5 Q MODEL CAN CHANGE AWTC AND MLTC TEACHING PROCESS IN INDIA

Dr. Soumen Acharya, Consultant, National Institute of Public Co-operation and Child Development, New Delhi, India

Abstract: *Training and capacity building of functionaries for effective program implementation is an integral component of the Integrated Child Development Services (ICDS) scheme. The performance and progress in terms of achievement of the program goals depends largely upon the effectiveness of frontline workers in service delivery, providing quality services and care under the program. The success of this program depends on the effectiveness of frontline workers in empowering community for improved child care practices through counseling, home visits as well as effective inter-sectorial coordination at local level. The training can be given at AWTC and MLTC. This study contributes to existing theories by confirming or adding value that have positive effect on Anganwari worker and helpers students' satisfaction. 5Q model is a comprehensive model and it needs to be implemented in teaching sector but with additional factors i.e. trust and reputation. The performance of the functionaries working at the grassroots level and their capability depends on their ability to work and the type of training they receive at respective training Institutions i.e. Anganwadi Workers Training Centre (AWTC) or the Middle Level Training Centers (MLTCs). Since training inputs may vary from on-the-job experience to off-the-job training, most of the training centers undertake some kind of training for their Instructors. Training and development activities have always assumed high importance because of their contributions to the achievement of ICDS. Each training course is unique & different and each requires a set of skills and expertise unique from another depending on the context it runs in. Making sure that the right trainer is placed in and given adequate resources. It is another fundamental principle in training design and development ICDS is thus now implemented in a new Mode.is to attain three main outcomes namely;1 Prevent and reduce young child under-nutrition (% underweight children 0-3 years) ; 2Enhance early development and learning outcomes in all children 0-6 years of age; andl3improve care and nutrition of girls and women and reduce anemia prevalence in young children, girls and women .Integrated Child Development Services (ICDS) Scheme has now reached to almost every hamlet rough its 1.4 million AWCs. The success of the implementation depends on the quality human*

resources. The quality of the human resources can be augmented by conducting effective training programmes by clearly understanding their needs, core areas of competencies and programme management. Quality models into a framework of five quality dimensions (5Qs). In this study we modeled the student satisfaction as a function of the five higher-order quality dimensions (5Qs) based on TRM philosophy. The 5Qs model incorporates 47 independent variables, which were derived from the education, service quality. The Awtc and Mltc conducted these test on the worker and helper who undergoes training in west Bengal. These were taken care to make this model to find out the result.

Keywords: *Q5,TRM.*

INTRODUCTION

ICDS Scheme reach out to all the concerned beneficiaries, it is essential that all the project functionaries are trained so that they are able to deliver the required goods and empower communities for improved child care practices, as well as effective inter-sectoral service delivery. For this purpose, Training Centres have been set up all over the country for training of different ICDS functionaries.. Apart from this, it is also engaged in conducting skill training for Instructors of Middle Level Training Centres and Anganwadi Workers Training Centres. Its other responsibilities include building up of training infrastructure and capabilities of training centres engaged in the training of Supervisors, Anganwadi Workers and Helpers; preparation and revision of modules, syllabi, manuals and guidebooks for various categories of ICDS functionaries; and development & procurement of training material including audio-visual aids. It would be pertinent to mention that at the State level, training centres engaged in the training of Supervisors and Instructors of AWWs and Helpers are called as Middle Level Training Centres (MLTCs) whereas those engaged in the training of Anganwadi Workers and Helpers are known as Anganwadi Workers Training Centres (AWTCs). The MLTCs and AWTCs are engaged in different kinds of training on a regular basis such as Induction, Job and Refresher Training for Supervisors, AWWs and Helpers. The later are also provided Orientation Training by AWTCs. Other than this, the MLTCs are also engaged in imparting Orientation Training to Instructors of AWTCs functioning all over the country. Most of these Training Centres are run by Voluntary Organizations, Trusts and professional/technical institutions like Schools of Social Work and Colleges of Home Science. There are also a few States/UTs which are running their own AWTCs and MLTCs for

imparting training to AWWS and Supervisors. The criteria for selecting these training institutions, by and large, is that they should have the required infrastructure for training, such as well-equipped class-rooms, hostel facilities, audio-visual aids/equipments, qualified and experienced staff. Besides, these organizations should have requisite knowledge and experience of running programmes related to development of women and children. These Training Centres thus play an important task in grooming different ICDS functionaries towards their roles and responsibilities so that they could work as 'agents of social change'. The main objectives of this exercise were two fold: to monitor the overall implementation of ICDS programme and address the problems encountered by ICDS functionaries in a given State/UT; and to assess the overall status of Training Centres, i.e. Anganwadi Workers Training Centres (AWTCs) and Middle Level Training Centres (MLTCs) in terms of available infrastructural facilities as well as other parameters that facilitated or hindered the overall quality of training imparted to different functionaries including the gaps and problems encountered by Training Centres in organizing training programmes. Walton made a detailed study on the performance of employees as well as training and stated that "The likely outcome of employees performing better and being more productive is an overall improvement in workforce stability. Whether employee commitment is enhanced through training, compensation, evaluation, or any other combination of human resource practices, research typically find that a committed individual is one that remains with the company." (Walton, R. E. (1985), From Control to Commitment in the Workplace, Harvard Business Review, 63(2): PP. 77-84.) Noe and Schmitt found in their study that career and job attitudes generally refer to the cognitive state of psychological identification with one's career and job. Actually, career and job attitudes have been tested separately in various conceptualizations and operationalisations. However, trainees who frequently engage in cognitive or environmental search activities are expected to have a better understanding of their strengths, weaknesses and interests. In fact, they recognize the importance of learning new skills and refining current skills so that such skills can match with the requirements of the new job settings. Trainees who had both good career planning and a high level of job involvement were more likely to be motivated to learn Training and Development is the framework for helping employees to develop their personal and organizational skills, knowledge, and abilities. Training is a program organized by the organization to develop

knowledge and skills in the employees as per the requirement of the job. Conversely, development is an organized activity in which the manpower of the organization learns and group. The structuring and the content of the course of cause depend on the learning goals for the course. One of our learning goals is that the programming process should be demystified. We have demystified the programming process by focusing on systematic way to convert specifications to working code, thereby postponing the "design" element of the course – the students do not design but are given the design by the lecturer. We believe that a good "reading" ability is a prerequisite for a "writing" ability – in other words the students need to read a lot of contracts and have a good understanding of how one can implement the contract before the students create contracts themselves. Service quality is commonly attributed with two dimensions: technical quality and functional quality (Grönroos, 2000). Technical quality refers to the quality of the service product, i.e. what a customer buys, and whether the service fulfils its technical specifications and standards, while functional quality describes the way in which the service product is delivered and how is the relationship between the company and its customers. SERVQUAL is a widely used model developed by Parasuraman et al 1985 and Berry et al., 1992 to measure different quality dimensions Some authors favor the application of SERVQUAL in academia (Vazzana and Winter, 1997; Hughey, 1997). Others insist that the application of these models in higher education processes is questionable (Jaugh and Orwig, 1997; Keller, 1992). Although these efforts have been positive in the sense that student perspectives are receiving greater attention, a range of quality shortcomings have been identified. The survey methodology has been criticized, among other things for deficient validity and reliability, and a weak orientation towards change (Jaugh and Orwig, 1997; Keller, 1992; Barnard, 1999). Zineldin (2006a) expanded technical-functional quality and SERVQUAL models into a framework of five quality dimensions (5Qs) Some authors compared SERVQUAL and the 5 Qs model in order to find the differences and similarities between them. They found that both models are focused on the importance of providing quality products and services. The difference is that the SERVQUAL is more focused on measuring service reliability, whereas, the 5Qs is more comprehensive and introduces additional attributes such infrastructure, atmosphere, and interaction (Zamora and Escoriza, 2007). Therefore, perceived quality of interaction and communication reflects a students' level of overall satisfaction. The culture in a specific

environment where they co-operate and operate influences the interaction process between the provider and receiver of an educationally service. This is applicable in a university, faculty, or department atmosphere where the student, teacher, dean, rector or any administrator is operating. In turn, the atmosphere is influenced by the characteristics of the partners involved and the nature of the interaction itself. The atmosphere can affect the perceived service quality by improving it or by making it worse. The 5Qs model is more comprehensive and incorporates essential and multidimensional attributes which are missing in SERVQUAL model. Such attributes are the infrastructure, atmosphere, and the interaction between the student and the educational (providers) staff. A comprehensive model should also include a component on goals, with questions directed at what student satisfaction should ultimately lead to, e.g. increased trust, increased likelihood for positive recommendations, etc.

The 5Qs model is an instrument that assures a reasonable level of relevance, validity, and reliability, while being explicitly change oriented. The interaction process between the provider and receiver of a service is influenced by the atmosphere in a specific environment where they co-operate and operate (Ford et al, 1998; Zineldin, 2000, 2004; Robicheaux and El-Ansary, 1975). This is applicable in a university where the student, academic staff, university staff, and other staff are operating in turn (Zineldin, 2006a). The atmosphere of a university can affect the perceived service quality by improving it or by making it worse, which will also affect the quality of education. Service quality in education donor not only depend on the quality of academic staff but also includes the staff, assistants, building, classroom, labs, technical apparatus, machines used in education etc. It can be said that education quality and student satisfaction is more detailed than just dividing the quality of service into technical and functional quality. Most academic studies of the services sector have looked only at the link between services' quality and satisfaction. Few studies have been conducted to investigate the link between the technical and functional quality dimensions and the level of student satisfaction in the higher education sector. But none of the identified studies has examined how atmosphere, interaction, and infrastructure might impact overall student quality perception and satisfaction. The importance of such factors is presented and explained in this paper. Zineldin (2000) expanded the technical-functional and SERVQUAL quality models into a framework of five quality dimensions (5Qs). In this

study we modeled the student satisfaction as a function of the five higher-order quality dimensions (5Qs) based on TRM philosophy. The 5Qs model incorporates 47 independent variables, which were derived from the education, service quality and satisfaction literature. Cognitive psychology attempts to present theories of thinking based upon models of the human cognitive architecture. From the point of view of an educator, it is not really important if a cognitive theory truly describes how we think; what is important is the possibility of deriving pedagogically useful insights from the theory [BenAri et al. 2004aThe educating novices in the skills of programming that does not take the learner into account is of limited value. The purpose of this survey on aspects of cognitive science and educational psychology is to provide a basic conceptual framework for use in the rest of the dissertation when discussing related research and instructional design of programming education for novices. Unfortunately, there is little discussion and research of the teaching of programming that relates to pedagogy, and almost none that address how the process of learning might or should affect instruction [East et al. 1996, p. 1] Learning theory is a huge area of which we shall only touch a very small part. The following people (just to mention a few) have all made significant contributions to cognitive science, educational psychology, and learning theory, but we shall refrain from elaborating on their contributions. Still, we may occasionally make references to their work. Jean Piaget (1896−1980): the theory of cognitive development and (individual) constructivism [Piaget 2007]. Benjamin Bloom (1913−1999): the classification of educational objectives and the theory of mastery learning [Bloom 2007]. Jerome Bruner (1915−): the development of curriculum theory, instructional design, spiral curriculum, and social constructivism (inspired by the work of Lev Vygotsky (1896−1934)) [Bruner 2006]. Seymour Papert (1926−): the theory of constructionism, built upon Piaget's work on constructivism but went beyond it to assert that learning happens especially well when people are engaged in constructing a product [Papert 2007]. John B. Biggs (?): the SOLO model of constructive alignment in teaching and assessment [Biggs 2003] David A. Kolb (1939−): the theory of experiential learning and the associated learning model known as Kolb's learning cycle [Kolb et al. 1975]. Howard Gardner (1943−): the theory of the multiple intelligences [Gardner 1983]. Etienne Wenger (1952−) and Jean Lave (1968−): the theory of situated cognition and communities of practice [Lave et al. 1991]. Allan Collins, John Brown, and S.E. Newman: the theory of cognitive apprenticeship, which

holds that masters of a skill often fail to take into account the implicit processes involved in carrying out complex skills when they are teaching novices [Collins et al. 1991]. The number of the variables is not cQ1 Quality of the object (education or research itself) –Technical "what Quality." It related to the basic core of the education and its main objectives procedures, courses, or programs carried out and it focuses on the technical aspects. It measures the education itself; the main reason of why students are studying at a university. The university has the objective to fulfill the student and the society expectations; therefore it is important to domain the "good education in form of study programs, courses, and degrees impacting students' life and future. From the psychological point of view, fulfilling the core education objective is one of the most important factors impacting the level of satisfaction. Q2 Quality of the process (Caring) - functional "how quality." How to deliver the object (lectures, seminars, individuality, flexibility, creativity, field work, exam forms, etc.), and how students perceive their education. It measures how well educational activities are being impelled- mended. Process indicators should receive more attention in the education. Professors, deans, university leader, and other personal can use process indicators to monitor activity at their facilities and to guide day-to-day decision-making. Students' attitudes are also included. This factor includes the efficiency and empathy during the education process, how the personnel monitor the student complaints, the grade of courtesy that the education services reflects to the student in order to transmit confidence and trust, the willingness to provide the education expected and the personal attention. The methodology and communication between different parts of a course or a study program, which involve different teachers, are also included. The level of satisfaction or dissatisfaction can be the result of the quality of the process, i.e. how the teaching and learning is delivered via for example PowerPoint presentation slides, supplementary handout materials, online methodologies, and the recommended textbooks or availability of e-books. Q3 Quality of the infrastructure, tangible, and intangible (competence, financial, technical and human recourses, self-assessments, course evaluations, etc.). Infrastructure of an educational organization is the most important factor impacting the care of the citizens and hence their overall satisfaction. It is related to the competence, skills, attitudes, motivations experience, know-how, technology, internal relationships and reassures, activities, and how these activities are managed, co-operated and coordinated. These indicators should be considered

very critical and important because the lack of any of these factors explains poor education quality. Price et al. (2003) found also that University's physical facilities influence students' satisfaction, i.e. Q3. Internal resources dimension is one of the essential tasks for a higher education institution to develop and integrate various elements of a university's capabilities into a comprehensive education strategy. Technology, for example, can measure the manner in which the university processes the citizens´ information through the communication networks such the efficiency of student portals, etc. Q4 Quality of the interaction and communication (among staff, between staff and leaders, between staff and citizens, citizen's involvement, etc.) measures the quality of information exchange (tutoring, lectures, individual meetings, and supervision, feedback of the questions and exams, time and accuracy of the check up and exams result and even social exchange). Communication dimension evaluates the exchange process performed by the university in different aspects. Social exchange should also be included. It evaluates the observable behavior provided by the universe staff and other personnel while they monitor and negotiate the terms of the education. Satisfaction is influenced upon the receiving of adequate explanation and instructions before, during and after the classes and exams. Lecturer ability to inspire and stimulate the critical thinking should be one of the most critical issues. The fact the most academic staff is overloaded can lead to the lack of extra time for the communication or interaction outside the lecture rooms. That is one of the most challenges the higher education sector faces. Q5 Quality of the atmosphere (quality culture, common interest, common goal, participation of the staff reg. decision making, responsibilities, trust, commitment, authorities, structure of the organization, etc. the relationship and interaction process between the parties are influenced by the quality of the atmosphere in a specific environment where they cooperate and operate. The atmosphere indicators should be considered very critical and important because of the belief that the lack of frankly and friendly atmosphere explains poor quality of care in developing countries. Student working load should also be included in the Q5 dimensions. Normal working load is 35-40 hours per week. This factor can have social influence. Students should also assess and evaluate their own performance. They can evaluate their own performance very high, even higher than their academic staff. From the psychological point of view people often try to avoid the feeling of guilt if something goes wrong. To protect or defense one self, people can try to

over estimate their own capabilities and abilities. In this case students can have tendency to blame their teachers rather blaming themselves. That is one of the major dilemma of the objectivity of student assessments. Devising good indicators of quality is difficult. Indicators must provide reliable, objective, and relevant information about important issues; they must be sensitive to changes in performance; and they must be easy to calculate with available data. Of course, the indicators may be influenced by external factors such as the social and economic characteristics of the student environment. By linking infrastructure, interaction and atmosphere indicators to the quality of object and processes; researchers and university leaders and faculty members can document which changes in services improve the overall satisfaction of the students, hence the ultimate outcome exercises, planning and undertaking field visits. The lecture-cum-discussion method is one of the most popular methods being followed by almost all the Instructors also using other training methods as well like group discussion, role play.

The questionnaire contains a total of 45 items (attributes) of newly developed five quality dimensions (5Qs)

METHOD

The questions were given to the students in AWTC and MLTC in West Bengal, and analyzing this data by we found this result.

STATUS OF TRAINING CENTRES

Infrastructural Facilities: Training Centres do not have all the essential requirements as expected of a Training Centre. Besides, there were many Training Centres which have congested classrooms or one big training hall that is used as a classroom in the morning and in the evening for sleeping purposes. This gives a very different picture of a Training Centre because the belongings of trainees are scattered all over the place. The ambience of the classroom(s) is not conducive at all for training purposes. In this kind of an atmosphere, the trainees too adopt a casual approach towards training. Centres lacked basic training equipments like white board, OHP, LCD Projector, TV/DVD. Few of the Training Centres were even deprived of telephone facilities. In this age of advancing technology, there are training Centres which did not have even a typewriter or computer. Adequate attention was not being given towards cleanliness of toilets and bathrooms. Other than this, in many Training Centres, the number of toilets and bathrooms were found to be less in proportion

to the number of trainees. Recreational facilities were also lacking in many Centres. It was by and large observed that in many of the Training Centres, the food was being cooked and served by trainees themselves. In many places, there were no kitchens and dining halls in the Training Centres. Many of them did not have any library facility. Books and other material procured by them were kept in almirahs in a haphazard manner

Position of Instructors: As the Instructors were appointed on contract basis and were not on regular pay rolls, it was found that majority of the Training Centres did not have the required number of Instructors. One reason for this was quick turn over of the Instructors and delay on part of the State Government to fill-up the vacant posts. It was also observed in many of the Training Centres that the services of Instructors were not being optimally utilized because of inadequate number of training programmes assigned to them by the State Government. All these aspects affect the overall quality of training imparted by the Training Centres. It was found in Training Centres spread out at distant and remote places of the country were not being adequately trained on regular basis.

Planning and Organization of Training Programmes*:* The status of planning and organizing training programmes again was not found to be satisfactory . This is because States/UTs do not prepare training calendar of respective Training Centres well in advance. The States/UTs inform the Training Centres about the organization of training programmes without giving them sufficient time for planning and organizing a given training programme. Other than this, it was found that in many of the Training Centres the training programmes were not being organized in accordance with the syllabus prescribed. This is primarily because many of the Training Centres till date do not have the revised syllabi with them.

Training Skills of Trainers*:* Training Centres by and large reveals that most of the Instructors are well experienced and possess requisite skills required for organization of Training Programmes, taking sessions, conducting practical exercises, planning and undertaking field visits. The lecture-cum-discussion method is one of the most popular methods being followed by almost all the Instructors. , using other training methods as well like group discussion, role play, mock session and brain storming *should be done in better way.*

Status of Reading/Training Material Supplied to the Trainees*:* Training Centres no reading/training material was being supplied to the participants because of inadequate budgetary provision. All that was given in the name of reading/training material or training

kit was a cloth bag, a note book/register, pen, pencil, eraser, sharpener and one or two sketch pens.

Status of Feed-back from Trainees about on-going Training Programmes: It was observed of the Training Centres that no proper evaluation Performa has been evolved by the Training Centres for obtaining feedback. Currently, feed-back is obtained by simply asking questions about the sessions taken. The other method adopted is that of written examination. Given the literacy level of Helpers and AWWs, some of the Training Centres found it difficult to obtain their written evaluation or feedback. This would enable the trainees as well as the Training Centres to sort out many issues confronting them. This kind of an approach would also make the Instructors attentive, energetic and vigilant.

Status of Supervised Practice*:* This is a weak component in all the Job Training Courses. The Trainers till date have not understood the meaning of 'supervised practice' as they see no difference between it and 'field placement'. Other than this, it was found that instead of placing 3-4 trainees in one AWC for supervised practice, the Training Centres as per their convenience were placing more than 10 trainees in one Centre. The resultant effect of this was that the trainees were not able to acquire the desired skills and knowledge about the proper functioning of an AWC

Overall infrastructural facilities are one of the prime requirements for proper functioning of any Training Centre. A Training Centre with adequate infrastructure facilitates the overall quality of training programmes, Training material is an important input of any training programme. The underlying idea is that it can be used as a reference material by the trainees whenever it is required/needed by them. Depending upon the nature of training and level of trainees, training material can be of varied kinds like posters, pamphlets, brochures, storybooks, flashcards, cassettes, handbooks, manuals, booklets, new schemes, etc. developed or procured by the States/UTs.

Most Critical Components to student Satisfaction and Quality in Rank of Dimensions of 5Qs Attribute

1 Quality of infrastructure **-** Lecturer's ability to stimulate critical thinking

2 Quality of infrastructure **-** The lectures cover an appropriate amount of contents

3 Quality of infrastructure **-** The lecturer's ability to inspire me for the subject was

4 Quality of atmosphere **-** Politeness of the professors

5 Quality of infrastructure **-** The lecturer's commitment

6 Quality of atmosphere **-** Responsiveness of the professors to your needs and questions

7 Quality of infrastructure **-** The lecturer's ability to teach in line with the learning objectives

8 Quality of infrastructure **-** Physical appearance of classrooms

9 Quality of atmosphere **-** Politeness of the assistants

10 Quality of object sense of security from physical harm **-** The students felt in the university campus

This study depends on ANOVA analyses to determine the significance of differences among responses (good and very good – average – bad and very bad).

Critical Percentage of the Most Important Dimensions of 5Qs

Rank of dimension	***critical percentage***		
	good and very good	***average***	***bad and very bad***
1	67.4%	14.6%	17.4%
2	61%	21%	17.99%
3	60.8%	11.1%	27.8%
4	58.6%	14.7%	26.7%
5	56.4%	13.7%	29.7%
6	56.3%	14.1%	29.3%
7	55.9%	18.3%	25.8%
8	55.8%	18.8%	25.2%
9	55.2%	17.2%	27.3%
10	54.3%	18.7%	26.7%

Descriptives

95% Confidence Interval

Mean Score	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
1.00	.5320	.113	3.521E-02	.4524	.6116	.38	.72
2.00	.2530	5.559E-02	1.758E-02	.2132	.2928	.15	.32
3.00	.2150	7.50E-02	2.400E-02	.1607	.2693	.10	.30
Total	.3333	.1651	3.014E-02	.2117	.3950	.10	.72

ANOVA SCORE:

Sum of Squares	Mean Square	F	Sig	Between Groups	Within Groups	Total
1.569	.234	1.803	.314	4.330E-03	72.469	.000

The result of **ANOVA** analyses indicate that this is significance differences among the three level of response (good and very good – average – bad and very bad) According this results

DISCUSSION

A model of strategy to improve students' satisfaction in to influence on admissions such as quality of atmosphere (Q5) and quality of infrastructure (Q3), which these are the first two most important factors where they are also compatible with the results of frequency analysis critical components. The results were very interesting as supporting the importance of total relationship management, student being a citizen not a customer and 5Qs

We observed that the number of chunks of information is constant for working memory. More precisely, we found that short-term memory has a capacity of about "seven plus or minus two" chunks –independent of the number of bits per chunk. Recoding or chunking is the process of reorganizing information from many chunks with few bits of information to fewer chunks of many bits of information. By recoding information, we can make more efficient use of short term memory and consequently increase the amount of comprehensible information. But there is no free lunch; when recoding we must also learn the associated schemas for decoding/interpretation of information. However, once learned, these schemas are kept in long-term memory and therefore do not affect the cognitive load of short term memory. The most important component perceived as quality is commitment and secondly the ability to inspire me for the subject was. The third critical component is the lectures covers an appropriate amount of contents .Fourth component is The lecturer's ability to teach in line with the learning objectives. Fifth most important component is Responsiveness of the professors to your needs and questions. This was the second interesting result as it stresses on the importance of the behavioral variables such as politeness and commitment of professors when quality is the concern. Sixth critical component is ability to stimulate critical thinking which means that the patients now need, expect and want responses to their questions immediately and this is one of their criteria for perceiving quality in education. Seventh critical component the Physical appearance of classrooms and eighth critical factor is Politeness of the professors. Ninth component is the sense of security from physical harm the students felt in the university campus and the tenth and last critical component is the politeness of assistants.

A model of strategy to improve students' satisfaction in to influence on admissions such as quality of atmosphere (Q5) and quality of infrastructure (Q3), which these are the first two most important factors where they are also compatible with the results of frequency analysis critical components. The results were very interesting as supporting the importance of total relationship management, student being a citizen not a customer and 5Qs model mentioned. The results were show in the importance and how the relationship of student-academic staff,

Student university staff relationship is affecting the satisfaction of student. The result of this model has helped to set their strategies according to students' expectations and needs not only what AWTC and MLTC want and expect.

The result of ANOVA analyses indicate that this is significance differences among the three level of response (good and very good – average – bad and very bad) According this results

Programming courses often focus on syntax and the particular characteristics of a programming language, leading students to concentrate on these relatively unimportant details rather than the underlying algorithmic skills. This focus on details means that many students fail to comprehend the essential algorithmic model that transcends particular programming languages. Moreover, concentrating on the mechanistic details of programming constructs often leaves students to figure out the essential character of programming through an ad hoc process of trial and error. Such courses thus risk leaving students who are at the very beginning of their academic careers to flounder on their own with respect to the complex activity of programming. Characterize teaching programming as a skill as: describing strategies, principles, patterns, and techniques of program development demonstrating how to apply these in action, and giving novices the opportunity to practice while receiving feedback in order to improve their skills. The strategies, principles, patterns, and techniques of (object-oriented) program development encompass: development strategies (e.g. incremental development, responsibility driven development, model-driven development, test-driven development), design and programming principles (e.g. the single-responsibility principle, the information hiding principle, the substitution principle, problem-solving patterns (e.g. design patterns, algorithmic patterns, elementary patterns, variable patterns), design and programming techniques (e.g. CRC-cards, design-by contract, system invariants, class invariants, loop

invariants, factoring out of inner loops, factoring out of heavy functionality). Complementary to these are skills related to finding and correcting errors, refactoring program design, and optimizing the performance of programs. Clearly, we cannot and should not teach all of this at once, but we need to understand the nature of modern program development in order to devise an instructional design for programming education that can bring students from the level of novice toward the level of expert. If we also want the instructional design to be efficient (i.e. advance the programming skills to the required level for as many students as possible), we must take modern cognitive learning theories into account.

The most important component perceived as quality is and, secondly the ability to inspire me for the subject was. The third critical component is the lectures cover an appropriate amount of contents. Fourth component is the lecturer's ability to teach in line with the learning objectives. Fifth most important component is Responsiveness of the professors to your needs and questions. This was the second interesting result as it stresses on the importance of the behavioral variables such as politeness and commitment of professors when quality is the concern. Sixth critical component is ability to stimulate critical thinking which means that the patients now need, expect and want responses to their questions immediately and this is one of their criteria for perceiving quality in education. Seventh critical component the Physical appearance of classrooms and eighth critical factor is Politeness of the professors. Ninth component is the sense of security from physical harm the students felt in the university campus and the tenth and last critical component is the politeness of assistants.

A model of strategy to improve students' satisfaction in to influence on admissions such as quality of atmosphere (Q5) and quality of infrastructure (Q3), which these are the first two most important factors where they are also compatible with the results of frequency analysis critical components. The results were very interesting as supporting the importance of total relationship management, student being a citizen not a customer and 5Qs model mentioned in this study. The results were showing the importance and how the relationship of student-academic staff is affecting the satisfaction of student. The result of this has helped to set their strategies according to students expectations and needs not only what organization wants and expects.

The Aspect of human cognitive development depends upon the working environment in which the students are taking their class, all human learning and work activities rely on two of our memory systems: working memory and long-term memory and the partnership they share. As its name implies, working memory is the active partner (as you read this and think about its relevance to the dissertation, it is your working memory that does the processing). While in learning mode, new information from the environment is processed in working memory to form knowledge structures called schemas, which are stored in long-term memory. Schemas are memory structures that permit us to treat a large number of information elements as if they are a single element. New information entering working memory must be integrated into pre-existing schemas in long-term memory. For this to take place, relevant schemas in long-term memory must be activated and decoded into working memory, where integration takes place. The result is an encoding of extended schemas stored in long-term memory. The process is known as schema acquisition, There are two general categories of schemas: schemas that encode knowledge and schemas that encode strategies for using knowledge; we shall call these knowledge schemas and skill schemas. We have schemas for all aspects of our cognitive lives. We have knowledge schemas for letters, words, and combinations of words that allow us to read easily and rapidly, and we have skill schemas that allow us to write reports, essays, scientific papers, and dissertations. Schemas for the solution to specific mathematical problems may make us competent at mathematics. And, as programmers, we may have knowledge schemas for programming language constructs and skill schemas for systematically developing a loop from its specification. A. Miller observed that the number of chunks of information is constant for working memory. More precisely, Miller found that short-term memory has a capacity of about “seven plus or minus two” chunks –independent of the number of bits per chunk.6 Recoding or chunking is the process of reorganizing information from many chunks with few bits of information to fewer chunks of many bits of information. By recoding information, we can make more efficient use of short term memory and consequently increase the amount of comprehensible information. But there is no free lunch; when recoding we must also learn the associated schemas for decoding/interpretation of information. However, once learned, these schemas are kept in long-term memory and therefore do not affect the cognitive load of short term memory, significantly different psychological capabilities than

novices. Experts are able to tackle complex tasks that overwhelm the less experienced. When learning new skills in their domain, experts are enabled by their rich set of schemas to process much larger amounts of information as well as to guide much of their own learning process. Novices, in contrast, lack such schemas and therefore need learning environments that compensate for them. Well-designed learning environments for novices provide meta cognitive managerial guidance to focus the students' attention and schema substitutes by optimizing the limited capacity of working memory in ways that free working memory for learning. Good instruction will segment and sequence the content in ways that reduce the amount of new information novices must process at one time and, as much as possible, reinforce domain patterns to support schema acquisition and improve learning Cognitive load is the load on working memory during problem solving, thinking, and reasoning (including perception, memory, language, etc.). Cognitive load theory is a universal set of learning principles that are proven to result in efficient instructional environments as a consequence of leveraging human cognitive learning processes [Clark et al. 2006]. John Sweller [Sweller 1988] suggests that novices who are unable to recognize a schema to solve a problem must resort to ineffective problem solving strategies like means-ends analysis [Newell et al. 1972]. Sweller suggests that problem solving by means-ends analysis requires a relatively large amount of cognitive processing capacity, which may not be devoted toschema construction. Instead of problem solving, Sweller suggests that instructional designers limit cognitive load by designing instructional materials like worked-examples, or goal-free problems. We return to these later. The fundamental axiom of cognitive load theory (based upon the model of cognitive architecture) is that learning outcome is optimized when cognitive load fully utilizes the capacity of working memory with elements that allow for optimal schema acquisition. Too little as well as too much cognitive load results in low learning outcome. Routine activities do not advance cognitive development (if there is no new information, no encoding/recoding of schemas take place), and overwhelming with cognitive load does not leave capacity for schema acquisition. Consequently, optimizing learning is a question of balancing, not minimizing nor maximizing, cognitive load. However, it is a bit more complicated than that, but also more informative. Cognitive load (L) is currently divided into three disjoint categories: Extraneous cognitive load (E) is caused by instructional procedures that interfere with, rather than contribute to,

learning. Extraneous cognitive load might impede learning, since it requires working memory resources that can no longer be devoted to cognitive processes associated with learning. Furthermore, cognitive resources required by extraneous cognitive load might result in an overall cognitive load that exceeds the limits of working memory capacity. • Germane cognitive load (G) is a non-intrinsic cognitive load that contributes to, rather than interferes with, learning by supporting schema acquisition. Germane cognitive load is imposed by adding higherlevel cognitive processes that aid schema acquisition and automation. • Intrinsic cognitive load (I) is cognitive load intrinsic to the problem that cannot be reduced without reducing understanding. Intrinsic cognitive load depends on the relational complexity of the to-be-learned content (so-called element interactivity) and the learner's degree of prior knowledge. Informally, we can express the relationship between L, E, G, and I as: L = E + G +I. In these terms, the challenge of balancing cognitive load for optimal learning becomes a question of minimizing E and maximizing G by using this model of strategy to improve students' satisfaction in to influence on admissions such as quality of atmosphere (Q5) and quality of infrastructure (Q3), which these are the first two most important factors where they are also compatible with the results of frequency analysis critical components. The results were very interesting as supporting the importance of total relationship management, student being a citizen not a customer and 5Qs model mentioned in this study.

The Overall infrastructural facilities are one of the prime requirements for proper functioning of any Training Centre. A Training Centre with adequate infrastructure facilitates the overall quality of training programmes, Training material is an important input of any training programme. The underlying idea is that it can be used as a reference material by the trainees whenever it is required/needed by them. Depending upon the nature of training and level of trainees, training material can be of varied kinds like posters, pamphlets, brochures, storybooks, flashcards, cassettes, handbooks, manuals, booklets, new schemes, etc. developed or procured by the States/UTs. programme schedule, planning of sessions, selection of resource persons, selection of training methods for a given session, identification of Projects/AWTCs for field visits and supervised practice, selection of reading material for distribution among the trainees, etc. Simultaneously, refresher and skill based training needs to be imparted to all the other Instructors who have been

associated with the Training Centres for a considerable period. Training technology, preschool education, growth monitoring in the light of New WHO Child Growth Standards and community participation are a few areas on which Instructors need to be imparted continuous training.

Student staff relationship is affecting the satisfaction of student. The result of this has helped to set their strategies according to students' expectations and needs not only what organization wants and expects.

The results were very interesting as supporting the importance of total relationship management, student being a citizen not a customer and 5Qs model mentioned in this study.

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