

Action Research – MSc, TOC

September 2010, Nottingham University, UK

Chapter 1

Introduction

Nature has blessed human mothers with a wonderful gift of breast-feeding which nurtures the new born and provides life to it. It is a new experience for the mother both psychologically and physiologically. The first milk contains antibodies and nutritious anabolic proteins, which builds up the immunity of the newborn and makes him ready to fight against diseases. This act of breast-feeding makes the mother enjoy the fruits of motherhood and feel completely satisfied. Breastfeeding keeps the infant warm due to the skin to skin contact and also helps in creating a loving and strong bond between mother and child.

A theory about breastfeeding that it provides humane touch and supportive message to the baby has been prevalent for ages. But pediatricians of today feel that breast milk if extracted through hand, suction pumps or mechanical pumps and fed through bottles can give the same benefits as natural breastfeeding. Exclusive breastfeeding is essential for the infant as it makes him immune to all diseases. No infectious disease from the mother can be transmitted to the baby if he is breast fed during the initial months. The child also has a better chance of survival in case any serious disease develops at a later stage.

Evolution of breastfeeding

Past research shows that our infants were breastfed primarily since ancient times due to which a mutual physiological relationship was developed between the infant and the mother as both assist each other in remaining healthy (Stuart-Macadam, 1995).

Breastfeeding has predominantly remained one of the most important methods of infant feeding in the medieval pre-industrial Europe and this has also led to the historical continuity of breastfeeding in the United States (Fildes, 1995). But throughout human history, the inquiry was related to whether the baby was breastfed by the mother, a wet nurse or a friend. In the medieval times, wet nursing was much popular among the upper classes of Europe while mothers of the poor families breastfed the babies themselves. But in certain areas like “parts of Germany, Bohemia, Northern Italy, the Austrian Tyrol, Finland, Sweden, Iceland, and Russia,” breastfeeding was not an acceptable form of infant feeding (Fildes, 1995). In these areas, animal milk and cereal paps acted as a substitute for breast milk. Consequently, the infant mortality rate was considerably higher in these areas as compared to the rest of Europe despite suitable cold climate for storage of milk products.

In colonial America, throughout the seventeenth and eighteenth centuries, breastfeeding was a dominant practice similar to the majority of Europe particularly England (Treckel, 1989). Using the services of wet mother was popular among some upper class families but due to extremely low rural population densities and lack of financial resources, most American women could not afford a wet nurse and had to breastfeed the infant themselves.

In the sixteenth century, breastfeeding practices in these colonies were affected by the women’s dual roles of mother and wives. Authorities and experts of the society who are distinctly male used to dictate women’s roles. They were determined to control the sexual and reproductive activities of women. According to Puritans who popularly advocated breastfeeding, it was the mother’s Christian duty to breastfeed her baby which was a part of the larger duty increase the population of future generations. If mothers did not breastfeed their infants they were branded with the names “Careless Women, Living at Ease” who “are Dead while they Live.” (Treckel, 1989)

The seventeenth century saw the increasing role of medical and scientific practitioners in establishing the breastfeeding standards. Colonial mothers were cautioned against breastfeeding their infants during the initial days after the birth. This was due to the belief

of the doctors that colostrums or the first milk of the mother was harmful for the child contradictory to the present view of the colostrums playing an important role in building the immunity of the infant (Treckel, 1989).

The colonial wives had to coordinate with their husband's sexual gratification and their baby's hunger gratification. Some of the affluent mothers took the help of wet nurses for the care of their infants. On the contrary breastfeeding acts as a form of birth control as it delays the inception of ovulation between 8 to 12 months. Thus, women of that era were able to control the size of their families in this way.

However, the threat of infant and childhood mortality was prevalent from the early colonial times till the nineteenth century (Dye & Smith, 1986). Consequently, the initial decades of the nineteenth century saw a transformation in breastfeeding practices. The earlier attitude of treating breastfeeding as a part of Christian duty gave way to glorious motherhood where mothers took active participation in caring for their child. Later due to the high infant mortality rates, the infant feeding practices became "medicalised". According to Penny Van Esterik, medicalization of infant feeding refers to:

"the expropriation by health professionals of the power of mothers and other caretakers to determine the best feeding patterns of infants for maintaining maximum health." (Esterik, 1989)

This medicalisation gave rise to formula feeding which was a convenient option for working women as the twentieth century saw most of the women working (Downs, 2002). Further, the invention of antibiotics and development of vaccination led to change in the self out look of mothers. They started heeding to professional advice on matters of infant feeding. Thus in the late nineteenth century and early twentieth century, breastfeeding rates showed an alarming downfall.

Rise of La Leche League and current status of breastfeeding

Women started resisting this form of scientific motherhood and a major upheaval came in the form of origin of an organisation named La Leche League which was started by a group of seven Catholic women who wanted to offer alternative methods to this disembodied form of motherhood (Blum, 1999). This organisation started in 1957 and got its name from a shrine in St. Augustine, Florida, Nuestra Senora de la Leche y Buen Parto, or “Our Lady of Milk and Good Delivery.”(Wiener, 1994) Since its commencement La Leche League has grown incredibly and transformed into La Leche League International which is now a major international organisation who offers service to about two hundred thousand people every year in 66 countries. It also resolves the queries of about 750,000 American mothers every year on issues related to breastfeeding (Bobel, 2001).

The return to breastfeeding thus can be credited to La Leche and many such pro-breastfeeding groups. These groups not only make people aware of the benefits of breast milk but also the value of bonding between mothers and infants. These organisations are working towards the return to the natural motherhood.

Home Births

In the early days of human civilization, home birth was the only alternative for giving birth. But during Middle Ages and Renaissance, home birth with the assistance of midwives almost died out. In the 1980s, due to the increase in the infant mortality rates due to hospital births, there was a return of the midwifery practice as people started believing home to be a better place than hospital to give birth (Rateliff, 1998).

Home births have their own importance as women can enjoy the safety, privacy and comfort of their homes. Moreover, breastfeeding can be quickly established due to lack of any embarrassing situation (Thomas, 1998). A survey in UK showed that a large number of working women were willing to undertake home birth if it was easily available (Ford et al, 1991). Home births are economical and are equally safe as hospital births. Women opting for home birth have greater likelihood of natural birth and less possibility of caesarean births.

NCT fully supports parents' choice and if the parents desire home birth, NCT provides proper guidance and information related to it. NCT believes that home birth is as safe as any other birth.

Nature of specific needs and involvement of NCT

National Child Trust of UK is another such organization which is acknowledged as the expression of pregnant women and new parents of UK. This charity has been continuously involved in enhancement of maternity care and providing improved services and guidance to new parents for over 50 years. They are considered as experts in the field of pregnancy, birth and parenthood and act as advisors to various government and private institutions of UK.

The NCT is managed by a Board of trustees which meets once in a quarter to determine strategies, monitor overall performance and ensure conformity with the existing legislature. These Trustees act as Chairs of 5 sub committees also which conducts detailed specialist work, the results of which are later presented to the Board for approval. The head office has 12 departments headed by a Director or Head of Department who also are members of the Senior Management Team. This Team is presided by the CEO and meets monthly to ensure proper working of the charity within the specified budget and strategies. The Senior Management Team (SMT) helps the Board of Trustees to accomplish their role by providing them with the desired information.

NCT has been chosen to be a key delivery partner in this project as it has all the necessary infrastructure required for this research. The Central Marketing Department has an inbuilt design team which will assist in promotion campaigns through the existing secure print and electronic channels. The Branch and Regional Volunteer Support structures are strongly rooted and have widespread experience in developing in-house modular programme of volunteer development training across 315 UK branches. The Finance Department is also capable of handling expenditure of projects with the

assistance of a central Fundraising Department which ensures conformity with the terms and conditions of external funding. Besides, many illustrious projects involving Multi-Agency and Partnership Working have been handled successfully by NCT in the past. Examples of such projects include Sowing Seeds (North West Development Project), North East Development Project, POPPY - Parents of Premature Babies Project and West Midlands Improving Choice and Access Project.

NCT's profile of supporters is also appropriate for our research work. It has 96,611 members as at 31 March 2009, out of which 97% primary members are either pregnant females or mothers. Approximately 39% members prefer mailing service. The average age of the members is 33 and their average income is £40,000+. 71% members are professionals, 52% are web savvy and almost all are health conscious. Regarding, NCT volunteers, most of them are females with one or two children and may be employed part time or unemployed.

NCT supports natural breastfeeding and is working towards creating awareness among mothers about the benefits of breast milk for both mother and child. According to NCT, breastfeeding is one of the best ways to lessen inequalities of health. If the babies are exclusively fed on breast milk for the first six months, the health outcomes are excellent. Breastfeeding if continued for more than one year is more beneficial for both mother and infant. Thus, NCT propagates breastfeeding should continue depending upon the requirement of the mother and baby (NCT, 2008).

A recent survey in the UK revealed that about three quarters mothers exclusively breastfeed their infants after birth. But this act continues for only six weeks and then breastfeed is accompanied with formula milk (Bolling et al, 2007). Some women completely stop breastfeeding after 6 weeks due to lack of accurate information and support.

The NCT believes that support of the society and culture is required to enhance confidence in breastfeeding and make it a part of life. NCT also supports the rights of women to breastfeed at any place conveniently be it a public or a private place. It

supports the Baby Friendly Initiative (BFI) which is an effort to improve the facilities and services available to mothers in hospitals and the community (Jayaweera et al., 2007). It also believes that facilities like on-site foundling hospitals, extended maternity pay, breastmilk storing services, flexible working arrangements and breastfeeding breaks at the workplace should be easily accessible to women. To ensure a breastfeeding culture, the NCT provides conducts campaigns and provides trained breastfeeding counsellors. NCT is a member of coalition of 36 mother support groups, trade unions, health professionals and organisations and charities which is working towards creating awareness about the benefits of breastfeeding and improving support for it. NCT also supports the Breastfeeding Manifesto.

Scope of the research

The purpose of this research is to determine whether the TOC Thinking processes will be helpful in developing a strategy with the NCT. According to the CEO of NCT, the strategy of NCT is three years old and needs to be revised and updated. The group which will assist in the research would be Strategy and Policy Forum which was formed according to the new Governance structure and was responsible for creating the previous policy as well. The research would develop a new strategy for improving existing breastfeeding and birth approaches.

The nature of this research would be action research. The next chapter will deal with the prevalent literature about breastfeeding and development of a strategy with particular reference to using the TOC Thinking Process (TP).

Chapter three will deal with the research methodology used for this study with a detailed analysis of the special combination of action research with thinking process as used in this research. It will also contain a description of the process and people involved with special reference to the diary details, the Current Reality Tree (CRT) and the timescales. At the end of the chapter the action research cycles would be discussed thus making up the structure of chapter four.

The fourth chapter will consist of a structure of the identified cycles reflecting the cyclic steps drawing from diary and CRT to convey the main developments. The dialogue process between all the parties will be reflected along with the feedback mechanism. Feedback will consist of content and process and people's reaction to the process and thinking process. Self reflection will reflect the CRT's knowledge base and how it influenced the team.

Chapter five will reflect on the overall process: content, people reaction and the use of the TP. Structure will coordinate with the main findings. It would be a in the form of a summary before the concluding chapter.

The last chapter will be the conclusion of the entire chapter. It will summarise the process of creating a CRT which although huge was necessary for the transformation of the trust, the buy in of the board and the buy in of the trustees. This chapter will also analyse whether this research could have been done differently and whether the solution was practical or not. It also needs to be determined whether another better process should be searched for. Finally the suitable recommendations for further improvements will be given at the end of the chapter.

Chapter 2

Literature Review

The existing strategy of National Child Trust focuses on enriching all parents with the pleasures of pregnancy, birth and early parenthood. The purpose of NCT is to ensure improved maternity care services are accessible to all and every parent is provided with an opportunity to make informed choices. Regarding the practices of breastfeeding, NCT believes that normal breastfeeding practices are extremely useful for the well being of mother and child but these are under pressure due to the norms of the modern society. At present, NCT is exclusively campaigning in three main areas: birth, breastfeeding and early parenthood. The subsequent paragraphs will deal with the policy of NCT with relation to birth, breastfeeding and formula feeding (NCT Strategy,2009).

Birth policy of NCT

NCT has formulated a birth policy containing 12 principles which was published in 2002 is as follows:

- 1. Birth and the transition to parent hood should be an experience that enriches parents' lives.*
- 2. Maternity care should be a positive experience for women and make a significant contribution to public health, the well-being of families and the next generation.*
- 3. Women need to feel as fit and well-prepared as possible if they are to look after their new baby, themselves and the rest of their family.*
- 4. The maternity services should be developed and managed to increase the proportion of straightforward vaginal births.*
- 5. The maternity services should be developed to provide women with easy access to a reliable home birth service and to midwife-led birth centres.*
- 6. The education of midwives, obstetricians, anaesthetists, GPs and other health professionals should involve observation of birth as a normal physiological process.*

7. *Women's opportunities to experience a straightforward vaginal birth are dependent on midwives maintaining their knowledge of the physiological process of birth and practical midwifery skills.*
8. *Parents should have ready access to evidence-based information to show how health outcomes vary with different kinds of care.*
9. *All maternity services should be designed to enable women to get to know their main carer; and for healthy women with a straightforward pregnancy this should usually be a midwife.*
10. *Medical care can be invaluable for mothers and babies when there are complications or an increased chance of complications.*
11. *Individualised care is important; appropriate ways of providing support should be explored for each woman.*
12. *The living conditions of pregnant women and families with babies must be improved (Newburn, 2002).*

NCT strives hard to implement these policies and make birth a pleasurable experience for the parents.

Breastfeeding policy of NCT

It is known to NCT that breastfeeding is the healthiest feeding option for infants and wants to encourage and support parents in their breastfeeding decisions. Infant Feeding Survey conducted in UK in 2005 revealed that 73% women stopped breastfeeding very early against their wishes due to social and cultural barriers. Observing such conditions, NCT has formulated the following aims:

1. Full implementation of the Baby Friendly Initiative.
2. Provision of support and information to all breastfeeding families.
3. Formation of well informed communities who are supportive of breastfeeding.
4. Developing a positive and supportive culture for breastfeeding by imparting education on breastfeeding and seeking improved women employment rights (NCT, 2008).

NCT plans to achieve these aims by campaigning as a member of Breastfeeding Manifesto coalition. The NCT Baby Feeding Policy is based on three main principles: support for all parents, informed decision making and promotion of breastfeeding. NCT wants to eradicate all the painful experiences and difficulties faced by parents particularly mothers with regards to baby feeding and make it a most rewarding and fulfilling experience.

According to NCT, all parents have right to independent, evidence based and easily accessible information. The pros and cons of both breastfeeding and formula feeding should be extensively available to create awareness among both children and adults. Information about breastfeeding should be included in the school curriculum to ensure that children grow without any issues related to breastfeeding (Purtell,1994). Full implementation of the Global Strategy for Infant and Young Child Feeding, the WHO Code and relevant World Health Assembly Resolutions by the UK Government and Food Standards Agency will help in promoting breastfeeding and protect parents from poor information and pressure from the society. Health professionals should give be actively responsible and provide support at the time of first feeding and throughout the early days to ensure that breastfeeding has successfully launched (Sikorski & Renfrew, 1999). NCT provides update training to health professionals on all aspects of infant feeding. Health professionals should not accept sponsorship in any form for information related to breastfeeding and manufacturers should not provide sponsorship for the same. NCT also sees that a structured breastfeeding program which is externally evaluated and uses Baby Friendly Initiative as an evidence for effectiveness is provided by the hospital or community based maternity center (UNICEF UK, 1997).

According to NCT, most women are willing to breastfeed but require accurate information and support to make the right choice. Breastfeeding needs to be protected from the threats like pressure from the Western culture, employment practices etc. The more disadvantaged families will benefit a lot from breastfeeding in terms of health. These families can be supported by providing information in different formats and languages, engaging peer support for them and involving local mothers for their help. Finally, breastfeeding does not have a negative effect on the environment. Based on all

these factors, NCT provides trained counselors and campaigns for a breastfeeding friendly society so that parents are encouraged to make the right feeding choices.

NCT also ensures availability of consistent information regarding introduction of solid foods to the infants after six months. However, breastfeeding should be encouraged to continue along with the solid food.

NCT expects all the government departments of UK to work together and create breastfeeding awareness through education, business, employment, healthcare, welfare, leisure and legal systems procedures. Employers should work in conformation with the International Labour Organization and Global Strategy for Infant and Young Child Feeding recommendations and provide flexible working arrangements, breastfeeding Breaks, extended maternity pay, breastfeeding facilities including storing of breast milk and on-site crèches (UNICEF UK, 1997). The mass media should play an informative role by displaying breastfeeding pictures and dialogues related to the positive aspects of breastfeeding. This would help in shaping attitudes of the public and widespread acceptance of breastfeeding.

Supportive environment should be present for the parents whenever they feel the requirement of breastfeeding their infants at public places. Baby feeding facilities should be clean with provision of drinking water and should be separate from public conveniences. All these practices are the existing policy of NCT which requires to be revamped through this action research (NCT, 2008).

NCT's formula feeding policy

NCT believes that high quality formula milk should be available to the infants. Formula based milk is basically cow's milk modified for human baby's requirements. As dictated by the law, the main constituents of formula milk should be minerals, proteins, fats, milk sugar and vitamins and so all the brands manufacture similar formula milk (Statutory instruments, 2007).

There are two varieties of formula milk: whey based and casein based. Whey is the main protein in breast milk while casein is the main protein in cow's milk. Casein based milk is suitable for hungrier babies as it stays in the stomach for a longer time (Billeaud et al., 1990). Other types of formula milk should be taken only on the advice of a doctor. For example soya milk which is based on glucose contains harmful aluminium and phyto-oestrogen and should be avoided as per the dictation of the government (Chief Medical Officer, 2004). Parents should be cautious about the various claims made by the manufacturers of formula milk as they might not be true.

While making formula feed for the babies, an appropriate quantity of boiled water and powdered formula should be added. Too much powder will lead to constipation in the child while too little powder will result in under nourishment (Renfrew et al., 2003). Liquid formula are also available which are more sterile but expensive than their powdered counterparts.

UK government has formulated strict rules with regards to labeling. Composition and sale conditions of formula milk and follow on milk. Promotion of formula milk is completely prohibited as it may discourage breastfeeding. Formula milks have to be labeled in a different way from follow on milk to avoid confusion. On the contrary, follow on milk are substitutes for breast milk for babies older than 6 months and should be labeled accordingly. NCT is trying to modify the loopholes in the UK legislation.

Factors affecting baby feeding

Various factors affect the feeding pattern of babies. Parents may be influenced by personal, social, cultural or legislative practices in their choice of baby feeding. At present, in the UK one quarter of babies are formula fed from birth while the rest three quarters are either formula fed exclusively or formula fed along with breastfeeding (Bolling et al., 2005). The following are some of the most common reasons behind stopping breastfeeding by women:

1. Negative experience of breastfeeding, not enough milk or discomfort while feeding
2. Views of the spouses and parents to involve the father also in caring for the baby (Earle, 2000)
3. Return to employment and no plan to breastfeed at work. According to the Infant Feeding Survey, 2005, 22% women stopped breastfeeding after 6 to 9 months as they had to return back to work or study.
4. Factors related to health like HIV positive women are suggested not to breast feed. For them high quality formula milk is the best option before the infant turns twelve months (WHO, 1986).
5. The social, cultural and personal factors include attitude towards breastfeeding in public places, convenience of bottle feeding, father's involvement in feeding and support needed for breastfeeding (McIntyre, 2001).

These factors result from lack of support and proper information. NCT strives towards ensuring that all parents receive proper support, information and guidance related to baby feeding. If young people grow up seeing breastfeeding as a normal part of life they would look forward to breastfeeding their children in a similar way.

Theory of Constraints (TOC) Thinking Process

The existing strategy of NCT needs to be revamped and restructured for the year 2020. This can be achieved by applying the principle of Theory of Constraints Thinking Processes.

Theory of Constraints (TOC) Thinking Process is a body of knowledge consisting of a set of tools required for solving problems and creating a Process Of Ongoing Improvement. These tools are logical and in a way can be called thinking tools. They can be either used alone or in combination. The main purpose of these tools is to transform intuition into a format, which can be discussed, questioned and later modified for a better comprehension

of the situation. The problems are resolved to provide common sense solutions through communication, collaboration and consensus among members (Patrick, 2001).

The Theory of Constraints Thinking Process was developed by Dr. Eliyahu M. Goldratt and consisted of tools based on logic which provided the user with the following abilities:

1. *Identify the core problem of the system*
2. *Identify and test a win-win solution (before implementation)*
3. *Create an implementation plan (that is almost fool proof)*
4. *Communicate the above without creating resistance (Walker & Cox, 2006)*

In case of difficult structured or unstructured problems, managers can take the help of [\(six- delete\)](#) thinking tools developed by Goldratt which will be elaborated in the next chapter. These thinking processes allow the user to solve the problem by answering the three most important questions as follows:

1. What to change
2. To what to change
3. How to implement change (Walker & Cox, 2006)

In this research Theory of Constraint plays a vital role in developing the future strategy of NCT. The subsequent chapters will deal with all the action research conducted to achieve the desired results.

Chapter 3

Methodology

The research method used in this paper was based on action research with a combination of Thinking Processes. As there is a requirement of developing a new strategy related to childbirth and breastfeeding activities of NCT, this combination of methods is best suited. The subsequent paragraphs will deal with a brief outline of the action research method followed by a short description of the Theory of Constraints Thinking Processes.

Action research and its role in improving the functioning of NCT

Action research is a research in which focused efforts are made to improve the working of an organisation and can be conducted individually or in groups. The main purpose of action research is to identify problems within the organisation and then plan measures to solve the problem. Modern organisations employ extremely experienced scholars or professional researchers to identify the future requirements of their customers by checking out their complaints and designing measures to tackle them (Gunu, 2009). In the words of Boyd and Bright:

“These concerns are studied and relevant, not just to the arena of community psychology or social psychology, but also in organisational management theory, particularly in the literature on organisational development and change.”

According to Cahill (2007), the main objective of action research is to describe reality and then change it. To attain this objective, many processes are involved in action research. First, participants are involved in shared brainstorming in order to improve the efficiency and originality of the organisation. The participants are given an issue which has to be sorted out. In the case of NCT, the participants were asked to identify problem areas which need improvement and then ponder over the alternative solutions. These solutions were then checked for effectiveness and feasibility and later transformed into decisions. Fournier et al, rightly describe this stage as:

“At this stage, researchers go beyond proposing changes based on the findings to incorporating methods for translating the knowledge gained directly into practical decisions and/or practicable courses of action.” (Fournier et al, 2007, p. 2).

Secondly, action research helps not only in resolving the present day problems of the organisation but also the future issues. In the case of NCT, it helped in formulating a strategy for the next 10 years that is till 2020. Every voice of the action research team was required to establish the best method. According to Fournier et al, in an action research, “it is important to articulate voices that have been silent in order to uphold the fundamental democratic process of Action Research.”

Action Research and Thinking Processes

“Action research embraces a variety of research methods to explore local knowledge and can be used in a diverse range of settings.” (Cornwall & Jewkes, 1995 as cited in Fournier et al. 2007 p. 2). In this paper the Theory of Constraints Thinking Process was used as both are analogous to each other. Both action research and thinking process encourages the involvement of individuals in the decision making process. This ensures a diversity in collection of data which is not only reliable but also predictable. Both are important for bringing about organisational changes and creation of new theories besides providing motivation to the participants to be innovative and creative.

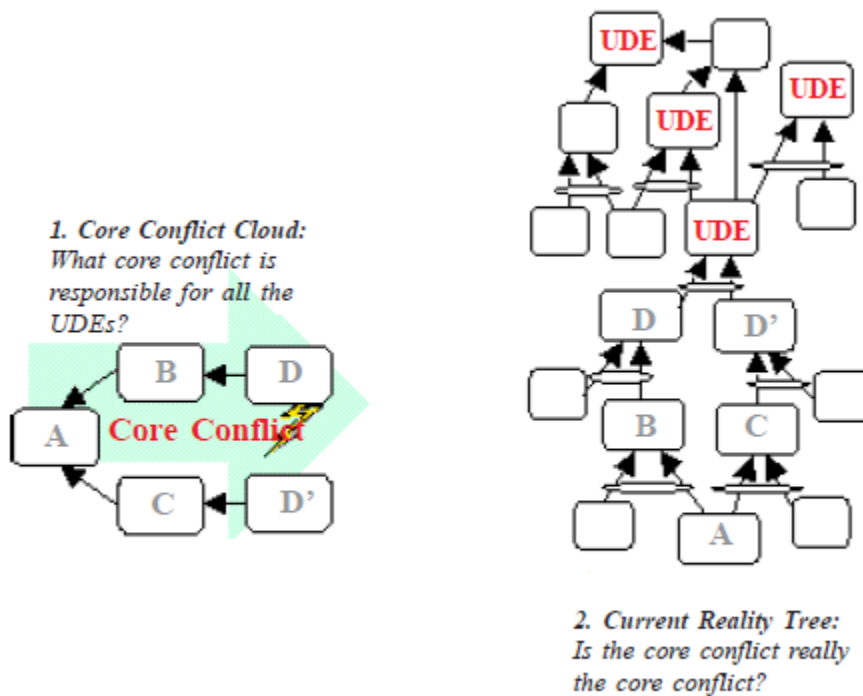
The implementation of thinking process can't be possible without conducting an action research. Moreover, the research method which best suits the requirement of NCT is action research.

Description of the process of strategy development used for NCT

As mentioned in the previous chapter, The Theory of constraints answers three questions:

What to Change?, What to Change To?, and How to Cause the Change? All the three processes are described in brief with relation to NCT

What to Change? The first step in this process was to identify the undesirable effects from a list of observable symptoms. This process started at NCT in early March 2009. The underlying reason behind the undesirable effects or UDEs is the core dilemma or core conflicts. These core dilemmas need to be identified and then consolidated. The core dilemma needs to be further checked for validity and explanations of all the identified undesirable effects by drawing a Current Reality Tree (CRT). The CRT helps in understanding the cause and effect relationships by identifying the behaviours, formal and informal policies and measurements of the action related to the existence of undesirable effects (Goldratt Institute, 2009).



What to Change?

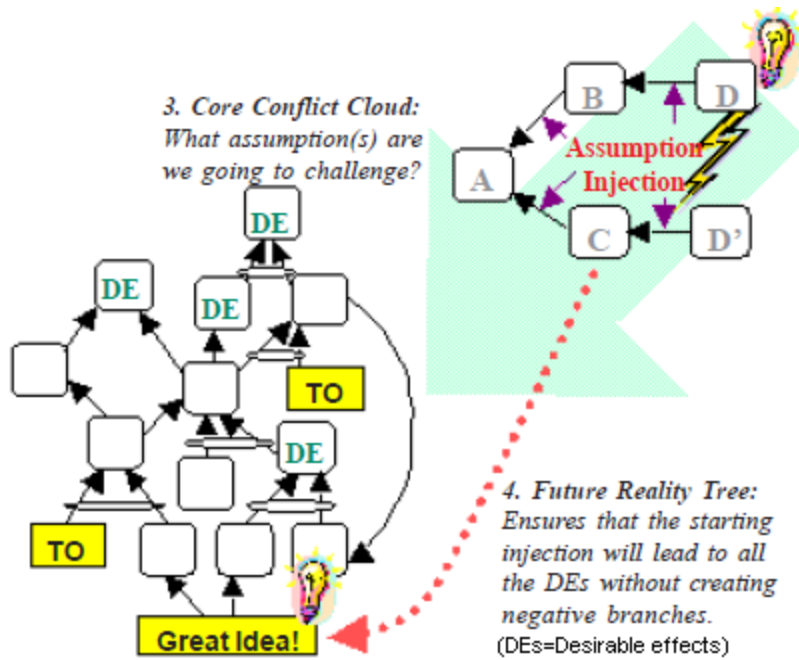
Source: Goldratt Institute, 2009

What to change to? Once the logical reasoning (also known as Core conflict cloud - move to where the 0 is) behind the core dilemmas or core conflict is identified, (0) a strategy to the solution can be developed. In a process called "Evaporating Clouds" hidden assumptions are being surfaced and challenged in the aim to create a win-win solution i.e. a strategy that satisfies both needs of the clouds B+C, and relaxes/ evaporates the conflict between the prerequisites – D and D'.

While designing the strategy, the changes must be kept in mind along with the solution to the core conflicts to achieve the best possible results for the organisation. These changes include changes to the organisation's strategic objectives as well as measurements, behaviors and policies identified in the earlier step of 'What to change'.

The new understated core conflict and the identifications of the assumptions leads to the creation of "Injections". These injections are new actions which if implemented will change the current reality. They are the elements of the new strategy.

The Future Reality Tree is like a future map which enables us to understand the impact of implementing the injections. It is also built upon the cause and effect logic. All the potential negative side effects of the strategy also need to be identified and treated so that a robust future reality tree is created (Walker & Cox, 2006). This is done with the help of construction of NBR (Negative Branch Reservations). NBR answers the question: what would be the undesirable effects of implementing the solution and how can we prevent it from happening. The prevention measures taken to control the UDEs also become part of the strategy.



What to Change To?

Source: Goldratt Institute, 2009

How to cause the change?

Every organisation has a unique culture which needs to be taken into consideration while creating a plan for its improvement. The plan should include sequence and synchronization; what action to be taken, who should take the action and when should the action take place. Active consensus and cooperation of all the participants is required to prevent resistance to change which can cause hindrance to effective implementation of the plan (Goldratt Institute, 2009) .

The implementation of the plan may be faced by some obstacles. These obstacles need to be identified and treated. For tackling these obstacles, intermediate objectives (IO) are identified. The obstacles are then used to arrange the IOs in a network which is called the Prerequisite Tree (PRT). Thus PRT helps in defining what is required to be done and in what order so that the ultimate objective can be achieved. The Transition Tree is another tool in the Thinking Process which helps in a finer analysis of the actions and results depicted in the PRT.

The Thinking process at NCT

The Theory of Constraints Thinking Process at NCT started on 11th December 2008 with a communication between Belinda Phipps, CEO of NCT and me, a consultant, expert in TP process. The original strategy of NCT needed to be reformed and updated. As a consequence, Belinda asked for my assistance for the development of a new strategy. The new strategy had to be planned for a period of ten years.

The people involved in the development of the strategy were Board of Trustees, management led group, the Strategy and Policy Forum and stakeholders. The Strategy and Policy Forum was the main group which handled most of the work. This group was constituted for the development of the earlier strategy of NCT and consisted of senior volunteers, staff and trustees. It was formed according to the new Governance rules. The CEO wanted the same group to handle the development of the present strategy due to its successful development of the earlier strategy.

The strategy development work started in January. To produce a list of undesirable effects, published evidence both in medical and social fields was searched. Monkey type web surveys were conducted among beneficiaries and stakeholders. UDEs were also developed with the help of intuition and directly approaching the parents. By the end of January, more than 200 UDEs were collected.

The next step of identifying core dilemmas and developing the Current Reality Tree started in early February. By March end, the first version of the Current Reality Tree was ready and was validated in the beginning of April. A collaborative consensus was required for agreement with the core conflicts. The group was widened to accommodate external stakeholders as well. The participants were asked to review the CRT and make any amendments they wished to make. By the end of April and early May, the CRT was communicated to the entire charity. A 20/20 questionnaire was also posted on SurveyMonkey.com to conduct additional research to identify if any UDEs and core dilemmas have been missed out. The questionnaire had a huge response and a number of

UDEs were collected which needed further analysis. These newly collected UDEs and dilemma were rechecked with the existing ones and some refinements were done in the birth and feeding CRT. The dilemma and CRT were further rechecked by sister organisations to ensure no UDEs are left out.

In early June, the Board's agreement and consultation was required on 'What to Change to'. By the end of June, attendees validated the 'What to Change' stage and by the end of July with the approval of the Board on 'What to Change, further work started on implementation of plan in early September. Since, the formulation of strategy will continue till early December 2009, this report will focus only on the development of the Current Reality Tree, the Core Cloud, the Evaporating cloud process and results. The subsequent paragraphs deal with the timetable for the development of strategy.

20:20 Strategy Development process – schedule of meetings

8th & 9th January 2009 – Management-led group and Limor (QFI) to meet

- To work on list of undesirable effects
- Venue: Belinda's Home
- During January work will be undertaken outside these meetings to provide evidence for the undesirable effects – this may take the form of searching for published evidence – medical and social, survey work among beneficiaries, survey work among those in contact with beneficiaries, asking stakeholders.

26th January 2009 – Strategy & Policy Forum, Euston

- Attendees to validate work of management-led group and confirm undesirable effects and if time to consider the initial work on dilemmas and validate them
- In February work will continue outside meetings to provide evidence for the undesirable effects – this may take the form of searching for published evidence – medical and social, survey work among beneficiaries, survey work among those in contact with beneficiaries, asking stakeholders.

11th, 12th & 13th February 2009 – **Management-led group and Limor (QFI) to meet**

- To work on developing the dilemmas with the aim of finding the core dilemma and developing a current reality tree.
- Will possibly include an additional meeting date in late in February - to make sure we are ready for the Board

17th March 2009 – **Board of Trustees meeting**

- Board to approve presented proposed core conflict and current reality tree (what to change) for testing with the Strategy & Policy Forum and the rest of charity in April 09

23rd March 2009 – **Management-led group and Limor (QFI) to meet**

- To deal with any issues raised by the Board
- To start work on considering what to change to
- Venue TBC

1st week of April 2009 – **Strategy & Policy Forum (TBC)**

- to validate current reality tree & identified core conflict i.e. agree what to change
- This forum may be widened to include external stakeholders
- And /or we may use additional meetings such as Maternity Care Working Party, CAG, ESAG and PRAG meetings to validate

4th week in April 2009

- Board teleconference to approve validated current reality tree & core conflict (TBC) i.e. to agree what to change

End of April/Early May 2009

- Communicate the agreed 'What Do We Want To Change' to the whole charity via newgen ([what is newgen???](#)) etc

3 days in early May 2009 - Management-led group and Limor (QFI) to meet

- Development of 'What to Change To'
- Venue TBC

11th June 2009 – Board of Trustees meeting

- Board to agree in principle on 'What to Change To' and agree to consult on it in various ways including at the conference.

27th & 28th June 2009 – AGM/Conference

- Attendees to validate 'What To Change'
- Other mechanisms of consultation may also be used so whole charity gets a chance to agree

End of July 2009 – Board teleconference to approve 'What To Change To' (TBC)

5 days in early September 2009 – Management-led group and Limor (QFI) to meet

- To work on implementation plan so we are clear how to bring about the change
- The autumn will be used to teach a broad group how to develop their own part of the implementation plan and to develop and validate the high level implementation plan – may need to use regional meeting forums etc

23rd September 2009 – Board of Trustees meeting

- Board to agree to further develop and consult on the draft implementation plan

Late September/early October 2009 – Strategy & Policy Forum (TBC)

- Attendees to validate and develop implementation plan
- Learns how to develop implementation plans for their own part of the charity

9th December 2009 – **Board of Trustees meeting**

- Board to sign off on plan in its entirety

Action research cycles and prelude to next chapter

In an action research, problems are resolved through a 4 step cycle called the Action research cycle which includes the following phases:

1. Reflect or diagnose
2. Plan
3. Action
4. Observe

These phases enable the researcher to tackle any problem systematically. But the first planned cycle may not be accurate and hence researcher can derive another cycle from the former one and the chain continues until the researcher achieves satisfactory results. The second cycle often contains some improvements over the prior one. Large projects like these require 3 to 4 cycles to achieve their objectives (Bridges et al, 2001).

The next chapter will deal in detail with the action research cycles and their applications to the current study.

