

# **Knowledge transfer as driver for capacity building in urban water supply services in Accra, Ghana**

**Research project submitted to Van Hall Larenstein  
University of applied science in partial fulfilment of the  
requirements for the degree of Master of Development,  
specialization Training, Rural Extension and  
Transformation**

By  
Wilhelmus Elbert Petrus van den Horn  
September, 2010

Wageningen  
The Netherlands

© Copyright Wilhelmus Elbert Petrus van den Horn, 2010. All rights reserved

## **PERMISSION TO USE**

In presenting this research project in partial fulfilment of the requirements for the degree of Master of Development, I agree that the Library of this University may make it freely available for inspection. I further agree that permission for copying of this research project in any manner, in whole or in part, for scholarly purposes may be granted by Van Hall Larenstein Director of Research. It is understood that copying or publication or use of this research project or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University in any scholarly use which may be made of any material in my research project.

Requests for permission to copy or to make use of material in this research project in whole or in part should be addressed to:

Director of Research  
Van Hall Larenstein University for applied science  
P.O. Box 411  
6700 AK Wageningen, the Netherlands  
Fax: +31 (0)317 486280

## **ACKNOWLEDGEMENTS AND DEDICATION**

I am feeling privileged that I was able to study with the full support of my colleagues and employer Vitens Evides International B.V. This support was crucial facing the big challenge to study again after more than twenty years. I like to describe this challenge as a new journey to an unknown destination. I had to make the shift from solving problems towards doing research, because we do not know everything.

It was a great experience to study with colleagues from all around the world. At the same time it felt familiar after five years working in Mozambique. Studying with a mixture of nationalities and my working experiences in Mozambique gave a special dimension. All year long I was able to reflect on everything that I experienced in past five years. Charles Sackey asked himself last year 'what have we done wrong? '.

We were challenged and confused frequently by our lecturers, but they did this on purpose. Experiencing is the best way to unravel new concepts and learn. I like to thank you all!

Peter

## TABLE OF CONTENTS

<b>PERMISSION TO USE .....</b>	<b>i</b>
<b>ACKNOWLEDGEMENTS AND DEDICATION .....</b>	<b>ii</b>
<b>ABSTRACT .....</b>	<b>vi</b>
<b>1. ARRIVING AT THE RESEARCH AIM AND QUESTIONS .....</b>	<b>1</b>
1.1. Introduction of the researcher and working field .....	1
1.2. Context and aim of the research .....	2
1.3. Unraveling key concepts and questions to be answered .....	4
<b>2. FURHTER EXPLORATION POLITCAL AND LEGAL CONTEXT .....</b>	<b>6</b>
<b>3. THEORETICAL BASIS FOR THE RESEARCH .....</b>	<b>8</b>
3.1. Capacity building.....	8
3.2. Knowledge and Learning.....	9
3.3. Capacity building and organizational learning .....	10
3.4. Influential factors for knowledge transfer in collaborations.....	12
3.5. Knowledge transfer in collaborations with cultural differences.....	14
<b>4. STRATEGIES AND METHODOLOGIES .....</b>	<b>16</b>
4.1. Basic research strategy.....	16
4.2. Conceptual framework .....	16
4.3. Strategy and methods for data collection .....	18
4.4. Strategies and selection of interviewees .....	19
4.5. Analysis of collected data.....	20
4.6. Constraints.....	21
4.7. Overview of activities .....	21
<b>5. INTERPRETATION OF CAPACITY BUILDING.....</b>	<b>22</b>
5.1. Findings on the nature and content of contract.....	22
5.2. Findings on influential factors of capacity building.....	24
5.3. Findings on perception of capacity building .....	24
5.4. Analyses on capacity building process.....	25
5.5. Analyses of influential factors on capacity building.....	27
<b>6. INFLUENTIAL FACTORS OF KNOWLEDGE TRANSFER .....</b>	<b>28</b>
6.1. Findings on influential factors on knowledge transfer .....	28
6.2. Findings by observation .....	32
6.3. Analysis of influential factors on knowledge transfer .....	33
<b>7. PERSPECTIVES AND EXPECTATIONS OF KNOWLEDGE TRANSFER .....</b>	<b>35</b>
7.1. Findings of reviewed documents and consultations.....	35
7.2. Findings of semi-structured interviews .....	36
7.3. Findings by observations.....	41
7.4. Findings of group interview .....	41
7.5. Analysis of perspectives on knowledge transfer .....	41

<b>8. CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>45</b>
<b>REFERENCES .....</b>	<b>46</b>
<b>ANNEX A CHECKLIST INTERVIEWS.....</b>	<b>50</b>

## LIST OF FIGURES

Figure 1 Map of Ghana .....	2
Figure 2 Knowledge transfer model.....	12
Figure 3 Cultural values of contractual partners (Ghana a.o.) .....	14
Figure 4 Knowledge transfer model after Narteh (2008).....	17
Figure 5 Flow chart research activities .....	21
Figure 6 Overview dimensions capacity building .....	25
Figure 7 Discussed topics cultural differences and language .....	31
Figure 8 Satisfaction provision training.....	35
Figure 9 Contribution Ghanaian staff AVRL .....	37
Figure 10 Contribution foreign staff AVRL .....	37
Figure 11 Benefits project .....	38
Figure 12 Future expected role VEI and Rand Water Services .....	39
Figure 13 Aspects for improvement.....	40

## LIST OF TABLES

Table 1 Characterization of interviewees.....	20
Table 2 Influence of nature of collaboration.....	28
Table 3 Influence of environment .....	29
Table 4 Unique influential factors .....	29
Table 5 Influence of relationship factors.....	30
Table 6 Transfer process .....	32
Table 7 Average hours of formal training.....	35
Table 8 Overview exceptions future expected role .....	39
Table 9 Details aspects that have to change.....	40

## **ABSTRACT**

Worldwide lack of access to reliable drinking water services requires developments in this domain. Governments, facing this problem, are initiating policies and development interventions on all levels. A broad variety of donors, including international governments, are providing (financial) support. This thesis focuses on the development initiative for the urban water supply services in Ghana. The objective of this initiative is to achieve operational improvement of water supply services provided by Aqua Vitens Rand Limited (AVRL). Since the start of the project in 2005 the water supply services are provided by collaboration between a joint venture of two foreign companies, Vitens Evides International B.V. (VEI) and Rand Water Services, and detached employees of the grantor, Ghana Water Company Limited. Capacity building and knowledge transfer play an important role in this collaboration to achieve operational improvements. It is important to know if objectives concerning knowledge transfer are clear and not conflicting in the collaboration.

This research aims at a better insight in the knowledge transfer process in the collaboration by an analysis of perspectives of staff of involved stakeholders of the contractual arrangement. This insight is required to discuss the way in which the collaboration has to evolve. This research focuses on the following two topics, namely; the expected role of knowledge transfer to build up capacity and the perception of involved staff on knowledge transfer in the development interventions. For this research a case study was conducted. For this research five methodologies are used, namely; a recognition mission, observations, semi structured interviews, one group interview and a combination of a review of (project) documents and expert consultation. To establish a theoretical basis and to prepare the field work of four weeks relevant concepts were unraveled and a comprehensive literature review was conducted. To facilitate the analysis of findings a conceptual framework was developed with a description of influential factors and required steps in the knowledge transfer process.

The qualitative analysis led to the following main findings. In the research project capacity building can be interpreted as a process, which is aiming at improvement of individual skills and knowledge as well as improvement of the organization. The production of new knowledge and skills to achieve operational improvement demonstrates the interrelationship between knowledge transfer and capacity building. Moreover from this perspective knowledge transfer can be seen as the driver for capacity building. This research gives insight in perspectives of involved stakeholders on influential factors. Cultural differences are perceived to play a role in the relationship, also between Ghanaian employees. However other factors, such as personal attitude, are also perceived important or even more important. Majority of interviewees expects that Ghanaian staff transfers tacit related knowledge to their foreign colleagues. Most interviewees expect foreign staff to transfer explicit related knowledge. The majority of interviewees refers to measurable achieved results, such as the introduced GIS or provided training. The discussion about required external support in the next coming period will probably focus on the division of power and authority. The research does not give perspectives about the expected moment that intervention activities become less important or unnecessary. Interviewees recommend VEI and Rand Water Services to pay more attention to the competencies of expatriates during the recruitment process. Also teambuilding of expatriates needs more attention and they are challenged to communicate more with their Ghanaian colleagues. Finally involved partners have to focus more on the relationship.

## **1. ARRIVING AT THE RESEARCH AIM AND QUESTIONS**

Before presenting the research topic and arriving at the aim of the research, this chapter will provide the reader with background information about the context and location of the research. While discussing the context and aim of the research the relevance of it will become clear. After presenting the research aim selected key concepts will be unraveled. Research questions will be formulated. First of all the author will briefly introduce himself and his working field.

### **1.1. Introduction of the researcher and working field**

The author or 'researcher' executed this research in accordance with one of the requirements of Van Hall Larenstein University (VHL) to achieve finalization of the master program 'Management of Development', specialization 'Training, Rural Extension and Transformation' in the period of September 2009 until September 2010. The research resulted in submission of this thesis. Before the start of the master program the author was working as representative of Vitens Evides International (VEI) in Mozambique for more than five years. The researcher is involved in international activities since 1996. In Mozambique VEI is providing support for organizational development and capacity building for several urban drinking water supply companies to improve their services. A further introduction of the working field and company VEI will be presented below.

Since more than a billion people worldwide lack access to reliable drinking water services at present, the need for developments in this domain is a common understanding. Reducing the population without this access is one of the millennium development goals (number 7). Governments, facing this problem, are initiating policies and development interventions on all levels. A broad variety of donors, including international governments, are providing (financial) support. Opinions about the way in which these developments or innovations have to be initiated and executed vary from intervention by private companies to community based initiatives. Within this variety of initiatives Vitens Evides International (VEI) started to support urban water companies in developing and transition countries to improve their operations, become financially healthy and extend their services to the urban poor.

VEI is a subsidiary of the two largest public owned water companies in the Netherlands, Vitens and Evides. These two companies view their international involvement as part of their corporate social (global) responsibility. Since the start in 2005 the two mother companies annually make €2.0 million available for these activities. In addition their clients can make voluntary contributions through the foundation 'Water for Life'. VEI conducts its business on a 'not-for-profit, not-for-loss' basis. They are currently involved in supplying safe drinking water to more than 20 million people in Ghana, Malawi, Mongolia, Mozambique, Suriname and Vietnam. The nature and content of this involvement depends on the way in which the project is initiated. In Mongolia, for example, the project was initiated together with the local water company and jointly proposed (submitted) to be co-financed by the Dutch government. The assignment in Ghana is the result of a successful bid in an international competitive procurement procedure, coordinated and financed by the World Bank. This research project took place in the context of the project in Ghana.

## 1.2. Context and aim of the research

To be able to submit a proposal for the project in Ghana VEI and Rand Water Services in South Africa established a joint venture company, namely Aqua Vitens Water Services (AVWS) in 2005. AVWS emerged as the successful bidder for a management contract with Ghana Water Company Ltd (GWCL). The project was promoted by the World Bank and initiated in the context of the 'Urban Water Project' as part of the 'Water Sector Restructuring Program' in Ghana. The 'Water Sector Restructuring Program' promotes private sector participation (PSP) to develop the water sector in Ghana. AVWS is seen by stakeholders as the private party. To be able to execute the assignment the joint venture AVWS established Aqua Vitens Rand Limited (AVRL) in Ghana. AVRL is a special purpose limited liability company, established under the laws of the Republic of Ghana to act for and on behalf of GWCL as 'the operator'.

AVRL operates in all ten regions in Ghana, serving various districts. The map of Ghana is shown in Figure 1. AVRL has jurisdiction in the 'Urban Water Project'. Employees of both VEI and Rand Water Services are detached in AVRL and hold strategic positions to manage the operation. They hold positions such as managing director and financial director. Detached staff of AVRL gets support by so-called 'short-term experts' from the mother companies in the Netherlands and South Africa.



Figure 1 Map of Ghana  
(source: Countrywatch.com)

In November 2005 the management contract was signed and the five-year program started. The program objective is to improve the water supply services in selected urban areas and individual regions of Ghana. The objective has to be achieved by optimal investment and improved management and delivery of water services. In total 6 to 8 million people are living in the service area of the water company. At the start of the program less than half of the population had access to reliable drinking water services. The way in which improvements of the water supply services have to be achieved can

be argued and will bring us to the topic of the proposed research and significance of this research.

As mentioned above the opinions about the way in which developments have to be executed and achieved vary among involved stakeholders. Within this pallet of opinions Vitens Evides International (2009, p. 2) formulated her own vision on support to be provided, which states:

*'Our vision is to help local water companies to become financially healthy and to operate more efficiently and as such work on sustainable change within their organization and operations. We prefer to work through long-term partnership arrangements that allow us to jointly assess the needs of the local water company and to design a flexible support programme targeting these needs. These partnerships preferably include an investment component.'*

This vision reflects a supportive role for VEI and joint action and commitment in development initiatives together with local parties. In the case of the management contract in Ghana the power and authority for the daily operation and organizational development are delegated to AVRIL. The external parties VEI and Rand Water Services own this company. This can be seen as contradicting with the vision of VEI. Nevertheless within the context of the contractual arrangement VEI wants to comply with her vision providing intervention services.

Budds and McGranahan (2003), Prasad (2006) and Carangal- San Jose and Gunatilake (2008) executed research on comparable contractual arrangements and partnerships. They describe that results of such partnerships in developing countries are disappointing, so far. These authors argue that understanding and adaptation of the local context, such as culture and political structure, are essential for a successful partnership and sustainable improvements. With feasible or sustainable improvements these authors mostly refer to organizational efficiency and cost recovery as well as access to reliable drinking water for the poor population. VEI in fact attaches a similar meaning to sustainability. Furthermore, as described above, VEI sees a joint action and commitment as important factors for sustainable change. From this perspective VEI is aiming at an evolving partnership towards creation of independency or autonomy of the local partner.

On the other hand and as mentioned above the context of the management contract suggests a rather asymmetric partnership between a company of a developing country and developed country, as described by Tsang (2002). He argues that the partner of the developing country is aiming at learning skills, knowledge and technology, while the other partner (only) learns about the transfer of knowledge and technologies in a new environment. It can be questioned if such an asymmetric partnership will lead to independency and sustainable change. Furthermore for an effective collaboration VEI has to know if objectives concerning knowledge transfer are clear and/or not conflicting for involved parties. In other words, are we talking about the same?

After several years of building up the partnership for improvement of the urban water supply services in Ghana, VEI wants to get a better insight in the way the knowledge is transferred within this collaboration. This insight is required to be able to start a discussion about the way in which the collaboration has to evolve in the last year of the contractual arrangement and in a possible continuation. Therefore the aim of this research is to get a better insight in knowledge transfer within the capacity building

process. This insight has to be provided by an analysis of perspectives of staff of involved stakeholders. These stakeholders are involved in the management contract (contract partners) and the research has to focus on aspects of the development initiatives with intervention of AVRL.

### **1.3. Unraveling key concepts and questions to be answered**

To assist in a better understanding of the above described aim and to formulate research questions, this section will unravel selected key concepts. A more comprehensive review on these concepts and other relevant concept will be presented in chapter 3. Based on the aim of the research the author selected the key concepts 'perception', 'knowledge' and 'capacity building'. Finally the concept of 'cultural differences' will be briefly discussed. The understanding of the cultural context seems essential for a successful collaboration and transfer and/or exchange of knowledge.

Starting with the concepts of 'knowledge' and 'perception', the researcher likes to refer to a description given by Leeuwis (2004, p. 94), which states:

*'Knowledge can be seen as the basic means through which we understand and give meaning to the world around us. Concepts like 'meaning', 'interpretation' and 'perception' are largely synonymous, and all refer to the outcome of applying our knowledge to a particular situation.'*

In the same paragraph Leeuwis presents an example to clarify this description. In this example he describes that we give meaning to observations and interpret them based up on our existing knowledge. Knowledge contains a dimension of time and will evolve and change over time based on (social) learning and experiences. McFarlane (2010) also describes that knowledge is context-specific and socially produced. This means, for example, in the context of local culture and educational back-ground of staff. Furthermore he as well other authors like Peroune (2007) and Narteh (2008) describe that knowledge has a tacit and explicit form, in this research called the nature of knowledge. These last mentioned two authors relate the tacit form with managerial knowledge and the explicit form with technical knowledge. This distinction was made in the context of organizational development and capacity building. The same distinction will be used for this research.

The concept 'capacity building' is mostly used by donors in the context of projects in developing countries. The researcher compared the definitions given by the World Bank (n.d.), United Nation Development Programme (UNDP, 2008) and International Institute for Capacity Building in Africa (IICBA) (Matachi, 2006). These definitions have a lot in common. The definition of the World Bank will be used as a starting point for this research, since they are co-financing the project. The definition for capacity building given by the World Bank (n.d.), in relation to social analysis, states:

*'Capacity building: a coordinated process of deliberate interventions by insiders and/or outsiders of a given society leading to (i) skill upgrading, both general and specific, (ii) procedural improvements, and (iii) organizational strengthening. Capacity building refers to investment in people, institutions, and practices that will, together, enable countries in the region to achieve their development objective. Capacity is effectively built when these activities are sustained and enhanced with decreasing levels of donor-aid dependence accompanied by increasing levels of societal goal achievement.'*

It can be seen as remarkable that this definition does not contain the concept 'knowledge' and only speaks about 'skill upgrading'. In practice, like in the contract in Ghana, the transfer of knowledge and training are seen by donors as strategic means for development. This strategic importance is also argued by McFarlane (2010). He refers to literature (sources) of the World Bank. Also UNDP (2008) and IICBA (Matachi, 2006) refer to knowledge, besides skills.

As mentioned above knowledge is socially produced (McFarlane, 2010) and understanding of the cultural context is one of the essential factors for a successful collaboration (Budds & McGranahan, 2003; Prasad, 2006; and Carangal- San Jose & Gunatilake, 2008). Gupta and Govindarajan (2000) executed research on knowledge transfer related to cultural influences. Based on their research they distinguish five influential forces. Firstly, they describe the force of perceived value of knowledge, meaning that cultural differences can form a barrier for adoption of knowledge and practice. Secondly, they describe the role of cultural differences for having specific knowledge related to power, which can disturb the diffusion of power. The third described force is the influence of culture on the quality of the communication between parties. The fourth force is motivation of participants to acquire knowledge. Finally they distinguish the adsorptive capacity of the receiving party of knowledge. With adsorptive capacity they refer to capabilities or competencies of staff. Hofstede (2009) executed a lot of research on cultural differences. Literature from this author will be further discussed in the literature review in chapter 3.

The following questions were formulated, based on the research aim:

1. What role can be expected from knowledge transfer to build up capacity in the collaboration of the urban water supply utility in Ghana?
  - a. How can the concept 'capacity building' be interpreted within (intra-) organizational collaborations?
  - b. What factors influence capacity building within these kinds of collaborations?
  - c. What factors concerning the transfer of knowledge play a role in building up capacity in these kinds of collaborations, specifically for the collaboration in Ghana?
  - d. How do cultural differences play a role in knowledge transfer in these kinds of collaborations, specifically for Ghana?
2. What is the perception of involved staff of stakeholders of the management contract (contract partners) on knowledge transfer in the development initiatives with intervention of AVRIL?
  - a. How do these stakeholders relate knowledge transfer with capacity building?
  - b. What opinions do these stakeholders hold concerning the actual process of knowledge transfer?
  - c. What opinions do these stakeholders hold about the expected moment that external interventions become less important or even unnecessary?
  - d. What improvements do stakeholders see concerning transfer of knowledge?

## 2. FURTHER EXPLORATION POLITICAL AND LEGAL CONTEXT

This chapter will further explore the context of the research project. This exploration will provide a better understanding of the political and legal history of the development process of the urban water supply services in Ghana. This history has and still is having implications for the collaboration between involved stakeholders in the management contract.

As described in chapter 1, the assignment of AVRIL in Ghana was the result of a successful bid for a management contract in an international competitive procurement procedure. The choice for a management contract was the outcome of a long negotiation process, within the water sector reform process. Concerning this choice Suleiman and Göran (2010, p. 272) state 'a management contract that can be considered a *de facto* compromise, although not deliberate, by stakeholders'. The sector reform process has its roots in the early '90. This reform process was given strength to a policy and institutional framework in 1993. The policy is aiming at sustainability of the water and sanitation services by an increased involvement of the private sector (Auwah, 2008; Suleiman & Göran 2010). In 1995 a water policy for a privatization program was drafted. The government presented this program in the form of required private sector involvement by a lease contract for a period of 20-years. From that period a broad, internationally recognized, coalition was started against this approach of privatization. This coalition is named 'Ghana National Coalition Against the Privatization of Water (NCAP-water)' (Suleiman & Göran 2010).

Agyeman (2007) describes about a contradicting process in comparison with the statement of Suleiman and Göran (2010). He reports that the choice of a relative short-term management contract can be seen as the result of several workshops and meetings. In these sessions several stakeholders, such as NCAP-water and trade union, participated. During the initial phase of the project (contractual negotiations) VEI and Rand Water Services discussed the process with NCAP-water. They tried to give a clarification of their real intentions, in an attempt to lower resistance. They explained that both companies provide these kinds of services based on corporate social responsibility (Wolters, 2010). As mentioned in chapter 1, VEI and Rand Water Services are seen as the private sector, but both companies are public entities in their respective home countries.

Prior to the implementation of the sector reform policy, GWCL was established to provide water and sanitation services on a (more) commercial basis. Nevertheless the government of Ghana approached the World Bank to finance an assistance program. This process has to lead to improvement of the analyzed lack of investments and inefficiency of the services (Suleiman & Göran 2010). Agyeman (2007) refers with inefficiency to lack of access to reliable drinking water services for the population. Furthermore he refers to the poor quality of provided services by the company, meaning reliability of services. He describes the expected results of private sector involvement. Expected results are, for example, expansion of the water supply systems (investments) and improvement of operational aspects such as management practices and increased cost recovery. Suleiman and Göran (2010) argue that expectations are too high for improved performance through intervention of the private operator. They point out that expectations are too high because of existing social, political, institutional and legislation constraints. According to them these constraints are mainly caused by a failure of incorporation of public consensus. Furthermore creation and diffusion of a sense of collective stewardship on the reform policies are missing. Therefore they doubt if significant and sustainable progress can be achieved in the next coming years. Nevertheless the management contract contains budget for investments as well as

operational improvements. The private operator, established by VEI and Rand Water Services, is responsible for achieving operational improvements and does not have the responsibility to manage the investments.

### **3. THEORETICAL BASIS FOR THE RESEARCH**

To establish the theoretical foundation for this research a comprehensive literature review was conducted. The described concepts in chapter 1 functioned as a starting point for this review. These concepts will be further explored and presented in the following sections. Furthermore other relevant concepts were selected and will be reviewed. These concepts were expected to be important for the preparation of the fieldwork as well as for analysis.

#### **3.1. Capacity building**

Capacity building and capacity development are both used to describe an improvement process (Matachi, 2006; UNDP, 2008). Matachi (2006) and UNDP (2008) argue that capacity development is broader than capacity building. They explain that capacity development refers to existence of available capacity and more extensive use of this capacity. As mentioned in chapter 1 the concept 'capacity building' is widely used by donors in the context of projects in developing countries. Therefore this term will be used further on in this thesis. In this section this concept will be further unraveled to establish an academic basis and to get a better understanding of how this concept can be interpreted in a similar context of interventions, like the project in Ghana. This means that interventions are expected to be initiated by an external party, as described in the definition of the World Bank (2010) as 'outsiders'. However internal parties (insiders) play or can play an important role in the development and diffusion of intervention activities, facilitated by the outsider. The expected role and approach of the outsider has been and still is an actual subject for discussion.

Brown (2008) describes a widely accepted shift in approach of capacity building from a traditional linear process towards an adaptive and participatory one. From this perspective also Leeuwis (2004) suggests a facilitating role of staff providing intervention services. He describes accompanying required tasks for the outsider. He proposes, for example, a task in monitoring of the learning and negotiation process. Connecting different stakeholders is another proposed task. Besides these facilitating roles he still sees a more traditional one, of an expert or scientist. However this role is conducted by a more participatory approach. He describes, for example, a joint action to find facts that are causing problems and the provision of feedback from achieved results. Based on this feedback new problems can be defined for research.

Earlier Kaplan (2000) already argued the need for such a fundamental change in approach of capacity building. He presents two paradigm shifts based on six organizational elements, such as the vision and strategy of the company or acquisition of skills. On one hand he assumes that companies, which lack capacity, blame the outside world and complain about insufficient skills and resources. On the other hand more developed companies take responsibility, reflect and show self-understanding. He firstly describes to reconsider a shift in approach by outsider or 'capacity builder'. This concerns a shift from a tendency to deliver (fixed) tangible results towards a facilitative process with focus on development of intangible aspects. With tangible results he means provision of resources and training. He describes intangible results as improvement of aspects. He describes examples such as extent to which a company acts according to vision and strategy, shows responsibility, or acts reflective. From this point of view he suggests that the outsider needs competencies to observe and listen. The capability to ask the right questions at the right time is another described competence.

Secondly Kaplan (2000) proposes to move from delivery of standard intervention formats and programs to an approach in which the organization is extensively analyzed.

This analysis concerns the developmental phase of an organization or departments and aspects like existing and required structure and hierarchy. Based on a specific situation and time responsive interventions are required. To be able to practice this (shift in) approach the capacity builder has to demonstrate competencies such as the ability to understand organizational development. Other aspects are creation of an atmosphere of trust as well as the capacity to observe with empathy without judgment. One of the causes of the described tendency of expected tangible results and standard formats is the fact, that donors are looking for tools and mechanisms to assess the involved outsider (Brinkerhoff & Morgan, 2010). This is also of relevance for the project in Ghana.

Land, et al. (2009) also describe the need for more emergent processes for capacity development. This need is argued based on conclusions of recent executed research on capacity development, including research executed by the European Centre for Development Policy Management (ECDPM). Nevertheless they see opportunities for planned interventions. For a successful implementation of planned interventions goals need to be clear for all involved parties. They describe twelve implications for practice, such as required focus on ownership, engagement of local stakeholders and a process of experimentation and learning. Another requirement is a comprehensive analysis of the nature of the change. They conclude that it is crucial to invest more in understanding of the context in terms of political, social and cultural norms. Building up a relationship is also mentioned by them as a tremendously important implication to achieve positive results on learning.

Kaplan (2000) and Land, et al. (2009) mainly focus on an organizational level. The definition used for this research of the World Bank as well other authors and organizations distinguish different levels of capacity building (Brown, 2008; Brinkerhoff & Morgan, 2010; Hannah & Lester, 2008; Matachi, 2006; OECD, 2006; and UNDP, 2008). These authors and organizations distinguish three levels, namely; an individual, organizational and environmental level. With organizational level they refer to the functioning of the organization itself (intra-organizational) as well as partnerships or networks between organizations (inter-organizational). The environmental or institutional level is described as the level of policies, strategies and legislation. This level is focusing on creation of conditions for developments on organizational level. In the project in Ghana the assignment of AVRIL is restricted to an individual and organizational level of intervention activities. However the environmental level is influencing the activities and capacity building process, as described in chapter 2.

Looking at intervention activities on an individual level all reviewed literature on this concept refers to improvement of skills and knowledge by training or recruitment. On an organizational level the literature refers to improvement of organizational structures, procedures, leadership and/or management. On both levels intervention activities focus on learning. Learning is achieved by access and transfer (or exchange) of knowledge and experiences (Brown, 2008; Hannah & Lester, 2008). From this perspective the concepts 'Knowledge' and 'Learning' are closely related (McFarlane, 2010) or even interweaved.

### **3.2. Knowledge and Learning**

Like capacity building, the concept 'Knowledge' was already briefly unraveled and discussed in Chapter 1. This section contains a more comprehensive discussion of this concept related to learning.

McFarlane (2010) describes three dimensions of knowledge, as he calls them starting points for the transformation of information into knowledge (see Chapter 1). He

describes these dimensions in relation to development of individuals and organizations. Hereby he tries to conceptualize knowledge and learning from a post-rationalist perspective. McFarlane (2010) argues that 'rationalism' and 'post-rationalism' is not a matter of being wrong or right. He points out that it is too simple to see knowledge as an objective and universal solution for development, separated from context and politics. The above described adaptive and participatory process of Kaplan (2000) can be related to a post-rationalist perspective. The by McFarlane (2010) described starting point of interaction, expressing that knowledge is socially produced can be linked with adaptation and participation. This also counts for the starting point that knowledge is situated. By situated he means that knowledge is context specific. For the tacit and explicit forms of knowledge, the third starting point, the linkage with adaptation and participation is less clear. However active use of available and mostly local tacit knowledge is in line with the described shift towards a more facilitating approach for interventions as described and promoted by the above mentioned authors Brown (2008), Kaplan (2000) and Leeuwis (2004).

Peroune (2007) and Narteh (2008) also describe that knowledge has a tacit and explicit form. Narteh assumes that, in the context of collaborations like the project in Ghana, the tacit form can be related to managerial knowledge. The explicit form can be related to technical knowledge. Peroune (2007) describes that tacit knowledge is captured in people's heads. From this perspective it can be seen as individual knowledge. On the other hand McFarlane (2010) also relates tacit knowledge with the organizational level as being deeply rooted in working routines of business processes. From this perspective tacit knowledge can be connected with organizational culture in terms of values and beliefs. Explicit knowledge seems easier to share or transfer, because it is made explicit in documents such as manuals, procedures and designs. Therefore explicit knowledge also seems easier to learn from.

Besides starting points of knowledge, McFarlane (2010) describes the importance of practice for knowledge production and learning. An interesting point of view is that 'Practice connects 'knowledge' with 'doing', pointing to the work, or fabrication, involved in knowing' (Gherardi, 2000 cited in McFarlane, 2010, p. 296). In this context learning can be seen as 'work-based and problem based learning' (Jarvis et al., 2003). Hereby is the focus both knowledge and skills. In this discussion and related to innovation the researcher also wants to refer to Kolb's model of experiential learning. This model contains a cycle of four stages, namely; experiencing (and/or observing), reflecting, (re)conceptualizing, and undertaking action (Leeuwis, 2004, p. 149). This model assumes that involved staff gets opportunities to use their own experiences and observations to produce new knowledge and to learn.

The impact of new knowledge and what has been learned on capacity building will depend on the diffusion process. Comparable with the levels of capacity building, learning starts on an individual level and diffuses in groups, subsequently towards an organizational and inter-organizational level according to Van Winkelen (2010). This process occurs through networks. The term 'learning network' is used by Beesly (2004), Škerlavaj, et al. (2010) and Van Winkelen (2010). Other authors, like Hannah and Lester (2008), speak about 'social networks' in the same context.

### **3.3. Capacity building and organizational learning**

In this section the relationship between capacity building and organizational learning will be further explored. This exploration has to lead to a theoretical foundation to be able to discuss transfer of knowledge in the process of capacity building and intra- and inter-organizational learning.

Van Winkelen (2010), in her literature review, uses the theory of Beesley (2004) to explain the levels of learning and interaction between these different levels. According to this theory the transfer of knowledge between levels occurs in a hierarchic way. This implies that learning at one level is not possible before it has occurred at the previous one. In the context of the project in Ghana we speak about an inter-organizational relationship or collaboration. Based on above mentioned theory, this should mean that the learning process starts at an individual level and arrives at the inter-organizational level via groups and intra-organizational learning.

Like Van Winkelen (2010), Hannah and Lester (2008) describe a multilevel model or approach for building up a learning organization. In their model the process starts and ends with individual learning. They also distinguish the four aforementioned levels. In discussing the factors influencing and facilitating the learning process, they mainly refer to leadership and the role of leaders to build up learning networks. According to their model key persons or individuals play a crucial role for diffusion and adaptation of knowledge for change and innovation. The weak point of their model is that they only refer briefly to other influential factors, like cultural setting. Other factors can be of importance for the functioning of learning networks and the learning process.

Škerlavaj, et al. (2010) also find that hierarchy (or leaders) as well as seniority are the most important conditional factors for willingness to learn within learning networks in an organization. They studied learning networks within learning intensive environments. The project in Ghana can be interpreted as a learning intensive environment, since this project is all about development and change. Furthermore Škerlavaj, et al. (2010) mention facilitation by management as an important factor to create opportunities for knowledge transfer and learning. In organizational learning an important factor and facilitating role for knowledge transfer is addressed to insiders. Literature on capacity building often refers to knowledge transfer and facilitation by outsiders, like the project in Ghana and described earlier in this review. However involved stakeholders on an inter-organizational level can also be seen as outsiders for each other.

Another interesting point of view to look at organizational learning and knowledge transfer is given by Rhodes et al. (2008). They executed a study on the relationship between key variables of organizational learning and their effectiveness on knowledge transfer in relation to financial performance and process innovations. Data was collected by a survey of in total 650 companies and the used framework contains eleven factors. They conclude that learning intention and absorption capacity create the biggest impact on process innovations as well as financial performance in knowledge transfer. With adsorption capacity they refer to the level of competencies of staff. Also the capacity to integrate new knowledge is an important factor. This integration can be related to diffusion of knowledge. Rhodes et al. (2008) downplay the role of social (capital) networks.

Looking at the diffusion process of knowledge Hannah and Lester (2008) describe the following stages, namely; motivation to change followed by the phases in which groups use gained information to learn and compare old and new knowledge. These groups can consist of employees working in the same department or from different departments. Finally they describe a stabilization phase, in which learning becomes institutionalized in the organizational processes and culture. Also Van Winkelen (2010) describes motivation as a starting point for diffusion. Motivation can be related to the above mentioned 'learning intention' (Rhodes et al., 2008), and seems to play an important role in (organizational) learning as well as knowledge transfer.

### 3.4. Influential factors for knowledge transfer in collaborations

In the previous sections the transfer of knowledge was already mentioned a couple of times in relation to (organizational) learning and social networks. In this section influential factors will be discussed related to knowledge transfer between individuals as well as in collaborations between organizations. The discussion will focus on collaborations in the same context as the project in Ghana. This means collaboration between an organization in a 'developing' and 'developed' country.

In most reviewed literature trust is mentioned as being of influence on transfer of knowledge. Moreover trust is adapted in designed frameworks of all these authors (Easterby-Smith et al., 2008; Freeman et al., 2010; Khamseh & Jolly, 2008; Narteh, 2008; Peroune, 2007; Rhodes et al., 2008; and Van Winkelen, 2010). To achieve this trust most authors describe the importance of building up relationships. They mostly refer to the need of long-term relationships. Furthermore these authors describe about the influence of absorptive capacity as well as the nature of knowledge. Absorptive capacity was mentioned earlier, while presenting the results of the study of Rhodes et al. (2008). Discussing the nature of knowledge authors refer to the tacit and explicit form or complexity of it. The following presented framework of Narteh (2008) in Figure 2 can be seen as the most comprehensive framework of reviewed literature. This framework was developed in the same context as the project in Ghana. In developing this framework he used several Danish-Ghanaian collaborations.

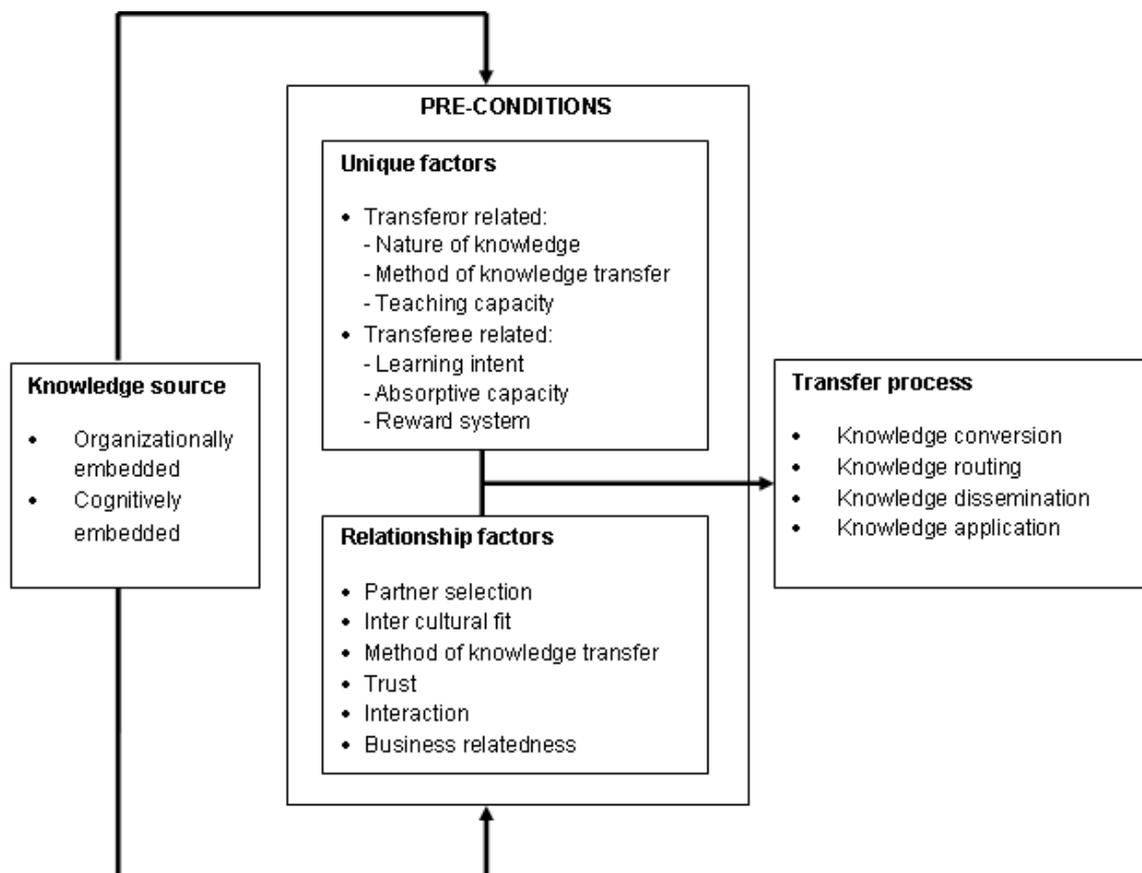


Figure 2 Knowledge transfer model  
(Source: Narteh, 2008, p. 80)

Starting points of this model are, as Narteh (2008) calls them, two sources of knowledge. Firstly, he describes organizational knowledge, such as manuals, standard procedures and organizational structures. With the second source, he refers to tacit knowledge of involved individuals. The model assumes a rather persuasive way of knowledge transfer, in which the transfer takes place from the developed company towards the company to be developed. This doesn't mean that the transferred knowledge only comes from the developed partner. Narteh (2008) argues that these companies have difficulties to find staff, willing to work abroad. About this issue Narteh (2008, p.80) states that 'foreign partners are likely to blend different sources of knowledge to be transferred to their alliance partners'.

For the knowledge transfer process he distinguishes two different kinds of influential pre-conditions, namely; unique factors and factors related to the partnership. As shown in figure 3.1 the above mentioned trust is categorized under the relationship factors. The nature of knowledge is one of the unique factors. Concerning trust he mentions that long-term relationships contribute to a more effective knowledge transfer by building up this trust. Furthermore 'cultural fit' is adapted as an influential factor in this model. Cultural differences are expected to play an important role in collaborations between companies of different countries. Therefore the researcher likes to refer to the following statement of Narteh (2008, p. 84):

*'Differences in value systems between the transferors and the transferees as well as language proficiency will impact negatively on the knowledge transfer.'*

With reference to partner selection it can be noted that the selection of the 'partner or capacity builder' in the project in Ghana was a result of a procurement procedure of the World Bank. It can be questioned to what extent the Ghanaian partner could influence the decision-making process in the partner selection. On the other hand the business relatedness of partners in Ghana is very high, since both partners are urban water supply utilities.

Narteh (2000) distinguishes four interrelated activities for the knowledge transfer process. Firstly he describes the process of conversion of knowledge from the tacit to explicit form and the other way around. Secondly he speaks about knowledge routing. By routing he means the way in which knowledge is transferred in terms of channels, such as personal transfer or strategic linkages. The third described activity is knowledge dissemination, also mentioned diffusion of knowledge. Finally the application of new knowledge by the individual recipient (or transferee) is described in the model.

After a clarification of the model the researcher likes to briefly discuss the intentions for inter-organizational collaboration. As mentioned in chapter 1, Narteh (2008) describes that knowledge transfer and learning in these kinds of collaborations occurs with different intentions. He refers to Tsang (2002), who argues that on one hand the 'developing country' partner is aiming at learning skills and gaining knowledge about technologies and management systems. On the other hand the 'developed country' partner (only) learns about the transfer of knowledge and technologies in a new environment. This can be seen as a rather rational or persuasive perspective, as described discussing the concept capacity building.

Van Winkelen (2010) distinguishes different kinds of collaborations, as she describes as collaborations in a range from a loose relationship base to a formal contractual arrangement. These different forms of collaboration will bring about different objectives.

She gives examples such as trying to achieve more efficiency and effectiveness or to develop new expertise. As presented in chapter 1, the collaboration in the research project in Ghana is based on a formal contractual arrangement, a management contract. Van Winkelen (2010) executed an extensive literature review and research on inter-organizational collaborations, between organizations from ‘developed countries’ en ‘developing countries’. These collaborations were based on an alliance with a learning motive. She concludes that little achievements can be reported on subject specific organizational capability building. This means that individual capability building is translated on an organizational level.

### 3.5. Knowledge transfer in collaborations with cultural differences

As describe above cultural differences are influencing knowledge production and learning as well as the knowledge transfer process. This section will discuss this topic in relation to the involved contractual stakeholders in the case in Ghana.

The following Figure 3 forms the starting point for the discussion about the influence of cultural differences on knowledge transfer. This Figure 3 presents a cultural comparison between involved contractual partners in Ghana, based on five dimensions. These dimensions were defined by Hofstede (2009). Hofstede (2009) uses these five dimensions in his ongoing research concerning cultural differences. His research started within a big multinational company, IBM, but is executed in a wider context at present.

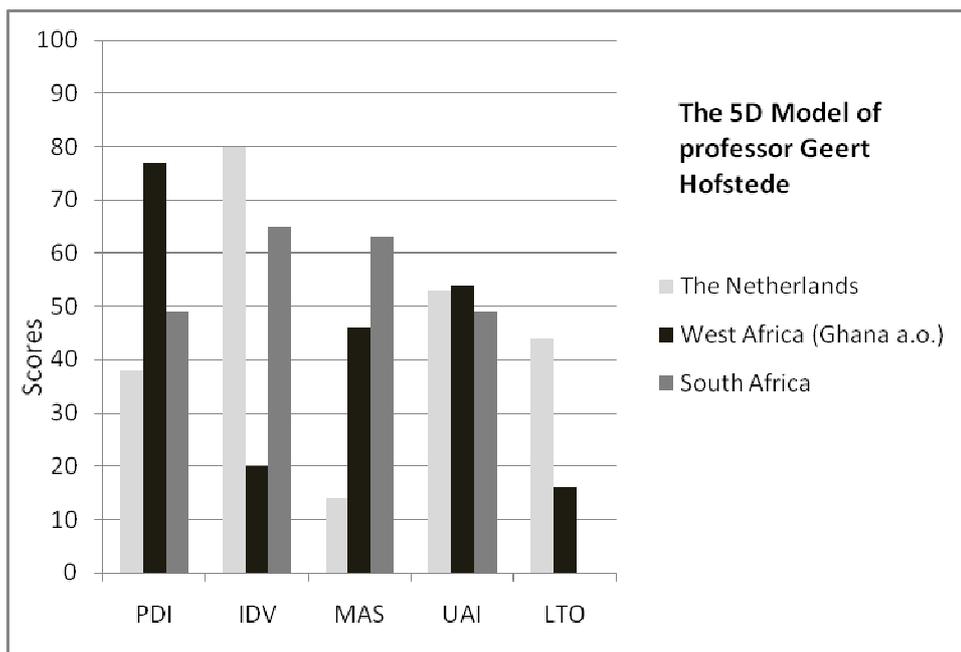


Figure 3 Cultural values of contractual partners (Ghana a.o.)  
(Source: Hofstede, 2009)

The vertical axis of Figure 3 shows the score and the horizontal axis contains the dimensions, namely; power distance (PDI), individualism (IDV), masculinity (MAS), uncertainty avoidance index (UAI) and long-term orientation (LTO). If a country has a higher PDI, it is more likely that there is a stronger hierarchy, meaning that people expect power to be distributed unequally. A high score on IDV means that individuals have to look after themselves. The opposite means a high degree in collectivism. The score on masculinity (MAS) versus its opposite, femininity refers to the gender roles division. The men in feminine countries have the same modest, caring values as the

women. In masculine countries women are somewhat assertive and competitive, but not as much as the men. These masculine countries show a bigger gap between men's and women's values. The UAI refers to which extent the members, living or functioning in this culture (community or organization), feel the need for structure in terms of preventing or avoiding surprises or unknown situations. Especially innovation and change often implies uncertainty and therefore relevant in the context of this research. A high score on this dimension means a need for structure. Finally, a high score on LTO refers to the tendency of thrift and perseverance. People with a short-term orientation are expected to value tradition and social obligations. Figure 3 shows that only on the UAI dimension the contractual partners score comparably. The other dimensions show significantly different scores.

Javidan et al. (2005) also present a model using the same dimensions as well as three others. Additional dimensions are; assertiveness, humane orientation and performance orientation. Their model includes a distinction between the score of the actual culture and preferred culture of each dimension. The presented figures are based on a study of the 'Global Leadership and Organizational Behavior Effectiveness (GLOBE)' project. In this project 62 societies are involved and more than 160 social scientists. Ghana is not mentioned in this research. Nevertheless it is relevant to note that the difference between the actual and preferable score on uncertainty avoidance is appointed in the opposite direction, comparing Germanic Europe (including Netherlands) with Sub-Saharan Africa. The preferable index for Sub-Saharan Africa points in the direction of the actual score of Germanic Europe.

Javidan et al. (2005) come up with recommendations for executives to better manage with cultural differences. One of their main recommendations is to put more efforts in exploring each other's cultures. To create a source of synergy and a stimulating working atmosphere in the collaboration parties should define common goals concerning learning transfer and success criteria. A stimulating atmosphere refers to the earlier mentioned learning intention, one of the factors in the model of Narteh (2008), and motivation to change, described in the context of the different phases in knowledge diffusion.

Gupta and Govindarajan (2000), in their model, speak about motivation to acquire knowledge as an influential force for knowledge transfer related to cultures (as discussed in Chapter 1). In this way taking more time to explore cultural difference can remove the described barrier for adoption of knowledge and practice. They also point out that knowledge can be differently related to power in cultures. They refer to the willingness to share and diffuse this knowledge. Their third described influential force of quality of communication can be linked with the unique factors teaching capacity and methodology of the model of Narteh (2008). Finally Gupta and Govindarajan (2000) also mention adsorptive capacity in the cultural context. This force is adapted in the model of Narteh and described in all reviewed articles for this research on this topic (Easterby-Smith et al., 2008; Freeman et al., 2010; Javidan et al., 2005; Khamseh & Jolly, 2008; Narteh, 2008; Peroune, 2007; Rhodes et al., 2008; and Van Winkelen, 2010).

## **4. STRATEGIES AND METHODOLOGIES**

This chapter will justify the chosen strategies, methodologies and activities for the research, sampling of data, data collection and analysis. The initially planned strategies and methods were adjusted by the researcher during the execution of the field work in Ghana. Adjustments were made based on observations, experiences and several consultations of staff of AVRL, both expatriates and Ghanaian staff.

### **4.1. Basic research strategy**

The research questions in chapter 1 show that the research focuses on opinions of staff of involved stakeholders about the intervention process in the urban water utility AVRL in Ghana. This concerns their perception on the knowledge transfer process in the development initiatives. The analysis of their perception or opinions could be achieved based on data collection by a survey among staff or by means of a case study. The analysis had to lead to a better insight in the perception of individuals. While unraveling the concept 'perception' it became clear that this concept is largely synonymous for the concepts 'meaning' and 'interpretation'. To be able to conduct a 'meaningful' analysis the researcher used the methodology of a case study. This strategy (or method) is more appropriate for qualitative data collection and in depth analysis in comparison with a survey (Verschuren & Doorewaard, 2005).

The research was conducted at the level of head quarter of AVRL in Accra, to delimit the research in accordance with the available period of time for research. Since the case study was only conducted on the head quarter of AVRL, we can speak of a single case study. Therefore the emphasis has to lie on triangulation of sources, especially concerning the context of the project (Verschuren & Dooreward, 2005). Triangulation was secured by using project documents and by interviewing different involved stakeholders within the contractual arrangement.

For triangulation of sources in this case study the following categories of stakeholders were distinguished for the interviews:

- The grantor, represented by staff of GWCL;
- The external party of the operator AVRL, represented by expatriates of VEI and Rand Water Services and short-term supporting staff of VEI;
- The local party of the operator AVRL, represented by detached staff of GWCL.

After arrival in Ghana it turned out to be possible and preferable to include the trade union, represented by the secretary for public utilities and state housing and a representative of the World Bank. The trade union plays an important role concerning the interests of Ghanaian staff and the World Bank is co-financing the project, as mentioned above. On one hand triangulation of sources would be better secured by including these two stakeholders. On the other hand interviewing only one person will not provide representative data about the specific opinion of the stakeholder.

### **4.2. Conceptual framework**

A conceptual framework was developed to facilitate data collection and data analysis. This specifically concerned collection and analysis of data related to the first research question, as described in section 1.3. This question focuses on the expected role of knowledge transfer to build up capacity in the collaboration of the urban water supply utility in Ghana. The knowledge transfer process forms the central topic of this research and question. Therefore the framework of Narteh (2008) functioned as the basis for the

conceptual framework for this research. The following Figure 4 shows the developed framework for this research.

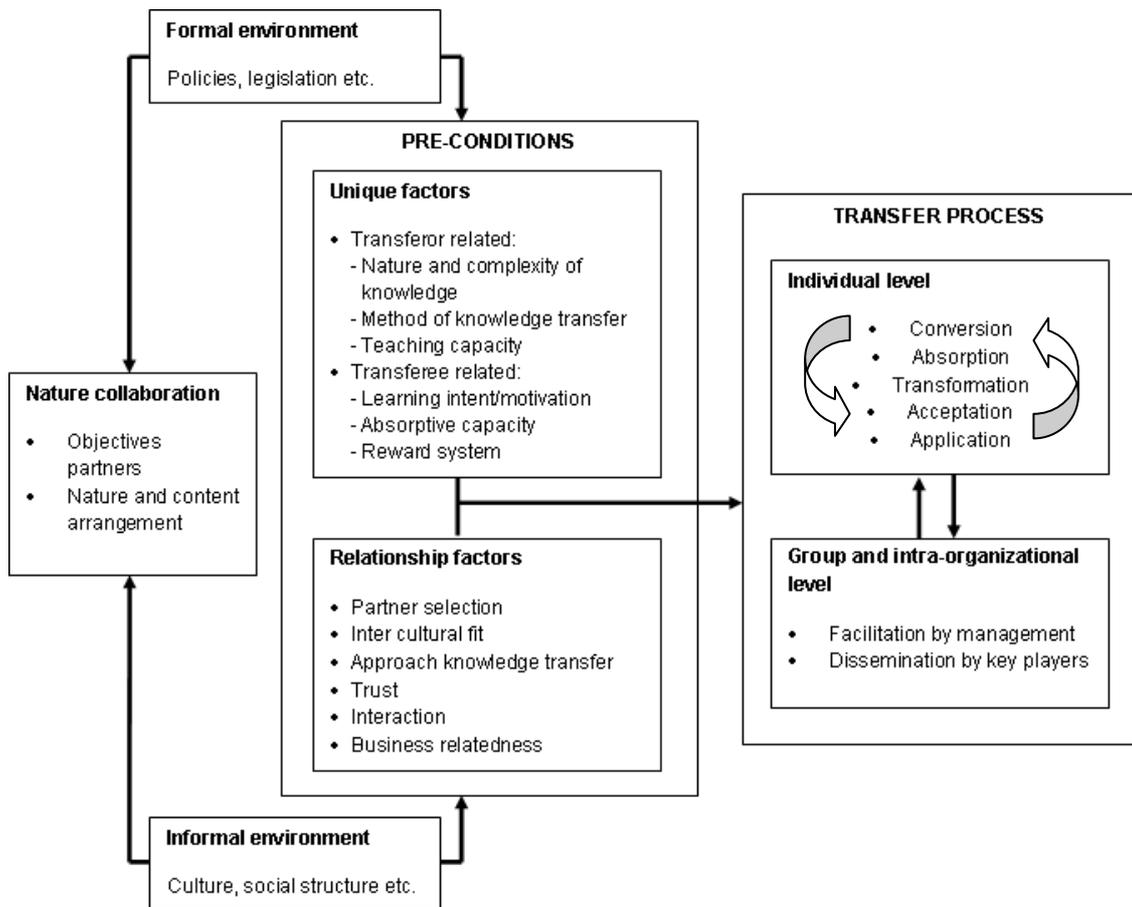


Figure 4 Knowledge transfer model after Narteh (2008)

The starting point of the framework, shown in Figure 4, is the intention of partners for the collaboration. Both Narteh (2008) and Van Winkelen (2010) described that collaborations have different kinds of intentions. This intention is indicated as the nature of collaboration. This start points out that the nature embodies the context of the collaboration. The objectives of partners and (contractual) arrangement give direction and create expectations about the knowledge transfer process. Moreover the nature and content of an arrangement influence the pre-conditions. Most contractual arrangements, for example, contain a description of services to be provided, which refer to the kind of knowledge that has to be transferred or exchanged. Furthermore the model shows that the nature of collaboration as well as the knowledge transfer process is influenced by its environment. This aspect was described earlier, while discussing the concepts 'capacity building' and 'organizational learning'. The model distinguishes the formal environment of policies, legislation and institutional frame work on one hand and the more informal environment, such as culture and social structures, on the other hand.

Main part of the pre-conditions of Narteh (2008) remains unchanged in this model. The complexity of knowledge has been added as unique factor based on discussed literature of Rhodes et al. (2008). The researcher prefers to use the terminology 'approach of knowledge transfer' as a relationship factor instead of 'method of knowledge transfer'. This terminology better expresses the relational context. The method of knowledge transfer remains a unique factor.

The knowledge transfer process has been adjusted based on the reviewed literature about organizational learning (section 3.3). The model distinguishes the individual level from a group and organizational level, especially of importance concerning the diffusion process (Hannah & Lester, 2008; Škerlavaj, et al., 2010; and Van Winkelen, 2010). The individual level contains a cycle, expressing the existence of a continued process of knowledge transfer and learning. As argued in section 3.2 learning is a continuing process, especially 'worked-based learning' (Jarvis et al., 2003; Leeuwis, 2004; and McFarlane, 2010). The conversion of knowledge (from tacit to explicit and the other way around) remains the first phase in this process. With transformation the researcher wants to point out that the transferee will adjust the absorbed knowledge to make it applicable to the specific local context. This process formed a topic for discussion in section 3.2, with reference to McFarlane (2010). Subsequently the transferee will conclude which gained knowledge is acceptable to be used or not and will only apply accepted knowledge. These aspects are respectively indicated as acceptance and application. Managers play an important role in facilitating the diffusion of the knowledge transfer process. These managers themselves as well key players will disseminate knowledge to another level (Hannah & Lester, 2008; Škerlavaj, et al., 2010). The arrows in the model point out to an interactive process between the individual and group or organizational level (Van Winkelen, 2010).

#### **4.3. Strategy and methods for data collection**

Based on the formulated research questions and the importance of triangulation of data a strategy was developed for data collection. Therefore the following different methods were used, namely:

- Recognition mission;
- Observations;
- Combination of review of project document and expert consultation;
- Semi structured interviews;
- Group interview.

Firstly, the recognition mission can be seen as a component of the preparation of the data collection or fieldwork. The primary objectives for this mission were to get acquainted with the local circumstances, to test questions for semi-structured interviews and to select interviewees. The thesis will not separately report on results related to the first two mentioned objectives. The selection of interviewees will be discussed in the following section 4.4. Furthermore the recognition mission enabled the researcher to observe and to consult the manager of the human resource department (Opoku, 2010) and expert for this research. The mission consisted of a visit of four day to two regional offices, in the cities in Kumasi and Sunyani (see Figure 1), together with the manager of this last mentioned department.

Secondly, the method of data collection by observations was used to gain information about cultural values. These observations were done with the help of the described cultural dimensions of Hofstede (2009) in section 3.5. The Observations focused on non verbal communication. Results of these observations will be mainly used for analysis of influential factors of the knowledge transfer process (research question 1.c.) and cultural differences (research question 1.d.).

Thirdly, project documents and other reports of the company AVRIL were reviewed in parallel with consultations of experts of the company. The combination of these two methods enabled the researcher to collect data to find answers specifically on the

research questions 1.a., 1.b. and 2.a. (section 1.3). Furthermore these methods were used for triangulation of sources, as described in section 4.1.

Fourthly, semi-structured interviews were conducted to collect data related to the perception of staff of involved stakeholders of the management contract. This concerned perspectives of this staff about the knowledge transfer process in the development initiatives with intervention of AVRIL (research question 2.). This method also assisted in data collection related to question 1.a. Furthermore collected data of the semi-structured interviews was used to test the developed framework for this research, presented in Figure 4.

The method of a semi-structured interview was used to enable the researcher to compile data. A set of eight standard questions, was used to facilitate a flexible approach for interviews. These questions were used to start a discussion of a new topic with the interviewee each time. Furthermore the checklist contained a table, based on the conceptual framework. The table was used to structure the interpretation of the interview and to analyze collected data. Annex A shows the used format of this checklist. As mentioned above this format was finalized during the recognition visit.

Finally one group interview was conducted during a visit to the water meter repair work shop of the company AVRIL in Accra. The employees of this workshop were asked to talk about their experiences with 'on the job' training in the research project.

#### **4.4. Strategies and selection of interviewees**

Based on the used strategy of a case study the researcher expected to select twenty-five persons for semi-structured interviews beforehand. Furthermore the planned period of time for the field work of four weeks was of influence in this choice. Finally twenty-six persons were asked to participate and interviewed. Three out of these twenty-six persons were interviewed in the Netherlands, because they were not available in Ghana, during the fieldwork.

The main criterion for selection was that staff was or still is directly involved in intervention activities, meaning closely working together. Besides this criterion for selection, the researcher was aware of the fact that the research topic is rather theoretical. The topic has a high abstraction level for an interview. Therefore this aspect needed attention for selection of interviewees and formulation of questions to be used in the interview. Finally this aspect didn't need much attention for selection of interviewees. This was not needed since foreign staff mostly has and still is working together with higher qualified Ghanaian staff.

As mentioned above the selection of interviewees is based on consultation of the manager of the human resource department (Opoku, 2010). Preceding each interview the researcher introduced himself and clarified the purpose of the research. The introduction contained a clarification that results of analysis would be reported as much as possible on an anonymous basis. An example was given that the use of quotations would be avoided. The consulted experts were specifically asked for approval to mention their names. They all agreed on this proposal.

The following Table 1 shows an overview of the different categories of interviewees. This Table 1 shows that the group of interviewees consisted of management as well as employees, men as well as women. This sampling has been taken to get a representative compilation of interviewees. The distribution among involved

stakeholders in the contractual arrangement had to secure triangulation of data. Unfortunately only one South African employee of AVRL was available to be interviewed in Ghana.

Table 1 Characterization of interviewees

<b>Description</b>	<b>Number</b>
Total	26
<b>Position in company</b>	
Manager	17
Employee	9
<b>Gender</b>	
Female	6
Male	20
<b>Stakeholders</b>	
Ghanaian staff operator AVRL	13
Foreign staff operator AVRL	7
Staff GWCL	4
Staff Trade Union	1
Staff World Bank	1

Initially the researcher planned to conduct the interviews in an informal setting, such as during lunch or dinner, to create conditions for an open and relaxed atmosphere. However after testing and consulting Dutch and Ghanaian colleagues, during the first days in Ghana, this planned strategy didn't seem to be required and preferable. An informal setting was not required to get an open response by interviewees. Moreover such a setting could make interviewees feel uncomfortable. Therefore interviews were conducted in the offices of interviewees. Another aspect, that had the attention, is the fact that the researcher has the Dutch nationality and will be identified with VEI. This aspect will have been of influence on the objectivity of outcomes of interviews. The readers of this thesis have to take this aspect into account, while studying the results and analysis.

#### **4.5. Analysis of collected data**

The analysis of collected data will be presented in three chapters. Firstly, the following Chapter 5 will consist of an analysis concerning the possible interpretation of the concept 'capacity building' in the collaboration of the urban water supply utility in Ghana. Furthermore this analysis will deal with influential factors on the capacity building process. Both aspects form part of the required analysis to get an answer on research question 1, presented in section 1.3. Collected data about the nature and content of the contract and perspectives of staff on capacity building will assist in this analysis. A special table was developed and used for compilation of above mentioned perspectives.

Secondly, Chapter 6 consists of an analysis of collected data about influential factors of the knowledge transfer process in the above mentioned collaboration. Cultural differences will get special attention in this analysis. This analysis can be related to research questions 1.c and 1.d, presented in section 1.3. This analysis was conducted

based on the developed conceptual framework, as presented in Figure 4. The perception of interviewees is used for data collection as well as observations by the researcher. Using a spreadsheet was especially helpful for compilation of raw data and triangulation of perceived basic ideas of the researcher about results of collected data.

Finally in chapter 7 an analysis of the perception of involved staff of stakeholders of the management contract will be presented. This concerns their perspectives on the knowledge transfer process in the development initiatives with intervention of external staff of AVRIL. This analysis can be related to research questions 2 (including all sub-questions), presented in section 1.3. The analysis will be presented based on interpretation of collected data from the semi-structured interviews and the combination of a review of project document and expert consultations. Furthermore observations of the researcher and the results of a group interview will be presented. The interpreted data was of the semi-structured interviews were compiled in a spreadsheet and reflected by making use of the developed knowledge transfer model. Using a spreadsheet was especially helpful for compilation of raw data and triangulation of perceived basic ideas of the researcher about results of collected data.

#### 4.6. Constraints

Unfortunately one planned interview in Ghana with a short-term expert of VEI could not be conducted and had to be conducted in the Netherlands. This person left Ghana a week earlier than planned.

#### 4.7. Overview of activities

The following Figure 5 presents an overview, a flow chart, of the main activities of the above described strategies and methods.

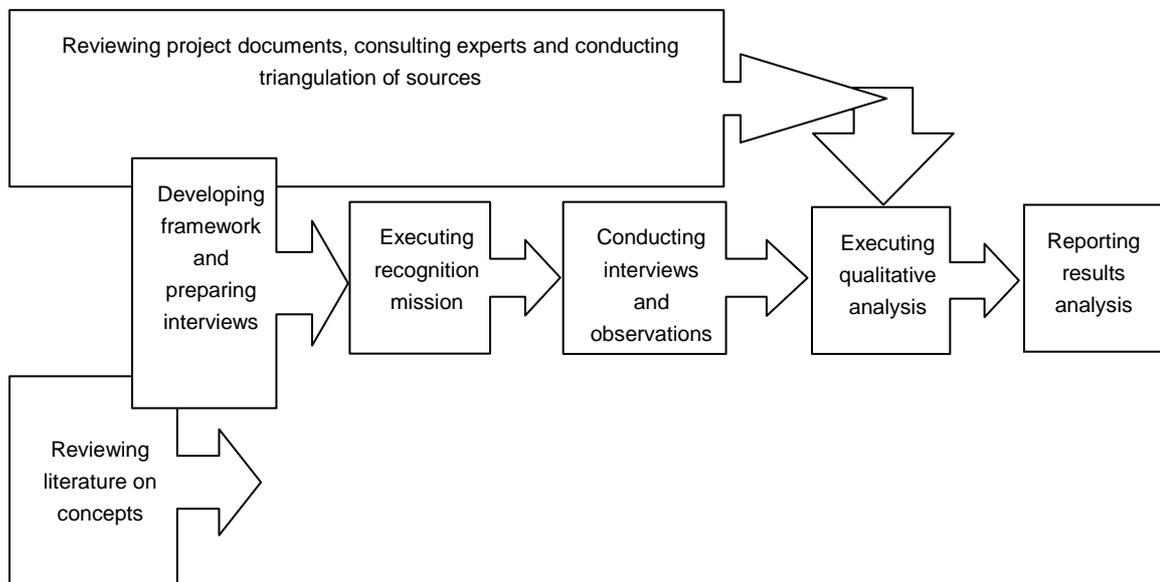


Figure 5 Flow chart research activities

## **5. INTERPRETATION OF CAPACITY BUILDING**

The concept 'capacity building' was discussed comprehensively in sections 1.3 and 3.1. These discussions focussed on the definition and interpretation of this concept in comparable collaborations as the research project in Ghana. This chapter will focus on how this concept can be interpreted in the collaboration of the urban water supply utility in Ghana, as described in section 4.5. Furthermore influential factors on the capacity building process will be discussed. The basis for this discussion, are the findings from the fieldwork in Ghana.

Firstly, project documents were reviewed and staff of AVRIL was consulted to study the nature and content of the contract and influential factors of the capacity building process. The results will be presented respectively in section 5.1 and 5.2. Secondly, interviewees were asked to describe or define the concept 'capacity building', in the semi-structured interviews (section 4.3). The findings will be presented in section 5.3. In section 5.4 an analysis will be presented in the form of a discussion concerning the interpretation of capacity building. This discussion can be related to research question 1.a. Finally in section 5.5 influential factors will be discussed. Therefore findings from the fieldwork in Ghana will be analysed based on reviewed literature about capacity building and organizational learning (section 3.3). This discussion can be related to research question 1.b.

### **5.1. Findings on the nature and content of contract**

As the document shows, the 'Management Contract for Ghana Urban Water' (2005) comprises the components; 'System Expansion and Rehabilitation', 'Public-Private Partnership Development', 'Capacity Building and Project Management' and 'Severance Program'. The first component consists of investments for improvement of the drinking water infrastructure. Examples of these investments are the construction of treatment plants and network extensions. The grantor GWCL is responsible for the implementation of this investment program, which is still ongoing. Besides this program the World Bank and Dutch government established a separate fund for replacement and repair of assets, to be managed by AVRIL. The manager of the financial department (Adioo, 2010) explained that most purchases to be financed by this fund need approval by GWCL. Moreover AVRIL needs approval by GWCL for all expenditures for goods above GHC 10.000,-- and works above GHC 50.000,-- (respectively approximate EURO 5.600,-- and 28.000,-- at present). This required approval also concerns expenditures for training and purchases for project management, for example cars, he pointed out finally (Adioo, 2010).

In accordance with the 'Management Contract for Ghana Urban Water' (2005) the two components 'Public-Private Partnership Development' and 'Capacity Building and Project Management' are directly related to the assignment of AVRIL. The first component actually consists of the management of the drinking water supply services. As mentioned earlier AVRIL is acting for and on behalf of GWCL as 'the operator'. AVRIL operates in the ten regions of Ghana. Each region is serving various districts. In total, the company runs 87 drinking water systems nationwide. The company was serving drinking water to more than 411.000 connections and 6.700 public stand pipes in 2009 (AVRIL, 2009). This means that at least approximate 3,8 million people had access to this service in 2009. This number is still increasing. The second component contains budget for capacity building of the organization and budget for costs related for the management of the contract, including facilities and equipment for foreign staff.

In accordance with the contract ('Management Contract for Ghana Urban Water', 2005) approximate 2.200 employees of GWCL should have been seconded to AVRL at the start of the project. The annual report of 2006 (AVRL, 2006) shows that in total 3.019 employees were actually seconded to AVRL in 2005. According to the annual report of 2009 (AVRL, 2009) more than 3.100 employees are working under responsibility of the management of AVRL at present. Nevertheless the manager of the Human Resource Department (Opoku, 2010) explained that a lot of decisions concerning these employees, such as requests for training or recruitment, require consultation or approval by the grantor (GCWL). The grantor is also involved in recruitment of resident staff of VEI and Rand Water Services, he said. As mentioned in Chapter 1, this staff has and still is holding several management positions, including the position of managing director. The managing director (Nijse, 2010) explained that in total 8 foreign resident employees were functioning in these management positions at the start of the project. He said that only the management positions of managing director and financial director are held by foreign staff at present. Furthermore one Dutch resident employee of VEI is managing small investment interventions to improve the access to water supply services by the poor population. The managing director (Nijse, 2010) explained that these investments are financed by the fund 'Water for life'. The managing director (Nijse, 2010) pointed out that resident staff was and still is supported by several experts, providing short-term visits with a length of three weeks up to several months. Furthermore he explained that both short-term experts and expatriates provide 'on the job' or 'peer to peer' training. They are involved in improvement or development of working procedures and manuals as well. The project strategy was and still is to reduce the number of resident staff as well as short-term support. This strategy is aiming at handing over management responsibilities to Ghanaian staff during the contractual period, he explained finally (Nijse, 2010).

In accordance with the 'Management Contract for Ghana Urban Water' (2005) the component 'Public-Private Partnership Development' comprises a comprehensive description of services to be provided by AVRL, including payment of staff. Report requirements and performance indicators (performance standards) are part of this component. The performance indicators are used for assessment. The contract includes a schedule for a basis fee for provided services, penalty reduction and incentive compensation. The grantor and the management of AVRL set and agree on targets for operational improvements on a yearly basis. Assessment of the performance is used for penalty reduction and/or incentive compensation. The assessment report shows to what extent targets are achieved or not. Services to be provided by AVRL are described on the basis of distinguished main activities for drinking water supply services. These main (operating) activities include; abstraction of water from dams and weirs, treatment of water to produce drinking water, transmission and distribution of drinking water, customer services, metering of water consumption, billing and revenue collection.

Both the managing director (Nijse, 2010) and manager of the human resource department (Opoku, 2010) explained that the component for 'Capacity Building and Project Management' only consisted and still is consisting of budget for expenditures for goods and services. They said that the budget for capacity building only was and still is allocated for training and field visits of staff abroad.

Finally the managing director (Nijse, 2010) explained that the 'Severance Program' component consisted of payments to fulfill legal obligations concerning staff of GWCL. Disadvantaged staff of GWCL, caused by the introduction of the contractual arrangement, was and still is compensated. He said that the grantor GWCL is responsible for the implementation of this component.

## **5.2. Findings on influential factors of capacity building**

The researcher discussed about some expected influential factors with the managing director (Nijssse, 2010). Working experiences of the researcher and presented findings concerning the nature and content of the contract (section 5.1) formed the basis for these discussions. This section presents the outcomes of these discussions.

Firstly, the researcher worked during five years in a similar project in Mozambique. From this working period the researcher experiences that availability of tools and equipment play a role in application of new knowledge and skills. The managing director (Nijssse, 2010) confirmed this interdependence. He gave the following example. The equipment of the workshop in Accra to calibrate water meters did not function at the start of the project. 'On the job' training for staff of this workshop didn't make sense before equipment was repaired, he pointed out.

Furthermore the researcher discussed the interdependence between the operational performance of the company and investments, with the managing director (Nijssse, 2010). Both in Ghana and Mozambique the improvement of the operational performance is the objective of the project and accompanying capacity building process. The researcher gave the following examples based on his experiences in Mozambique, namely; replacement of leaking pipe lines and investments in water treatment plants. Physical leakages in pipe lines are directly related to the operational performance indicator for produced but not sold water, called 'non revenue water'. The functioning of the water treatment plant is related to the supplied water quality, also an operational performance indicator in the contract. In some cases investments are not only needed for improvements of the operational performance but also required to be able to assess these improvements. The installation of bulk water meters, for example, is required to measure the water quantity. These measurements are required to calculate the above mentioned 'non revenue water'. Another example is the purchase of equipment to measure the water quality. The managing director (Nijssse, 2010) pointed out that these examples also play a role in the capacity building process in the project in Ghana.

## **5.3. Findings on perception of capacity building**

As described in the introduction of this chapter, interviewees were asked to describe the concept 'capacity building' during the semi-structured interviews. Moreover this question was the first question of the interview (Annex A). The following graph (Figure 6) shows the number of interviewees mentioning different dimensions of capacity building. These dimensions were defined by the researcher based on a compilation of collected data. The vertical axis presents these dimensions, while the horizontal axis shows the number of responses. A particular dimension was counted if mentioned in the description of interviewee. More than one dimension could be mentioned by one interviewee. Four interviewees did not give a response. These interviewees had difficulty to give a description of capacity building. Results are not differentiated according to the categories of interviewees, because no hypothesis about the expected differences among these categories could be formulated. Moreover the total sample size is judged too limited to be analyzed in more detail.

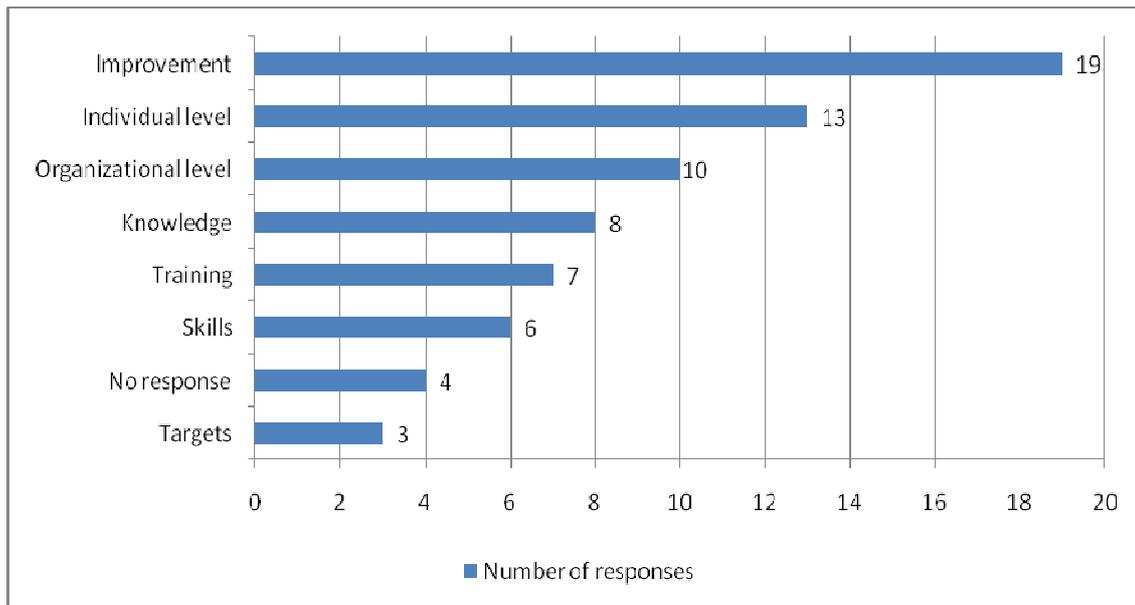


Figure 6 Overview dimensions capacity building

#### 5.4. Analyses on capacity building process

This analysis focuses on a discussion about the possible interpretation of the concept 'capacity building'. As starting point for this discussion the definition for capacity building given by the World Bank (n.d.) is presented below once more (section 1.3). This definition states:

*'Capacity building: a coordinated process of deliberate interventions by insiders and/or outsiders of a given society leading to (i) skill upgrading, both general and specific, (ii) procedural improvements, and (iii) organizational strengthening. Capacity building refers to investment in people, institutions, and practices that will, together, enable countries in the region to achieve their development objective. Capacity is effectively built when these activities are sustained and enhanced with decreasing levels of donor-aid dependence accompanied by increasing levels of societal goal achievement.'*

The discussion in section 3.1 started to point out that capacity building is used to describe an improvement process (Matachi, 2006; UNDP, 2008). The findings of the fieldwork confirm this perspective of an improvement process. Firstly, findings on the management contract show that intervention activities are targeted at improvement of the urban water supply services (section 5.1). The described component 'Public-Private Partnership Development' is focusing on an improved performance on an organizational level. The 'Capacity Building and Project Management' focuses more on an individual level. Secondly, nineteen out of twenty-two responses of interviewees contain the term 'improvement' (in Figure 6, section 5.2). These responses were given after being asked to describe capacity building.

Looking at the nature and content of required intervention activities for capacity building, the term 'training' is mentioned often in presented findings in section 5.1. This term is not described in above presented definition of the World Bank (n.d.) nor in reviewed literature (section 3.1). Firstly, the budget for capacity building in the research project has been and still is allocated for training of staff (section 5.1). Furthermore foreign

short-term experts and expatriates are providing 'on the job' or 'peer to peer' training. Secondly, interviewees referred to training in their description of capacity building (section 5.3). From this perspective capacity building could be interpreted as an intervention of a training program for individual employees. However a further analysis of findings of the interviews clarifies that capacity building is not only about training of individuals. Figure 6 shows that responses also refer to an improvement process on an organizational level. The differentiation between an individual and organizational level is in line with the above presented definition of the World Bank (n.d.) and other reviewed authors. This definition as well as reviewed authors argue the existence of different levels of capacity building, as discussed in section 3.1 (Brown, 2008; Brinkerhoff & Morgan, 2010; Hannah & Lester, 2008; Kaplan, 2000; Matachi, 2006; OECD, 2006; and UNDP, 2008).

On an individual level capacity building concern the improvement of skills as well as knowledge. Presented findings in Figure 6 support this point of view. The concepts 'knowledge' and 'skills' were mentioned frequently by interviewees. The presented definition of the World Bank (n.d.) does not refer to knowledge. However reviewed literature (section 3.1), which is referring to the World Bank, is describing the strategic importance of knowledge (McFarlane, 2010). Also literature of other donor organizations, like UNDP (2008) and IICBA (Matachi, 2006), refer to knowledge, besides skills (section 3.1).

On an organizational level capacity building focuses on operational improvement of the company AVRL. Targets for performance indicators are set and assessed on a yearly basis. Introduction of adjusted or new procedures have to support an improved performance (section 5.1). Moreover assessment of the performance is used for penalty reduction and/or incentive compensation of the company AVRL.

Looking from the perspective of the approach, the used approach in the research project seems rather contradicting with promoted adaptive and participatory approach by reviewed authors (Brown, 2008; Kaplan, 2000; and Land, et al., 2009). The used approach seems contradicting, because VEI and Rand Water Services own the company AVRL (section 1.2). Furthermore their employees are holding management positions (section 5.1). Nevertheless the proposed and executed approach of VEI and Rand Water Services is aiming at handing over the management to Ghanaians colleagues before the end of the contract (section 5.1). The used format of a management contract can be related to the tendency by donors to use a standard format which can be assessed, as described in section 3.1 (Brinkerhoff & Morgan, 2010).

In short, findings of the fieldwork in Ghana, reviewed literature and the definition, used by the World Bank (n.d.), mostly show similarities in the interpretation of capacity building. It can be concluded that capacity building can be interpreted as a process, which aims to improve individual skills and knowledge as well as the organization. In contrast project budget for the capacity building component is restricted used for training of individuals. Provision of training for production of new knowledge and skills relates knowledge transfer to capacity building.

## **5.5. Analyses of influential factors on capacity building**

In this analysis influential factors of the capacity building process will be discussed. Firstly, learning intention and absorption capacity are influential factors, described in reviewed literature and in the conceptual framework for knowledge transfer (Figure 4, section 4.2). Rhodes et al. (2008) argue that these factors create the biggest impact on innovation processes as well as improved (financial) performance. Both innovations and the terminology 'improved performance' refer to the capacity building process. Related to learning intention Škerlavaj, et al. (2010) argue that hierarchy (or leaders) as well as seniority are the most important conditional factors for willingness to learn within learning networks in an organization. Furthermore these authors mention facilitation by management as an important factor to create opportunities for knowledge transfer and learning.

Secondly, provision and availability of tools and equipment can be seen as an intervention service as well as an influential factor for capacity building (Nijse, 2010). The availability of tools and equipment are required to apply new knowledge and skills. Application of new knowledge is also described in the conceptual framework for knowledge transfer (Figure 4, section 4.2). Thirdly, capacity building is related to investments in the drinking water infrastructure. Investments are required to achieve operational improvements of the company AVRL. It must be noted that AVRL is depending on the grantor GWCL concerning most purchases for tools and equipment and investments (section 5.1).

Finally the number of involved foreign employees can be seen as another influential factor. This factor can be related to the factor 'interaction', as described in the conceptual framework. The number of involved foreign staff has implications for the possible interaction with Ghanaian staff. At present two foreign employees are holding management positions in the company AVRL. At the start of the project in total eight employees of VEI and Rand Water Services were functioning as managers. These managers are expected and responsible to create an impact on ten regional units with in total more than 3.100 employees. The number of involved foreign employees can be considered as relatively limited in relation to the number of Ghanaian employees. Therefore, achievement of operational improvement will depend on willingness to cooperate by these Ghanaian employees.

In line with the interrelationship mostly the same factors that influence knowledge transfer also influence capacity building. The provisions of tools and equipment or investment in drinking water infrastructure are specific interventions of capacity building. This conclusion can be seen as a logical result of described interdependence between capacity building and knowledge transfer. It must be noted that one single case study will not provide details about all possible influential factors.

## 6. INFLUENTIAL FACTORS OF KNOWLEDGE TRANSFER

This chapter consists of an analysis of findings of the fieldwork in Ghana about influential factors of the knowledge transfer process, as described in section 4.5. Cultural differences will get special attention in this analysis. The field work was conducted by two methods, namely semi-structured interviews and observations (section 4.3). The perspectives of interviewees, as a result of the interviews, are represented in section 6.1. Results of observations are presented in section 6.2. Finding of the fieldwork will be compared with the conceptual framework for this research (Figure 4, section 6.3). This analysis can be related to research questions 1.c and 1.d.

### 6.1. Findings on influential factors on knowledge transfer

After each interview the researcher produced a report concerning influential factors that were mentioned during the interview. These data were reported in the table of the used checklist (Annex A). In the same table the researcher made notes about the context, in which the factor was mentioned. The following tables (Table 2 until Table 6) show an overview of the influential factors that were mentioned by interviewees during the interviews. These tables show an overview per stakeholder. An influential factor was counted if mentioned directly or indirectly, respectively indicated with the symbol 'D' and 'I'. The presented data in these tables cannot be seen as findings related to one specific interview question. The total sample size is judged too limited to include a further differentiation in position of employee in the company or gender. After presenting each table a further clarification of the content of the responses will be presented.

Table 2 Influence of nature of collaboration

Aspects	Ghanaian AVRIL		Dutch AVRIL		South African AVRIL		GWCL		World Bank		Trade Union		Sub total	Sub total	Total
	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D+I
<b>Nature of collaboration</b>															
Objectives	2	1	1										3	1	4
Nature and content arrangement	4	2	2	3			3		1				10	5	15

N = 26

D = Factor was directly mentioned by interviewee

I = Factor was mentioned later on in the discussion

Table 2 shows that nature and content of the contractual arrangement was mostly discussed during the interviews, in total fifteen times. Three out of four interviewees of GWCL pointed out that the contractual arrangement lacks sufficient baseline data to assess progress of the capacity building and knowledge transfer process in terms of operational improvement. Two Dutch interviewees of AVRIL and three Ghanaians staff members of AVRIL argued that the nature and content of the contract caused difficulties to build up a relationship. They referred to the fact that foreign staff had to take over management positions of Ghanaians. Taking over management positions created conflicts related to power and authority, they explained.

Table 3 Influence of environment

Aspects	Ghanaian AVRIL		Dutch AVRIL		South African AVRIL		GWCL		World Bank		Trade Union		Sub total	Sub total	Total
	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D+I
<b>Environment</b>															
Formal environment (political context, etc.)	2		2	1	1		1		1				7	1	8
Informal environment (culture, social structure, etc.)	2	1	3				1	1					6	2	8

N = 26

D = Factor was directly mentioned by interviewee

I = Factor was mentioned later on in the discussion

Table 3 shows that both aspects of formal and informal environment were discussed eight times. Concerning the formal environment all interviewees referred to the situation that the collaboration was effected by differences in opinion about the required approach for improvement and involvement of a private operator. They all referred to a negative impact on the willingness to cooperate.

Table 4 Unique influential factors

Aspects	Ghanaian AVRIL		Dutch AVRIL		South African AVRIL		GWCL		World Bank		Trade Union		Sub total	Sub total	Total
	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D+I
<b>Unique factors</b>															
<i>Transferor</i>															
Nature knowledge	13		6		1		4		1		1		26	0	26
Complexity knowledge	1	6		1									1	7	8
Method transfer	3	7	2		1		1						7	7	14
Teaching capacity	1	1		1									1	2	3
<i>Transferee</i>															
Learning intentions/motivation	2	5	3										5	5	10
Absorptive capacity	4	4	5				2		1				12	4	16
Reward system	5	4											5	4	9
Other: Tools and equipment	4	1	1										5	1	6

N = 26

D = Factor was directly mentioned by interviewee

I = Factor was mentioned later on in the discussion

Table 4 shows that the influential factor 'nature of knowledge' is mentioned by all interviewees. This can be explained by the existence of a direct link between this factor and questions 4 and 5 of the used format (Annex A). These questions are respectively:

3. What did and can you contribute?

4. What did and do you expect from the other?

Besides the factor 'nature of knowledge' the influence of the absorptive capacity of staff of AVRIL was mentioned most often of the unique factors. Concerning the absorptive capacity of staff all interviewees pointed out that the theoretical knowledge of staff is sufficient for knowledge transfer in the company. Fourteen times interviewees gave examples of knowledge transfer methods that are used in the project. The actual process concerning the used methods of knowledge transfer in the project will be discussed in chapter 7. The factor 'Learning intention' or 'motivation' was discussed ten times. All interviewees explained that staff needs to be motivated to be able to learn and to change.

Table 5 Influence of relationship factors

Aspects	Ghanaian AVRIL		Dutch AVRIL		South African AVRIL		GWCL		World Bank		Trade Union		Sub total		Sub total		Total	
	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D+I	
<b>Relationship factors</b>																		
Partner selection			1	3			3		1		1		6	3	9			
Inter cultural fit	5	5	4				2		1		1		13	5	18			
Approach knowledge transfer	2		2				1						5	0	5			
Trust	1	1	1	5	1		2		1	1			6	7	13			
Interaction	1												1	0	1			
Business relatedness	5			1									5	1	6			
Other: Personal attitude	3	3	1						1		1		6	3	9			
Other: Seniority	1	2	2										3	2	5			

N = 26

D = Factor was directly mentioned by interviewee

I = Factor was mentioned later on in the discussion

The influential factor 'inter cultural fit' is directly linked with the following interview question 5 (Annex A).The fifth research question is:

5. What makes it easy or difficult to work with the Dutch/South African/Ghanaian?

Table 5 shows that the influence of cultural differences was discussed with eighteen interviewees. Concerning cultural differences eleven interviewees pointed out that Dutch manager are less hierarchic (power distance) and facilitate more that their Ghanaian colleagues. Two of these interviewees were Dutch themselves. Nine interviewees argued that cultural and social pressure influence decision making processes. One of these interviewees gave the example of decisions concerning recruitment or promotion of employees. Ghanaian managers have the intention to recruit or promote people from their own tribe, despite the existence of a policy and procedures. Finally six out of eighteen interviewees, all Ghanaians, pointed out that personal attitude has the same or even more influence on building up a relationship than cultural differences. Therefore the factor 'personal attitude' is described as a separate relationship factor in Table 5. The following Figure 7 shows an overview of discussed factors or topics related to cultural differences and language. This figure makes a differentiation between Ghanaian and foreign staff (Dutch and South African). This figure also includes the term 'seniority'. Three interviewees explained that seniority seems important to build up a

working relation. All three interviewees referred to required seniority for a management position in the company.

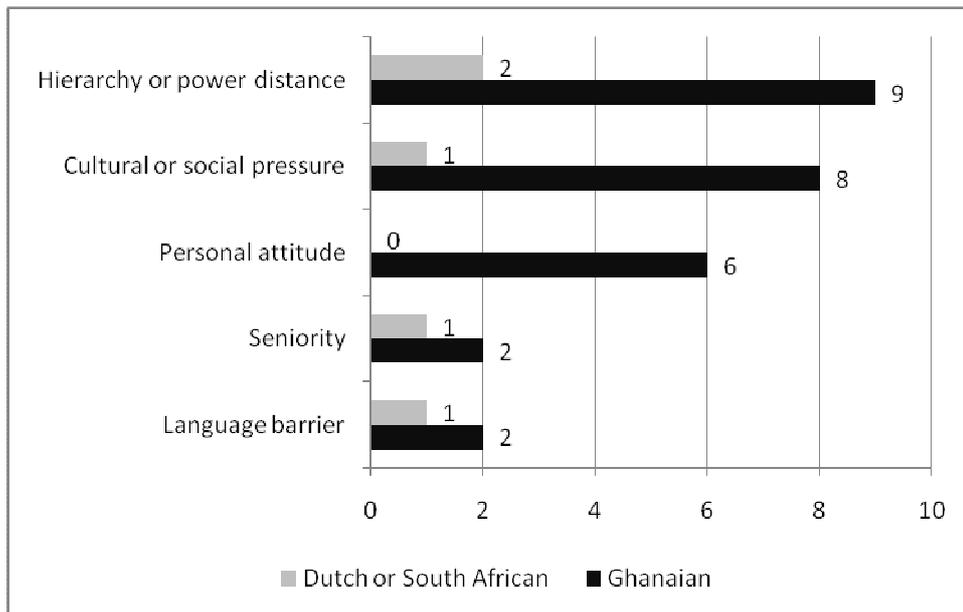


Figure 7 Discussed topics cultural differences and language

The following relationship factors were also discussed often. Firstly, the factor ‘trust’ has been pointed out as an important factor in building up a relationship with the manager and other colleagues. The importance of trust was discussed thirteen times. Secondly, the factor ‘partner selection’ was discussed nine times. In five out of nine discussions the interviewee related the topic of partner selection with recruitment of foreign staff. All these five interviewees were Ghanaians. They pointed out that they experienced difficulties, because recruited foreign staff did not have the right competencies and/or personal attitude. The four Dutch interviewees that mentioned the factor ‘partner selection’ related this factor with recruitment of staff as well. They explained that it was difficult to recruit staff from their own mother companies Evides N.V. and Vitens N.V., especially resident staff. This caused the need to recruit staff outside the mother company. One interviewee explained, for example, that both VEI and Rand Water Services recruited managers with the British nationality to work in the company AVRL. In the same discussion these interviewees explained that expatriates were changed frequently. These changes affected the intervention process negatively. Furthermore teambuilding was another discussed topic related to partner selection. In total six interviewees pointed out that teambuilding, especially between expatriated, needs more attention.

Table 6, shows that the absorption of new knowledge is the most discussed actions of the transfer process. This activity was discussed twelve times. For this research the terminology ‘willingness to cooperate’ is judged to be synonymous for absorption. Transformation of knowledge was discussed in total five times with interviewees. These interviewees all referred to adjustment of innovations to local circumstances. Both acceptance and application of knowledge were only mentioned indirectly, respectively seven and thirteen times. Concerning acceptance all interviewees explained that new knowledge (or skills) only can be accepted after adjustment to local circumstances (transformation). Five out of thirteen times interviewees also clear that new knowledge has to be adjusted to local circumstances for application. Six out of thirteen interviewees

pointed out that new knowledge only can be applied after provision of tools and equipment.

Table 6 Transfer process

Aspects	Ghanaian AVRIL		Dutch AVRIL		South African AVRIL		GWCL		World Bank		Trade Union		Sub total	Sub total	Total
	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D+I
<b>Transfer process</b>															
<i>Individual level</i>															
Conversion				1									0	1	1
Absorption	3		5				2		1		1		12	0	12
Transformation	2	1	1				1						4	1	5
Acceptation		3		3				1					0	7	7
Application		8		4				1					0	13	13
<i>Group and intra-organizational level</i>															
Role manager	5	4	3	1	1								9	5	14
Role key players		1											0	1	1

N = 26

D = Factor was directly mentioned by interviewee

I = Factor was mentioned later on in the discussion

Looking at the diffusion of transferred knowledge to an organizational level, the role of the manager was discussed fourteen times. Table 6 shows that only interviewees of AVRIL started to argue about the role of the manager, Ghanaians as well as foreign staff. All fourteen interviewees pointed out that the manager needs to facilitate diffusion of new knowledge (and skills). In total seven out of fourteen times the interviewee pointed out that the manager also plays a role as key player for diffusion. Five interviewees expect that the manager demonstrates to be a good example in the change process. The role of other key players in the diffusion process was discussed once.

In some cases interviewees made cross-references between presented influential factors. The following cross-references were repeated frequently in interviews, namely:

- Four out of six interviewees referred to technological knowledge, while discussing the factor business relatedness;
- Four out of six times interviewees pointed out that tools and equipment are important factors to motivate staff (factor 'motivation');
- The factor 'complexity of knowledge' was discussed all eight times in relation to personal attitude. These interviewees argued that it is complex to change the attitude of staff and organizational culture, and referred in this discussion to managerial knowledge;
- As described above the nature and content of the contract was discussed three out of fifteen times in relation to building up a relationship.

## 6.2. Findings by observation

The method of observations was used to gain information about cultural values (section 4.3). These observations were done with the help of the cultural dimensions of Hofstede (2009), as presented in Figure 3 in (section 3.5). The Observations focused on non verbal communication. The name and position of the employee in the company will not

be mentioned in this section to secure anonymity. Considering the overflow of impressions two examples will be presented.

Two cultural dimensions were noticeable observed during the fieldwork for the research, namely the dimensions 'power distance' and 'masculinity'. Findings concerning 'power distance' were already presented in section 6.1. The dimension 'masculinity' was observed by the researcher during the recognition mission in the first week. Some Ghanaian male employees showed a competitive attitude during the field visits in Kumasi and Sunyani. To give an example, one of the managers started a discussion with his colleagues several times, apparently to show that he is really an expert.

Furthermore it was possible to observe that cultural differences and language barriers play a role. For example, during a meeting in the regional office in Kumasi, manager as well as employees made jokes referring to tribes of participants and jokes about the language to be used in the meeting.

### **6.3. Analysis of influential factors on knowledge transfer**

The following analysis will consist of a comparison between findings of the fieldwork and the conceptual framework for the research (Figure 4, section 4.5). This analysis can be related to research questions 1.c and 1.d. Furthermore these results will be used in the analysis concerning the perception of staff about the knowledge transfer process in the research project in Ghana (Chapter 7).

It could be expected that the nature and content of the contract should be mentioned often by interviewees as an influential factor. This because reviewed literature showed that the choice for a management contract was the outcome of a long negotiation process, within the water sector reform process (Chapter 2). Suleiman and Göran (2010, p. 272) state 'a management contract that can be considered a de facto compromise, although not deliberate, by stakeholders'. The topic was indeed discussed in more than halve of the interviews. The political context was mentioned less often as a factor that influences the knowledge transfer process. This in contrast to described findings by Suleiman and Göran (2010). They argue that expectations are too high because of existing social, political, institutional and legislation constraints (Chapter 2).

Furthermore it could be expected that cultural difference should be argued frequently by interviewees as an influential factor in the working relationship (section 3.5). Cultural differences were indeed discussed in most interviews. This can be seen as a logical result of answers on research questions 5 (Annex A). In this question interviewee was asked to explain what aspects are complicating a working relationship with different nationalities. In this context most discussed topic was hierarchy of managers, which was also observed by the researcher. Interviewees pointed out that a Dutch manager is less hierarchic and facilitates more than his Ghanaian colleague. Hierarchy can be related to the cultural value dimensions 'power distance' (Figure 3, section 3.5). Another discussed topic was the influence of cultural and social pressure on the knowledge transfer processes. This aspect can be related to the existence of collectivism. Collectivism is the opposite of the cultural value dimension 'individualism'. Examples of 'masculinity' could be observed among Ghanaian staff in the form of competitiveness (section 6.2). Cultural differences and language barriers were also observed between Ghanaians during a meeting. Findings of the fieldwork did not provide sufficient details to compare involved South African staff South Africans with Dutch or South African staff with Ghanaians.

It can be seen as remarkable that interviewees, several Ghanaians, pointed out that personal attitude has the same or even more influence on building up a relationship than cultural differences. Personal attitude is not described in the conceptual framework for the knowledge transfer process. Furthermore findings of the fieldwork resulted in the presentation of another two new influential factors in the collaboration in Ghana. Firstly, the availability of tools and equipment is perceived by interviewees as being of influence on this process (section 6.1). Some of these interviewees pointed out that tools and equipment are important factors to motivate staff. All of these interviewees explained that tools and equipment are required to apply new knowledge (and skills). The availability of these tools and equipment was also argued as influencing the capacity building process (section 5.5). Secondly, the seniority of staff was discussed. Interviewees referred to required seniority for a management position in the company. The importance of seniority is also argued by Škerlavaj, et al. (2010), presented in the literature review. They argue that seniority as well as hierarchy (or leaders) are the most important conditional factors for willingness to learn within learning networks in an organization.

Summarized, most of the factors of the conceptual framework were discussed frequently. It can be concluded that findings of the fieldwork and this discussion give an insight in influential factors, which are perceived by interviewees to play a role in the knowledge transfer process in the collaboration in the urban water supply utility in Ghana. However the use of one single case study with a limited number of interviews cannot be seen as a scientific proved methodology to test the conceptual framework of the research.

## 7. PERSPECTIVES AND EXPECTATIONS OF KNOWLEDGE TRANSFER

This chapter consist of an analysis of the perception of involved staff of stakeholders of the management contract for the urban water supply services in Ghana. This concerns their perspectives on the knowledge transfer process in the development initiatives with intervention of external staff of AVRIL. This analysis can be related to research questions 2 (section 1.3). Findings of the fieldwork in Ghana are gained by using four different methods. Firstly, findings of reviewed (project) documents and expert consultations will be presented in section 7.1. Subsequently results of the semi-structured interviews will be presented in section 7.2. Thirdly the results of observations will be presented in section 7.3. Fourthly, section 7.4 consists of findings on conducted group interview. The discussion will take place in section 7.5.

### 7.1. Findings of reviewed documents and consultations

In this section findings will be presented concerning the actual process of knowledge transfer. Moreover more details about used intervention methods for the development of the company AVRIL will be presented. These findings are based on expert consultation and a review of project documents and other reports of the company AVRIL.

The first intervention method that will be discussed is the formal training of staff. The manager of the human resource department (Opoku, 2010) pointed out that the company AVRIL executes a formal training program, drafted on a yearly basis. The following Table 7 shows the yearly average of hours of provided formal training per employee of AVRIL (AVRIL, 2009).

Table 7 Average hours of formal training

	Formal training
Year	Hours
2006	2
2007	27
2008	14
2009	1

Source: Annual report 2009 (AVRIL, 2009)

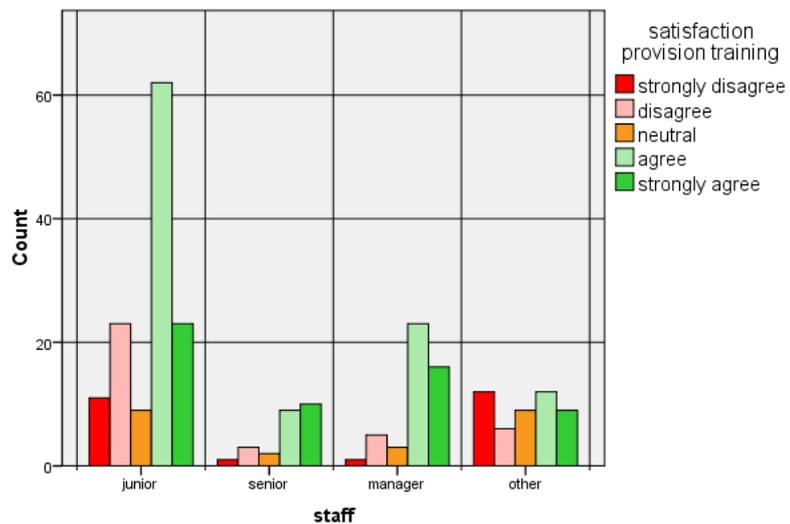


Figure 8 Satisfaction provision training

Source: Employee Satisfaction Development Survey AVRIL (Lesterhuis & Lesterhuis, 2009)

Opoku (2010) explained that the training programs are facilitated by foreign staff. In general training is accommodated and provided in the training centre, owned by the grantor GWCL. Most training has been provided by Ghanaian staff of AVRIL or Ghanaian consultants so far. On one hand the content of training programs is based on introduced new technologies or methods by foreign staff. Before starting the training program these technologies and methods are discussed with Ghanaian staff, mainly management. They have to secure that those new technologies and methods will be adapted to local circumstances. On the other hand external consultants are asked to design working procedures and/or manuals for application of new technologies and methods. Subsequently they introduce these procedures and manuals in the training program. AVRIL mostly composes a group to attend the training program, which consist of employees from different regions, Opoku (2010) finally pointed out.

The conclusions of the report about the employee satisfaction development show that training is one of the developments of which employees are the most satisfied (Lesterhuis & Lesterhuis, 2009). The above presented Figure 8 shows the detail of the results concerning training. This concerns details about the satisfaction of different levels of staff concerning the provided training program of AVRIL. Besides the opinion of staff about training, the executed survey measured opinions about other developments in at randomly chosen districts of the company. Opinions were asked, for example, about development of labour conditions and work content. The satisfaction of employees was measured about the developments since the start of the project.

Opoku (2010) pointed out that 'on the job' training is another used method for knowledge transfer in the research project. An example of 'on the job' training is the water meter repair workshop. The researcher visited this workshop and talked with Ghanaian staff working here. These results will be presented in section 7.3. Furthermore a restricted group of Ghanaian staff brought a visit to the Netherlands or South Africa. Opoku (2010) explained that especially these visits played an important role in the introduction of innovations. He also gave examples of such innovations, namely; the call centre of the customer care department and the Geographic Information System (GIS), with data about the drinking water infrastructure.

## **7.2. Findings of semi-structured interviews**

The presented results in this section are directly related to the five following questions, which were used during the semi-structured interviews (Annex A), namely:

3. What did and can you contribute?
4. What did and do you expect from the other?
6. How does the organization benefit from the project?
7. What roles can VEI and Rand Water Services play in the next coming years and for how long?
8. What do we have to do different in the partnership?

The findings will be presented in the form of a graph for each of the above presented question. Results are presented in Figure 9 until Figure 13. Each figure contains a compilation of topics or aspects that were discussed with more than one interviewee. The sample size is judged too small to differentiate results in categories of interviewees. However a differentiation in opinions between different nationalities or stakeholders will be made if appropriate. The first graph in

presents the findings on perspectives of interviewees on the expected contribution from Ghanaian staff of AVRIL in the knowledge transfer process of the research project.

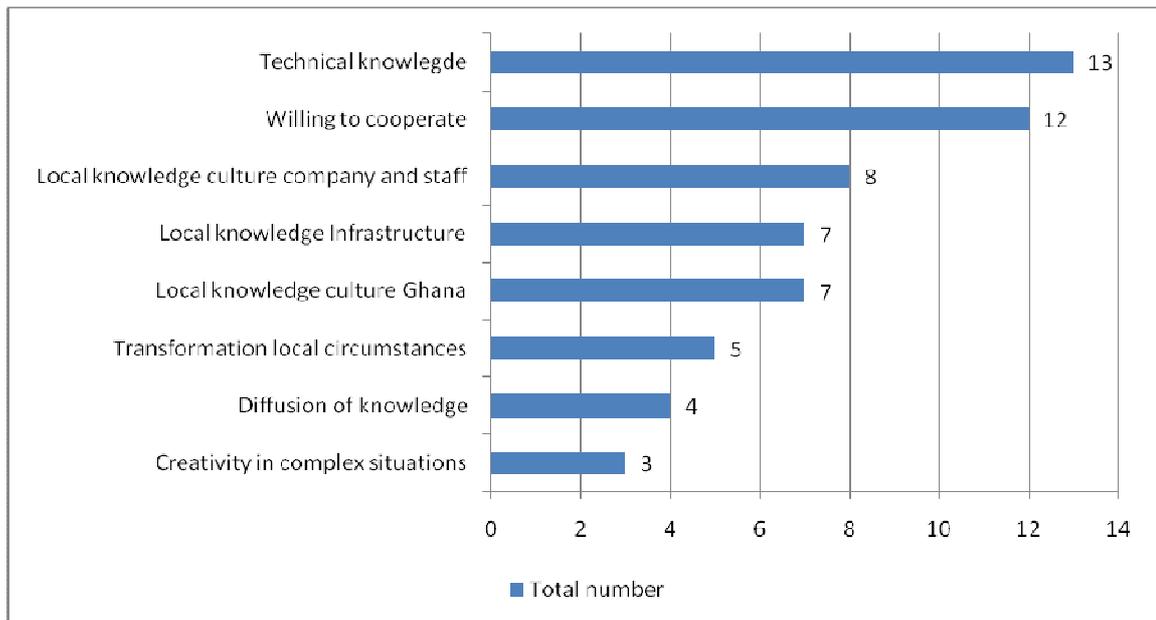


Figure 9 Contribution Ghanaian staff AVRIL

Most topics, presented Figure 9, were discussed with both Ghanaian interviewees and interviewees with another nationality. The opinion about diffusion of knowledge forms an exception. Concerning this topic, only Ghanaian staff explained that Ghanaian staff of AVRIL has to diffuse new knowledge (and skills), while discussing the expected contribution from Ghanaians. The presented term 'infrastructure' means 'drinking water infrastructure'.

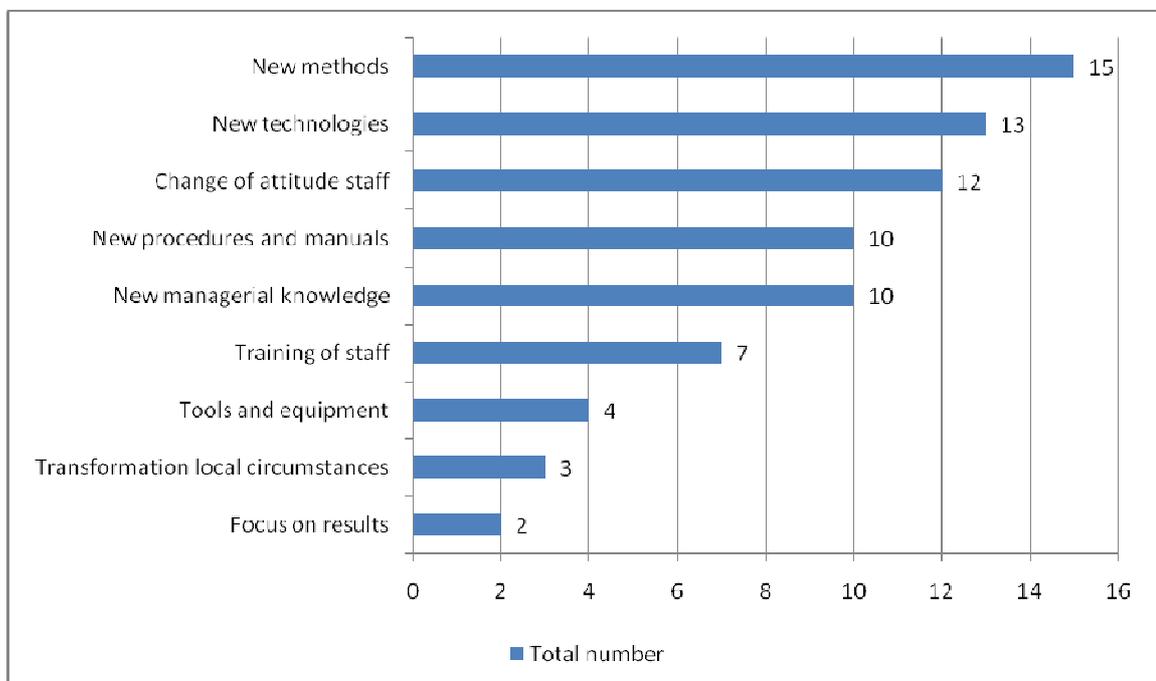


Figure 10 Contribution foreign staff AVRIL

Figure 10 shows the opinions of staff concerning the expected contribution from foreign or expatriate staff in the knowledge transfer process. Most topics were discussed with

both Ghanaian interviewees and interviewees with another nationality. The opinion about the focus on results forms an exception. Only two Ghanaian interviewees pointed out to expect a focus on results by expatriates during the introduction of innovations. Interviewees who expect that foreign staff has to introduce new advanced methods also mentioned the introduction of new technologies. With change of attitude of staff these interviewees referred to Ghanaian staff of AVRIL. These interviewees expressed the opinion that the attitude of Ghanaian staff has to change to become a more efficient and customer oriented company AVRIL. One of these interviewees pointed out that the attitude of staff has to change concerning the communication with clients of the company as well among colleagues.

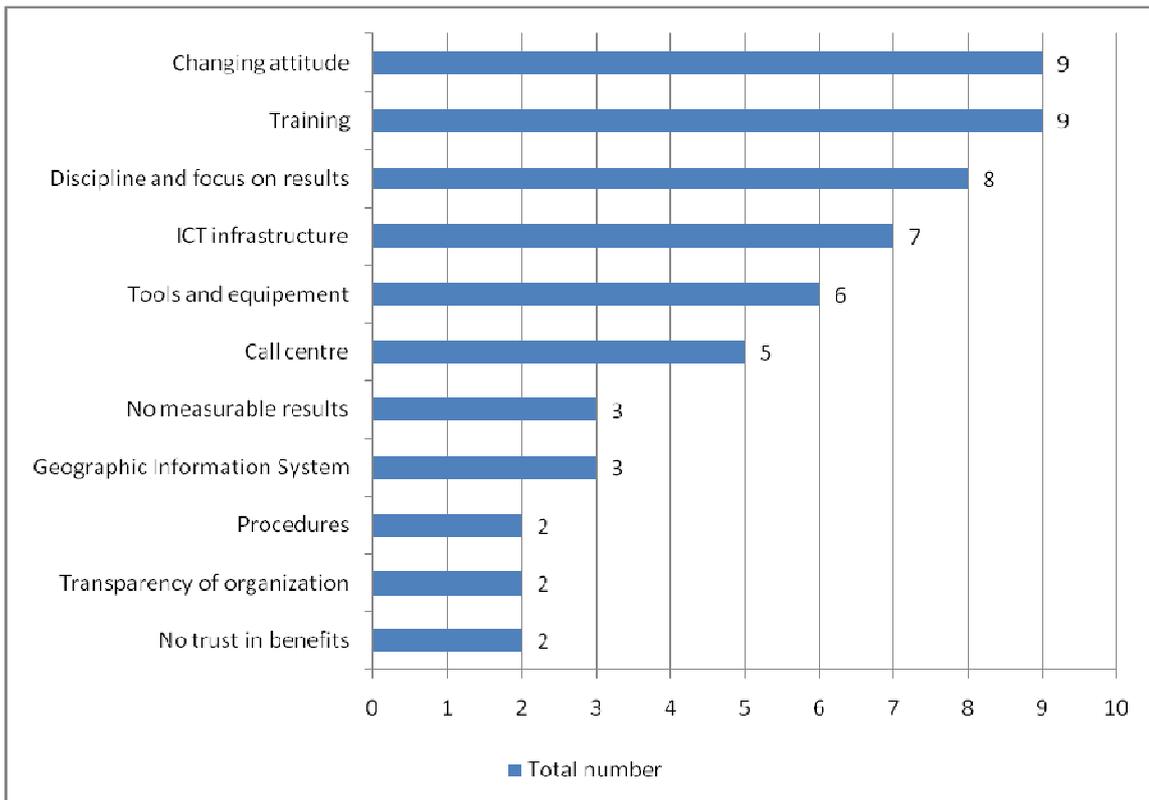


Figure 11 Benefits project

Figure 11 shows the opinions of staff concerning benefits of the project related to the knowledge transfer process. ICT infrastructure means infrastructure of information and communication technology, like internet or mobile telephones. Most topics, presented in Figure 11, were discussed with both Ghanaian interviewees and interviewees with another nationality. The presented opinion about measurement of result of the project forms an exception. Three interviewees, who expressed the opinion that measurement or assessment of benefits will be impossible, have a Ghanaian nationality. With the terminology 'transparency of organization' interviewees referred to clarity of procedures and reported results of the company AVRIL.

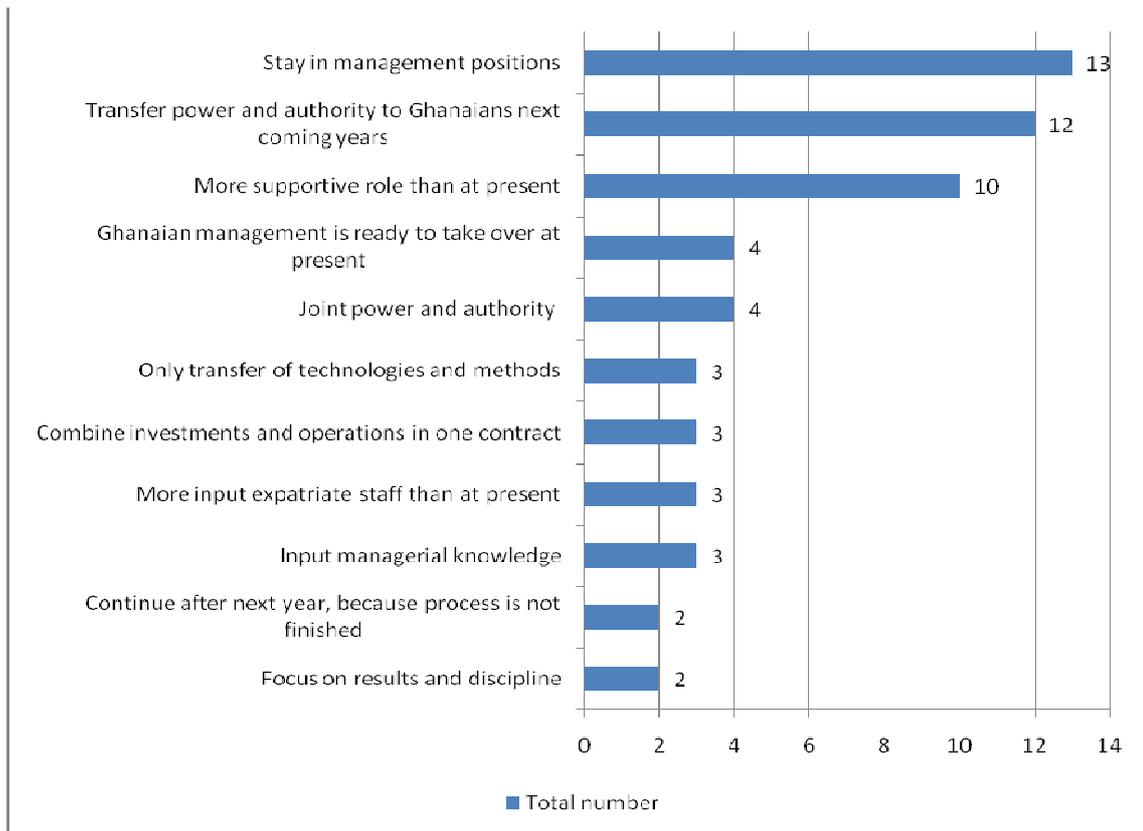


Figure 12 Future expected role VEI and Rand Water Services

Figure 12 shows the opinions of staff concerning required future role of VEI and Rand Water Services related to the knowledge transfer process. Concerning the aspect of transfer of power and authority to Ghanaian staff the following must be clarified. Seven out of twelve interviewees explained that the management positions have to be handed over gradually. One of these interviewees explained that the management positions have to be handed over before the end of the contract. With a more supportive role than present, interviewees explained to prefer support by foreign staff, but not in management positions. These interviewees referred to examples of introduced new technologies, such as the call centre and the GIS. Most topics, presented in Figure 12, were discussed with both Ghanaian interviewees and interviewees with another nationality. The following Table 8 shows an overview of exceptions.

Table 8 Overview exceptions future expected role

Description	Ghanaian interviewees	Dutch or South African interviewees	Total number
Continue after next year, process not finished	2	0	2
Combine Investment and operations	3	0	3
Only transfer of technologies and methods	3	0	3
Ghanaian management is ready to take over at present	4	0	4

N = 26

None of the interviewees was capable or wanted to make a prediction about the expected moment that external interventions will become less important or even unnecessary (sub-question 1.c, section 1.3). All interviewees said that it will be difficult to make this decision based on an assessment of the actual performance indicators. Two interviewees said that the decision to stop the intervention process will be a matter of 'feeling'. All interviewees pointed out that the intervention process is probably not completed at the end of the management agreement. Two interviewees pointed out specifically that VEI and Rand Water Services need to be involved after completion of the contract. All other interviewees explained that VEI and Rand Water Services are not the only parties that can provide the required services.

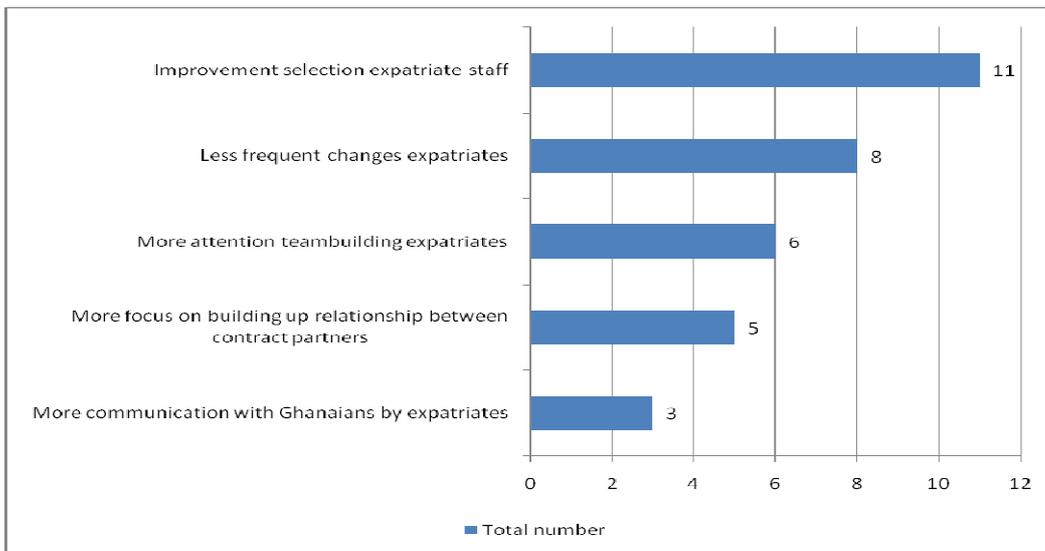


Figure 13 Aspects for improvement

Figure 13 shows the opinions of staff concerning required improvements related to the knowledge transfer process. Figure 13 shows that eleven interviewees have the opinion that selection of expatriate staff has to be improved. These interviewees referred to the recruitment process of expatriate staff. This required improvement was only argued by Ghanaian interviewees. The following Table 9 shows a differentiation in the kind of competence, which needs more attention in the recruitment process.

Table 9 Details aspects that have to change

Description	Ghanaian interviewees	Dutch or South African interviewees	Total number
More attention selection of staff in terms educational level	5	0	5
More attention selection of staff in terms of experience	4	0	4
More attention selection of staff in terms of attitude	2	0	2

N = 26

Furthermore the three interviewees that expect more communication with Ghanaian staff, referred to more communication about the innovation process. These three interviewees are Ghanaian employees of AVRL.

### **7.3. Findings by observations**

This paragraph presents findings by observations of the researcher based on a visit to the training centre of GWCL in Accra. The researcher participated in a module of four hours of a formal training program about health and safety procedures for staff of different regions. During this module the trainer provided a lecture of two hours. This lecture focussed on transfer of theoretical knowledge concerning health and safety procedures as well as instructions for applying this knowledge in practice. Standard forms were presented to be used by these participants in their own region. Participants got the opportunity to put the new knowledge and methods in practice during the training. In a practical exercise they had to use the new procedure and forms to conduct a health and safety assessment. They executed a role play as well. The central theme of this role play was conflict management. The trainer explained, for example, that employees could expect resistance by their colleagues to cooperate during a future health and safety assessment.

### **7.4. Findings of group interview**

This paragraph presents findings of a conducted group interview during a visit of the water meter repair workshop of AVRL in Accra. The group consisted of four employees of this workshop. Quotes of staff will not be used to secure anonymity, like the semi-structured interviews. The researcher visited the water meter repair workshop and talked with Ghanaian staff working in this workshop. This staff explained that a short-term expert of VEI is providing support on a regular basis. They explained to appreciate the transfer of practical knowledge which is demonstrated in practice. They pointed out that they learned a lot, despite language barriers. Furthermore they explained to be very happy that old equipment was rehabilitated and new required equipment was installed. Because of the new equipment they are capable to work more efficient and produce more. It was possible to observe that these employees were proud of their workshop and about the achieved results so far. The workshop looked well organized and equipment was operational during the visit. It has to be noted that some required tools and materials are still brought from the Netherlands. Some of these tools are even brought by involved short-term expert.

### **7.5. Analysis of perspectives on knowledge transfer**

In this section the perception of involved staff of stakeholders of the management contract for the urban water supply services in Ghana will be analyzed and discussed. This concerns their perspectives on the knowledge transfer process in the development initiatives with intervention of external or foreign staff of AVRL. This analysis can be related to research questions 2 (section 1.3).

It was expected that the concept 'knowledge transfer' could be an abstract topic to discuss with interviewees (section 4.4). Asking participants to describe or define capacity building, turned out to be a good starting point for each interview. This question seemed to be helpful to get the discussion started concerning their perspectives on the knowledge transfer process. Interviewees started to tell about required transfer of technical knowledge as well as more tacit knowledge. For this research technical knowledge was defined in section 3.2 as explicit knowledge and more managerial related knowledge as the tacit form. In the conceptual framework for this research

(Figure 4, section 4.2) these different forms of knowledge were indicated as 'nature of knowledge'.

Firstly, Ghanaian staff of AVRL is expected to transfer knowledge to their foreign colleagues that can be related to both the tacit and explicit form. The expected transfer of technical knowledge by Ghanaian staff was mentioned most often by interviewees. Related to this aspect interviewees pointed out that sufficient technical knowledge is available among Ghanaian staff to absorb new technical knowledge (Table 1, section 6.1). Of course the willingness to cooperate plays an important role in the absorption of new knowledge. Figure 9 shows that several interviewees expect that Ghanaian staff will cooperate. Willingness to cooperate refers to a step in the knowledge transfer process and cannot be classified as a form of knowledge. Also expected contributions to transform and diffuse knowledge are such required steps in the transfer process. Discussing these aspects it must be noted that most interviewees argued that the willingness to cooperate was negatively affected by differences in opinion about the required approach towards operational improvement and involvement of a private operator (section 6.1). On the other hand Ghanaian staff is also expected to transfer knowledge related to the tacit form. For example, interviewees pointed out that the Ghanaian employees have to provide knowledge about the culture of the company. Other interviewees referred more in general in terms of provision of knowledge about the Ghanaian culture. The influence of cultural differences on the knowledge transfer process was discussed in section 6.3 and will not be discussed in this section.

In short, to achieve operational improvement both explicit (more technical) and tacit (more managerial) knowledge is expected to be transferred by Ghanaian staff to their foreign colleagues. The presented findings show that majority of interviewees refer to tacit related knowledge to be transferred.

Secondly, staff of VEI and Rand Water Services of AVRL is also expected to transfer both explicit and tacit related knowledge. On one hand interviewees started to argue about required introduction of new methods and technologies to achieve operational improvement (Figure 9). Provision of procedures and manuals was mentioned as well. All these aspects can be related to explicit knowledge. On the other hand interviewees expect that foreign staff provides managerial knowledge and knowledge required to change the attitude of Ghanaians. Managerial knowledge and required change of attitude are both related to tacit knowledge. Concerning the required change interviewees referred to the need to become a more efficient and customer oriented company. Related to managerial knowledge interviewees pointed out a Dutch manager is less hierarchic and facilitates more than his Ghanaian colleague (section 6.1). Furthermore interviewees pointed out that the manager needs to facilitate diffusion of new knowledge and skills (Table 6, section 6.1). This suggests a preference for a more facilitating management style. In this context it is also relevant to note that cultural and/or social pressure influences decision making processes of Ghanaian managers, described in section 6.1.

In short, to achieve operational improvement both explicit (more technical) and tacit (more managerial) knowledge is expected to be transferred by foreign staff of AVRL to their Ghanaian colleagues. The presented findings in Figure 10 (section 7.2) show that majority of interviewees refer to explicit related knowledge to be transferred.

The following paragraphs will focus on opinions about the used methods for knowledge transfer in the collaboration in the research project. Figure 10 (section 7.2) shows that training was mentioned by interviewees as a service to be provided by staff of VEI and

Rand Water Services. Section 5.4 describes that training plays a central role in knowledge transfer as well as the capacity building process in the collaboration in the research project. Furthermore budget for capacity building has been and still is allocated for formal training, as described in section 5.1. In contrast to the expected contribution by foreign staff, most formal training is actually provided by Ghanaian staff of AVRIL or Ghanaian consultants (section 7.1). This training is often facilitated by the training centre, owned by the grantor GWCL. Table 7 (section 7.1) shows that most training was provided in the years 2007 and 2008 so far.

Furthermore the consulted expert on training of AVRIL, the manager of the human resource department (Opoku, 2010), explained that besides formal training, training 'on the job' and visits abroad were used as methods for knowledge transfer. This expert pointed out that visits abroad to the Netherlands and South Africa, initiated and facilitated, for example, the introduction of new technologies and (working) methods (section 7.1). Materialized examples are the call centre of AVRIL and the Geographic Information System (Opoku, 2010). Both these examples are also perceived by interviewees as benefits of the project (Figure 11, section 7.2). The result of a conducted group interview with staff of the water repair meter workshop of AVRIL in Accra shows that 'on the job' training is appreciated. This staff said they appreciate the transfer of practical knowledge and skills (section 7.4), despite experiencing language barriers as a consequence of this international collaboration.

Finally the results of the employee satisfaction development survey, presented in Figure 8, shows that training is one of the developments within AVRIL of which employees are the most satisfied. However findings in this research were not sufficiently detailed to conclude which used methods were the most appreciated or effective.

A discussion about the benefits of the collaboration within AVRIL (Figure 11, section 7.2) provides more insight in the satisfaction of involved stakeholders concerning the knowledge transfer process (sub-question 2.b, section 1.3). Interviewees expressed the opinion to see and experience tangible as well as intangible results (section 3.1). The discussed literature of Kaplan (2000) describes provision of resources and training as tangible results. Besides training, other mentioned examples by interviewees are the provision of ICT infrastructure and tools and equipment. Kaplan (2000) describes organizational development aspects, such as required hierarchy or structure, as intangible results. In the research project mentioned benefits related to intangible results are perceived changing attitude of staff and more discipline and focus on results. It must be noted that two interviewees expressed that they lack trust that the research project will lead to benefits. Furthermore three interviewees, all Ghanaians, explained that it is not possible to measure results or benefits. The presented findings in Figure 11 (section 7.2) show that interviewees refer mostly to benefits which refer to tangible results. This could be expected based on reviewed literature.

Looking at expected moment that external interventions will become less important or even unnecessary (sub-question 1.c, section 1.3), none of the interviewees was capable or wanted to make a prediction (section 7.2). However they expressed the opinion that the intervention process will not be completed at the end of the contract in 2011. Only two interviewees pointed out specifically that VEI and Rand Water Services need to be involved after completion of the contract. All the other interviewees (twenty-four) explained that VEI and Rand Water Services are not the only parties that can provide the required services. However interviewees did express their opinion about the required or expected possible future role of VEI and Rand Water Services or another external party.

More than half of the number of interviewees expressed the opinion to prefer a continuation of foreign expatriate staff in management positions within AVRIL (Figure 12, section 7.2). However interviewees explained that power and authority have to be handed over in the next coming period. Only one of these interviewees explained that all management positions have to be handed over before the end of the contract in 2011. The other persons did not further specify the required period of time. Most of these interviewees referred to a required gradual process of transfer of power and authority. A more supportive role by the intervening party was also mentioned. With a more supportive role, interviewees explained to prefer support by foreign staff, but not in management positions. Finally only four interviewees have the opinion that current management is capable to take over the management of the company right away.

It can be concluded that majority of interviewees have the opinion that support is required in the next coming period. The opinion about the way in which this support has to be provided varies from a continuation in management positions to other kinds of support. The division of power and authority between Ghanaian staff and foreign expatriates is the central theme in this discussion.

Finally this discussion looks at opinions about the lessons to be learned from experiences in the research project so far. Firstly, interviewees recommend both VEI and Rand Water Services to pay more attention to recruitment of expatriate staff (Figure 13, section 7.2). All remarks about this aspect came from Ghanaians and referred to educational level, working experiences and personal attitude. Personal attitude was earlier described in section 6.3, while discussing the influential factors of knowledge transfer. As described interviewees, all Ghanaians, pointed out that personal attitude has the same or even more influence on building up a relationship than cultural differences. Secondly, change or substitution of expatriate staff is perceived by interviewees as a disturbing factor in the intervention activities over the last years. Thirdly, interviewees pointed out that VEI and Rand Water Services both have to pay more attention to build up a team among their own expatriate staff. Finally more focus to build up the relationship and communication with Ghanaian staff about developments of the intervention process were mentioned recommendations.

## **8. CONCLUSIONS AND RECOMMENDATIONS**

In this research project capacity building can be interpreted as a process, which aims to improve individual skills and knowledge as well as the organization. In contrast project budget for capacity building is used restricted for training of individuals. This training, which has to lead to production of new knowledge and skills for operational improvement, demonstrates the interrelationship between knowledge transfer and capacity building. Moreover from this perspective knowledge transfer can be seen as the driver for capacity building.

In line with the interrelationship mostly the same factors that influence knowledge transfer also influence capacity building. The provisions of tools and equipment or investment in drinking water infrastructure are specific interventions of capacity building.

This research gives an insight in perspectives of involved stakeholders on influential factors. Cultural differences are perceived to play a role in the relationship. Moreover Ghanaian staff also faces cultural differences within Ghana, between tribes. However other factors, such as personal attitude, are perceived important as well or even more important. Three influential factors were mentioned, which were not adapted in the research framework, namely; tools and equipment, personal attitude and seniority. Both VEI and Rand Water Services can further develop and test this framework by research in other projects.

Looking at the perspectives of staff of involved stakeholders on the actual knowledge transfer process, the following can be concluded. Interviewees expect that both explicit (more technical) and tacit (more managerial) knowledge is transferred by Ghanaian staff to their foreign colleagues and the other way around. On one hand the majority of interviewees expects that Ghanaian staff transfers tacit related knowledge, such as knowledge about the company culture. On the other hand the majority of interviewees expect foreign staff to transfer knowledge related to the explicit form, such as knowledge about new methods and technologies. Findings contain insufficient details to conclude which used method for knowledge transfer was the most appreciated or effective. Interviewees perceive both measurable (tangible) and non-measurable (intangible) results as benefits of the intervention activities within AVRL. However the majority refers to measurable or visible results, such as the introduced GIS or provided training.

The opinion about the way in which this support has to be provided in the next coming period varies from a continuation in management positions to other kinds of support, such as training. The division of power and authority between Ghanaian staff and foreign expatriates is the central theme in this discussion. The research does not give perspectives about the expected moment that intervention activities become less important or unnecessary.

Interviewees recommend VEI and Rand Water Services to pay more attention to competencies of expatriates during the recruitment process. Also teambuilding of the expatriate team needs more attention and expatriates are challenged to communicate more with their Ghanaian colleagues. Finally involved partners have to focus more on the relationship.

## REFERENCES

1. Adioo, S.A., 2010. *Discussion about procurement procedures management contract*. [Conversation] (Personal communication, 06 August 2010).
2. Agyeman, K., 2007. Privatization of water in Ghana: Stopped in its tracks or a strategic pause? *International Journal of Environmental Studies*, [online]. Volume 64, Issue 5, p. 525-536. Available at: <http://www.informaworld.com.ezproxy.library.wur.nl/smpp/title~db=all~content=g782042485> [accessed 05 June 2010].
3. AVRIL, 2006. *Annual Report 2006*. Accra: Aqua Vitens Rand Limited.
4. AVRIL, 2009. *Annual Report 2009*. Accra: Aqua Vitens Rand Limited.
5. Awuah, E., Nyarko, K.B. and Owusu, P.A. 2008. Water and sanitation in Ghana. *Desalination*, [online]. Volume 248, Issues 1-3, p. 460-467. Available at: [http://www.sciencedirect.com.ezproxy.library.wur.nl/science?\\_ob=ArticleURL&\\_udi=B6TFX-4XC50FY-27&\\_user=533256&\\_coverDate=11%2F15%2F2009&\\_rdoc=1&\\_fmt=high&\\_orig=se&\\_arch&\\_sort=d&\\_docanchor=&\\_view=c&\\_acct=C000026798&\\_version=1&\\_urlVersion=0&\\_userid=533256&\\_md5=f57c336c4bcc7d7da3bd21161077b9f1](http://www.sciencedirect.com.ezproxy.library.wur.nl/science?_ob=ArticleURL&_udi=B6TFX-4XC50FY-27&_user=533256&_coverDate=11%2F15%2F2009&_rdoc=1&_fmt=high&_orig=se&_arch&_sort=d&_docanchor=&_view=c&_acct=C000026798&_version=1&_urlVersion=0&_userid=533256&_md5=f57c336c4bcc7d7da3bd21161077b9f1) [accessed 04 June 2010].
6. Beesly, L., 2004. Multi-level complexity in the management of knowledge networks. *Journal of Knowledge Management*, [online]. Volume 8, Number 3, p. 71-88. Available at: <http://docserver.ingentaconnect.com.ezproxy.library.wur.nl/deliver/connect/mcb/13673270/v8n3/s6.pdf?expires=1278418312&id=57557846&titleid=1119&accname=Waeningen+UR+Library&checksum=66F621922DA7597B44A481A965570DB7> [accessed 06 July 2010].
7. Brown, R.R., 2008. Local institutional development and organizational change for advancing sustainable urban water futures. *Environmental Management*, [online]. Volume 41, Issue 2, p. 221-233. Available at: <http://www.springerlink.com.ezproxy.library.wur.nl/content/87446vr31j8424n8/fulltext.pdf> [accessed 10 June 2010].
8. Brinkerhoff, D.W. and Morgan, P.J., 2010. Capacity and capacity development: Coping with complexity. *Public Administration and Development*, [online]. Volume 30, Issue 1, p. 2-10. Available at: <http://www3.interscience.wiley.com.ezproxy.library.wur.nl/cgi-bin/fulltext/123221490/PDFSTART> [accessed 14 June 2010].
9. Budds, J. and G. McGranahan. 2003. Are the Debates on Water Privatization Missing the Point? Experiences from Africa, Asia and Latin America. *Environment and Urbanization*, [Online]. Volume 15, Number 2, p. 87-113. Available at: <http://eau.sagepub.com/cgi/reprint/15/2/87> [accessed 4 June 2010].
10. Carangal- San Jose, M.J.F. and Gunatilake, H., 2008. Privatization revisited: Lessons from private sector participation in water supply and sanitation in developing countries. *ERD working paper*, [Online]. Issue 115, p.1 -49. Available at: [http://www.adb.org/Documents/ERD/Working\\_Papers/Wp115.pdf](http://www.adb.org/Documents/ERD/Working_Papers/Wp115.pdf) [accessed 04 June 2010].
11. Easterby-Smith, M., Lyles, M.A. and Tsang, E.W.K., 2008. Inter-organizational knowledge transfer: current themes and future prospects. *Journal of Management Studies*, [Online]. Volume 45, Number 4, p. 677-690. Available at: <http://www3.interscience.wiley.com.ezproxy.library.wur.nl/cgi-bin/fulltext/120085048/PDFSTART> [accessed 07 July 2010].

12. European Commission, 2010. *Results Glossary Form*. [Online] (Updated 25 December 2008). Available at: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEV/0,,contentMDK:21154393~menuPK:3291389~pagePK:64168445~piPK:64168309~theSitePK:3177395,00.html> [accessed 28 May 2010].
13. Freeman, S., Hutchings, K, Lazaris, M. and Zyngier, S., 2010. A model of rapid knowledge development: The smaller born-global firm. *International Business Review*, [Online]. Volume 19, Issue 1, p. 70-84. Available at: [http://www.sciencedirect.com/science?\\_ob=ArticleURL&\\_udi=B6VGK-4XMTFFW-1&\\_user=533256&\\_coverDate=02%2F28%2F2010&\\_rdoc=1&\\_fmt=high&\\_orig=search&\\_sort=d&\\_docanchor=&\\_view=c&\\_acct=C000026798&\\_version=1&\\_urlVersion=0&\\_userid=533256&md5=3ad54e113f8aa06096a0ea278f707c3b](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VGK-4XMTFFW-1&_user=533256&_coverDate=02%2F28%2F2010&_rdoc=1&_fmt=high&_orig=search&_sort=d&_docanchor=&_view=c&_acct=C000026798&_version=1&_urlVersion=0&_userid=533256&md5=3ad54e113f8aa06096a0ea278f707c3b) [accessed 11 June 2010].
14. Gupta, A., & Govindarajan, V., 2000. Knowledge flows within multinational corporations. *Strategic Management Journal*. Volume 21, Number. 4, p. 473-496.
15. Hannah, S.T. and Lester, P.B., 2008. A multilevel approach to building and leading learning organizations. *Leadership Quarterly*, [online]. Volume 20, Issue, p. 34-48. Available at: [http://www.sciencedirect.com.ezproxy.library.wur.nl/science?\\_ob=MIimg&\\_imagekey=B6W5N-4V5NSY4-1-3&\\_cdi=6575&\\_user=533256&\\_pii=S1048984308001604&\\_orig=search&\\_coverDate=02%2F28%2F2009&\\_sk=999799998&\\_view=c&\\_wchp=dGLbVtz-zSkzk&md5=28eb3708bcafe64b85e40bb2d655bbdd&ie=/sdarticle.pdf](http://www.sciencedirect.com.ezproxy.library.wur.nl/science?_ob=MIimg&_imagekey=B6W5N-4V5NSY4-1-3&_cdi=6575&_user=533256&_pii=S1048984308001604&_orig=search&_coverDate=02%2F28%2F2009&_sk=999799998&_view=c&_wchp=dGLbVtz-zSkzk&md5=28eb3708bcafe64b85e40bb2d655bbdd&ie=/sdarticle.pdf) [accessed 10 June 2010].
16. Hofstede, G. (2009). *Geert Hofstede's cultural dimensions*. [Online]. Available at: <http://www.geert-hofstede.com> [accessed 28 June 2010].
17. Jarvis, P., Holford, J. and Griffin, C., 2003. *The theory & practice of learning*. 2<sup>nd</sup> ed. UK: Routledge Taylor & Francis Group.
18. Javidan, M., Stahl, G.K., Brodbeck, F. and Wilderom, C.P.M., (2005). Cross-border transfer of knowledge: Cultural lessons from Project GLOBE. *Academy of Management Executive*. Volume 19, Number 2, p. 59-76.
19. Kaplan, A., 2000. Capacity building: shifting the paradigms of practice. *Development in Practice*, [online]. Volume 10, Issue 3, p. 517 – 526. Available at: <http://www.informaworld.com/smpp/content~content=a713660459&db=all> [accessed 5 June 2010].
20. Khamseh, H.K. and Jolly, D.R., 2008. Knowledge transfer in alliances: Determinant factors. *Journal of Knowledge Management*, [Online]. Volume 12, Issue 1, p. 37-50. Available at: <http://www.emeraldinsight.com.ezproxy.library.wur.nl/Insight/viewPDF.jsp?contentType=Article&Filename=html/Output/Published/EmeraldFullTextArticle/Pdf/2300120103.pdf> [accessed 10 June 2010].
21. Land, T., Hauck, V. and Baser, H., 2009. Capacity, Change and Performance. Capacity development: between planned interventions and emergent processes Implications for development cooperation. *Policy Management Brief ECDPM*, [Online]. Number 22. Available at: [http://www.ecdpm.org/Web\\_ECDPM/Web/Content/Download.nsf/0/5E619EA3431DE022C12575990029E824/\\$FILE/PMB22\\_e\\_CDapproaches-capacitystudy.pdf](http://www.ecdpm.org/Web_ECDPM/Web/Content/Download.nsf/0/5E619EA3431DE022C12575990029E824/$FILE/PMB22_e_CDapproaches-capacitystudy.pdf) [accessed 14 June 2010].
22. Leeuwis, C., 2004. *Communication for Rural Innovation, Rethinking agricultural extension*. 3<sup>rd</sup> ed. UK: Blackwell Publishing.

23. Lesterhuis, E. and Lesterhuis, M., 2009. *Employee Satisfaction Development Survey*. Accra: Aqua Vitens Rand Limited.
24. Management Contract for Ghana Urban Water, 2005. *Management Contract for Ghana Urban Water, between Ghana Company Water Limited and Vitens Rand Water Services BV, Aqua Vitens Rand Limited*. November 2005. Accra.
25. Matachi, A., 2006. *Capacity Building Framework*. [Online] Addis Ababa: United Nations Economic Commission for Africa. Available at: <http://unesdoc.unesco.org/images/0015/001511/151179eo.pdf> [accessed 14 June 2010].
26. McFarlane, C., 2006. Knowledge, learning and development: A post-rationalist approach. *Progress in Development Studies*, [Online]. Volume 6, Issue 4, p. 287-305. Available at: <http://pdj.sagepub.com.ezproxy.library.wur.nl/cgi/reprint/6/4/287> [accessed 10 June 2010].
27. Narteh, B., 2008. Knowledge transfer in developed-developing country interfirm collaborations: a conceptual framework. *Journal of Knowledge Management*, [Online]. Volume 12, Issue 1, p. 78-91. Available at: <http://www.emeraldinsight.com.ezproxy.library.wur.nl/Insight/viewPDF.jsp?contentType=Article&Filename=html/Output/Published/EmeraldFullTextArticle/Pdf/2300120106.pdf> [accessed 10 June 2010].
28. Nijse, M., 2010. *Discussions about management contract and project*. [Conversations] (Personal communication, 18 July – 12 August 2010).
29. Opoku, E., 2010. *Discussions for selection interviewees and about management contract*. [Conversations] (Personal communication, 18 July – 12 August 2010).
30. Peroune, D.L., 2007. Tacit knowledge in the workplace: The facilitating role of peer relationships. *Journal of European Industrial Training*, [Online]. Volume 31, Issue 4, p. 244-258. Available at: <http://www.emeraldinsight.com.ezproxy.library.wur.nl/Insight/viewPDF.jsp?contentType=Article&Filename=html/Output/Published/EmeraldFullTextArticle/Pdf/0030310401.pdf> [accessed 10 June 2010].
31. Prasad, N., 2006. Privatisation Results: Private Sector Participation in Water Services After 15 Years. *Development Policy Review*, [Online]. Volume 24, Issue 6, pp. 669 – 692. Available at: <http://www3.interscience.wiley.com.ezproxy.library.wur.nl/journal/118583624/abstract> [accessed 4 June 2010].
32. Rhodes, J., Lok, P., Hung, Y.-Y.R. and Fang, S.-C., 2008. An integrative model of organizational learning and social capital on effective knowledge transfer and perceived organizational performance. *Journal of Workplace Learning*, [online]. Volume 20, Issue 4, 2008, p. 245-258. Available at: <http://www.emeraldinsight.com.ezproxy.library.wur.nl/Insight/viewPDF.jsp?contentType=Article&Filename=html/Output/Published/EmeraldFullTextArticle/Pdf/0860200402.pdf> [accessed 12 June 2010].
33. Suleiman, L. and Göran, C., 2010. Water supply governance in Accra: “Authentic or symbolic”. *Water policy*, [online]. Volume 12, p. 272-289. Available at: <http://www.iwaponline.com.ezproxy.library.wur.nl/wp/01202/0272/012020272.pdf> [accessed 03 June 2010].
34. Škerlavaj, M., Dimovski, V., Mrvar, A. and Pahor, M., 2010. Intra-organizational learning networks within knowledge-intensive learning environments. *Interactive Learning Environments*, [online]. Volume 18, Issue 1, March 2010, p. 39-63. Available at: [http://pdfserve.informaworld.com.ezproxy.library.wur.nl/592997\\_751312418\\_919215289.pdf](http://pdfserve.informaworld.com.ezproxy.library.wur.nl/592997_751312418_919215289.pdf) [accessed 10 June 2010].

35. Tsang, E.W.K., 2002. Acquiring knowledge by foreign partners from international joint ventures in a transitional economy. *Journal of World Business*, [Online]. Volume 23, p. 835-854.  
[http://pcbfaculty.ou.edu/classfiles/MGT%206293%20Strategic%20Management/Week%207%20Cooperative%20Strategy/Tsang\\_2002\\_SMJ\\_Acquiring\\_Knowledge\\_by\\_Foreign\\_Partners\\_From\\_International\\_Joint\\_Ventures.pdf](http://pcbfaculty.ou.edu/classfiles/MGT%206293%20Strategic%20Management/Week%207%20Cooperative%20Strategy/Tsang_2002_SMJ_Acquiring_Knowledge_by_Foreign_Partners_From_International_Joint_Ventures.pdf) [accessed 20 June 2010].
- UNDP, 2008. *Practice Note: Capacity Development* [Online]. New York: United Nations Development Programme. Available at:  
<http://www.undp.org/oslocentre/docs08/sofia/CD%20PN%20May%202008.pdf> [accessed 14 June 2010].
36. Van Winkelen, C., 2010. Deriving value from inter-organizational learning collaborations. *Learning Organization*, [online]. Volume 17, Issue 1, p. 8-23.  
 Available at:  
<http://www.emeraldinsight.com.ezproxy.library.wur.nl/Insight/viewPDF.jsp?contentType=Article&Filename=html/Output/Published/EmeraldFullTextArticle/Pdf/1190170101.pdf> [accessed 10 June 2010].
37. Vershuren, P. and Doorewaard, H., 2005. *Designing a research project*. 5th ed. Utrecht: LEMMA.
38. Vitens Evides International, 2009. *Business plan 2010-2013*. Utrecht: Vitens Evides International B.V.
39. Wolters, H., 2010. *Discussion on initial phase project in Ghana*. [Conversation] (Personal communication, 08 July 2010).
40. World Bank, n.d. *Glossary of key terms*. [Online]. Available at:  
<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEV/0,,contentMDK:21154393~menuPK:3291389~pagePK:64168445~piPK:64168309~theSitePK:3177395,00.html> [accessed 28 May 2010].

## ANNEX A CHECKLIST INTERVIEWS

<b>Date Interview</b>	
<b>Name Interviewee (if no objection)</b>	
<b>Female or male</b>	
<b>Current position (if no objection)</b>	
<b>Since when are you involved in the project?</b>	

### Questions:

1. How would you describe or define capacity build?
2. What are your experiences in the project, so far?
3. What did and can you contribute?
4. What did and do you expect from the other?
5. What makes it easy or difficult to work with the Dutch/South African/Ghanaian?
6. How does the organization benefit from the project?
7. What roles can VEI and Rand Water Services play in the next coming years and for how long?
8. What do we have to do different in the partnership?

### General remarks and observations:

<b>M</b>	Mentioned by the interviewee, without direct question = D, with further questioning = I
----------	---

### Context and environment

Aspects	M	Comment
Objectives		
Nature and content arrangement		
Political context, etc.		
Culture, social structure, etc.		
Partners selection		

### Pre-conditions

Aspects	M	Comment
<i>Transferor</i>		
Nature knowledge		
Complexity knowledge		
Method transfer		
Teaching capacity		
<i>Transferee</i>		
Motivation		
Absorptive capacity		
Reward system		
Others:		
<i>Relationship</i>		
Culture		
Approach		
Trust		
Interaction		
Business relatedness		
Others:		

### Transfer process

Aspects	M	Comment
<i>Individual</i>		
Conversion		
Absorption		
Transformation		
Acceptation		
Application		
Others:		
<i>Group and intra-organization</i>		
Role manager		
Role key players		
Others:		