GÖTEBORGS UNIVERSITET

Karius and Bactus in Cambodia

–A study of the pedagogical way of teaching children in Sihanoukville about dental care

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Rapportnummer:VT10-2450-05

Abstract

Degree thesis in Teacher Education

Title: Karius and Bactus in Cambodia
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Semester: VT-10

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Report nr:VT10-2450-05

Key words: Cambodia, children, dental health, health education

Pupose and questions
The purpose of this study is to make a research of the pedagogical methods that are used by the dentist Karin Jonsson to teach poor children about dental care. I will also examine what the main opportunities and obstacles are in teaching dental care to poor children in Cambodia.

- Which pedagogical tools and methods are used to teach the children the cause and effect of caries and tooth brushing?
- Which difficulties and opportunities may/can occur during the work to improve children's dental health?

Material and methods
The methods used in the study were mainly of two kinds, interviews and participant observations. Material used for this thesis include interviews with people related to the dental health work, observation during lessons and at the clinic. Literature related to pedagogical and health developing work as well as reports and policies about Cambodia and dental health are used.

Results
The pedagogical tools used are the symbol of the sad and happy tooth, pictures and body language. These tools are used to establish a communication between the dentist and the children which is based on positive motivation and praise, and a participating pedagogy were the children are involved. The cooperation between organizations, teaching and the clinic is an advantage in this educational workas well as working with a Khmer nurse. Poverty, access to sweets and a lack of parent responsibility are the main difficulties.

Relevance for the teaching proffesions
This study shows the importance of adapting teaching methods to a particular group of students, with a differing culture and language. This is an important task in the multicultural classroom of todays schools. The study also shows the importance of a good relationship between the school and parents.

Table of contents

Preamble and Acknowledgements

On November 10th 2009 I arrived in Phnom Penh, the capital of Cambodia. A long flight was behind me and suddenly I found my self in a colourful, warm, sticky city. As a student from Sweden, who had never before been in Asia, the traffic appears as a complete chaos. My taxi is passing a large banner with the words *Long live the Kingdom of Cambodia* and the taxidriver sounds very proud of his country when he tells me about it. But the population of Cambodians are still suffering badly from the past wars. The level of education in Cambodia is very low. The effects of the genocide that took place during the ruling of the Khmer Rouge have had a particularly strong impact on education, as most of the educated people got murdered during these years.

Over a year ago I heard of a Swedish dentist who started a dental practice and gave free dental care and education to children in Shianoukville in southern Cambodia. When thoughts of making a MFS[1] came up in my head I did not know much about this country. I just knew that I wanted to get a broader perspective on my education and hopefully broaden my thinking and gain valuable experience before I leave the university as an examined teacher. This research made me see the different opportunities within the world of pedagogies, and that it is important to adapt your knowledge and methodology after the conditions and the situation, but this field study has given me so much more than what this paper concludes. The people of Cambodia have left their mark on me that will always remain. I feel a great respect towards these friendly people. Those who continue fighting, against all odds, despite the genocide, poverty, prostitution and corruption among politicians and the police, and I am convinced that they have a brighter future ahead of them.

One of the first words I learned in Khmer was *Oh kun* meaning Thank you. During my time in Cambodia I have had reason to use that term very often. I have never been to a country where I have been so graciously welcomed as in Cambodia. This field study exists thanks to so many friendly people and there are many I want to thank who may not understand their importance for this Field Study. Apart from all the people I have met along the way I profoundly thank Bopreak for her help with interpretation with the interviews from Khmer into English and the translation of the questionnaires from English into Khmer. Without you, I had have been stranded. I want to thank the officers of the organizations for allowing me to participate in teaching and for helping out with interviews. Because I chose to anonymous my informants, I can not thank them by name but you know who you are and your help has been invaluable. Rootha I want to thank for showing me the life from a Cambodian teenager's perspective. For allowing me to be her friend, go with her to school and enjoy her good cooking, I am very grateful. I would also like to thank my supervisor Kerstin Sundman for her knowledge about field studies and her help through the writing process. At last but not least, I thank Karin Jonsson. She was positive to this project al ready in my first email over a year ago. Without that feedback this essay would just have been a thought and I had never been off to Cambodia in the first place.

To all of you I would like to express my warmest Oh kun!

[1] Minor Field Studies (MFS) is a Sida funded scholarship for small field studies in a developing country.

1.Introduction

In Sweden as we know it today dental care is a hot topic, cost and dental insurances are discussed daily in the media and among politicians. That children are supposed to brush their teeth is a given fact and obvious for almost everyone in Sweden. The children's dental care is a matter that follows the child throughout the years and they learn in the early years about the "tooth trolls" and their partner in crime, sugar. Youth and children's dental health improved significantly in Sweden from 1974 thanks to the dental care reform. It meant, among other things, that all young people were offered free dental care up to the age of 19. Today children and young people have free dental care to the age of 21. When children are three years old, parents can choose dentists for their child, either someone in the public dental clinics or a dentist who has an agreement with the Dental Unit.[2] From the 60's the "Fluorine Lady" was a compulsory part of the education. The Fluorine Lady did not only serve the fluoride solution in colourful mugs to children, in some cases she also gave lectures on dentistry in the schools. Her visits made young people regularly reflect on their teeth. Unfortunately, to save money, the fluoride rinse in Sweden's schools was withdrawn in the late 80's.[3] Today some schools serve Fluoride rinsing in connection with lunch. A good and simple way to strengthen teeth and reduce the risk of caries. Despite this and the dental care reform facts from The Swedish Dental Association show that our changing lifestyle with increased consumption of soft drinks, candy and other sweets is a threat to children's dental health and general health. Since 1980, consumption of soft drinks has increased significantly and dental erosion is a growing problem linked to our changing lifestyle.[4]

In the Cambodian society, the conditions for good dental health is of huge difference compare to Sweden. The traditional Cambodian family structure, along with its support system for providing care and protection to children, was seriously damaged as a result of the massive killings during 30 years of civil war and unrest. Most important to these families today is meeting their basic needs, money for food and shelter comes first. Whether or not parents understand the value of education, the cost of attending public school and the fact that the children are needed to help the parents at home, prevents many families from sending their children to school.[5] The dental health situation of children and families in Sihanoukville continues to deteriorate. Children coming from the slums have no access to dental care and have grown up with practically no knowledge of how to look after their teeth. These issues, combined with sugary and sweets, relatively cheap and available to children, has led to more cases of tooth decay, tooth pain, and serious dental infections.[6]

2 www.tandlakarforbundet.se
3 http://www.alltomdinatander.se/Kul--kuriosa/Fluortanten/
4 Pressinformation, tandläkarförbundet 2007-01-23, http://www.tandlakarforbundet.se/media/12492/pressinformation_foraldraenkat_%20jan07.pdf
5 http://www.sida.se/Svenska/Lander--regioner/Asien/Kambodja/Vart-arbete-i-Kambodja/
6 http://www.who.int/countryfocus/cooperation_strategy/ccs_khm_en.pdf

1.2 Background

Karin Jonssons is a Swedish dentist who came in contact with poor children in Cambodia when she visited her son, who was working in Sihanoukville, a small town in southern Cambodia. She met smiling children on the beach, many of them had beautiful white smiles but some had really bad teeth.The major problem Karin Jonsson found was that there was almost no dental care for poor children. Many of the children she met had big problems with their teeth and much pain, but there was nothing to do about it, they had to live with the pain. In December 2007, she decided to do something about it. She opened a dental clinic in Shianoukville and her main goal is to offer free high-quality dental care to poor children in Shianoukville. She turns to poor people who need low prices, they would not come otherwise so she has to keep a low cost. There are some Cambodian dentists, but poor people can not go there, because it is too expensive. Her project is financed by herself and by donations. Karin Jonsson does not think she can fulfill the need for dental care in Sihanoukville only by treating children's teeth, it is too widespread. Prevention through education is the only way. Since she has had dental lectures in Sweden, she began to go out and teach in schools in Sihanoukville and today she collaborates with several organizations, schools and orphanages in Sihanoukville.

I heard of Karin Jonsson through a women's network for female dentists as my mother is a member in. That was two years before I even had a thought of writing about her work in this study. I found her work exciting and I was fascinated by the idea of someone choosing to start a project like this in a country where language and culture are so different from Sweden. As a future teacher and as a curious person I wanted to know more about the project and the situation in cambodia. I saw it as an opportunity for inspiration in future projects, both in life and in my proffesion.

1.3 Purpose and Questions

The purpose of my project is to make a research of the pedagogical methods that are used by the dentist Karin Jonsson to teach poor children about dental care. I want to know how this dental care education works and what teaching methods are used and preferred. I will also examine what the main opportunities and obstacles are in teaching dental care to poor children in Cambodia.

More concretely I will focus on the following questions:

- Which pedagogical tools and methods are used to teach the children the cause and effect of caries and tooth brushing?
- Which difficulties and opportunities may/can occur during the work to improve children’s dental health?

1.4 Delimitations

I have delimited my observations to the classrooms, schools and dental clinic. That is to say that I did not study the home environment where children spend much of their time.
I'm not studying what parents or children think about the difficulties and the chances to improve their dental health. My interviews with the children is rather to get a view of their situation in terms of access to sweets and toothbrushes. The study is limited to informants who contribute in different ways to this work with dental care. Their vision of the work and their perceptions of problems and opportunities underlying the study.

2. Previous research

So far very little has been researched and written on children's oral health in general, and particularly in Cambodia. Literature related to education of health in developing countries have of course been written in large numbers. Much is also written about prevention of illnesses such as HIV and AIDS. Dental health, however, has been neglected and it is not seen as a priority issue.

UNICEF and Sida have several reports on projects dealing with the status of health, education and democracy in Cambodia, but these rarely discuss dental health development.

In 2007, an investigation was made about the oral health status of school children in Cambodia by the Department of International Community Health at the University of Tokyo. The results show that the lack of a personal toothbrush among the children in primary school, in Siem Riep province has been linked to gum disease and tooth pain. In the conclusion of the study it is also noted that "this poor oral healthcare impacts an individual's quality of life and can lead to more serious health issues later in life."[7]

In 2008, a similar study was made at the Faculty of Dentistry at The University of Hong Kong. The goal with this field study was to describe the oral health status and behaviours of children in rural Cambodia. It was based on field examinations conducted in Kampong Thom, Pailin and Kratie, which are three rural districts in Cambodia. The conclusion of this study show for instance that most of the children with bad toothpain didn't own a toothbrush.[8]

Literature and research on Cambodia exists, but not in large numbers. The governance of the Khmer Rouge and its history has been a subject that is often associated with Cambodia and a number of books is written about this subject and the story has been told by many in different ways. Such as *Off the rails in Phnom Penh* by Amit Gilboa and *Cambodia year zero* by François Ponchaud and the Swedish freelance writer Peter Fröberg Idling wrote *Pol Pot's smile* in 2006.

[7] *A vicious cycle in the oral health status of schoolchildren in a primary school in rural Cambodia.*http://www.ncbi.nlm.nih.gov/pubmed/17615026 *2010-04-24*

[8] *Oral health status and behaviours of children in rural districts of Cambodia.* At : http://www.ncbi.nlm.nih.gov/pubmed/18350849 2010-04-24

3.Theoretical framework

3.1 Social-cultural theory

Within educational research, three different perspectives have been in force; behaviorism, cognitivism and socio-cultural theory. These approaches arise from different views of knowledge. It can briefly be said that behaviorism emphasizes learning as a change in the child's external, observable behaviour, cognitivism emphasizes learning as an internal processes and socio-cultural theory sees learning as participation in social practice. I have chosen to focus on a socio-cultural perspective, as this is a theory that proved to be useful and of interest to the pedagogy used by Karin Jonsson.

From a socio-cultural perspective communicating processes are the condition for human learning and development. It is by listening, talking, imitat and interacting with others that the child takes part in its knowledge and skills from its earliest childhood and learn what is interesting and valuable in the culture. The socio-cultural perspective emphasizes the relationship between thinking and communication. It is through participation in communication that the individual meets and may take on new ways to think, discuss and act.[9] Socio-cultural theory places great emphasis on language learning potential. Language and communication is not just a tool of learning, it is the basic condition to make learning occur. We use language to understand and think for ourselves and to communicate what we understand to others. Vygotski stresses this function of language by claiming that all higher functions in a child's development arise at two levels. First on the social level and then on the inside.[10]

3.2 Non-verbal communication

Already in the middle ages, there were theories about how the memory works in humans and that there are different elements that can be used to improve human memory. One of these elements deals with images. In order to remember, the human use images which are similar to that which is to be remembered. These pictures or parables must exist for the reason that concepts and abstractions easily are overlooked if they are not bound up in physical images.[11]

Ingrid Pramling Samuelson emphasizes in *Lärandets grogrund* symbols and pictures as part of children's learning. Pictures are important because they can be read and understood by those who can not read the symbols in the form of letters and of people with different languages.[12] Furthermore, Pramling stresses that in order to create meaningful situations for the child, the adult shall talk about things that are interesting for the child and use expressions that is at the child's level or just above the child's self-expression.[13] Ingrid Carlgren discusses children's image-building from a socio-cultural perspective in the book *Miljöer för lärande*. She believes that a child's way of making pictures is situated in the social practice activity where the image is produced. In the verbal language, it is always at least two voices present in an opinion - the speaker's and the listener's voice. Children's imagery, like verbal language, is fundamentally social and communicative. Their images have a dialogic character similar to speaking and writing and children's pictures have many voices. The child's unique voice emerges in its image and also reflects a viewer. This real or imaginary viewer is reflected in the child's formation of the image. The image format is simultaneously subordinate to a

9 Dysthe, Olga, *Dialog, samspel och lärande*, studentlitteratur Lund, 2003, p.48
10 Ibid. p.49
11 Hjort, Madeleine, *Konstarter och kunskap*, Stockholm, 2001, p.44f
12 Pramling, Samuelsson, Ingrid, *Lärandets grogrund*, studentlitteratur Lund, 1999, p.67
13 Ibid, p.72

graphic symbol system conditions.[14] Children's picture theory argues that Children's imagery is used like the verbal language, and that the images have a dialogic character, similar to speaking and writing.

3.3 Knowing that or knowing how & the bottom up perspective

Knowledge can be divided into two knowledge-types, which are each others opposites. Knowledge type I "knowing That" and Knowledge type II, "knowing how" and "knowing why". "Knowing That" is knowledge made up of facts that are pre-produced by for example scientists. This knowledge must be communicated to a recipient from a doctor or a nurse and are used in a top-driven perspective. "Knowing how" and "knowing why" is instead a process and context knowledge that is based on the individual's own activity. Individuals produce their own knowledge, because they see, understand and act. This type of knowledge is close to the socio-cultural theory which encourages to create a good learning environment and situations that encourage active participation. This knowledge rests on an individual-centered and bottom-up perspective. Literature related to both education, health and development work often discusses approaches based on aspects of "top-down" and "bottom up"-perspectives. Top-down means that an individual or small group is the expert. Recommendations and proposals are controlled by this group and the recipient is more or less a passive group that is expected to follow this advice. A bottom up approach gives room for individual-centered approaches, a greater sensitivity to the selected group and communication from below.[15] The concept of SOC, Sense of coherence, is important to mention when is sometimes are related to a bottom up perspective. The term means that a person must be able to feel meaningfulness, manageability and comprehensibility, which in turn gives a sense of context.[16]

3.4 Learning beyond the classroom

Learning beyond the classroom is an educational concept that I choose to use to emphasize the importance of knowledge acquired outside the given framework. Knowledge is often associated with school.[17] Bentley points out in *Learning beyond the classroom*the importance of students' opportunities to use their knowledge outside the school. To do this, education must be deeper and wider. Knowledge is often bound up in a strong cultural and institutional identity and it´s often difficult to make a crossover to other contexts.[18] The role of the parents and the children´s home environment is also an important context. Educative experiences should reach children from their complete social environment which includes the family.[19]

3.5 Education and care

Similar aspects that Bentley notes about knowledge being tied to an institution are discussed by Alastair Heron. He created an expression concerning the relationship between care and education that is interesting for me to use in this study. If you ask people what the word education means, chances are very high that the answers are related to school or going to school. It is a word that has a strong connection to institutions. Very rarely is the word linked to something that takes place at home or in other environments in the community. The opposite occurs with the word care which is a word that is not so often linked to school but should be provided in schools. Heron means that care necessarily involves education and all education involves a substantial element of care. It should be a "closely-voven cloth of which care and education are indeed the weft and the warp."[20]

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14 Carlgren, Ingrid, *Miljöer för lärande*, Studentlitteratur Lund, 1999, p. 43f
15 Olander, Ewy, *Pedagogik i hälsofrämjande arbete,* studentlitteratur, 2001, p.239f.
16 Ibid, p.242
17 Carlgren, p.22
18 Bentley, Tom, *Learning beyond the classroom,* New York, 1998, p.51
19 Heron, Alastair, *Planning early childhood care and education in developing countries*, Paris, 1979, p.18
20 Ibid, p.18

4.Methods

The methods of my study were mainly of two kinds, interviews and participant observations.

I have participated in six lessons on dental care with Karin Jonsson and her nurse. 5 lessons in English with Khmer teachers. I have completed five individual interviews that are recorded. Three with the informants from school and orphanage, one interview with the dental nurse and one interview with Karin Jonsson. Seven children were interviewed in groups of three and two individuals. 30 questionnaires were distributed to children at school and 30 were answered.

4.1 Questionnaires usability

Questionnaires are excellent tools for obtaining background information such as age, sex, home conditions etc. Often questionnaires are necessary to use to sort out the "hard framework" in people's lives. However, they are limited when it comes to understanding existential issues.[21] Due to these difficulties with questionnaires and its frozen form, I used them only to get some background information about the children who are the foundation of this research. Age, home situation, schooling and access to toothbrushes at home were some of the major questions.

4.2 The qualitative research interview

The purpose of the study is crucial for my choice of method. I don't want to know the proportion of the population owning a toothbrush or exactly how many children who don't not know that sugar causes tooth decay. I rather wanted to know what people think about the possibilities and constraints in this problem area and how they work to improve the situation. If I wanted to know specific frequencies, or to be able to say that a certain number of people think in one way or another, I'd make a quantitative study. But because I am interested in trying to understand human ways of thinking and discern patterns of behaviour, I find that a qualitative study is more appropriate.[22]

The interviews I conducted were of the conversational type. They were carried out with tape recorder and were of semi-structured nature. That is to say that a number of questions were formulated by me based on my research but the questions were open ended, relevant issues were followed up with more questions.[23] Technically the qualitative research interview is half structured, it is neither an open call or a strictly structured questionnaire. I found that this form of interview suited my purpose and my questions. The purpose of my qualitative research interviews is to obtain qualitative descriptions of how the interviewees perceive a situation or an event.[24] The qualitative research interview aims to obtain nuanced descriptions of the the interviewee's world, it works with words, not numbers.[25] This semi-structured form covers a range of themes and issues for relevant questions but at the same time there are opportunities to make changes in form and order.

4.3 Participant observations

Participant observations can be implemented in different ways and with different purposes and it seems to be a problematic concept because it have such different meanings attached to it.[26] Participation may be more or less active, it may involve local people or volunteers and

21 Arfwedson, Gerhard, Ödman, Per-Johan, *Intervjumetoder och intervjutolkningar*, Stockholm, 1998, p.20
22 Trost, Jan, *Kvalitativa intervjuer*, studentlitteratur Lund, 1997, p.32
23 Mikkelsen, Britha, *Methods for development work and research*, New Delih, 2002, p.75
24 Kvale, Steinar, *Den kvalitativa forskningsintervjun*, Studentlitteratur, Lund, 1997, p.117
25 Ibid, p.36
26 Mikkelsen, p.62

can be done by project or dialogues, the list goes on, there are different types of participation and it has different meaning. My participation was of the observation type, but was for that reason never completely passive. When using participant observation as a research method it's important to be aware that you are not a fly on the wall, just observing, you are a part of the situation which you study. In the *Guidelines for ethical conduct in participant observations* written at the University of Toronto, published by The Swedish research council, this complexity is noted "be as aware as possible that the researcher practising participant observation does not just have one role, that of the researcher, but performs a variety of status and roles."[27] What was my role then? Did I want to participate in the interactions or did I want to remain aloof? I tried to determine a particular aspect to study, I couldn't look at everything so I tried to have a narrow focus on some aspects. During dental classes with Karin Jonsson I observed the teaching methods used by Karin Jonsson and her nurse and also studied how the children interacted with the teacher. I used these participant observations primarily to be able to answer the question of which pedagogical methods that are used to teach children about dental health.

I sat in the back of the classroom and I was silent during the first part of the lesson, took notes using a notebook. In this way I tried to keep my role more or less hidden, in the background. My presence was not so distinctive I believe, because there was already a western teacher in the room and the lesson on dental care was different from their everyday lessons. My presence could be hidden behind the event itself. I did participate more actively when the children painted and worked independently with their drawings in the second half of the lesson. It was better to interact with the children during this part because the focus was no longer on the teacher and her learning. I chose to participate in both dental classes with Karin Jonsson and English lessons with Cambodian teachers. In the English classes, I helped the children with their school work and participated in the exercises. My role was from the beginning more open in this situation. My visits and participation differed from their daily lessons which meant that it was impossible for me to hide my role there, as I was an unusual and perhaps surprising feature of their everyday life. The advantage of participating in English classes was that I got a better understanding of educational work in Cambodian schools. I also used participant observations during patient visits at the dental clinic. The advantage of being an accomplice during patient visits was that I was able to observe the meeting between the children and the dentist and also to note the educational work that takes place during the visit. There was also an opportunity to meet the parents of the children.

4.4 Literatur studie

In my study I also use and analyze my results through literature studies. This literature has contributed with interesting theories as my field study leans on

Dialog, samspel och lärande by Olga Dysthe (2003) is used mainly because of the chapter *the socio-cultural theory perspective on knowledge and learning* which I found important to use for my discussion of teaching methods. It has also been a student literature in previous courses at the teacher education program and I found it appropriate for my study.

Pedagogik i hälsofrämjande arbeten by Eva Svederberg (2001)The book is based on a Swedish approach to health counseling, but still useful for my purpose. The author reflects about opportunities of how to support people or groups in their learning to change patterns of behavior in health-promoting direction. It has been primarily useful when it discuses the role of parents in health counseling in child care, based on practical pedagogical aspects.

27 http://www.research.utoronto.ca/ethics/pdf/human/nonspecific/Participant%20Observation%20Guidelines.pdf

Planning early childhood care and education in developing countries by Alastair Heron is printed by UNESCO and with financial assistance from Sida. It is published in 1979, which may be regarded as slightly out of date. But I chose to use it despite the ageing date because his reasoning and reflection on the relationship between education and care is relevant for my study. He also discuss education in developing countries and its relationship to family, community and society.

Learning beyond the classroom by Tom Bentley (1998) and the chapter about *Active learning project* has been useful. He believes that teaching should take place outside the classroom to create a knowledge that is meaningful in other contexts and environments beyond the classroom

Materials and surveys published as electronic sources that I have used is published through the websites of UNICEF, Sida, and the WHO. Particularly information regarding the health and education conditions in Cambodia ,published and used in this study is from this source. At the Swedish dental association's website, I have found useful press information and studies related to the perception of dental care in Sweden. I don't find any reason to distrust the reliability of these electronic sources as they are published by well-known organizations.

4.5 Implementation

Before I started this field study I had only done studies involving texts and textual analysis. Now suddenly, I had to rely on real people, their thoughts and actions.

It was not always easy to do the interviews. Initially, I focused on the children at the school, presuming that it would be easy to find out about their knowledge and experience of dental care and their experience of this. This was not as simple as I thought it would be, mainly because of their unfamiliarity with interviews, which I found created a sense of interogation instead of a conversation, and also because of the fact that the children had been to the dental lessons, they wanted to give me the “right” answers. I also had to use an interpreter, as the children only speak Khmer, which complicated the conversations. For these reasons, the interviews only give me a indication of what the children know about oral health. As a complement I used the answers from my questionnaires. In this way I got a broader picture of children's experience and knowledge of dental health. The interviews and questionnaires don’t give me a blueprint of the situation for all children in Shianoikville but are helpful in understanding some of the poor children's relationship to dental health and what their home situations look like.

My living situation also allowed me to talk to Khmer people on a daily basis. During parts of my stay I lived with a family and the daughters were a few years younger than me, which gave me the opportunity to talk and discuss everyday issues and one of the girls invited me several times to her school. Such talks with friends and people I met have been important for this research as well.

4.6 Selection of organizations and informants

4.6.1 Organizations

When I first arrived in Shianokville my focus was set on one of the largest organizations that Karin Jonsson cooperated with. For various reasons I could not carry out my observations and interviews in this organization the way I wanted and therefore I had to restructure my plans. I made contact with two other organizations, an orphanage and a school that cooperate with Karin Jonsson. My cooperation with them worked very well, thanks to their friendly and open attitude towards my study and that they let me attend classes and do interviews with children and staff.

The school started in 2004 and is run by a non-profit charitable organization. It's a centre that focuses on the poorest children. Instead of running around on the streets, the children can take advantage of recreational activities, such as art and craft classes, computer lessons and various games, and the school also offers English classes in the evenings. The school has about 40 children attend per day.

The orphanage is an NGO[28]. The children live at the orphanage but attend school elsewhere, some go to public schools, other to private schools. These children are poor and many of them are HIV infected and the orphanage supply them with medications and other treatments, which they would otherwise not have access to.

4.6.2 Informants

How to select informants for the interviews is obviously different depending on the purpose. When I interviewed the children at school I worked with a relatively homogeneous group. Seven children, including boys and girls who came from the same poor area and attended the same school. The children I chose to interview are between 7-12 years. I chose this age because it was consistent with the age of the children who attended the lessons about dental care. This group was made to provide information about home background and about knowledge, attitudes and practice of dental health.

My choice of adult respondents was based on so-called key individuals. “Key individuals are people anticipated to have particular insight or opinions about the topic under study.[...]The issues to be highlighted must determine who the relevant key persons are.”[29] For my study it was important to find informants who in various ways had some form of collaboration with Karin Jonssons dental education and had a close relationship with poor children in Shianoukville. Informants who could provide answers to the question dealing with what kind of difficulties and opportunities they experience in their work with children's dental health.

The first informant is an Operation manager who have been working at the school for 1,5 year.
Informant 2 is a doctor at the orphanage who has the responsibility for the health of the children.
Informant 3 has been working at the orphanage for one year.

Much information was also given by the dentist Karin Jonsson and her dental nurse in numerous conversations and interviews.

[28] NGO Non Governmental Organization
29 Mikkelsen, p.75

Since I did not want to study the work of the organizations themselves, but were looking for informants who could provide answers to questions about poor children in Sianoukville, their life condition and their ability to learn about dental care, I do not think there was any reason for the informants to mislead me.

4.7 Validity, reliability and generalizability

The concept of validity is defined in three ways according to *Metodpraktikan*. 1) Consistency between the theoretical definition and operational indication, 2) absence of systematic errors and 3) that we measure what we say that we measure.[30] In the empirical social science research we are working with both a theoretical and an operational language. The questions and problems are formulated on the theoretical level, while investigations are carried out at the operational level. The recurring question is whether we empirically investigate what we at the theoretical level say that we investigate.

Unit of analysis is a concept that represents the survey items that we have in mind to use to solve our research problem. The choice of unit of analysis depends on which questions are asked in the research.[31] My questions concern a given concrete case. A Swedish dentist and her teaching work in a specific group. To answer the question about the pedagogical methods used in the teaching of the children I use the learning process as an unit of analysis and to gather information about the learning process I required observation of lessons. To answer the question about the difficulties and opportunities that may occur during the education I use Individuals and institutions as units of analysis. By doing interviews I obtain information about how individuals perceive this specific issue. A possible effect of my choice of method, which could be discussed, is whether I measure the informants' perceived difficulties and opportunities in work with children or the real difficulties and opportunities. I report what my selected respondents tells me and what I see myself. I know that it is impossible to see everything but as far as possible I studied what I intended to study, which makes the validity good.

The reliability of a study should be high, which means the absence of random or non-systematic errors.[32] The empirical data that i collected true interviews and observations are saved as audio files and in my logbook. I have consulted it during writing and it is available for review. This is what I have done to avoid errors and deficiencies.

This empirical study is about a given individual case and a certain group. This group is also included in a specific context. It is poor children who have more or less been in contact with dental services through their school and most of them have visited Karin Jonsson. My results apply to this group and its circumstances, and can not be generalized.

4.8 Ethics

The ethical dimension in scientific research is particularly important because it has, in the long term, a major impact on society. Good ethics requires personal responsibility, it is the researcher who is responsible for carrying out the research in a morally acceptable way But the work is also regulated by rules and regulations.[33]

The Swedish Research Council has designed guidelines for research ethics. It is up to each researcher to weigh the value of the expected knowledge contribution against possible risks of

30 Esaiasson, Peter, *Metodpraktikan*, Stockholm, 2007, p.63
31 Ibid, p.51
32 Ibid, p.70
33 Vetenskapsrådets faktablad- *Etik vid vetenskapsrådet*, 2010, www.vetenskapsradet.se

negative consequences for participants in the research. To reduce these risks it is important to follow the Swedish Research councils guidelines. In short, I go through the four general demands to protect individuals in research described by the Swedish Research councils guidelines for research in the humanities and social science.

The first is the demand on information which means that the researcher has an obligation to disclose and explain as broadly as possible the purpose of the study and inform the participants of their role in the project and that their participation is voluntary.

The second demand is the requirement of consent, the researcher has to obtain the participants' consent and they shall not be forced to participate or be subjected to pressure. In some cases, consent must be given by parents or guardians, for example, if the participant is under 15 years and the study is of ethically sensitive nature. What is considered to be of ethically sensitive nature can of course vary from society to society and from one time to another. In cases where the research does not include questions about private or ethically sensitive matters, the consent can be given by representatives of the participant, such as school management or teachers. In my case, I interviewed children under 15 years which made me think about whether my questions were of ethically sensitive nature for these children or not. Together with the representative of the school, I concluded that this was not the case and that it was therefore acceptable that the representatives of the school gave their consent instead of the parents. During the interviews a teacher always observed my interviews. It was a security for me as a researcher, to know that the teacher knew exactly what kind of questions were given to the children and how they reacted to the interview situation. The teachers presence during interviews could have a negative effect on the interview situation in case the children's answers were affected by having a teacher in the room. It is important to be aware of and consider this factor, but the requirement of consent had to take precedence in this case.

The third demand is that of confidentiality, which means that all information about identifiable individuals must be stored in such a way that individuals can not be identified by outsiders. This applies in particular to information of ethically sensitive nature. Again, it may be difficult to know what is considered ethically sensitive for the participants in this study and it is impossible to predict in advance the consequences of their participation in the study. For that reason, I chose to keep my informants anonymous, although they consented to be named at the time when the interview took place. Karin Jonsson, I have chosen to mention by name. Partly because she has given her approval to be named in the study but mostly because this study would not exist without her participation, and I believe it is almost rude not to mention her by name.

The demand of usage is the fourth demand, it states that information that has been acquired through interviews and participant observations, is not to be used for commercial or non scientific purposes.[34]

In my interviews and observations, I have as far as its been possible followed the four demands described by The Swedish Research Council. I have informed the participants about the study and that their participation is voluntary. Consent was given by the respondents themselves or their representatives. I have kept their identities (not karin Jonsson) confidential and is not planning to use this information for any purpose other than for this study

34 *Forskningsetiska principer inom humanistisk-samhällsvetenskaplig forskning*, ISBN:91-7307-008-4, utgivare: Vetenskapsrådet

5. Results and Dicussion

This chapter begins with an introduction of the situation in Cambodia in terms of history, education and health. This information and context is an important part because it affects the entire work and the whole process of improving children's dental health, which this field study is based on.

In this chapter I have chosen to combine results and discusion. In this way it will be a close relationship between thories and empirical data. The relationship between theory and field study forming a correlation that can easily be lost if they are separated.

5.1 The situation in Cambodia

Cambodia has a very ancient and rich culture, but the country has suffered from a long war and civil conflict for nearly three decades. Most of the infrastructure was destroyed, primarily due to the effects of the Pol-Pot regime and the ravages of the Khmer Rough during the period 1975-1979, when almost one quarter of the population were killed or died of starvation. [35] Cambodia has made great strides in the development of democratic institutions in the last years, but has a long way to go. Power is centralized and one million rural poor still lack fundamental rights. Sida is working to support both the reform of public administration and popular participation for greater democracy.[36]

The level of education in Cambodia is very low. After effects of the genocide have had a particularly strong impact on education as the majority of the intellectual elite were eliminated. More than half of Cambodia's 13 million people are under the age of 18. Education is one of the Cambodian government's priorities and one of the main goals is to increase the number of children going through primary school. In 1999 only 64% of all children were enrolled in school an in 2009 it had increased to 89%. But that does not mean that all these children are in school, about half does not complete the first six years.[37] For several years now, Sida supports programs for increased access to good basic education for poor children. The Swedish support is channelled through UNICEF in Cambodia and contributes to the reforms in primary education, in line with Cambodia's education plan.[38]

According to the WHO country cooperation strategy for Cambodia there has been an improvement in health outcomes in recent years, in terms of illnesses such as malaria, TB and Poolio but in the same text it is also said that despite progress, the health status of people in Cambodia is among the lowest in Asia. The HIV and AIDS epidemic is growing most rapidly in the region. Publicly funded health care, with few resources, has little to offer the poor. At least one fifth of the population has no access to it at all.[39] 34 per cent of the Cambodian people survive on less than US$ 1 a day. Nearly half of the children are malnourished and one in eight dies before their fifth birthday.[40]

I have found by studying both Sida's and UNICEF's assistance and relief operations in Cambodia that their focus is on the process of democratization and reconstruction of the education system. The WHO has much focus on HIV / AIDS treatment and child mortality. It

35 Chandler, David, *A history of Cambodia*, Colorado, 2000, p.263
36 http://www.sida.se/Svenska/Lander--regioner/Asien/Kambodja/Vart-arbete-i-Kambodja/
37 http://www.sida.se/Svenska/Lander--regioner/Asien/Kambodja/Program-och-projekt1/Fler-flickor-gar-i-skolan/
38 http://www.sida.se/Svenska/Lander--regioner/Asien/Kambodja/Vart-arbete-i-Kambodja/
39 http://www.who.int/countryfocus/cooperation_strategy/ccs_khm_en.pdf
40 http://www.ungei.org/infobycountry/cambodia.html

also has strategies for oral disease prevention and health promotion in the WHO Global Oral Health Programme (ORH) and the priority action areas are school, children and youth.[41] Despite the ORH I found that oral health easily falls a bit in the background in terms of health development, probably because in a country like Cambodia the focus has been on major illnesses such as HIV / AIDS .

5.2 The pedagogy in the classroom and at the clinic

To provide an overview of the pedagogical methods used both in and outside the classroom I briefly present the education that Karin Jonsson has with the children in schools and orphanages. The structure of the lessons that Karin Jonsson has with students at schools and orphanages is slightly different depending on age group. I have chosen to study the younger age group because most of my observations were made in that age group and they match with my interview groups. Its children at the age between 5 and 12.

The lesson begins with the dentist Karin Jonsson telling the children through her nurse that they will receive a secret. The secret is about how to get healthy teeth and avoid going to the dentist. On the board are drawn two teeth, one sad and one happy. One tooth has a lot of bacteria that must be brushed off with a very large toothbrush. The children help to brush on the board. During the lesson Karin Jonsson becomes thirsty and asks her nurse for something to drink. She is given coca cola,but she would not drink that. She reads on the can to see how much sugar it contains. She shows a bag of sugar to the children to understand how much sugar it is in the jar. The Coca Cola jar is placed by the sad tooth. Water, however, Karin Jonsson likes to drink and it is placed at the happy tooth. At the board Karin Jonsson shows how the sugar and bacteria creates acid and how this leads to a big hole in the sad tooth. Karin Jonsson also sneaks away and munch chocolate, which gives her a sore tooth. The nurse ask in Khmer if the children wants Jonsson to eat it. The kids scream No and laugh. In the middle of the lesson the children receive a paper with two teeth. They paint one sad and one happy tooth like the ones on the board. During the rest of the lesson they draw candy and fruits that make the teeth happy or sad.

The treatment of children in the dental clinic is not just about helping children with a toothache, it is as much an opportunity to teach them why and how to take care of their teeth. This is done in different ways. Explaining and demonstrating for the patient what will happen is essential. The children often get their own hand mirror to look in so they can see how it looks in their mouth. For those children who have been at the dental care lessons, the symbols of a sad and happy tooth are used to explain as well.

Within the socio-cultural theory the key is communication and language is an important part of communication and people create meaning through involvement in social activities.[42] Jonsson communicates with children who do not speak the same language as her. She knows of course a few words in Khmer, but in almost all cases, she uses her dental nurse as an interpreter between her and the children, both on visits to the dental clinic and during lessons. She also uses other means of communivation such as pictures, symbols and body language. Jonsson often dramatizes during the lessons and she has props such as fruits and vegetables as well as lollipops and cakes. She draws and shows a lot on the board. Her dental nurse is great at interpreting says Jonsson. "We dance a dance where no one takes a wrong step, she knows how we add up the lessons and what to say." There is also no problem with having an interpreter because Jonsson dramatizes and shows so much. If she had read from a book or had a classical education, the verbal language would have been a bigger problem. But what she can't say with words, she says with her body and props, she believes.

41 http://www.who.int/oral_health/strategies/en/
42 Carlgren, p.22

5.3 Non-verbal communication

In the theoretical framework I mention how picture can be used as language and communication. In recent years, the picture pedagogy is highlighted as an important means of communication in addition to speaking, reading and writing. Images are sometimes spoken of as visual communication acts. [43] In the following discussion I show how pictures and symbols can be used by the teacher to teach certain knowledge and after that I show how images also can help the child to communicate.

The pedagogy during Karin Jonssons lessons is based on two figures. The happy tooth and the sad tooth. By using these images the pedagogy becomes more clear for the children. As the children are painting their own happy and sad tooth during the lesson, they get a better understanding than just by looking at a picture. Knowledge reaches them through various senses and the memory is helped by these images. Interviews with children who have had dental care lessons show that they have a clear picture of the sad and happy tooth. When asked about the sad tooth they scream out things like sugar, coca cola and chocolate, while the happy tooth is clearly linked to fruits and water.[44]

Examples of images that are used to explain the abstract can be found in quantities in all times, but two of them, I find particularly interesting in this context. They are named Karius and Bactus. These figures arose from a book with the title Karius och Baktus published by a Norwegian author in1949. This book tells us about the tooth trolls Karius and Bactus who are having a good time in the mouth of a boy named Jan, because he never brushes his teeth. It is often used for educational purposes to teach children the importance of taking care of their teeth. Karius and Bactus make the understanding of the impact of bacteria come alive in images. They also help the memory to bound up the abstracts in physical images.[45] My parents and surely many others have used Karius and Bactus as an argument for brushing the teeth. Through these images you can see the trolls instead of caries and bacteria, which may be too abstract for both parents and children. Karius and Bactus is also a way to create a meaningful situations for the child and a way for the parents to use expressions that is at the child's level. Karius and Baktus can be seen as an swedish equivalent to the sad and happy tooth used by Karin Jonsson. Trolls is not a part of the Cambodian culture so for that reason, Karin Jonsson could not use them as a symbol for bacteria and caries. It would probably confuse the children rather than facilitate their understanding, thinks Karin Jonsson. Instead she chose to use a happy and sad tooth. This is expressions that all children can relate to.[46]

5.3.1 Examples from the observation at the dental clinic: Boy painting.

The children who come to the dental clinic are always occupied with something creative while they wait for their turn. They often play with puzzles, or colour a drawing that Jonsson then puts up on the wall at her clinic. She is careful to always publish every artwork on the wall, so the children can see them. This day I painted along with two boys while they waited for their turn. I painted an elephant spraying water and some palm trees. One boy painted a tree house and the other boy painted, in my eyes, a strange man. Later when they had given their pictures to Jonsson, I said - What a strange old man he has painted, don't you think? Jonsson looked at me smiling and said - That is not a strange man, that's a happy tooth, dont you see?!

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43 Lind, Ulla, *Blickens ordning- Bildspråk och estetiska läroprocesser som kulturform och kunskapsform*, Stockholm, 2010, p.84f.

44 Interview children nr: STE 005, STE 006, STE 007

45 Hjort, Madeleine, *Konstarter och kunskap*, Stockholm, 2001, p.44f

46 Intervju: Karin Jonsson.

If we look at the boy's visual language from a socio-cultural perspective, we note that the boy is in a certain social environment that influences his choice of image. He could choose to paint trees, the sea, or people, but the boy chose to paint a tooth. The painting is an opinion that is born in a specific social context, the dental practice, and the recipient of the image is a dentist. This picture is a way to communicate, he will give the picture to the dentist and the image of the tooth can be seen as a way to communicate with the dentist and others who see the picture instead of using words. According to the childrens picture theory young children learn through interact with adults by using pictures, as shown in this observation. It also shows that the dentist and the boy have found a language that they can communicate with. The happy tooth is a symbol that the boy got from previous lessons with Jonsson.

5.4 Verbal communication

The nurse is Khmer, is this an advantage or disadvantage? Jonsson experiences that it is almost exclusively an advantage. The nurse interprets in both directions. She explains how Cambodian culture works and about superstitions and behaviours that Jonsson didn't know anything about when she first came here. She has been invaluable in this area says, Jonsson. Sometimes patients refuse to remove teeth, it is often based on superstitions. Some believe they can go blind if they remove a tooth. Another cultural difference is that in Asia, it is dreadful to lose face. When a tooth has to been removed it is often because the teeth are neglected. When the nurse would translate this to the patient, she giggled uncontrollably. In the beginning when this happened Jonsson didnt understand any of this behaviour. The nurse just giggled and giggled. It was so terribly embarrassing for her to explain to the patient that the tooth must be removed, the patient also giggled. The nurse doesn't do this anymore, but some times the mothers giggle when Jonsson declares that she will remove the teeth of their children. In the beginning Jonsson was annoyed about this behaviour, but not any more, now she knows why. The nurse has explained to her that it is because they dont want to lose their face. Jansson has learned so very much about the culture through her nurse. We give and take of each other's knowledge. The downside was that she took over at the beginning, she had received a status position because she was working with a dentist, she made self-diagnosises. Thanks to the language, she was closer to the patient than Jonsson was. She had more knowledge than the patient, she got power, and she used it. But Jonsson didn't accept that and it has not been a problem since then.

5.5 Motivation and commitment

Jonsson tries to get children to participate actively in teaching, both during classroom sessions and at the clinic. She notices that they are not accustomed to the participatory pedagogy. They are not used to be allowed to speak. So she always starts by telling them that they are allowed to stop treatment if it is uncomfortable or if they want to ask questions. She is trying to get them to be interactive, for example when she asks them to look in the hand mirror during treatment. It is the same at the lessons at school, she tries to get them to actively participate by answering questions and helping her wipe away bacteria on the teeth on the board and painting their own happy and sad tooth.

Regardless what basic view we have on learning, motivation and commitment are crucial. The essence of all learning is to create a fundamental interest in the person required to learn It is however stressed. Differently depending on which basis we have. The behavioral theory emphasizes external motivation in the form of reward or punishment and in this way strengthens or weakens the link between a certain type of behaviour and learning. A sociocultural perspective stresses on the one hand, the motivation that is built into society and the cultural expectations of their children and adolescents. On the other hand, it is crucial for the motivation how well the school manages to create a good learning environment and situations that encourage active participation. It is important to create interaction techniques and environments in which individuals feel accepted and which in a positive way shape the

learner's identity. Just to participate and be appreciated in a group provides motivation for continued learning. The socio-cultural perspective clearly shows that the willingness to learn depends on the experience of meaningfulness, which in turn depends on if knowledge and learning are regarded as important in that group. Both the home and the school class affects motivation. This makes it crucial to create a class culture where learning is valued by everyone, not just the teacher.[47]

Karin Jonsson starts the lesson by telling the children that she is there to give them keys or tell them a secret. The secret is how to avoid visiting the dentist. A behaviorial theorist would probably believe that this secret could be used to stimulate a certain behaviour. Avoid pain and avoid the dentist can be a type of motivation for children and pain or no pain may be seen as a type of stimuli. It can be likened to a behavioral model, like the classic experiments of Pavlovs dogs. Healthy teeth is a reward for good brushing while tooth decay and pain is a punishment for not brushing. But Jonsson strongly emphasizes that she doesn't want to give the children a negative sense or use punishment. Jonsson's way of motivating children is through praise and by creating a positive feeling. She believes in positive motivation, not on the index finger or threats, she says. During the lesson, she believes that she motivates the children by making them curious about the secret she tells them, not by intimidating them. The goal is always to create a positive feeling associated with your teeth. When patients arrived at the clinic I often noticed her saying , “Im glad you came”! And later on” You have treated your teeth well since last time.” Something positive happens when you say these words. Something happens inside us, and we begin to believe it, Jonssons argues.

The same type of education is used when the dental nurse is taught. She is trained first and foremost with praise. Instead of saying that she did wrong, Jonsson asks her if she told her how important this is. It is vulnerable for an Asian to be wrong she learned so she choose instead to take the responsibility if the nurse is not understanding. Jonsson declares that she probably has not shown her this enough or explained this well enough.

5.5.1 Knowing that or knowing why

To make the children motivated and comitment it as also importent how the knowledge is taught. At the school they have toothbrush training every week with the children and and informant 1 believes that most of the children know that they should brush their teeth morning and night. But it's not enough that they know they should brush, they need to understand the relationship between food intake and tooth brushing. If they brush their teeth first and then eat sweets before going to bed, the entire purpose of dental hygiene falls. If the children only receive information that they should brush their teeth there is a risk that only Knowledge type I "knowing That" is attained. If they instead understand the relationship between food, bacteria and brushing it will reach the child as Knowledge type II, "knowing how" and "knowing why". Informant 1 find that the children at her school have increased their knowledge of dental health since they started to visit Karin Johnsson's clinic. The main reason for that is that the children get educated during their visit at the clinic, and not just go there for care. She finds it very important and good that Karin Jonsson explains so much to the children. “She takes all her time to explain to them what she is doing and also to explain to them why they have the problems they have.”[48] The informant stress the word"why". Most of the teaching during my observations in Cambodian schools were of a classical education. By classical teaching I mean an education that is based on the teacher and from the masters desk, education where students largely follow a textbook and teacher's instruction on the board. To some extent this can be seen as a knowledge of the type kwowing that, as students are not given as much opportunity for active participation. The teacher knows best, and knowledge is not particularly focused on the individual's own activity. However, a good teacher is able to

47 Dysthe, p.38f
48 Interview nr: STE009

explain how and why even if it is done from a masters desk, as long as the teacher listens to students' thoughts and let them participate and create their own knowledge. Karin Jonnson partly use classical education when she starts the lesson by explain how the teeth respond to the sugar and bacteria. By letting the children participate, ask and act they also creates knowledge Knowing how and why. Traditional education does not necessarily mean that only Knowing That is created, it depends on the teacher and the students permission to create a process of learning that allows participation.

5.6 Learning beyond the classroom

Alastair Heron argues about the importance of a close relationship between care and education and that it is important that it reaches the child from as many different places in the child's social environment as possible.[49] The children who receive dental education in schools and orphanages by Karin Jonssons lectures, are later also educated when the staff takes them to the clinic. They are reached from two different institutions in their environment and in this way a close relationship arises between health care and education.

Karin Jonsson treats both children who are completely new to her, who may only come once and children whom she has met before during dental lessons and follows up continuously. It's better if she has given lessons before the children come. Then she can use the same words and symbols and can refer to what they learned in school. The children who come to the clinic through organizations are followed up. She wants to work with organizations which come with their children to the clinic. She prefers to have a partnership where she goes to the orphanage or school and have a dental lecture, sometimes even to the staff. She thinks that she is taking on broader and broader responsibilities for the children, as many have no parents who can take responsibility, she takes a piece of the parents responsibility. When she has the opportunity to see the children at the organisations she also knows what their teeth look like, what they eat and how their general health is.

In connection with the socio-cultural perspective the school has been criticized because it does not resemble so-called authentic activities outside of school. The boundary between play and work and between school and everyday should be blurred. When authentic activities move to the classroom there is a risk that they become classroom activities and are perceived by the learner as just a part of school culture argues Bentley.[50] When the dental program is done in the classroom there is a risk that it becomes just a classroom activity that might not be meaningful to the students in the environment outside the classroom. This risk decreases when the children come to the dental clinic and during treatment also receive training and learning. The tooth in the picture at the classroom gets real, authentic, in the environment outside the classroom.

Heron also stresses the home as an important part of the child's social environment. Under the heading Parents responsibility, the home is being discussed as a part of the child's environment.

49 Heron, p.18
50 Bentley, p.52

5.7 Parents responsibility

The importance of involving parents in their children's education has long been a cornerstone in the education of children in developing countries. Alastair Heron writes already in *Planning early childhood care and education in developing countries*, published by UNESCO in 1979 that parents are the living link in the relationship between care and education which takes place at home and in different ways in society. [51] Furthermore, he writes in the same text about the importance that the parents understand that they must play an active role in their children's education

> Such knowledge is likely to modify existing attitudes to play, from the wide-spread one of its being 'a Waste of time', or a manifestation of laziness, to an understanding of its importance for overall development of the child. [52]

During my observations at the clinic, I have repeatedly seen how the children came with terrible toothache, and in one hand they hold the hand of their mother and in the other hand the sugar cane lemonade. The main reason why the children have problems with their teeth is because they eat too much sweets and sugar, argues Informant 1. But she also says that it is rooted in the existence of a culture where you do not say no to a child. in Europe, for example, it is often a constant struggle between child and parents in the grocery store. The child wants candy and the parents say no, which results in tears and fights. When Informant 1 first came to Cambodia she never saw such fightings and thought that the parents were good at dealing with their children. But it turned out that it was not so, there are no fights because the children can do as they wish. One of the staff at the school told the informant that her son doesn't brush his teeth in the evening because he does not want to. Parents need to learn to take the fight. They have a happy child at the moment but not in the long run.

Informant 1 experiences that the children's knowledge and behaviour about dental health have increased since they started brushing their teeth at school and regular visits to Karin Jonsson´s clinic. But she doesn't know how much their behaviour at home has changed. She finds that it is a big responsible for children of that age to decide that they are not going to eat candy any more or that they will brush their teeth every evening before they go to bed. She hardly believes that this is what happens.

> It's very difficult to get the parents to understand that it is their responsibility to look after their children, to make sure their children are healthy and that they go to school every day, all these things. It is very often up to the children and I find that far too much for children to take responsible for.[53]

Does Karin Jonsson also think that the problem lies in the lack of responsible parents? Yes, she finds that there is a total lack of parent responsibility. This she is certain. The parents give their kids money and then tree or four year old children go to the store and buy candy. Parents do not brush their teeth of their children. Parents don't say no when their children want to eat candy she argues.[54]

Informant 2 started to bring the children at the orphanage to the clinic about two years ago. She says that as a doctor and as a human she thinks that the bad oral health is a combination of many factors, Lot of the children who live there have diseases, and their infections can also effect their teeth, but the social conditions in the families who the children come from, how

51 Heron, p.61
52 Heron. p.62f
53 Interview nr: STE009
54 Interview nr: STE011, STE012, STE013

their food habits are and what they know about dental care are also important. At this orphanage they can largely control what kind of food the children eat because the children live there. They give them fruits and water to bring to school and they come back to the orphanage for lunch. The children at the orphanag brush their teeth every morning and night. They have not yet educated the staff even if she thinks it is a good idé, but first of all, it is essential that children know how they should take care of their teeth, she argues.[55] It's both a lack of knowledge and a social problem thinks informant 2. The children who live at the orphanage come from the countryside, and she doesn't think their parents know how to look after their teeth. [56]

The Nurse who works with Karin Jonsson often ask the parents if they know why their children have pain. Most of them don't know why and some of them think that they are born with these dental problems, it is the destiny and therefore not their fault, says the nurse.[57] Parents are also poor and can not afford to visit the dentist. Sometimes they do their own dental fillings of strong alcohol and cotton to stuff in the hole, explains the nurse. Karin Jonsson also belives that poverty is a major problem and due to the fact that most parents in Cambodia have no education, partly because of the war. The lack of education makes people return to natural medicine. Most Cambodians she meet mixes western medicine and Cambodian natural medicine.[58]

At the school they are thinking about what they could do to invite the parents so Karin Jonsson could educate them as well. But informant 1 finds two obstacles; Cambodian people don't like people to tell them what they should do and not do. So that's one obstacle. And the other thing is that they might not come. Unless they get something there for free, they don't see the training itself as something they get for free. If the school is able to hand out something, they will come. But this is not a good way to make them come, the informant argues.Parents involvement in school education is highlighted in an academic dissertation written at the university of Tempere 2007, the researcher has, among other things, studied the problems underlying community participation in school governance. The research is made at schools in the Kampong Thom Province in Cambodia. The table of the top five problems shows that the most important problem for community participation is the parents limited involvement in children's learning, followed by limited interaction between teachers and parents.[59]

Parent responsibility is not a specific problem for Cambodia. According to the Swedish Dental Association timepressed parents tend to transfer responsibility about healthy diets to the preschool, and also allow the children to decide over their diets at home because it is easier and less conflictual. This is shown in interviews with parents and preschool staff about nutrition in general and attitudes towards sugar specifically.[60] In 2006 the Swedish Association of Health Proffesionals, the Swedish Medical Association and the Swedish Dental Association conducted a large study among children and parents on parental attitudes to children's nutrition and health. Eight out of ten parents believe that young people's increasing consumption of sweets is due to the fact that today's parents let the children decide what to eat and drink. And a large majority of parents want to ban soda and candy from school.[61] The number of children with caries and burns to the teeth because of soft

55 Interview nr: STE005
56 Interview nr: STE006
57 Interview: nurse
58 Interview nr: STE011, STE012, STE013
59 Pellini, Arnoldo, *Decentalisation Policy in Cambodia*, Academic Dissentralisation, Tempere, Finland, 2007.sid.143
60 http://www.tandlakarforbundet.se/organisation/tandlakare-mot-godis-och-lask/live-learn-laugh.aspx
61 Tandläkarförbundet, *Sammanfattning- föräldrars attityder till barns kost och hälsa*, 2007-01-03, Publicerad via Tandläkarförbundet.

drinks and other acidic beverages increase in Sweden, as is shown in the same study. Efforts are needed both from parents and society if we are to break the trend says the chairman of these federations.[62]

Increased parent responsibility is important in Swedish health education. Strengthening the parents confidence in their abilities, knowledge and skills as parents, has increasingly been regarded as an important factor in health work and the opportunity for change.[63] In a Swedish study on child health it has been shown that the health guidance process, to a large extent, can be seen as an educational process. This process is an important part in promoting and strengthening the role of parents' in health counselling. The study shows that parents are a big part of health education, but more emphasis can be given to parent's possibilities to think for themselves and then strengthen their participation, accountability and independence. The unique family situation, the children's and parents' health and their ability should be the starting point for learning.[64]

If the health guiding is based on and interact with parents, there is also a bigger chance to help the parents make the problem manageable in their daily life. This view of health guidance as an interactive process is consistent with an individual-centered approach.[65] Ensuring health guidance as an educational process where the parents' learning is seen as an active process is therefor important. It is a problem when the parents are not reached, because it increases the risk that the dental care advice are seen from a top down perspective. When Jonsson's advice does not start from the individual family's situation, it becomes an advice given by an expert. The advice is based on the dentist's view of what is best and is then not related to the individual family's ability to comply. The parents are not given the opportunity to reflect on the advice and the teachers or the experts do not listen to the parents' own thoughts on the situation and how it should be handled. This decreases the opportunity to start the dental health education in a individual-centered and bottom-up perspective. Advice given by teachers or medical personnel must be manageable in the individual parent's life. If parents SOC becomes clearer they might increase their involvement in health education. It may not be a lack of interest but a lack of coherence that make parents act the way they do. If they not believe that they have the skills or ability to take care of their childrens teeth they might feel that their role in improving dental health is not important.

By providing information and knowledge to the children about dental health, there is a possibility that knowledge also reaches the parents. If the children tell their parents about what they learned, there is a chance that knowledge entering the child's home environment, despite the fact that teachers are unable to reach parents in person. It is possible that this is a better way to go when it proved difficult to get parents to attend parent meetings and information.

5.8 Toothbrush & suger

Like in many other countries, candy sold in schools is a major problem and threat for improved dental health. At the schools I have been to, candy is mostly sold in the school snack shops. Even in interviews with the children most of them tell me that they are able to buy sweets and coca cola at school, sometimes a little fruit and sometimes water. At the school they have found a way to reduce children's consumption of sweets. Informant 1

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http://www.tandlakarforbundet.se/media/32663/sammanfattning%20-%20f%C3%B6r%C3%A4ldrars%20attityder%20till%20barns%20kost%20och%20h%C3%A4lsa.pdf

62 Pressinformation, tandläkarförbundet 2007-01-23, http://www.tandlakarforbundet.se/media/12492/pressinformation_foraldraenkat_%20jan07.pdf

63 Olander, *p*.242

64 Ibid, p.241

65 Svederberg, p.241

explains that before or after the children goes to public school, they are given potatoes to eat instead of buying sweets at the public school. The potatoes is bought from the lady who also sell the sweets. In this way the lady doesn't lose her income, which is also important to think about, argues Informant 1.[66] Informant 3 has, during her year in Shianoukville, noted that it is very common that children is buying coca-cola and soft drinks. Increased parent responsibility and more knowledge of the relationship between sugar and tooth decay, will hopefully reduce the intake of sweets.[67]

The lack of a personal toothbrush is a major problem for improve dental health of poor children in rural districts of Cambodia. Children who don't brush their teeth may increase the incidence of caries, which has been linked to tooth pain.[68] Only one of the thirty children who participated in the questionnaire survey at the school where dental lessons are common, don't own a toothbrush. One of 30 share toothbrush with its siblings and two of 30 have parents who don't own a toothbrush. In this small study, it appears that most children in this group have access to a toothbrush at home. This is a group where all children attend public school. The questionnaire survey result doesn't show a generalized result for all children in Shianoukville. There are both children who are poorer than this group, living in slum areas and do not attend school at all and children who are richer.

[66] Interview nr. STE009
[67] Interview nr: STE006
[68] *A vicious cycle in the oral health status of schoolchildren in a primary school in rural Cambodia*.http://www.ncbi.nlm.nih.gov/pubmed/17615026 *2010-04-24*

6. Conclusion

6.1 Which pedagogical tools and methods are used to teach the children the cause and effect of caries and tooth brushing?

Images as a teaching method have proven to be an important part in this pedagogical work in two angles. First, it helps the child to understand the knowledge that with out an image can become too abstract. The sad and happy tooth become symbols of healthy and sick teeth. This images helps the children and the dentist to create a world in which they both can interact. Secondly the pictures and symbols also create a language that the two can talk. Images are used during lessons at school and can be used to show dental problems in their children's mouths at the clinic. It also a way to explaining why and how the bacteria effects the tooth, not only that is is effected.

Karin Jonsson try to find ways in her teaching, which she believes makes the schildren motivated. By allowing them to participate in class by asking questions and draw their own happy and sad tooth, they become active. She also trying to create a positive feeling associated with the teeth by encouraging both parents and children when they come to the clinic. A way to make children and parents involved in the education is to explain as much as possible by using Knowledge type II, "knowing how" and "knowing why".

I believe that Jonssson succeeds to mediate the message by using these methods. The teaching methods are adjust to the situation and the students she teaches. When I participated in lessons in a Cambodian school, I found that the education largely consists of classical teaching. Jonsson is often using other methods than the classical teaching. She does this for mainly two reasons which appear to go hand in hand with each other. Firstly to get students' interest and to motivate them. She finds that they are not used to be a part of the education and she wants to involve them by using participatory pedagogy. Through participation and communication the children and the teacher can meet and find new ways to think, discuss and act. Participation in social practice is a good way to learn according to the socio-cultural theory. Her choice of this methods is also due to a practical reason, she needs to use other methods because she doesn't not have the verbal language on her side. Through symbols, images and body language she creates a language in which she can communicate with the children without constant recourse to an interpreter.

6.2 Which difficulties and opportunities may/can occur during the work to improve children’s dental health?

In the work to improve children’s dental health there is obstacles like poverty and the dark history of Cambodia, which of course, affects both education and dental health in general. But I will present the difficulties and opportunities that have emerged specifically in the work done by Karin Jonsson and the organizations.

The advantage of working with a Khmer dental nurse is that she is helping out in both a cultural and linguistic translation. She does not only translate the language between Karin Jonsson and the patient, but also interprets the culture, rules and concepts of the Cambodian society. This has proven to be especially important in the work with children and parents at the clinic.

The close links between school and clinic is a great opportunity for this education. The cooperation between the two institutions in the community helps to reach children in different

contexts in their environment which has proved to be of great importance in development work according to Alastair Heron. The cooperation also helps the children to take part in the theoretical instruction in a more practical way when they visit the clinic. In this way the education moves outside the classroom and makes a crossover to another context.

Parents' lack of responsibility is mentioned by Karin Jonsson and the informants as one of the fundamental difficulties the encounter in the dental health education of the children. Even if they know this is an area that needs changing, they have been unable to reach the parents and the home enviroment. Changing people's views on child care can be seen as a gigantic task. Many of the parents suffer from poverty and the fact that many are uneducated does not make the situation easier. There is a large knowledge gap among many parents in today's Cambodia as a result of the country's history and present situation. Most of the educated people were killed between the years 1975 to 1979, among them also teachers, which left a country without people to educate the next generation, the generation of today's parents. More than half of Cambodia's 13 million people are under the age of 18 and many organizations and volunteers work to develop the school system all over Cambodia, to give as many as possible of the young people access to education and training. By educating today's youth and children about dental health, hopefully they can contribute to create a generation who takes more responsibility for the teeth of their future children.

The problem with sweets and soft drinks, sold everywhere in the community and schools, effect the potential for improving dental health. This is not a specific problem for cambodia, similar difficulties are discussed in the Swedish debate on children's dental health.

6.3 Suggestions for further work

This dental education reaches children in school and orphanages and to some extent at the clinic. At the orphanages the staff takes a great responsibility because most children have no parents. Cooperation with the home is an important part that needs to be developed and it can only be done through the parents.

In the final stages of my research, I realized that an important group in this research are the parents. This perspective was not included in my initial plan, as it emerged during the field study. If I had had more time it would have been useful for this study to interview the parents of the children to get their views on dental health. This perspective is missing in the study which focuses on dental education and care from the perspective of teachers, staff and children. If the difficulty of involving parents in the project stems from the parents' lack of knowledge, lack of time, poverty or ignorance, I can not say with certainty. There must be a new study to determine this, where the focus lies on the parents and their voices are heard.

6.4 Relevance to the Teaching profession

This study shows the importance of adapting teaching methods to a particular group of students, with a differing culture and language. In today's school in Sweden this is more important than ever. In the multicultural classroom the groups consist of different individuals with different backgrounds and different cultures and to adapt pedagogical methods that work for these students is both an obligation and an opportunity for us as teachers.

In the Curriculum for the compulsory school system, the pre-school class and the leisur-time centre Lpo-94 can be read that:

> "The school should support the harmonious development of the pupils. A sence of exploration, curiosity and desire to learn should provide a foundation for education. Teachers should endeavour to balance and integrate knowledge in its various forms."[69]

69 *Curriculum for the compulsory school system, the pre-school class and the leisur-time centre Lpo-94* at www.skolverket.se

Karin Jonsson's pedagogy is based on creating a positive motivation in the child, which is achieved by curiosity and praise. She uses images and symbols to create a language between the teacher and the children. This shows how it is possible to reach a group of students who have an entirely different background than the teacher. This is a inspiring approach that should be brought into the Swedish school system. It is also an important reminder that there are various ways to reach individuals. Education is about much more than teaching and learning skills in a particular subject. It is also about the creation of individuals who shall understand and respect other individuals and cultures. Students should feel that they are involved in the education and that they are listened to. In order to establish communication and interaction, the teacher needs to use different pedagogical methods and find ways to reach the students. This is also pointed out in Lpo-94:

> Education should be adapted to each pupil's circumstances and needs. Based on the pupil's background, earlier experiences, language and knowledge, it should promote the pupil's further learning and acquisition of knowledge.[70]

In the Swedish schools today it is especially important that school is part of society and society part of school. That they are integrated into each other and not two separate worlds. According to Lpo-94 there shall be an active co-operation between teachers, staff and pupils in close contact with home and with the local community.[71] It is constantly a debate in the Swedish schools regarding the mission of the school and parents responsibility. By creating a well functional relationship between schools and parents there is a greater opportunity for students to learn at all levels. This study shows the importants of creating a good relationship with the parents, if the school shall be able to reach the children.

70 *Curriculum for the compulsory school system, the pre-school class and the leisur-time centre Lpo-94* at www.skolverket.se

71 *Curriculum for the compulsory school system, the pre-school class and the leisur-time centre Lpo-94* at www.skolverket.se

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