Second Edition, pp. 269-275.

Rohmetra, Neelu, (1998), "HRD in Commercial Banks in India", Ashgate Publishing, Aldershot, p. 20.

Sethi, Jyotsna and Bhatia, Nishwan (2012), "Elements of Banking and Insurance", PHI Learning Private Ltd., New Delhi, Second Edition, pp.1-15.

Sheikh, A. M., (2009), "Human Resource Development and Management", S. Chand and Co. Ltd., New- Delhi, pp. 79-80.

Singh, Kanhaiya and Dutta, Vinay, (2013), "Commercial Bank Management", McGraw Hill Education (India) Private Ltd., New Delhi.

Tripathi, P. C., (1997), "Human Resource Development", Sultan Chand and Sons, New Delhi, p.5.

Trivedi Vikas (2008), "HR Perspectives in Indian Banking System", The Indian Journal of Commerce, Vol. 61, No. 1, January-March, Delhi, pp. 68-73.

Gurulakshmi, K. G. and Vidhya, M (2011), "HR Challenges of Bank Employees with Special Reference to Training and Development Programmes in State Bank of India", The Economic Challenger, January-March, Vol. 50, No. 13, Ajmer.

Kundu, Subhash C. & Handa, Ravi Kumar (2008), "Identification of Training and Development Needs': A Study of Indian and Multinational Companies", Indian Journal of Training and Development, New Delhi, Vol. XXXVIII, No. 1, January – March, pp. 01-12 .

Mishra, Priti Suman (2008), "Training and Development need Analysis for Ushering Change - A Study in Jindal Steel and Power Ltd.", Indian Journal of Training and Development, New Delhi, Vol. XXXVIII. No. 3. July-September, pp. 63-71.

Patel, M. K. (2006), "HRD Practices in Service Industry: A Study of Women Employees", RBSA Publications, Jaipur, 2006.

Rajesh Kumar R. L. (2007), "HR Policies and Training Needs in Co-operative Banks", Bank Quest, The Journal of Indian Institute of Banking and Finance, Vol. 78, No. 3, July – September, pp. 59-66.

Annual Reports of AXIS Bank from 2005-06 to 2014-15.

Annual Reports of HDFC Bank from 2005-06 to 2014-15.

Annual Reports of ICICI Bank from 2005-06 to 2014-15.

Annual Reports of IndusInd Bank from 2005-06 to 2014-15.

Annual Reports of Kotak Mahindra Bank from 2005-06 to 2014-15.

http://www.universityofcalicut.info/SDE/BCom_Banking_and_insurance.pdf

www.axisbank.com

www.hdfcbank.com

www.icicibank.com

www.indusind.com

www.kotak.com

www.rbi.org.in

INVESTIGATION OF JOB SATISFACTION AMONG EMPLOYEES: A CASE OF HOSPITALITY INDUSTRY IN AMBALA (INDIA)

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Abstract

In the modern era, entrepreneurs in all industries want to recruit, select, train and motivate able employees who want to serve customers well. However, majority of industries in general and hospitality industry in particular are confronting numerous challenges with regard to their employees. The main issue before entrepreneurs here is about enrichment of satisfaction levels of their workers from different job related aspects. When workers will be satisfied, they will definitively do their duty of serving customers well. With this viewpoint, the paperexplores the level of job satisfaction of hotel workers on various dimensions. A questionnaire was designed and administered on a sample of 150 hotel workers, taken from Ambala District in the State of Haryana. Analysis was conducted using frequencies and proportional analysis. Inferential statistics of Chi-square and z-test (for significant/insignificant difference between two population proportions) were also utilized.Results demonstrated a moderate level of satisfaction among the workers. Workers were mainly found dissatisfied from the behaviour of supervisor, salary, promotional opportunities, internal policies and organizational management. However, majority of sample workers were noticed as satisfied from their job, behaviour of their co-workers and customers. Further, behaviour of supervisor is found as a dimension on which satisfied and dissatisfied workers are found approximately equal in number. Accordingly, the paper calls for enhancement in the level of satisfaction of hotel workers, mainly on the dimensions on which they are found dissatisfied, if entrepreneurs want to win over competitors and customers in the market.

***Keywords**: Job satisfaction, Entrepreneurs, Hotel Workers*

Presently, entrepreneurs in Indian hospitality industry are under tough competition and facing various challenges including job dis-satisfaction among their employees. Various other issues such as taxation-regulatory policies, security and service levels are also confronted by businessmen here. But whatsoever be the issues, the fact does not need any justification that any industry (whether a manufacturing or service such as hotel) can gain competitive advantage only by serving their customers well. In this way, locating prospect customers, their acquisition and retention is very much important for all kind of businesses. In this regard, service organization is not an exception where employers seek to maximize the number of customers which ultimately depend upon the quality of service. Also, it is true that service quality cannot be attained in vacuum but become achievable only when the workforce will be ready to serve customers in best possible way. Now, the point worth mentioning is that this ultimately will happen only when employees themselves will be satisfied with their jobs; since job satisfaction improves the retention level of employees; reduces tension and stress among them and enhances their level of commitment, performance and productivity. It also keeps the employees efficient and motivated to fulfill customer needs with authenticity, professionalism, happiness and great enthusiasm (Petrovic and Markovic, 2012; Kiruthiga and Magesh, 2015). In this way, as hotel industry requires physical presence and positive attitude of the employees when dealing with guests, employees' satisfaction and motivation is of paramount importance in creating fair business (Joseph, 2013).Thus, job satisfaction - a situation in which employees are enjoying their positions and feel rewarded for their efforts, is good both for employersas well as employees.Accordingly,the employers should try to increase the level of job satisfaction among the employees by any ways possible(Murray, 1999; Aksu, 2000); otherwise, they have to realize the outcome of job dissatisfaction in terms of discouragement and turnover of current employees; increase in the cost of recruitment, selection and training of new employees; and reduction in the growth of organization. Keeping this fact in mind, the researchers, worldwide, have found numerous ways of satisfying the employees;and thus, facilitated the entrepreneurs to attract, motivate and retained the most committed workforce(Padilla-Velez, 1993; Khan et al., 2012).Keeping with the abovebackground, this paper is locatedaroundexploring job satisfaction among hotel workers based on certain parameters (defined later in methodology). The paper is organized under seven major sections and some of the sub-sections under the main headings. Section one was introduction as defined.Section two is review of literature. Section three is about the objectives and methodology after which analysis is presented in section four. Section five concludes the findings, and sections six and seven are about implications and research directions.

Review of Literature

According to Arokiasamy (2013), satisfaction is fulfilment of a need or desire and the pleasure obtained by such a fulfilment. The concept of employee satisfaction has gained a special concern both from academicians and practitioners. Here, the literature is contently analyzed to present a review of studies who have worked on employee satisfaction in one way or another. Research papers, articles and reports related to the period of 2010 to 2015 are investigated and presented here. Tsai et al. (2010) combined certain variables as empowerment, internal marketing, leadership and job stress to propose an integrated model of hospitality industry employees' job satisfaction, organizational commitment and job performance. The respondents were hospitality industry employees from Taipei City. The structural equation modelling was adopted to validate path relationships in integrated model. The findings showed that employees' job satisfaction directly and positively influenced organizational commitment, but did not directly influenced job performance. Indeed, employees' job satisfaction enhanced job performance only through organizational commitment. Internal marketing, empowerment and leadership also positively influenced job satisfaction. Further, internal job stress had negative impacton employees' job satisfaction;while external job stress enhanced employees' job performance. Sledge et al. (2011) incorporated Hackman and Oldham's Job Diagnostic Survey and Hofstede's dimensions of culture in the global services industry. Multiple measures were utilized to operationalize the construct of job satisfaction based on previous researches. Qualitative research methods which incorporated face to face interviews and observation were considered. Three samples were undertaken. Employees from Toronto, Canada comprised sample A; employees from Baja, Mexico comprised sample B; and employees from Amsterdam, Netherlands comprised sample C. These three samples were analyzed separately. In the findings, the Canadian employees showed above average agreement with the statements. Their highest level of satisfaction occurred in the area of autonomy and lowest level of satisfaction were revealed with regard to skill variety. The Mexican had the highest average agreement scores and expressed the most satisfaction. These employees showed the highest satisfaction with task significance and the lowest satisfaction again with skill variety. The sample from the Netherlands yielded the lowest satisfaction rating amongst the three groups. It implied that managers in these organizations should investigate why employees exhibited relatively low satisfaction. Jafri (2012) purposed to study the relationship between pay, supervision, work itself, work conditions, promotion opportunities and job satisfaction. Sample respondents were employees of hotel Taiping Perdana where a total of 68 respondents took part in the survey. A survey questionnaire was administered to this sample. The findings exhibited that there was a positive and significant relationship between pay, supervision, work conditions, promotion opportunities and job satisfaction. This result indicated that employees generally feel satisfied when they worked at Hotel Taiping Perdana. Hence, the findings had importance for hotel Taiping Perdana for getting better competitive advantage and competing among local and international levels. Kara et al. (2012) examined gender differences while controlling for selected variables on job satisfaction. The data were used from 397 employees (234 males and 163 females) in five star hotels in Ankara, Turkey. The level of job satisfaction is determined by four factors which were management conditions, personal fulfillment, using ability in the job and job conditions. The results provided evidence of significant gender differences with regard to the 'using ability in the job' dimension. Also, after controlling variables such as age, marital status, monthly income level, education, type of department, position held, length of time in the organization, length of time in the tourism sector and frequency of job change, most gender differences remained significant. The results further provided information for understanding, maintaining, and increasing the satisfaction levels of both female and male employees.

Lee and Lee (2012) investigated the relationships between the hospitality workforce and certain job satisfaction factors. Also, they addressed about the aspects of a position that an employee believes to be valued and important. For the purpose, data on a total of 17 attributes were collected and analysed through factor analysis, simple regression and MANOVA. The findings revealed that women were more attached to their work than men; and tenured workers considered their employment important in terms of belonging to the society. Further, workforce diversity played a more important role among those in management positions than those of subordinate employees. Also, employees who were a part of the major racial-ethnic group in the workplace tend to have a more sensitive attitude towards workforce diversity.

Ogbonnikan (2012) sought to find out whether the employees of hotel business were really satisfied with their jobs or not. The objectives of this research were to identify the various factors that actually triggered or were responsible for workers' satisfaction; and to determine the major factors which made them satisfied with their jobs. To formulate and conduct the study, qualitative research methods including interview and observation were used. It was discovered that majority of hotel workers were averagely satisfied with their jobs and their satisfaction lead to efficiency on the part of the employees. The author further made recommendations to the employers of the hotels for maintaining a good human relationship and employee satisfaction in the giant star hotels in particular and the hotel accommodation industry in general. Petroviæ and Markoviæ (2012) aimed to study connections and differences in service orientation and work satisfaction among the hotel employees. To determine these issues, service orientation scale, developed by Dienhart, Gregoire, Downey and Knight (1992) and work satisfaction scale developed by Lytle (1994) were utilized from literature. Three factors were obtained for service orientation scale and there was a uni-factor solution for work satisfaction. With the findings, it was concluded that service orientation was highly correlated to work satisfaction of employees through positive interaction with superiors, adequate training and established procedures in service business. Arokiasamy (2013) examined the relationship between career development, compensation and rewards, job security and working environment with employee satisfaction in the hotel industry in Malaysia. Questionnaire responses from 127 employees were collected from four and three star hotels in Ipoh, Perak. Multiple regression analysis was used. The results highlighted that there existed a positive relationship between career development, compensation/rewards, job-security/working environment and employee satisfaction. The findings had implications in assisting hotels in organizing uniform, effective and cost saving training programmes for all the staff in order to increase the level of employee satisfaction. Joseph (2013) undertook his study on a background that employee turnover was at its peak in the hotel industry due to the limited satisfaction level of the employees at their work place. Here, the researcher's task was to find out the reasons or areas of employees' dissatisfaction. Seventy five employees from different star hotels located in two south Indian districts of India were considered as sample. Levels of satisfaction were measured by using self-structured questionnaire. It has been attained that employees of star hotels were neither very happy nor satisfied in many spheres of their professional environment. So, employers need to undertake measures for satisfaction and happiness of employees in their hotels. **Mu Yeh (2013)** examined the relationship among tourism involvement, work engagement and job satisfaction in the hotel industry. Data were gathered from 336 frontline employees of twenty international hotels in Taiwan. Structural equation modelling was applied on the data to attain results. Findings highlighted that tourism involvement was positively related to work engagement, while both tourism involvement and work engagement were positively related to job satisfaction. Also, work engagement was found to partially mediate the relationship between tourism involvement and job satisfaction.

Santa Cruz et al. (2014) investigated the levels of jobsatisfaction among hotel employees in the province of Cordoba, Spain. The relationship of job satisfaction with specific organizational aspects of hotel business was also considered. To achieve the purposes, a series of hypotheses were proposed and tested. The research found that jobsatisfaction had increased with higher family dependence on employee wages. However, the permanent contracts or greater length of service did not increase jobsatisfaction levels.

Kiruthiga and Magesh (2015)obtained that in hotel industry employees experience many problems which force them to leave their jobs. Accordingly, theyaimedtoidentify which of the Herzberg's motivation-hygiene factors was valued more by employees ofstar category hotels. A total of 100 employees were surveyed on their level of satisfaction with the hygiene andmotivating factors. From the analysis, it was concluded that employee recognition, growth opportunity and workitself resulted in ultimate job satisfaction among theemployees and they emphasized a greater value on these variables.

A review of current literature highlights that there may be many parameters and ways upon which a study regarding job satisfaction can be arranged. However, specific objectives, on which this paper is based is discussed next with adopted methodology.

Objectives and Methodology

Objectives: This paper studied job satisfaction among hotel workers with two objectives.To explore the significant parameters according to which employees job satisfaction varies; To investigate the areas of employees satisfaction or dissatisfaction.

Research Instrument: Job satisfaction may be an outcome of different factors like pay, promotion, the work itself, supervision, relationships with co-workers and opportunities for promotions (Opkara, 2004). Accordingly, a questionnaire was designed to measure job satisfaction on the parameters namely job itself, co-workers, behaviour of supervisor, pay/salary, promotional opportunities, internal policies, organizational management and customers. Literature was the base of selecting the parameters and their measurement. A five point rating from "1 = completely disagree" to "5 = completely agree" was utilized. Also various demographic features were included such as age, education, income and position of working.

Sampling: Sample of 150male hotel employees was taken from two provinces of district Ambala namely Ambala Cantt and Ambala City. The district Ambala from the state of Haryana is selected because this place as situated around 200 KM North of National Territory (New Delhi) on National Highway No. 1 isway to important tourist destinations of Punjab, Chandigarh, Himachal Pradesh and Jammu & Kashmir.For the reason, not only national but foreigntouriststoo look at hotel industry here for superior and quality services; and if these services will be provided to them, the industry will progress both nationally and internationally. Also, only male employees were selected as sample respondents on the basis of judgment of researchers that female workers are few in number in this industry in Ambala; and mainly male employees work in hotels in different duties and roles.

Sampling Technique: Selection of sample respondents was based on Snowball sampling technique. In this, initially,some of the hotel employees were personally contacted and they were being told about the purpose of the study. They were requested to fill the questionnaire as sample respondent; and also suggest more employees who can become a part of the sample. Those who became ready for the same,acted as beginners, and in this way, a network was set up between the employees for getting the data collected. This was done because personal contacts with each and every employee in any hotel were much cumbersome. Also, with the first meeting with the employees, they mainly denied to spend their time for filling up the questionnaire at the timing of their work. Accordingly, it was thought-out that if they would be given sufficient time for filling the questionnaire (separate from their working hours), they could response freely, accurately and without any stress or pressure. Now, the next sectionhighlights sample characteristics and results based on analysis of sample data.

Analysis and Interpretation

At the outset, demographic profile of sample is depictedbefore presentation of results of data analysis.

Sample Characteristics: Table 1 provides a snapshot of sample of hotel workers. All the workers in the sample are male; so, the percentage of male category is cent per cent. According to age, majority (N=122; %=81.33) of workers are young having less than 25 years of age. In terms of education, percentage of graduates (%=41.33) in the sample is high followed by post graduates and those having only school education. Considering income, maximum works get a monthly salary of 10,000 or lessthan it. Lastly, in accordance with position of working, almost equal number (N=58; N=57) work on lower and middle levels. However, less but considerate percentage of workers (%=53.33) also work on higher positions.

Measurement of Satisfaction in accordance with Research Parameters: It has been mentioned that a five point measurement was obtained from the questionnaire. However, for a refined analysis, five point measurement was converted to three for obtaining the categories of satisfied-dissatisfied respondents. For the same, the respondents who checked the 'completely agree and agree' response were merged into one category of 'satisfied' employees. On a similar ground, those positioning on the responses of 'disagree and completely disagree' were termed as 'dissatisfied' employees. Respondents who marked the option 'neither agree nor disagree' were taken in the category of 'indifferent'. After this transformation, data were analyzed and two tables were prepared for each parameter in order to attain the two objectives. In one table, frequencies and percentages with chi-square test are revealed to accomplish objective 1; and in the second, statistics of z-test are described for realizing objective 2.

Chi-square test here studies the difference between observed and expected frequencies against a null hypothesis that there is no significant difference between observed and expected count. If there exists no significant difference between observed and expected frequencies; it can be said that employees' satisfaction or dissatisfaction do not vary according to that particular parameter. However, if significant difference is noticed, the reverse will be true. Further, it is to be mentioned that observed frequencies highlighthow many respondents among the total respondents checked a particular category. On the other hand, expected count is arrived at on the basis of equal probability of respondents for choosing a particular response. As an instance, on a five point measurement, for a total of 150 respondents, expected count with equal probability can be calculated as 150÷5 which will be equal to 30. Similar calculation applies to three categories, for which expected count comes out to be 50 that is 150÷3.Further, z-test for difference between two proportions tests the null hypothesis that there is no significant difference between the two proportions.

Satisfaction in terms of Job Itself: The parameter of 'job itself' implies the satisfaction of employees from the nature of work they are doing. Sometimes, people have to do a kind of work which actually they dislike, and then dissatisfaction is obvious. So, first parameter is about this aspect.

Tables 2(a) presents a two dimensional structure of workers' responses regarding the job they are doing. As the data were collected on a five point scale, the columns under heading 'Index Responses for Grouping of Workers' depict that majority of respondents (N=78; %=52) are completely agree that they are satisfied with their job while only marginal (N=11; %=7.3) responded that they are completely disagree. The chi-square test statistics ($\div^2$=108.867; p=0.000) for these responses confirms that the observed frequencies statistically differ from expected frequencies. Further, on the basis of these responses, three categories of workers have been obtained; namely, satisfied, indifferentand dissatisfied (as explained earlier). It is found that a substantial part of the sample falls under satisfied group of respondents (N=112; %=74.7) followed by dissatisfied group (N=29; %=19.3). Whereas, the group of indifferentworkers has a lowest share (N=9; %= 6). Here, on the basis of chi-square test ($\div^2$=119.320; p=0.000), again a statistical difference is attained in the observed and expected frequencies.

The results for z-test of difference between two proportions are evident in table 2(b) for the three groups which are to be contrasted. The observed significance levels reveal that the proportions of satisfied and indifferent(z=12.127), satisfied and dissatisfied (z=9.613), and indifferentand dissatisfied groups (z=3.465) significantly differs from each other. Hence, going with the highest proportion of satisfied workers, it can reliably be said that maximum workers are satisfied with the job or the nature of work they are doing.

Satisfaction regarding Co-Workers: The word 'co-workers'symbolizes the fellow beings and can be termed as equivalent to the word 'colleagues'. If workers are satisfied with their colleagues, there will be no mental stress and conflict which will enhance employee productivity. The analysis on this parameter is presented here.

Table 3(a) highlights that among 150 respondents, 38 per cent (N=57) belong to the category of completely satisfied; and only 10 per cent (N=15) are completely dissatisfied with regard to co-workers. Besides, agree and disagree options contain 26 per cent (N=39) and 10 per cent (N=15) responses respectively. While 16 per cent (N=24) respondents are in the category of neither satisfied nor dissatisfied. When these responses are tested through chi-square test; then, the observed frequencies are found to be statistically different from expected frequencies. However, when these five categories are clubbed into three groups, it became clear that satisfied group occupies a largest share (N=96; %=64); whereas, the groups of dissatisfied and indifferentworkers have only 20 per cent and 16 per cent respondents respectively. Again, statistical difference between observed and expected frequencies based on chi-square test ($\div^2$=63.840; p=0.000) is found noteworthy.

Further, the difference between two proportions is examined through z-test [Table 3(b)]. The calculated values of z-statistics explores that significant difference exists in case of satisfied and indifferentgroup (z=8.485; p=0.000); and satisfied and dissatisfied group (z=7.721; p=0.000). But, difference between indifferentand dissatisfied group is not significant as z-statistic in this case is 0.902 (p=0.368). On the basis of these results, it can be inferred that large number of workers are satisfied with their co-workers having highest proportionate share.

Satisfaction with Behaviour of Supervisor: Another important dimension of job satisfaction is behaviour of supervisor or leader whose task is to supervise or lead the workers. Supervisor's style of leading and his/her approach of doing work impacts the level of employee satisfaction. Listening to employees' insights and suggestions may be in the personality of one supervisor but for somebody else may be totally absent. Suitably, the parameter of behaviour of supervisor is measuredand studied.

The table 4(a) depicts that with regard to the satisfaction from the behavior of supervisor, percentage of completely disagreed respondents (%=18) is more than the completely agreed (%=17.3). Among agree and disagree categories, agree respondents are 31.3 per cent and disagreed are 25.3 per cent. However, only 8 per cent of the respondents belong to the group of neither satisfied nor dissatisfied. After testing these five types of responses by chi-square, it is found that the statistical difference between the observed and expected frequencies exists ($\div^2$=23.400; p=0.000). When the groups of responses on the level of agreement/disagreement are prepared, it becomes clear that the size of group of satisfied respondents (N=73; %=48.7) is bigger than dissatisfied group (N=65; %=43.3). By applying chi-square test on the three types of responses, again a statistically significant difference is felt between observed and expected frequencies ($\div^2$=43.960; p=0.000).

Moreover, the results of z-test in table 4(b) confirm that the difference between satisfied and indifferentgroup and between indifferentand dissatisfied group is significant. But, the difference between satisfied and dissatisfied groups is not significant (z=0.983; p=0.347). Therefore, in case of the satisfaction from the behaviour of supervisor, a substantial size of respondents are satisfied but a similar size are dissatisfied also.

Satisfaction across Pay/Salary: Every individual when employed, firstly look for sufficient monetary benefits which is reflected by person's pay or salary. Hence, this is a factor which has a major impact on job satisfaction; accordingly, it is examined.

Table 5(a) explores that 48 per cent respondents are completely dissatisfied and 22 per cent are dissatisfied with their pay/salary. Whereas the per cent of respondents in completely agree and agree categories are just 6 and 10 per cent respectively. Further, 14 per cent of the workers are found to be indifferent. On testing these five types of responses by chi-square, it is found that the calculated value of chi-square ($\div^2$=84.00; p=0.000) is more than the table value and therefore the null hypothesis that there is no significant difference between observed and expected frequencies is rejected. After converting these five categories into three groups, the group of dissatisfied respondents (N=105; %=70) is looking biggest in comparison of other two groups. In this case, value of chi-square is 90.84 (p=0.000) which again infers that observed frequencies are significantly different from expected frequencies.

The scores of z-test in table 5(b) reveal that the difference between satisfied and dissatisfied groups (z=9.446; p=0.000), and between indifferentand dissatisfied groups (z=9.826; p=0.000) is significant. However, proportion of satisfied group is not different from indifferentgroup as the z-score is 0.485 (p=0.624). Indeed, it can be inferred that large number of workers are actually dissatisfied with their present pay/salary they are getting for their work.

Satisfaction from Promotional Opportunities: After monetary benefits, opportunity for growth and development is an important dimension of job satisfaction. Leaving the exceptions, large numbers of persons have growth needs which inspire them to work diligently. Therefore, satisfaction from this aspect is also necessary; and suitably the parameter for promotional opportunity is employed in the study.

Table 6(a) exhibits that most of the respondents that is 48.7 per cent are disagreed for satisfaction from promotional opportunities and 14 per cent of the respondents are completely disagreed in this regard. Whereas, completely agree and agree categories include a minor part of sample respondents namely 9.3 and 8 per cent respondents respectively. On the other hand, in neither agree nor disagree group 20 per cent respondents fall. These responses are tested by applying chi-square test whose value is estimated to be 83.667. Based on this value, chi-square test rejects the null hypothesis that there is no difference between observed and expected frequencies. Further, looking at the right hand side of the table, for the three groups, 62.7 per cent respondents are dissatisfied followed by neutral group (%=20) and satisfied group (%=17.3). The difference between observed and expected frequencies is again highly significant with chi-square statistics of 58.240.

It is seen in table 6(b) that the difference between satisfied and dissatisfied groups; and between indifferentand dissatisfied groups is significant as the value of z-statistic is 8.026 for former case and 7.509 for later. But, the difference between satisfied and indifferentproportion is not significant. On the basis of these results, it can be inferred that large number of workers are dissatisfied with promotional opportunities in their job; so, believe that their job has no future potential.

Satisfaction with regard to Policies: Policies,on which, the work in any organization is carried out is an important factor affecting willingness of the workers to work efficiently. The discourse below measures the satisfaction of workers from internal policies of the hotels.

Table 7(a) shows that in case of the satisfaction from policies, disagreed and completely disagreed respondents are 29.3 and 20.7 per cent respectively; while agreed and completely agreed respondents are 12 and 20 per cent respectively. The calculated value of chi-square comes out to be 11.667 which explains a statistically significant difference between observed and expected frequencies at 5 per cent level of significance. In case of three groups, dissatisfied group include 50 per cent respondents whereas less percentage that is 32 per cent are in satisfied group. The difference between observed and expected frequencies is also significant as analyzed by chi-square value ($\div^2$ =23.160).

Moreover, table 7(b) explains thatall differences between pairs of proportions are significant including satisfied and indifferent, satisfied and dissatisfied, and indifferentand dissatisfied. Thus, owing to high percentage, inference can be drawn that majority of workers are not satisfied with regard to policies.

Satisfaction along with Organization's Management: It is the management of any organization who is the supreme decision making unit and takes decisions for the workers in all the ways. If employees are satisfied with these decisions, they bring commitment and energy to work which is a key indicator of their involvement and dedication to the organization. Then they also become more loyal to the organization. The analysis here studies the satisfaction of hotel employees on this parameter.

In the table 8(a) it becomes clear that regarding satisfaction from organizational management, the number of completely disagreed respondents is higher than completely agreed respondents (N=25 > N=17). Similarly, frequency of agree respondents is lagging behind frequency of disagree class (N=26 < N=37). In this case, most of the respondents (N=45) are neither agree nor disagree. On the examination of differences in these responses, the value of chi-square is estimated to be 16.133 which are significant at 1 per cent level of significance; thereby, indicating the existence of difference between observed and expected frequencies. Besides on the right hand side of the table, it is observed that 41.3 per cent of the respondents fall in dissatisfied group and attain first rank. At the second position the category indifferentcomes with 30 per cent respondents, while the satisfied group comes at last position as it has only 28.7 per cent workers. But the difference between observed and expected frequencies for these groups is not significant as the calculated value of chi-square ($\div^2$ =4.360) is inconsiderate.

Further, table 8(b) investigatesthe differences in these groups by using z-statistics; and it is found that satisfied and dissatisfied groups and indifferentand dissatisfied groups differ significantly. As a finalization of this analysis, it can be interpreted that majority of workers are dissatisfied from organization's management.

Satisfaction from Customers: Satisfaction of workers from customers implies the satisfaction in terms of customers' attitude and conduct with employees. If employees are being treated well by customers, they will definitely deliver quality services. The result related to thisparameter is as follows.

It is evident from table 9(a) that 73 among 150 respondents (%=48.7) are completely agree and 35 (%=23.3) are agree with respect to satisfaction from customers. Whereas, the numbers of completely disagree and disagree workers are merely 15 (%=10) and 16 (%=10.7) respectively. Here, the value of chi-square is computed to be 88.533 against which a significant difference has been emerged out between observed and expected frequencies. Analyzing across three groups, the percentages of respondents in satisfied and dissatisfied groups are 72 per cent and 20.7 per cent respectively. Here, the chi-square value is 104.920 (p=0.000) which means the difference between observed and expected frequencies is again significant.

Further, z-test in table 9(b) is an indication for the significant differences between satisfied and indifferentgroups (z=11.455; p=0.000); satisfied and dissatisfied groups (z=8.909; p=0.000); and between dissatisfied and indifferentgroups (z=3.344; p=0.001). As all the proportions are significantly different from each other, it can be said that a large segment of respondents is satisfied from customers to whom employees interact.

Now, major findings are concluded in next section where the results are also contrasted with literature.

Findings and Conclusion

Overall, it is confirmed that hotel workers notably differ regarding job satisfaction on different parameters; since, chi-square test highlights statistical significancefor all parameters.Based on results of z-test for difference between two proportions, it can be concluded that employees are mainly satisfied from their job, co-workers, behaviour of supervisor and customers. However, the elements which dissatisfied the employees are behaviour of supervisor, pay/salary, promotional opportunities, internal policies and organizational management. The most important job factor is the job satisfaction from monetary benefits; but, in the present case, workers are found dissatisfied from their salary. Further, it can also be said that work environment in hotels (as indicated by the dissatisfaction from policies and management) also made workers dissatisfied. Employees thinking that there are no promotional opportunities for them in the job also made them dissatisfied. Also, behaviour of supervisor comes out as a unique parameter for which almost equal numbers of workers are satisfied and dissatisfied. So, this parameter falls both in terms of satisfaction and dissatisfaction. These findings are summarised in table 10.

In addition, with a contrast of present results with literature, it is obtained that finding regarding pay/salary, promotional opportunities, internal policies and organizational management are in contradiction with Jafri (2012). However, the study ofJoseph (2013) is supported for the same results that there are many areas or spheres where employees are not happy or satisfied. On the other hand, study of Kiruthiga and Magesh (2015) provides both support and contradiction. Support comes for the finding of job itself and contradiction arrises on the parameter of promotional opportunity.

Based on the findings, a number of implications and research directions can be provided for this industry. These two aspects are the subject matter of rest of the paper.

Research Implications

It is true that the level of job satisfaction affects the level of efficiency. Present research signifies that employees are not satisfied with the financial benefits and think that they have no opportunities of promotion and growth; it shows their high disappointment which may hinder their smooth working. So, the owners of hotels should adequately remunerate the hotel workers as the monetary factor is premierin giving job satisfaction. The techniques of monetary benefits of motivation may be applied to less educated workers and workers with feeble economic background. However educated and status/esteem conscious workers may be motivated by the techniques of job enrichment, job enlargement and job rotation. Workers dissatisfaction from internal policies and organizational management imply that entrepreneurs must be aware of workers needs, talents and growth perspectives in designing policies, programmes and other packages for the well-being of the workers. Also, the freedom of working at the work place could be a factor for increasing the efficiency of hotel workers. Further, examination of parameter of supervisor's behaviour brings out a two phased situation both of which are important. On the one side, notable group of satisfied employees is a good indication of employee satisfaction; but on the other hand, the group of dissatisfied employees are also visualizing themselves. So, entrepreneurs or supervisors must adopt friendly, co-operative and compassionate behaviour in treating employees so that they themselves can become a source of satisfaction. There is another implication that government or regulating bodies should professionalize the hotel business and this profession itself must be given respect and recognition. Hotel workers, although they possess, but should firmly continue to have a favourable attitude towards their jobs to be more and more effective and efficient in their work.

Further Research Directions

The study is based only on a regional sample; thus, the results cannot be enlargedto a fullerextent. The sample size in further studies may include more workers probably from different hotels in different regions.The study works only at exploratory level; however, future researchers can go deeper into the factors motivating the hotel workers and the factors that could motivate and increase job satisfaction. Future researchers can also analyze demographic, psychological and other class of factors which can effect job satisfaction.Profiles of less satisfied, moderately satisfied and highly satisfied workers may be obtained on the ground of segmentation analysis which may give more advanced and generalized results. Also, more recent techniques of data analysis may be applied. The finding for satisfaction from behaviour of supervisor comes out as conflicting and the conclusion regarding the satisfaction or dissatisfaction cannot be biased only on one side. In this circumstance, probably there is again a need to increase the sample size for reaching at appropriate decision.

References

Aksu, A. A. (2000), "Hotel Management affecting the Success of External Environmental Factors", *Balýkesir University of Social Sciences Institute Journal*, Vol. 3(4), pp. 269 – 281.

Arokiasam, Anantha Raj A. (2013), "A Study on Employee Satisfaction Perspectives in the Hotel Industry in Malaysia", *International Journal of Management and Strategy*, Vol. 4(6), pp.1–17.

Jafri, RoziyanaBinti (2012), "Factors Influencing Job Satisfaction among Employees: A Case Study of Hotel Taiping Perdana", Thesis Submitted to Othman Yeop Abdullah Graduate School of Business, University Utara Malaysia, in Fulfilment of the Requirement for the Master of Science (Management)", [Available online at: http://etd.uum.edu.my/3103/3/ROZIYANA_JAFRI.pdf].

Joseph, Pd (2013), Employee Job Satisfaction in Hotel Industry: A Study of Selected Star Hotels of Kerala and Karnataka in India", *International Journal of Applied Services Marketing Perspectives*, Vol. 2(3), pp. 507 – 511.

Kara, Derya, Uysal, Muzaffer and Magini, Vincent P. (2012), "Gender Differences on Job Satisfaction of the Five Star Hotel Employees: The Case of the Turkish Hotel Industry", *International Journal of Contemporary Hospitality Management*, Vol. 24(7), pp.1047 – 1065.

Khan, A. H., Nawaz, M. M., Aleem, M. and Hamed, W. (2012), "Impact of Job Satisfaction on Employee Performance: An Empirical Study of Autonomous Medical Institutions of Pakistan".*African Journal of Business Management*, Vol. 6 (7), pp. 2697 – 2705.

Kiruthiga, V. and Magesh, R. (2015), "Gears of Job Satisfaction among Star Hotel Employees", *International Journal of Innovative Research in Science, Engineering and Technology*, Vol. 4(1), pp. 18563 – 18567.

Lee, Chang and Lee, Jungwon (2012), "Analysis of the Relationships between the Hospitality Workforce and Job-Satisfaction Factors According to Age, Gender, Native Language, and Racial-Ethnicity",*Journal of Tourism and Hospitality*, Vol. 1(5), pp. 1 – 8.

Mu Yeh, Chien (2013), "Tourism Involvement, Work Engagement and Job Satisfaction among Frontline Hotel Employees", *Annals of Tourism Research*, Vol. 42, pp. 214 – 239.

Murray, Richard A. (1999), "Job Satisfaction of Professional and Paraprofessional Library Staff at the University of North Carolina at Chapel Hill", A Master's paper for the M.S. in L.S. degree, pp. 1 – 56.[Available online at: http://www.ils.unc.edu/MSpapers/2501]

Ogbonnikan, Esther Olayinka (2012), "Job Satisfaction and Efficiency among Hotel Workers: Case Study of Giant Star Hotel Lagos, Nigeria", Thesis Central Ostrobothnia University of Applied Sciences, Degree Programme in Tourism, [Available online at: https://publications.theseus.fi/bitstream/handle/10024/41439/Ogbonnikan_%20Olayinka_%20Esther.pdf?sequence=1].

Opkara, J. O. (2004), "The Impact of Salary Differential on Managerial Job Satisfaction: A Study of the Gender Gap and its Implications for Management Education and Practice in a Developing Economy". *The Journal of Business in Developing Nations*, Vol. 8, pp. 65 – 92.

Padilla-Velez, David (1993), "Job Satisfaction of Vocational Teachers in Puerto Rico", Unpublished Doctoral Dissertation, The Ohio State University, pp. 1 – 178. [Available online at:https://etd.ohiolink.edu/!etd.send_file?accession=osu1249666992&disposition=inline].

Petroviæ, Marko D. and Markoviæ, Jelica (2012), "Researching Connection between Service Orientation and Work Satisfaction: A Study of Hotel Employees (Novi Sad, Serbia)", *TURIZAM*, Vol. 16(1), pp. 29 – 39.

Santa Cruz,Francisco González; López-Guzmán, Tomás and Sánchez Cañizares, Sandra M (2014), "Analysis of Job Satisfaction in the Hotel Industry: A Study of Hotels in Spain", *Journal of Human Resources in Hospitality & Tourism*, Vol. 13(1), pp. 63 – 80.

Sledge, Sally; Miles, Angela K. and Van Sambeek Maartje F. (2011), "A Comparison of Employee Job Satisfaction in the Service Industry: Do Cultural and Spirituality Influences Matter?" *Journal of Management Policy and Practice*, Vol. 12(4), pp. 126 – 145.

Tsai, Ming-Chun; Cheng, Ching-Chan and Chang, Ya-Yuan (2010), "Drivers of Hospitality Industry Employees' Job Satisfaction, Organizational Commitment and Job Performance", *African Journal of Business Management*, Vol. 4(18), pp. 4118 – 4134.

PROBLEMS AND CHALLENGES FACED BY HANDICRAFT ARTISANS

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Abstract

Handicrafts have a great potential to provide employment opportunities to millions of artisans spread over length and breadth of the country, as most of the artisans have inherent art to be converted in to occupation. Women of Gujarat are very prosperous in the art of 'Needle and Thread'. Generally they are used to do such work for their domestic use. But now a days, such products are demanded everywhere. They require professional touch as per the requirement of demand of the market. Government tries to uplift the art and artisans through various programmes and policies. Despite of various government and non government efforts, the reality is not satisfactory. The handicraft artisans suffer a lot due to being unorganized, lack of education, low capital, poor exposure to new technologies, absence of market intelligence and a poor institutional framework.

Keywords: *Problems, Challenges, Artisans, Handicraft*

Gujarat is a land of art and craft and a great range of ethnic communities live here. Most of them have still continued maintaining their culture in the form of handicraft including embroidery, bead-work, textile printing, Bandhani (tie-dye), leather work, pottery, woodwork, stonework, etc. The Handicrafts Sector plays a significant role in the economy of India. It provides employment to a vast segment of artisans and generates substantial foreign exchange for the country, while preserving its cultural heritage.

Further, most commercialized craft aims for quick, standardized and low cost replication. This imitates the factory model. The strength of hand craft, artistic vision involved and hand made quality are forgotten. The net result is that even when artisans can earn a living by producing contemporary versions, most do not wish their children to be artisans. (Kala Raksha, Kutch) Surely, some approach must be altered to enable the artisan to be economically and socially powerful so that they can sustain and propagate the Indian cultural heritage from generation to generations till the centuries.

The Office of Development Commissioner (Handicrafts) is the nodal agency in the Government of India for craft and artisan-based activities. It assists in the development, marketing and export of handicrafts, and the promotion of craft forms and skills. The assistance is in the form of technical and financial support, including schematic interventions implemented through its field offices.

The operations of the Development Commissioner (Handicrafts) are closely linked to other organisations under the Ministry of Textiles beyond, i.e. Metal Handicrafts Service Centre, Moradabad; (statutory/autonomous body); Handicrafts and Handlooms Export Corporation, New Delhi (public sector undertaking); Export Promotion Council for Handicrafts (EPCH), New Delhi; Indian Institute of Carper Technology, Bhadohi (U.P.); and National Center for Design and Product Development (NCDPD), New Delhi and Moradabad.

Various state level bodies as well as non-government institutions are trying hard to protect the interest of handicraft artisans by providing them financial, marketing, training, and infrastructural assistance. Gujarat State Handloom & Handicrafts Development Corporation Ltd., (GSHHDC)Gujarat Khadi Village Industries Board, Gujarat State Rural Industrial Marketing Corporation (GRIMCO), Gujarat Matikam Kalakari & Rural Technology Institute (GMKRTI), Industrial Extension Cottage (INDEXT-C), The Gujarat Rajya Handloom, Handicraft & Audyogic Sahakari Federation Ltd.(GUSICA), etc are the players at Gujarat level to boost the growth and development of the artisans at individual and cluster level.

But the scenario does not seem to be very attractive. Still the handicraft artisans are not able to overcome their weaknesses and hence struggle hard for their existence. Some art have slowly lost relevance with the advent of industrialization and the sector carries the stigma of inferiority and backwardness. Hence, here an attempt has been done to study the weaknesses and challenges faced by such artisans engaged in the most popular craft of Gujarat, i.e. Hand embroidery & bead work.

Methodology

For this research study, the following criteria were kept in mind while selecting sample.

The respondents must be practicing the handicraft as a source of income; The respondents must be Artisan Identity Card holders; They must be of Scheduled Caste; The sample size should be 35 to 50.

Such criteria was satisfied in a workshop, as Centre for Studies in Rural Management, Gujarat Vidyapith, Randheja had organized a Workshop on "Adopting Fair Price System for Artisans of Schedule Caste in Handicraft Sector" during 11th to 13th August, 2016 at Randheja, Gandhinagar. This workshop was sponsored by Development Commissioner (Handicrafts), Ministry of Textiles, Government of India under the scheme of Research and Development in which various sessions were designed focusing mainly on Product Design Development, Bank Credit and Loan Facilities, Quality of Products and Marketing Opportunities, Packaging and Pricing, Self Reliance and Entrepreneurship, Government Initiatives, Success Stories of Artisans, etc. 40 female handicraft artisans of scheduled caste had participated in this workshop. They all were engaged in handicrafts like hand embroidery, bead work and coir work. These 40 artisans were selected as respondents of the research work.

For this research study, the required information were collected from both primary and secondary data sources. In secondary sources, books, articles published in books and journals, various websites, census data, NGOs' reports & literature, etc. were used. Besides various reports of the Office of Development Commissioner (Handicraft), Ministry of Textiles and report of Planning Commission were also reviewed.

For collection of primary data, interview schedule, focus group discussion and observation methods were used. The gathered primary data were scrutinized, verified and arranged properly. After coding, computer data entry was done carefully. The data were analyzed with the help of computer programme SPSS (Statistical Package for Social Sciences) and Excel. Statistical tools such as Frequency Distribution, Measures of Central Tendency, Chi-square test, t-test, Analysis of Variance, etc. were applied to analyze the data.

Objectives

In this paper, an attempt is made to focus mainly on the following objectives: To study the general profile of Handicraft artisans; To study the weaknesses or problems of Handicraft artisans; To study the challenges faced by the Handicraft artisans engaged in hand embroidery activity

Hypothesis

In this paper, the following hypothesis are made to test with the help of Chi-Square test. H_0: There is no significant difference between the average income of handicraft artisans having membership with any organization/group and artisans not having such membership; H_0: There is no association between the education level and awareness of the artisans about fair and exhibitions.

Analysis and Findings

Form of Handicraft Activity: Handicraft artisans under the research area seems involved in various handicraft activities like hand embroidery, bead work, wool work and coir work. All the respondents have been categorized in to four categories: 1) Running own business 2) Doing service in some handicraft unit with fixed salary 3) Doing job work of handicrafts regularly and 4) Potential artisans doing handicraft in their leisure time only.

Table 1 - Form of Handicraft Activity

Form of Handicraft Activity	Frequency	Percentage
Own Business	3	7.5%
Service with Fixed Salary	2	5.0%
Job-Work	14	35.0%
Part-Time Artisans	21	52.5%
Total	**40**	**100.0**%

It is noticeable that nearly half of the artisans (52.5%) are part-time artisans who are not currently employed regularly in the field of handicrafts. They are skilled people but not getting regular work of handicrafts. So, such artisans work in their leisure time to earn supplementary income. Some are employed in some other occupations. Thus, only 19 (47.5%) artisans have adopted their art as main occupation or means of earning. Only 3 artisans, i.e. 7.5% are in own handicraft business either established by herself or family. 2 artisans are engaged in service with fixed salary in some other handicraft business. 14 (35%) artisans are doing job-work in this sector and paid wages as per their hand work. It is found during the study that these job workers work according to the needs and instructions of their employers/businessmen/middlemen. Generally, they do not have chance to show their designing talents, as they become just workers/laborers not artists.

Personal and Family background: Average number of family members is found about 4 to 5 and average monthly family income is Rs. 10,375. So, we can say that per person income is near about Rs. 2,506, which is not sufficient to have good standard of life today. 70% of the respondents are having monthly family income below Rs. 10,000. 67.5% respondent have main source of family income is private job, 22.5% have labour work and 10% have own small business. It is further surprising to know that the average monthly income from the handicrafts is found Rs. 1,280, as in most of the cases, it is the subsidiary source of income.

Table 2 - Age and Level of Education

Age and Level of Education		Illiterate	Primary	Secondary	Higher Secondary	Graduation	Total
20 Years or Less	Count	0	0	3	1	1	5
	%	0%	0%	7.5%	2.5%	2.5%	12.5%
21 to 30 Years	Count	0	0	4	3	1	8
	%	0%	0%	10.0%	7.5%	2.5%	20.0%
31 to 40 Years	Count	1	1	13	1	1	17
	%	2.5%	2.5%	32.5%	2.5%	2.5%	42.5%
41 to 50 Years	Count	0	2	4	2	1	9
	%	0%	5.0%	10.0%	5.0%	2.5%	22.5%
51 Years or More	Count	0	1	0	0	0	1
	%	0%	2.5%	0%	0%	0%	2.5%
Total	Count	1	4	24	7	4	40
	%	2.5%	10.0%	60.0%	17.5%	10.0%	100.0%

It is clear from the above table that majority of the artisans fall under the age group of 31 to 40 years, i.e. 17 (42.5%), among which 13 have studied till secondary standards. Number of artisans falling in age group 21-30 and 41-50 years are 8 (20%) and 9(22.5%) respectively. Only 6 artisans are in extreme age categories, i.e. 5 (12.5%) are below the age of 21 years, whereas only one artisan is found in elderly group, i.e. more than 50 years. It seems that 85% of total respondents come under the category of 21 to 50 years. The average age is nearly 35 (Mean-34.5) years.

It also seems that 60% respondents have got education up to secondary standard, only 17.5% have studied up to higher secondary standard while only 10% are graduates. One artisan has been found illiterate in this study. Thus, the level of education is not at the satisfactory level. But 13 (32.5%) respondents are under the age of 30 and some of them are students too. So, It provides a hopeful picture of the situation. Thus, in spite of various governmental efforts to boost the female education, the fact is not very pleasant, as various economical, social, cultural and personal hindrances are responsible for this scenario.

Reasons to join the Handicraft

Table 3 - Reasons to join the Handicraft

Reasons to join the Handicraft	Frequency	Percentage
Easy	7	17.5%
Less Investment	4	10.0%
Utilization of Free Time	26	65.0%
Govt. Help	2	5.0%
No Option	6	15.0%

It has been found that majority of the artisans, i.e., 26 (65%) have joined this handicraft activity to utilize free time. Thus, such activity can be helpful to women artisans to utilize their leisure time in some creative and productive work which can add supplement income to their family income. 7 (17.5%) respondents said that being easy to learn and to do, they have accepted such handicrafts, while 6 (15%) had no other option than handicrafts. Only 5% respondents have been inspired to come in this field by the government efforts and help. Thus, the reach of government initiatives seems weak and must be focused more. Being less investment demanding activity, 10% people have been motivated to start it.

Membership in any Group/SHG/NGO, etc

Table 4 - Membership in any Group/SHG/NGO, etc.

Membership in any Group/SHG/NGO, etc.	Frequency	Percentage
Nandanvan Coco craft	1	2.5%
SEWA	9	22.5%
SHG	10	25.0%
No Membership	20	50%
	40	100.0%

It is clear from the above table that half of the respondents have membership in any non profit organization/ group/ self help group; while the rest 50% does not have such membership but operate at individual level. 25% of the artisans are member of some Self-help-groups, while 22.5% are members of Self Employed Women's Association. Only one respondent is registered with Nandanvan Coco Craft group engaged in making coir handicraft products at Ahmedabad. It is found from the discussion that the membership gives them training, marketing and financial assistance as and when required.

Weaknesses of Handicraft artisans

Table 5 - Weaknesses of Handicraft artisans

No.	Weaknesses	Frequency	Percentage	Priority
1.	Lack of modern managerial skills	14	35.0%	6
2.	Problems due to less education	33	82.5%	3
3.	Scarcity of Working capital / Financial problems	31	77.5%	4
4.	Less information about Market and Marketing	29	72.5%	5
5.	Lack of information about government aid/credit facilities	35	87.5%	1
6.	Lack of knowledge about latest designs/current market demands	29	72.5%	5
7.	Do not know how to use advanced machines and equipment	33	82.5%	3
8.	Lack of organized identity	34	85.0%	2
9.	No information about exports	33	82.5%	3

The above table shows the weaknesses of handicraft artisans and the problems faced by them therefore. Despite various governmental and non-government efforts to develop handicraft industry and protect the interest of artisans, the artisans still have to face many problems. It is observed that 87.5% of respondents gave their opinion that they do not have proper information about government programmes, schemes or credit facilities. Hence, 'Lack of information about government aid/credit facilities' is at the first place. It indicates that government must focus on awareness programmes in this regards.

The second most hindrance is 'Lack of organized identity', as 85% artisans are opined that. They told that there is no unity in fixing prices, deciding quality standards, etc. Hence, competition among artisans ultimately leads to lower profit margin, inferior quality and price war. Therefore, there must be organized identity to protect interest of artisans ensuring transparency and cooperation in administration.

It is also noticeable that more than 80% people face problems due to less education, inability to use advanced machines and equipments and lack of information about exports. Scarcity of working capital or financial problems are found at the forth place, as comparatively low investment is required for such handicraft business; yet 77.5% respondents face such problems. 14 (35%) artisans told that they are lacking modern managerial skills.

Challenges faced by Handicraft artisans:

Table 6 - Challenges faced by Handicraft artisans

No	Challenges	Frequency	Percentage	Priority
1.	Decreasing demand due to change in the taste & interest of people.	32	80.0%	5
2.	Handicraft is losing its original form due to changes in lifestyle and culture.	27	67.5%	7
3.	Competition with latest machine made products of large industries	38	95.0%	2
4.	Problems of quality and durability due to handmade.	33	82.5%	4
5.	Gain is less as compared to hard work.	39	97.5%	1
6.	Middlemen earn huge profit	35	87.5%	3
7.	New generation is not interested in handicrafts	31	77.5%	6
8.	Lack of infrastructural facilities	33	82.5%	4
9.	Improper implementation of government schemes/programmes	38	95.0%	2
10.	Irregularity in employment	33	82.5%	4

The artisans shared their own experiences when asked for the challenges faced by them in this field. Mostly all except one told that there is less gain as compared to hard work. They feel that it is a laborious work not having social status, as gain is very less as compared to time spent and energy invested in it. The challenges 'Competition with latest machine made products of large industries' and 'Improper implementation of government schemes/programmes' are in second position, as stated by 95% respondents. They told that they have to face competition from latest machine made products produced on large scale in big industries, as they are cheap, identical and fast to be produced; besides such artisans feel that there is improper implementation of government schemes and programmes though such programmes seem attractive at planning and policy level.

87.5% respondents felt that middlemen earn huge profit not artisans. Artisans do not possess knowledge about market, selling techniques, advertising, modern means of promotion, publicity, etc. Though they are very efficient artists, they have mastery in production but not in marketing. Hence, they have to rely on traders, wholesaler or businessmen who exploit the artisans being scattered, unorganized, ignorant and helpless. It is true that Indian Handicrafts have been globalized today but not artisans.

82.5% artisans opined that lack of infrastructural facilities hinder the growth of such sector and the same number of respondents have to face complaints from the customers about quality and durability of hand crafted products. 80% artisans told that the demand of their products is decreasing due to change in the taste & interest of people. Here it should be noticed that change is the law of nature and today's era is fast changing era. Hence, those who can accept change with time can survive in market. Market demands innovations and modification today. Hence, the artisans must be trained to produce newly designed innovative products according to the demand and preferences of the customers. The artisans must be taught to be open to change and modifications in conventional products to reap the benefits of modern markets.

77.5% respondents believed that new generation is not interested in handicraft due to lack of recognition and monitory value, laborious work, availability of alternative labour work in industries, etc. Most of the artisans are found reluctant to have their children in to such handicraft, as they don't visualize a bright future in this line. It has also been found that with the increase of educational base, the unwillingness towards such work increases. This may be one of the very serious causes for the languishing crafts and occupational shift.

67.5% artisans felt that the handicraft is losing its original form due to changes in lifestyle and culture. People have started demanded new products in traditional form. So, the originality is not found now. Utilitarian products have become decorative products only. So, some artisans have started using cheap and inferior material and making compromises with quality of products.

Testing of Hypothesis:

1) H_0: There is no significant difference between the average income of handicraft artisans having membership with any organization/group and artisans not having such membership.

For testing the above null hypothesis, t test was applied with the following result in SPSS.

Table 7 - Group Statistics

Monthly Income from Handicrafts Activities	Membership in any Group/SHG/NGO, etc.	N	Mean	Std. Deviation	Std. Error Mean
	NO	20	1610.00	1476.268	330.104
	YES	20	950.00	796.869	178.185

Table 8 - Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Income	Equal variances assumed	5.016	.031	1.759	38	.087	660.000	375.125
	Equal variances not assumed			1.759	29.206	.089	660.000	375.125

It is clear from the above table that the average monthly income of the artisans having membership in any Group/SHG/NGO is 950; where as it is Rs. 1610 in the case not having such membership. The standard deviation is 797 and 1476 respectively. Such figures are surprising. By applying t test for equality of means, the calculated t value is 1.759 which is less than the table value, i.e 2.045 at 29 degree of freedom. Here, p value is 0.089 which is more than 0.05. Hence, H_0 is not rejected at 5% level of significance. It must be noted that the variances between two groups are significantly different (Levene's Test for Equality of Variances). Hence, the value has been considered assuming no equal variances. Thus, it can be found out that the membership doesn't make any difference in income of the respondents.

H_0: There is no association between the education level and awareness of the artisans about fair and exhibitions.

For testing this hypothesis, Chi-Square test has been used with the help of SPSS and the following results were found.

Table 9 - Level of Education and Awareness about Fairs and Exhibitions

Level of Education		Awareness about fair and exhibitions		
		No	Yes	Total
Up to standard 9	Count	6	11	17
	% of Total	15.0%	27.5%	42.5%
Up to 10th	Count	6	6	12
	% of Total	15.0%	15.0%	30.0%
11 to college	Count	5	6	11
	% of Total	12.5%	15.0%	27.5%
Total	Count	17	23	40
	% of Total	42.5%	57.5%	100.0%

Table 10 - Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.677	2	.713
Likelihood Ratio	.680	2	.712
Linear-by-Linear Association	.354	1	.552
N of Valid Cases	40		

By comparing the above two variables with Chi-Square test, P value arrived at 0.713. Hence, H_0 is not rejected again at 5% level of significance. Further, the Chi-Square value is 0.677 which is less than the tabulated value 5.991 (df. 2). Hence, it is found that there is no significant association between the education level and the awareness of the artisans about fairs and exhibition opportunities offered by government as well as private players in this field. Most of the artisans opined that participation in such exhibitions becomes very costly for them at individual level. Hence, in most of the cases, such opportunities are grabbed by big giants having heavy turnover in the market, as it provides a good platform for publicity and recognition not for sales.

Conclusion

The term 'Handicraft' encompasses a wide range of artifacts. The informal sector, which includes handicrafts has been described by the international Labour Organization (ILO) as a part of economic activity characterized by certain features like reliance on local available resources and skills, family ownership, small scale operations, labour intensity, traditional technology, skills generally acquired outside the formal school system, unregulated and competitive markets.

Artisans mostly work in traditional and unorganized sector in which they are vulnerable to exploitation and low wages. They fall in lower strata of the hierarchy both socially and economically. These people are mostly engaged in household or cottage industries in which they work hard but do not get enough to maintain a minimum standard of living. A major problem for this affair is the middlemen who take out a substantial share of profit leaving very little for the artisans. Traditionally, the artisans had been the backbone of the Indian society, yet today they are the most valuable character for the development. Thus, in this paper an attempt has been made to study the weaknesses and challenges faced by the Handicraft artisans.

References

Annual Report of Ministry of Textiles, Government of India (2012-13).

Annual Report of Ministry of Textiles, Government of India (2013-14).

Ansari, Shah Nawaz (2014, February). Socio-economic Aspect of Artisans in India in 20th Century. *International Journal of Humanities and Religion*, ISSN: 2319-5630

Chowdhury, Subir Kumar (2012). Handloom Industry: A Study On The Problems And Prospects Of Rural Industrialisation In Bankura, West Bengal, Thesis Submitted For The Degree Of Doctor Of Philosophy, Palli Charcha Kendra, Department Of Social Studies And Rural Development, Palli Samgathana Vibhaga, Sriniketan.

Jadav, Shreya. Indian Handicrafts: Growing or Depleting?. *Journal of Business and Management (IOSR-JBM)* e-ISSN: 2278-487X, p-ISSN: 2319-7668 PP 07-13.

Jain, Rubi, & Tiwari, Ambika (2012). An Insight into the traditional Bandhej Craft of Sikar City of Rajasthan. *Indian Journal of traditional Knowledge*, Vol. 11(4), October 2012, pp. 733-737.

Jani, V.A., & Pandya, B.A. (1994). *Rural artisans and Modernization*. Illustrated Book Publishers, Jaipur, ISBN:81-85683-10-7.

Jena, Pradeep Kumar (2010). Indian Handicrafts In Globalization Times: An Analysis Of Global-Local Dynamics. Interdisciplinary Description of Complex Systems 8(2), 119-137.

Liebl, Maureen & Roy, Tirthankar. Handmade in India: Traditional Craft Skills in a Changing World. Retrieved from http://www.researchgate.net

Ministry of Textiles. *Major Activities and Achievements*. Retrieved from the website of Ministry of Textiles, Government of India.

Naidu, L.K. (1988). *Bank Finance For Rural Artisans*. Ashish Publishing House, New Delhi.

Planning Commission (2012, May, 2). *A Report of the Steering Committee On Handlooms and Handicrafts Constituted for the Twelfth Five Year Plan (2012–2017)*. VSE Division, Government of India.

S.S.Solanki (2008, May, 10). Sustainability of Rural Artisans. *Economic and Political Weekly*, May, 10, 2008, p. 24-27.

Shah, A.N. (2015). Gramin Bharatma Hastakala Kshetre Kaushalya Vikas- Ek Asha. *YOJANA, (Special Gujarati edition on Skill India Mission)*, Year:43, Volume No. 7 (OCT-2015), Cont. Vol. No. 778, 63-66. ISSN: 0971-8397.

Vijayagopalan, S. (1993). *Economic Status of Handicrafts Artisan*, NCAER, New Delhi.

Yadav, Monika (2012, November). Role Of Artisans In Rural Development: A Study Of Mahindergarh District. *International Journal of Research in Economics & Social Sciences*, Volume 2, Issue 11, ISSN: 2249-7382.

www.censusindia.gov.in

www.craftofgujarat.com

www.craftrevival.org

www.epch.in

www.indiastat.com

www.kala-raksha.org

www.sristi.org

http://gurjari.co.in/

http://shodhganga.inflibnet.ac.in/

http://www.gujarat-tourism.net/Gujarat_Handicrafts.htm

http://www.india-crafts.com/indian_states_crafts/gujarat.html

EVOLUTION, CREATION AND APPLICATION OF ETHICS IN TOURISM

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Abstract

The purpose of this research paper is to study the evolution of ethics, their designing and application in the organizational context and the contemporary presence of Ethics in tourism. The paper presents a view on the evolution of Ethics in general and of Tourism in particular. There is a need to analyze and evaluate the Global Code of Ethics for Tourism. The goal of the paper is to make the stakeholders of Tourism conscious toward these ethics and to identify the challenges faced in their daily application. Recommendations have been made so as to make these ethics more compliable and so that the benefits of adherence reach to every strata of the society and lead to sustainable Tourism.

Keywords: Ethics, Moral values, Sustainable Tourism

Ethics are the rules, standards and practices that dictate right, good and authentic conduct among members of a society or profession (Fennell 2010). Ethics constitute the basic structure of life for sustenance. Personally or professionally ethics are applicable in every sphere. Moral values hold great importance from social and spiritual perspective. Ethics guide us to be the way we ought to be at all times thus proving our moral integrity and fiber. In this age of globalization where technological advancement has led to virtual annihilation of time and distance, Corporate Social Responsibility has emerged to be a forerunner in the league. Ethics set the code for normative behavior in any profession which eventually lead to a happy and contended society.

Theories of Ethics

Utilitarianism: The most influential consequentialist theory is known as Utilitarianism, which derives its name from Utility meaning the use or benefits to be derived from an action. This theory calls for "the greatest good for the greatest number of people". The aim is the benefit and happiness for all. The theory considers the consequences of both short and long term actions. English Philosopher, Jeremy Bentham who is acknowledged for founding Utilitarianism, believes that happiness and unhappiness are directly proportional to the amount of pleasure or pain experienced. The right or moral or ethical is the one that provides highest net quantity of pleasure. Although it is difficult to quantify pains and pleasures or to put value on them but it can be done in an approximate way in the form of cost benefit analysis. Nineteenth century Utilitarian philosopher John Stuart Mill incorporated qualitative differences between pleasures and pain. The true essence of Utilitarianism lies in maximization of human happiness and minimization of unhappiness. The Rule Utilitarianism applies not to acts but to moral rules of conduct. Moral rules should lead to greatest happiness for the greatest number. A moral rule is justified and should be followed if it is universally accepted and adherence to the rule leads to greatest happiness to the greatest number. Utilitarianism is a very powerful ethical system that fits well while making moral decisions.

Kantian Ethics: Immanuel Kant an 18th century German Philosopher stated that the consequences of an action are irrelevant to a moral evaluation of that action. Kant's Ethical theory is an example of Deontological ethical theory. Actions are moral or not moral because of their nature and not consequences. Moral actions are taken based on the motivation behind or the purpose which make it morally worth praising or condemning. Kant's categorical imperative refers to a command that must be followed universally, under all circumstances if we wish to act morally. According to Kant's the second formulation, human beings are rational creatures who have unconditional worth and value. It would be immoral to treat or use human being as a tool. Kant's theory is in sync with moral beliefs, the need to be impartial. The action of others should be judged on their intention and motives.

The Ethic of Justice: Justice encompasses many virtues, of being fair and alike, not discriminating or treating people differently. Aristotle the ancient Greek philosopher classified justice into three types: Distributive, Retributive and Compensatory. The former requires that equals should be treated like equals. The basic principles of Justice include equal liberty, fair equality of opportunity and the difference principle. Rawl's difference principle justifies inequalities but only if the least advantaged person gains from inequality. Retributive justice addresses whether it isjust to impose retribution on someone who has done wrong and if the punishment is right. What is the proper penalty one should pay for the wrong? Compensatory Justice is a way to make it up to someone who has been wronged. In what way and how much should they compensated be. Ethically people should be given back what they have lost or its equivalent. Virtue Ethics go beyond principles or rules to govern our actions. They reveal the good human being we should be. A good person will engage in good actions leading to a good character. According to Aristotle, a morally virtuous person constantly acts the way a human being should. A moral virtue is the disposition or tendency to do the right thing and avoid doing the wrong.

Virtue Ethics & Morality: Virtue ethics and Morality work in coherence. A person following virtue ethics will follow the rules and moral code of conduct. Virtues of generosity and kindness are in congruence with utilitarianism while those of honesty a, justice and sincerity are compatible with Kant's theories. It takes moral courage to follow these ethics. Moral courage is the ability to take action, despite the fear of adverse consequences, doing the right thing even at the risk of inconvenience, ridicule, punishment, loss of job or social status. Moral courage requires that we rise above apathy, cynicism and fear. We should listen to our conscience failing which it would lead to guilt and diminished personal integrity. Applying moral courage to our daily lives in person and profession would lead to contentment as it would be truly ethical. According to David A. Fennel, Calculative thinking is outcome driven as is the Ethical school of utilitarianism. As recalled, the outcome is based on the most efficient option that will achieve greatest good for all. Meditative thinking or reflective thinking implies that it is not the outcome of one's action that is the criterion for goodness but rather the principle upon which the action is based.

Organization's expression of Ethics: An organization's expression of philosophy have significant role to play in clearly and concisely conveying the purpose, direction and driving forces of an organization. A *Vision Statement* or *Credo* is a general statement of belief. This is where the company aspires to be. It conveys a larger sense of organizational purpose. A *Mission statement* is more specific, a statement of business strategy. They provide the public the unique enduring purpose, practices and core values. Christopher Hodgkinson (1983:36) suggested that "value is a concept of the desirable with a motivating force". Value urges us to take action. Hodgkinson (1996) favors the value hierarchy. The Value paradigm clearly states that there are four states. Preference (we value something simply because we like it). Consensus (when we value based on the collective preferences). Third is Consequence (when we value something based on the consequences it would have, followed by a rational and logical assessment) and the highest level of valuing is Principle (when we believe and have faith in something as it is rational and authentic). Whatever actions we take, we need to investigate how we value it. Performing a value audit for ethics will make it clear what is latent and provide an opportunity for self-reflection. Behavior is a function of what we value. Values which act as a principle, motivate us to take action. If they don't inspire us it signifies that we actually hold no value for them.

Development of the Code of Ethics: The primary objective of Code of ethics is to inspire ethical behavior in all its stakeholders. The higher the level of commitment to this Code of Ethics, the higher the probability of ethical consistency.A code is designed with the faith that implementation of these is ethical conduct. The Code development process includes: (1) information gathering (2) preliminary discussions with stakeholders (3) Creating working group (4) Initial drafting & consultation (5) Publication (6) Implementation (7) Review. Saltzman (2004) has written tips for development of the code. Once the code is created it has to be distributed through manuals, handbooks, newsletters, financial statements, brochures etc. A successful code is an integral part of the organization reflecting it's philosophy, having an impact on the behavior. The behavior is governed by how the reader values these ethics. The rationale behind thisCode of Ethics should justify the ethical behavior, failing which it becomes an ineffective tool.

Organization's Implementation of Ethics: Wood & Rimmer (2003) suggested five aspects to promote adherence to these Code of Ethics instead of just fear and blind conformity as such The Code must be a part of the day to day operations. It must form part of the decision making matrix, thus acting as a catalyst; The Code must be developed by its stake holders; The organization should have a specific method for training for both old and new staff members; The Code of Ethics should be displayed externally also, to display the transparent character to the public and The organization should value audit itself and find out the rationale for having these codes. All members should be able to understand and display ethical behavior.

There are certain guidelines that can be followed for strict compliance of this Code of Ethics. 1) A readiness for being an Ethical Organization must exist. 2) Research has shown that the process of developing the Code of Ethics itself increases awareness (Adams et all 2001). The idea behind the creation of the Code of Ethics for the organization lies in trust through Ethical empowerment (Cohen 1998). The seniors simply empower their juniors to take ethical decisions. This mutual coordination helps to build team synergy. 3) The senior administration should have exemplary behavior. They should take all possible actions to support the code. The peers and juniorsall get inspired and their behavior is positively impacted as they see what is happening in their environment. Fritzsche (1997)concludes that: Both peers and top management appear to influence significantly the ethical behavior of managers, with top management wielding the greatest influence. Ethical behavior can be encouraged and unethical behavior can be discouraged by the actions of top management and of peers. Unfortunately, the converse is also probably true. 4) Once framed the Code must be communicated at a grand level through a variety of media. 5) The massive publicity of the code should lead to increase in its awareness among all the stakeholders. 6) The code should be doable. A stake holder should be able to put the code into practice and use it in the daily decision making process. 7) Employees who need guidance and lack moral courage should be specially mentored and provided guidance. 8) The rationale for the Code of Ethics should be well written and clearly stated so as to ensure that all understand its necessity and the behavior expected from them. 9) The Code of Ethics should be timely reviewed with respect to the changing dynamics of the organization and its environment. It is absolutely necessary for the stakeholders to keep themselves at par with the industry and be proactive enough to anticipate the future trends. Necessary modifications should be made, updated and communicated to all for adherence. 10) Continuous assessment of the implementation should be done at regular basis to monitor its application and usage. In case of any challenges, relevant suggestions or changes should be incorporated to ensure effectiveness.

Ethics in Tourism: Tourism is an economic and social phenomenon which has experienced tremendous growth over the years. The Tourism trade value has exceeded that of other like oil export, food production and even automobiles and ranks third after fuels and chemicals. It has become the major contributor of economic prosperity leading to employment, export revenues & infrastructure development. UNWTO is the United Nation's agency established in 1975, responsible for the promotion of responsible, sustainable and universally accessible tourism. According to WTO, International Tourist arrivals grew by 4.6% in 2015 to 1,184 million. The International tourism generated US $ 1.5 trillion in export earnings. By 2030, forecasts the arrivals to reach 1.8 billion. Whereas Americas & Asia Pacific witnessed a growth of 6% in International Tourist Arrivals, Europe 5% in 2015, it is estimated that the market share of emerging economies will reach to 57% by 2030. An industry which is diversifying and growing in both emerging and advanced economies will definitely have a magnanimous impact on the macro and micro environment. Hence in order to promote responsible, sustainable and universally accessible tourism ethics will play a pivotal role in guiding the stakeholders for further development of tourism. As a fundamental frame of reference for responsible and sustainable tourism, GCET is a comprehensive set of principles designed to guide key players in tourism development. Addressed to governments, the travel industry, communities and tourists alike, it aims to help maximize the sector's benefits while minimizing its potentially negative impact on the environment, cultural heritage and societies across the globe. These were adopted in 1999 by the General Assembly of the World Tourism Organization; its acknowledgment by the United Nations two years later expressly encouraged UNWTO to promote the effective follow up of its provisions. Although not legally binding, code features a voluntary implementation mechanism through the role of World Committee on Tourism Ethics.

The Code's 10 principles amply cover the economic, social and environmental components of travel and tourism: Article 1: Tourism's contribution to mutual understanding and respect between peoples and societies. Article 2: Tourism as a vehicle for individual and collective fulfillment. Article 3: Tourism, a factor of sustainable development. Article 4: Tourism, a user of the cultural heritage of mankind and contributor to its enhancement. Article 5: Tourism, a beneficial activity for host countries and communities. Article 6: Obligations of stakeholders in tourism development. Article 7: Right to tourism Article 8: Liberty of tourist movements Article 9: Rights of the workers and entrepreneurs in the tourism industry. Article 10: Implementation of the principles of the Global Code of Ethics for Tourism

The World Committee on Tourism Ethics is the body entrusted with monitoring the implementation of the GCET. The relevant information is compiled by means of implementation surveys addressed to Member states in previous years. According to the latest survey2014/15, the UNWTO Secretariat received responses from 61 member states and territories including one non- member state. The highest responses were received from Europe, Africa and Americas.In summary, although the overall response rate is higher than in the last Implementation Survey of 2010, it is still rather surprising to see a low rate of replies from NTAs in regions such as South Asia and the Pacific and the Middle East. The voluntary nature of the Code of Ethics itself is possibly one of the decisive factors explaining the so far moderate level of application of the Ethical principles by NTAs, as well as the reluctance to report relevant implementation actions undertaken in this field. Even the private sector is making efforts to safeguard human rights and respect for the environment and society. The UNWTO secretariat initiated in 2011 a campaign geared towards the private sector by inviting tourism enterprises and their trade associations to adhere to the Private sector commitment to the Global Code of Ethics for Tourism. With the signing of the commitment, the signatories accept to the obligation to report to the World Committee on Tourism ethics on implementation measures they have taken. They are also allowed to use a logo in their communication material. Their commitment is a declaration of intentions by the enterprises.

Conclusion

The implementation of these Ethics will definitely be challenging at a global platform as organizations are established in different social context and economic backdrops in various countries. D' Sa(1999) feels that a universal global code of ethics is inappropriate because of the massive impasse between the market values(e.g., competition, profits, survival of the fittest, individualism), family and community values which focus on sharing of wealth, cooperation, support for the weakest, spirituality and harmony with nature. These GCET are perpetually unknown to smaller local communities. Fleckenstein and Huebsch (1999) have also identified main issues of bribe, political issues, government intervention, customs clearance, the questionable transfer of funds and cultural and business practice differences. Fennell & Malloy (2010) argue that making hyper norms universal is a critical step that drives the remainder of the ethical decision making process and their selection cannot be taken lightly. Code of Ethics are not just an ornamental expression but values which are based on principle and don't just exist to avoid the pain of punishment. Values that are held deeply are followed in spite of all odds. Code of Ethics should be well designed and the rationale behind be clearly defined so that the stake holders appreciate its consequences and follow them universally. An aggressive approach to spread the awareness about these GCET is needed with a deep understanding of the rationale so that these ethics become an integral part of our personal and professional lives having great value.

Bibliography

Adams, J.S., Tashchian, A. Stone, T.H. (2001) Codes of ethics as signals for ethical behavior. *Journal of Business Ethics* 29, 199-211

D'Sa, E (1999) Wanted; Tourists with a conscience. International Journal of Contemporary Hospitality Management 11(2/3), 64-68

Fennell, D.A. (2006A) Tourism Ethics. Clevedon: Channel View Publication

Fleckenstein, M.P. and Huebsch, P.(1999) Ethics in Tourism-reality or hallucination. Journal of Business Ethics 19, 137-142

Fritzsche, D.J. (1997) Business Ethics: A global and managerial perspective. New york: Mcgraw Hill.

Hodgkinson, C. (1983) *The Philosophy of leadership*. Oxford: Basil Blackwell

Malloy, D.C. and Fennell, D.F. (1998a) Codes of ethics and tourism : An exploratory content analysis. Tourism management 19(5,453-4561)

Malloy, D.C. and Fennell, D.A. :(2010)*Aspects of Tourism: Codes of Ethics in Tourism, Practice, Theory, Synthesis*

Rawls, J. (1971) *The Theory of Justice*

Saltzman, J. (2004) *Writing a code of ethics for your business.*

Wood, G. and Rimmer, M. (2003) Codes of Ethics: What are they really and what they should be? International Journal of Value based Management 16, 181-195

http://www.e-unwto.org/loi/unwtotfb

http://ethics.unwto.org/content/global-code-ethics-tourism

http://www.e-unwto.org/doi/pdf/10.18111/9789284418145

https://books.google.co.in/books?id=NlXiK8v2rsEC&printsec=frontcover#v=onepage&q&f=true

https://books.google.co.in/books?id=-4bkRbmd5Q8C&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false

AN ECONOMETRIC ASSESSMENT OF WATER CONSUMPTION: A CASE STUDY OF NEW NORTH ZONE OF SURAT CITY

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Abstract

When water is plentiful and easily available, we tend to take it for granted and overuse it but when water availability is limited or its use is being monitored by water meters, it results in reduced water contamination and non-revenue water as well as uninterrupted water supply to the cities. As the 24 x 7 water supply scheme is at its very initial stage in Gujarat state, data from New North zone in Surat Municipal Corporation of monthly water consumption which is metered had been collected and analyzed to forecast the water consumption. After applying various econometric techniques to collected data, results of the study revealed that the Holt model performed better and can be used for modeling and forecasting the water consumption.

***Keywords**: 24 x 7 water supply scheme, Metered water consumption, forecasting, and Holt model.*

Water is considered as lifeline of all living things especially humans; hence its availability is a critical component in the measurement of human wellbeing through the Human Development Index (HDI)[1].With the growing demand for water in urban areas and our increased concern regarding the environment, we have to develop and use institutional arrangements and mechanisms to reduce the growth in demand. At initial stage, it is required to study the water consumption in which normal variation around the average water consumption can be predicted with statistical methods[2]. Usually, the subject of the forecast is water delivered to the systems, not water used by any particular category of customer. Generally, Water supply agencies maintain records of the quantity of water delivered to the water distribution network. Where customers are metered, recorded water meter readings provide a history of customer water use. For various reasons including leakage, unmetered use & meter mis-registration the total of customer water use is expected to be smaller than the quantity of water supplied. These historical records of water deliveries and metered use are essential for any study of operations, system capacity, or supply cost[3]. According to the requirement of the water resources management purpose, average annual use, total monthly use, daily use can be forecasted.

The majority of research project have focused on highlighting the current water shortages and the increased use by the residential sector in urban area. So far, research into residential water consumption is restricted to the only one variable i.e. population assuming that it contains all the relevant information regarding water use. While Per capita water use varies widely from place to place; it can be observed to rise and fall over time for any particular location. This kind of variation suggests that results based on this per capita method are an inadequate explanation of urban water use[4]. While residential water use may be moderately well correlated with population (it is actually better correlated with number of housing units), the same cannot be said for commercial, institutional or public uses of water. When monthly water consumption is monitored based on number of housing units through water meters statistical analysis should be carried out by analyzing the trend and seasonality of the data.

Objective of the study

As per the need of the water resources management sector , it is necessary to analyze the review of 24 x 7water supply scheme to understand how it will succeed and helpful to the policy makers as well as consumers in India. The main objective of the study is to get the best fit model to the data and to forecast water consumption for future, which can be useful to decisions makers, researchers, policy makers and government officials of water sector.

As per the knowledge based on literature review from various sources, this is the first attempt of statistical analysis of the metered water consumption data of cities in the state of Gujarat using various statistical tools and techniques.

Literature Review: Hiroshi Yamauchi and Wen-yuan Huang (1977) concluded that An improved understanding of the behavior of the various time series components for both aggregate and disaggregate data should allow the more effective extension of analysis into economic incentive effects of alternative policy measures and closer integration of water supply and demand management. Ben Dziegielewski et al.(2002) prepared An Analytical Bibliography on Predictive models of water use. Cosmos Agbe Kwame Todoko (2013) analyzed time series of water consumption in Hohoe municipality of Volta Region in Ghana. Emmanuel.A.Donker et al. (2013) had reviewed the literature on urban water demand forecasting published from 2000 to 2010 in order to identify methods and models useful for specific water utility decision making problems. Results showed that although a wide variety of methods and models have attracted attention, applications of these models differ, depending on the forecast variable, its periodicity and the future horizon. Keval Jodhani & Dipak Madalani (2015) studied water supply scenario of Ahmedabad city and identified myths which running in India about 24 x 7 water supply and tried to provide resolving measures. Amit Kumar. R. Chauhan & Prof. B.M. Vadher (2015) studied existing water supply network for 24 x 7 water supplies in

[1] Time series analysis of water consumption in the Hohoe municipality of the Volta region of Ghana by Cosmos Agbe Kwame todoko, p.16
[2] K. William Easter:" The Urban water environment of cities", Ch.13, p. 260.
[3] "Urban water demand management and planning", Dane D Baumann, John J. Boland, W. Michael, Hanemann, ch.3, p.77
[4] Urban water demand management and planning, ch.3, p.86

Mogarawadi of Valsad city through pipe network analysis using EPANET 2.0. Pantelis Chronis et al. (2016) discussed on "Open issues and challenges on Time series forecasting for water consumption.

Research Design: Forecasting is an important part of econometric analysis and ultimate objective of any research study. While a moving average is a very useful form of forecasting, it suffers from the disadvantage of assigning the same weight of importance to older data that it does to more recent values. Exponential smoothing can be used to avoid this dilemma by conferring more significance to more recent data[5]. Exponential smoothing method can capture that advantage. The influence of the observations on the parameter estimates diminishes with the age of the observations. An adaptation of single double and triple exponential smoothing is based on trends and seasonality of the data. In this paper we discuss Exponential smoothing methods and its real life application in urban water consumption data which is untouched application area so far in Gujarat state as well as statistical analysis of water consumption. After studying the trend and seasonality of the data set, double exponential smoothing (Holt) method is used for the analysis in this study.

Study area: Among all the cities of Gujarat state, Surat is the second largest city which is spread over 325.51 square kilometers having population of 4.46 million according to census 2011. It continues to be among India's fastest developing cities in the country by providing all the necessary utilities to the residents of the city. Water Supply scheme (Part) for Amroli, Kosad, Chhaprabhatha area of New North Zone of Surat was commissioned and inaugurated by Honorable chief minister of Gujarat, Shri Narendrabhai Modi on 27th May, 2012[6].

Cluster Sampling: Surat Municipal Corporation(SMC) has initiated and implemented 24x 7 water supply scheme in one cluster of New North zone and east zone of the city, under which water meters were installed and maintained monthly water consumption readings.SMC has been installing water meters in New North Zone area of Surat since 2013.For this research paper cluster sampling used in which, among all the piped water connections in this cluster, data of monthly water consumption readings of each metered water connection from March 2014 to January 2017 in New north zone were collected. (Source: Kosad water works department of New North Zone area of SMC.)

Variables: Over the past so many years, the per capita requirement (Liters per capita per day)method has been used for the explanation of urban water use by considering only one relevant variable i.e. population. But if water use per connections is being monitored, water use or consumption should be analyzed to get the better explanation. In this context, data of monthly water consumption of each metered connection had been collected. From this raw data, Total water consumption of all the metered water connections were calculated for all 35 months and considered as study variable for Univariate forecasting.

Methodology

All the smoothing methods Simple, Holt and winter all are nonparametric methods against Regression models. Double exponential smoothing employs a level component and a trend component at each period. It uses two smoothing parameters, to update the components at each period for update the components at each period.For a series of observations $Y_1, Y_2, Y_3, \dots, Y_n$. The double exponential smoothing equations are as follows:

$$L_t = á\, Y_t + (1\text{-}á)\, [L_{t-1} + T_{t-1}]$$

$$T_t = ã\, [L_t - L_{t-1}] + (1\text{-}\ ã)\, T_{t-1}$$

$$\hat{Y}_t = L_{t-1} + T_{t-1}$$

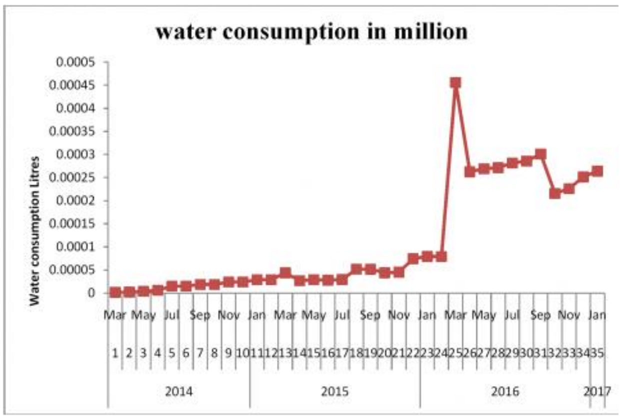
Where L_t is the level at time t, á is the weight for the level, T_t is the trend at time t, ã is the weight for the trend, Y_t is the data value at time t and is the fitted value or one period ahead forecast at time t. If the first observation is numbered one, then level and trend estimates at time zero must be initialized in order to proceed. The initialization method used to determine how the smoothed values are obtained in one of two ways; with optimal weights or weights or with specified weights[7]. Data up to the forecast origin time will be used for smoothing. The forecast for m periods ahead from a point of time t is ($L_t + mT_t$). The study seeks to examine the trend and seasonality in the data to select the best fit model to the data. Outlier detection procedure is also carried out to deal with distortion of the trend. Applying exponential smoothing techniques forecasting for next 10 months water consumption have been obtained through best fit model.

Tools and Techniques: For statistical Analysis, analytical softwares such as Microsoft Excel, Minitab 16 and SPSS 22 were used to obtain necessary results and plots.

Analysis & Interpretation

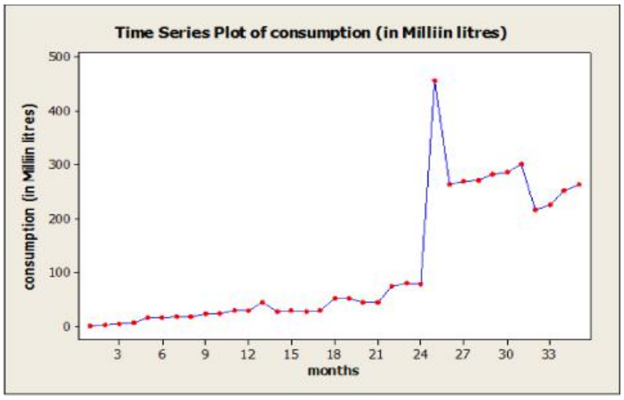
Visual inspection of a time series can often be a powerful guide in choosing an appropriate exponential smoothing model. Fig 1 shows a graph of total metered water consumption of all the households of the new North zone, Surat from March 2014 to January 2017 (i.e. 35 months).

Figure 1 - Scatter plot of monthly Total water consumption; 2014 -2017.



[5] Introductory regression analysis with computer application business & economics by Allen Webster, ch.11, p.385
[6] https://www.suratmunicipal.gov.in/Departments/HydraulicHome
[7] Statistics for Business and Economics by Anderson Sweeny Williams,11th edition, ch 18 pp.767-74

Figure 2 - Time series plot of Total water consumption; 2014-2017.



At first look on time series plot (Fig 2.) observation 25 which is March 2016 is unusual observation. By rechecking this extreme value, it is found that it is neither wrong reading nor typing error but it is due to exceptional increase in no of connections in this month. Statistically to check influence of this observation on the model by outlier detecting processes, standard error of this observation is found to be 3.89 which is higher than 2 indicating the presence of outlier. Leverage value of this observation is h_{25} =0.2559 > 0.1714 ($h_{tabulated}$). According to F distribution ($F_{0.50}$)test & Rule of thumb for Cook's distance D_{25}= 0.334865< 2.82 & D_{25}< 1 respectively.

In order to taper off the upper tail of our data in Fig 2 and to get the better fit of the model, we have considered logarithmic transformation. Fig 3, 4 shows scatter plot & plots of the residuals respectively for log transformed variable.

Figure 3 - Time series plot of Log transformed variable

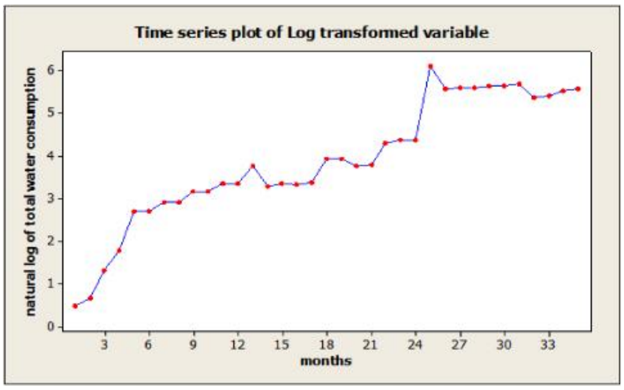
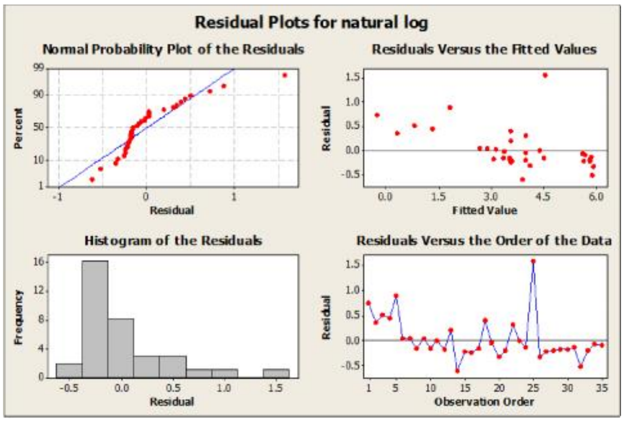


Figure 4 - Residual plots for Log transformed variable



The null hypothesis is that no significant correlation exists between residuals. A correlogram that graphs theses correlations shown in figure 5 & 6.The autocorrelation and Partial autocorrelation of the residuals up to the order 9 is observed to be within the range of -0.4 to 0.4 indicating the no autocorrelation in error terms.

Figure 5 - Autocorrelation function of Residuals for water consumption

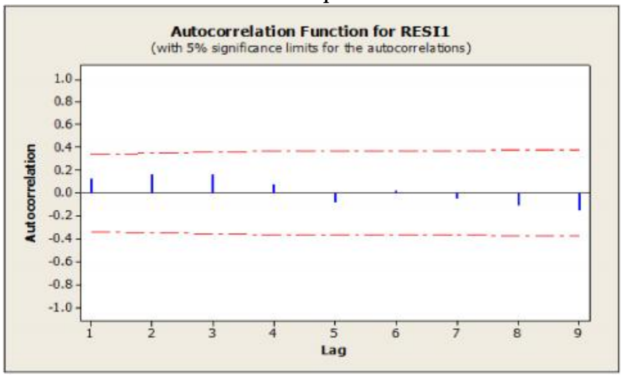
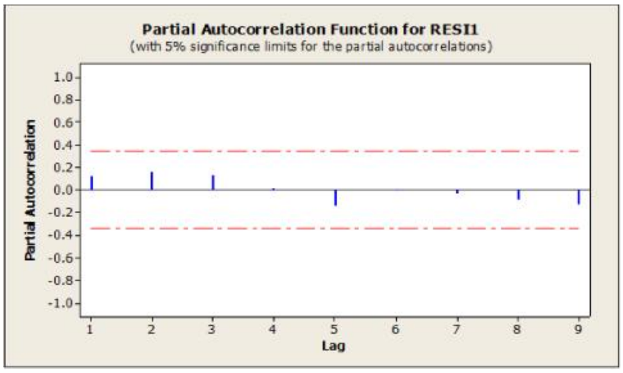
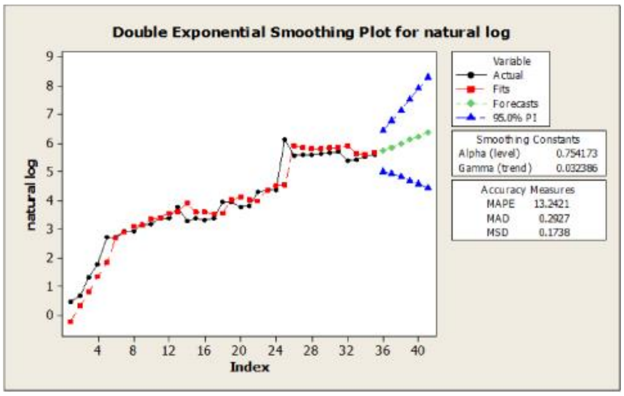


Figure 6 - Autocorrelation function of Residuals for water consumption



From the above analysis, it has been decided to use Holt model to forecast the total water consumption for the year 2017.The process involves a smoothing constant á, such that 0< á <1 and ã. These smoothing parameters were chosen by MINITAB software which are á (level) = 0.754173 and ã(trend)=0.032386. A Plot of double exponential smoothing is constructed with smoothing parameters á and ã which results in following accuracy measures. Mean Absolute Percentage Error (13.2421), Mean Absolute Deviation (0.2927) and Mean square deviation (0.1738).

Figure 7. Double Exponential Smoothing plot for log transformed variable.



This analysis has been carried out with SPSS 18 software also, it showed that Expert modeler of the SPSS also chosen Holt model with á = 0.802 and ã=0.03which results in very good R^2=0.929, Root mean square error (RMSE)=0.399, and MAPE=7.622.

Forecasted values from February to November for year 2017 are depicted in Table 1.

Table 1 - Forecasted values from February to November for year 2017.

	Minitab	SPSS
Month of 2017	Forecast	Forecast
February	306.9516	308.2466
March	348.3438	352.9054
April	395.3178	404.0344
May	448.6262	462.5710
June	509.1283	529.6413
July	577.7839	606.3758
August	655.6978	694.2277
September	744.1183	794.8075
October	844.4622	910.0504
November	958.3375	1041.8987

Results and Discussion

A visual analysis of the data shows that there is an upward trend movement and almost no seasonality in the data indicating increase in total water consumption month by month but not so much effect of seasons on Total water consumption. In some situations using only high leverage to identify influential observation can lead to wrong conclusions, So Cook's distance measure has been used to determine whether the observation is influential. In essence, considering the outlier, high leverage, large residuals and cook's distance measures for unusual observation we can ignore the impact of presence of unusual observation in this case and Holt method is used to forecast the total water consumption for the year 2017.As apparent, Residual analysis from the plots in fig 4, the behavior of the residuals is quite in confirmation with the objective of estimation of the said model. A correlogram reveals the significance of the Autocorrelation coefficient. The plot of double exponential smoothing shows that for given smoothing parameters the predicted values is much closer to the observed values with less error. All the above models are highly converging towards a definite result.

Recommendations

The Surat Municipal Corporation should use the Holt model in determining the Total water consumption by residents, institutions and commercials for better planning purpose; In case of low water production, the corporation should priorities area according to records of water consumption and essential service providers, such as hospitals, urban health centers, schools, colleges in the city; Municipal Corporation through the water works officials must put in effective and efficient water production and distribution strategies in the city since its population is increasing and lifestyle of the urban population is changing due to urbanization.

Conclusion

The objective of the research was to develop a time series model and to forecast monthly water consumption by residents and commercials. For that, time series data of Total metered water consumption for 35 months (March 2014 to January 2016) on monthly bases were collected from New North Zone water works department. Several exponential smoothing models including Simple, Holt and winter incorporating different assumptions and hypothesis about trend and seasonality model accuracy have been tested. The initial plot of the time series and all the results of the analysis indicate that the Holt (Double Exponential smoothing) model is truly the best fit forecasting model for total water consumption data of new north zone, Surat Municipal Corporation. This analysis can be carried out for more time series data in future which can be useful for decision makers, researchers, Policy makers and Government officials in Water Resources Management sector.

References

"Urban water systems in India a way forward" working paper by Mihir shah, from ISRICR, May 2016, page 60.

Urban water demand management and planning by Duane .D. Baumann, John J. Boland, W. Michael Hanemann with a forward by Gilbert F.White, Ch. 3 by John .J.Boland, pp.77-94.

The water Environment of cities by Lawrence A. Baker, Ch.13, pp (259 to 273) by K. William Easter.

Introductory Regression analysis with computer application for Business and Economics by Allen Webster. Chapter 11,pp385 to 395

Statistics for Business and Economics by Anderson Sweeny Williams,11th edition,ch. 18 pp767 to 774

Basic econometrics by Damodar. N.Gujarati, fourth edition.

Minitab user guide 2, Data analysis and quality tools, ch. 7.

Mahama Ishaque & Shamsudeen Ziblim "Use of Some exponential Smoothing Models in Forecasting some food crop prices in the Upper East Region of Ghana" (Journal of Mathematical Theory and Modeling, Vol. 3, No 7, 2013).

Cosmos Agbe Kwame todoko (2013),"Time series Analysis of water consumption in the Hohoe municipality of the Volta Region of Ghana."

"National Conference on Transportation and water resources Engineering" (NCTWE-2015, Ahmedabad) conference proceedings.

Website https://www.suratmunicipal.gov.in/Departments/HydraulicHome

Hiroshi Yamauchi & Wen –yuan Huang (1977) "Organization and Statistical Analysis of water consumption Data at local level" Journal of American water works Association, vol. 69, No.1.

Ben Dziegielewski et al. (2002) "Analytical Bibliography on Predictive models of water use." Research report by Department of Geography and economics, Southern Illinois University.

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