



Ain-Shams University
Faculty of Engineering
Urban Design and Planning Department

EXAMINING THE URBAN QUALITY OF LIFE IN GATED COMMUNITIES, CASE STUDY: NEW-CAIRO CITY

A Thesis Submitted to the Faculty of Engineering, Ain-Shams
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Master of Science in Urban Design and Planning

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STATEMENT

This thesis is submitted as a partial fulfilment of Master of Science in Architecture Engineering, Faculty of Engineering, Ain shams University.

The author carried out the work included in this thesis, and no part of it has been submitted for a degree or a qualification at any other scientific entity.

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THESIS SUMMARY

Enjoying an acceptable level of quality of life is among the basic rights of residents in their communities', which in return requires determining the UQoL level of these neighborhoods and switching the current status of the low-quality neighborhoods to standard, stable and healthy settlements. Urban Quality of Life (UQoL) is one of the main keys in solving the equation. "Quality" is frequently used to designate the excellence of the product, Quality of life (QOL) is the fulfilment degree or satisfaction of residents' basic needs, UQoL is the urban life performance towards the needs of residents and their expectations. Therefore, the notion has recently become the concern of many planners, researchers, and decision makers. Due to the effective role of UQoL in improving residents' life, growing attention has been paid to UQoL studies since the 1970s; aiming to promote a better well-being of people and their environment.

On this basis, Gated Communities' (GCs) approach in Egypt was one of the solutions in bridging the gap between the residents' needs and the actual state of life quality in the existing neighborhoods, therefore, residents have been lately running to GCs searching for better and healthier life, as GCs provide a new marketing discipline for developers and attract residents who want to escape the congestion and deterioration of the Inner-City. A descriptive analytical study was carried in this research based on observation, mapping, and stakeholders' (residents, managers, planners, designers, and decision makers) questionnaires, focus groups and interviews. Results were calculated and analyzed concerning the selected GCs, in order to suggest recommendations for improving the UQoL in the study area and guidelines for GCs' design in the study region.

Keywords: *Urban field, Comparative analysis, examination indicators, guidelines of urban development, residents' participation.*

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LIST OF ABBREVIATIONS

QoL: Quality of Life

UQoL: Urban Quality of Life

GC: Gated Communities

GCR: Greater Cairo Region

EQLS: European Quality of Life Surveys

NUCA: New Urban Communities Authority

HBRC: Housing and Building National Research Center

UN-Habitat: United Nations Human Settlement Program

OECD: Organisation for Economic Co-operation and Development



CHAPTER ONE: CONTEXT AND BACKGROUND

1. CHAPTER ONE: CONTEXT AND BACKGROUND

This chapter represents an overview and a quick brief to the whole research, including introduction, methodology, research questions and objectives as well as the research structure and flow.

1.1. Introduction

Enjoying an acceptable level of quality of life is among the basic rights of residents in their communities', which in return requires determining the UQoL level of these neighborhoods and switching the current status of the unaccepted neighborhoods quality to standard, stable and healthy settlements. Urban Quality of Life (UQoL) is the main key in bridging the gap between residents' need and their living conditions. Therefore, QoL has recently been the concern of many planners, researchers and decision makers, with its subjective and objective aspects. A growing attention has been paid to the studies concerning the UQoL since the 1970s. Quality of life (QoL) is the general well-being of societies and individuals (Körreveski, 2011), it has quickly become a catch-all term, "Quality" is one of those words which are used generally and in publicity circles, it is frequently used to designate the attractiveness or the excellence of the product. QoL has recently become an interesting field of study to many researchers, however, it isn't a new notion in the twentieth century, rather, it dates to ancient philosophers, for example "Aristotle" (384–322 BC) who wrote about "the good life" and "living well" beside explaining how public policy can help to enhance it.

Quality of life is a complex term, that requires multiple approaches from different theoretical perspectives, there is no universally accepted definition of QoL, there are more than hundreds of definitions regarding this notion in literature and there have been many attempts to define the notion in the different disciplines, the major definition of QoL can be described through two concepts "well-being" which is related to the individuals and the fulfilment of the residents' expectations and needs , while the second concept is "good place" which is related to the location, the resources available to fulfil the residents' aspirations.

Urban Quality of Life (UQoL) is derived from QoL but in urban domains (neighborhood, housing, community, Etc.) and experienced in the urban environment (work, social life, health...) therefore, it links the objective dimension related to the environment and the subjective dimension related to the people (Dissart & Deller, 2000). The notion

is conceptualized as multidimensional notion which has been developed by many theoretical approach and analytical techniques and considered a whole measurable and understandable system, it is one the most important keys for a sustainable urban development and has become an important issue for decision makers, planners and all stakeholders.

Due to its importance in enhancing residents' life, European Quality of Life Surveys (EQLS) are carried every four years including objective domains such as: Economic situation, housing, local environment, employment, education, skills, household structure, family relations, work-life balance, health and health care, as well as subjective topics such as: happiness, satisfaction, subjective well-being, perceived QoL of their society, then, the results of these surveys are taken into consideration by the public debate at European Union to enhance the overall QoL.

UQoL is examined on different scales from regional to city and neighborhood scale. The 20th century has witnessed vast changes in the cities, due to the urban agglomeration growth. Cities have grown to be metropolis, metropolises have grown to be megapolis, ... the urbanization phenomenon is irreversible. This growth has raised many questions: Are urban planners and designers prepared to deal with this situation? Are the available data and tools enough to handle it? Are the residents satisfied and adapted to the growth? Do they have a good life? Planners and researchers have searched to understand the 'Neighborhood development' phenomenon.(Marco Rieckmann, 2018). Cities are expanding due to urban growth and extension, towns all over the world are proliferating, and suburbs are extending... Although, the expansion of urban areas is a challenge for local governments, it is also an opportunity for researchers to contribute in solving the urban problems, from these opportunities, the UQoL studies. Consequently, UQoL has been introduced recently in many studies, to enhance the lifestyle of residents.

One of the significant phenomenon nowadays is Gated Communities (GC), an urban residential development has been lately spreading all over the world, as well as in Egypt, although the aim of GCs development internationally was responding to the fear of crime in urban areas, in Egypt, residents who seek a better life quality have been lately running away to GCs to avoid the problems and drawbacks occurring in the inner city. GCs are increasing each year in the last

decades, this shows the magnitude of flourishing of this phenomenon, which was a result of many factors and mainly for seeking a better life quality away from the pollution, congestion and poor environmental conditions in the urban areas. Consequently, examining the UQoL in these communities has become essential to assess the existence of a better life quality as they promise or not.

Residents have been recently moving to GCs searching for an acceptable level of life quality and satisfaction of their needs. Statistics and local observation suggest that GCs are becoming more established as a new form of housing in the past decade and have appeared in the desert plateaus surrounding GCR which explains that 59% of housing areas in new cities are now transferred to GC. GCs may or may not meet the residents' needs, therefore, the need for UQoL examining the validation of these communities has become an important issue. The research handles the problem of assessing the current UQoL situation in GCs which is nowadays a growing phenomenon in New Cairo City since it is one of the fast-growing cities and a large attention has been paid to it according to the national vision and development strategy. Assessment process has become an essential tool of the development process since research information orient and drive the city's agenda, it plays an important role to both planners and policy makers, public opinion is one of the main keys in driving the city's vision and strategy in democratic societies. The results will benchmark the overall UQoL in these neighbourhoods and facilitate the development process according to studied and examined guidelines, in order to achieve healthier neighbourhoods in GCs since it is the growing urban fabric in Cairo in general and New-Cairo City in specific.

1.2. Research Problem

Lack of assessment knowledge, UQoL guidelines and evaluation criteria in neighborhood design in general and GCs in particular, and since residents have been recently moving to GCs searching for an acceptable level of life quality and satisfaction of their needs as advertised. GCs may or may not fulfill residents' needs, therefore, the need of UQoL examination to find out the validity of these communities has become an important issue.

The aim of this study is to examine the UQoL in the selected GCs - using a verified criterion-, to clarify the notion of UQoL as measurable notion to update the definitions and criteria of assessment of UQoL

examined dimensions. Also, give additional practical information to different stakeholders including urban policy makers, urban designers and planners about the actual state and level of UQoL principles application in the selected GCs, and finally, introduce recommendations and smart assessment solution to reach the ideal situation in the neighbourhoods using smart solutions and urban technology.

1.3. Research Questions

1.3.1. Main research question

To What extend do GC's in "New-Cairo City" satisfies their residents' needs, aspirations and offer good Urban Quality of Life (UQoL) to their residents and fulfil the assessment criteria?

1.3.2. Secondary research questions

- 1) What is meant by "Urban Quality of Life" theoretically and practically? What is the importance of applying this notion in cities and communities? (*Chapter 2*)
- 2) What is meant by a GC? How can GCs be classified? (*Chapter 3*)
- 3) How can we practically assess UQoL principals on GC's on local scale? (*Chapter 4*)
- 4) What are the outcomes recommendation and guidelines to enhance UQoL in neighbourhoods with unacceptable level of life quality? How can UQoL be enhanced in the current areas and the future developments? (*Chapter 5*)

1.4. Research Objectives

1.4.1. Main Research Objective

To examine the current application of UQoL principles in GCs in New-Cairo City, by setting down a verified criteria and check list, to find out to what extend do they offer a good UQoL to their residents, and fulfil the assessment criteria of examination, also to suggest an assessment tool for evaluation of UQoL in GCs', which helps and assists public policy makers, urban planners, and designers to raise the urban quality of life of the neighbourhoods and communities.

1.4.2. Secondary Research Objectives

- 1) To provide a clear definition and principles of UQoL, to understand the different aspects of the notion: Ecological, social, aesthetical.... etc. and their state of being holistic and

integrated and study its application. Also, to analyze the different urban theories and approaches which addresses the issue of UQoL and emphasize the importance of the need of applying this notion in our cities and communities. (*Chapter 2*)

- 2) To investigate different types of GCs', classification and the residents' aims for living there. (*Chapter 3*)
- 3) To investigate GCs in New-Cairo City and examine the application of UQoL principles in GCs and provide information to evaluate user's perception for long-term improvement of UQoL in GCs. Also, to identify the factors affecting UQoL in each of the studied cases, compare and analyze the status of the life quality indicators in them. (*Chapter 4*)
- 4) To suggest recommendation for enhancing the UQoL in the in neighbourhoods with unacceptable level of life quality in the selected study area, and guidelines for GCs' design in New-Cairo city to help decision-makers, designers and planners. (*Chapter 5*)

1.5. Research aim and Contribution to Field

In this sense, measuring and analysing UQoL can be regarded as an operational tool for urban planning operations. Outputs from QoL studies are being used for purposes such as policy evaluation, monitoring the effects of policies on the ground, rating of places and formulation of urban planning and management strategies.

The aim of this study is to examine the application of UQoL principles in Gated Communities-using a verified checklist and criteria-, to:

- a) ***Identify, study and examine the Urban Quality of Life notion*** as powerful and measurable criteria which can be used in planning policy and practice. (Research Question 1 and 2).
- b) ***Give practical and verified information to urban policy makers, urban designers and planners*** about the actual state and level of UQoL principles application in GCs, and residents' satisfaction degree, (Research Question 3,4 and 5).

1.6. Methodology

This study introduced the notion of UQoL and its different pillars through literature review and through the studies conducted by the HSRC, as the purpose of this study is to examine the UQoL in GCs and answer the question of to what extent do they offer a better quality of urban life and fulfil the UQOL international guidelines and the criteria which was documented by the HBRC (practical application of the study), Further, it creates an evaluation model and user-friendly assessment tool and indicators for GCs based on the stakeholders' feedback, and agreed the UQoL principles, which could assist public policy makers, urban planners, and designers to raise the urban quality of life of the neighborhoods and communities, so this study contributes to enhance the quality of life in GCs in New-Cairo City.

Although UQoL is a highly subjective measure to the residents' satisfaction within a GC (Serag El Din, Shalaby, Farouh, & Elariane, 2013), however, the objective assessment is also highly important to reach precise results. Therefore, the evaluation of UQoL in this research seeks to combine both "Subjective measure" related to peoples' perception of living environment (their needs and expectations) and "Objective measures" related to the condition of physical urban environment. Consequently the research focuses on the significant features of UQoL which affects the residents and their living, because it gives a real perception based of users' experience, and create a unique opportunity to give public policy makers, urban planners, and designers wider knowledge about relative importance of users' perception, to assist the different stakeholders to enhance the UQoL of the neighbourhoods in GCs. (Shucksmith, Cameron, & Tanya Merridew, 2006)

1.6.1. Adopted Approach

- Inductive Analytical Approach: theoretical study for the literature of UQoL notion including the definitions, historical background, movements, contemporary urban design theories, and approaches analysis...etc. as well as the GCs idea including historical escalation, reasons of development, reasons of residents' attraction, distinctive features, attractive poles...etc.
- Then, Deductive Analytical Approach: to identify the data resulting from the literature review, determine UQoL indicators and verify the assessment model, through several case study for different types of GCs in New-Cairo city to examine the application of UQoL.

1.7. Research Structure

- CHAPTER ONE: CONTEXT AND BACKGROUND

This chapter contains conceptual and methodological aspects of the research.

- CHAPTER TWO: LITERATURE REVIEW OF URBAN QUALITY OF LIFE

This chapter represents the theoretical background and the literature review of the UQoL, using related definitions and notions. It also reviews the different principles of UQoL measurement. The chapter also includes the historic review of the notion and the related studies on both international and local scale.

- CHAPTER THREE: LITERATURE REVIEW OF GATED COMMUNITIES

This chapter represents the theoretical background and the literature review of GCs' urban pattern, using related definitions and notions. It studies the GCs' urban development focusing on the Egyptian experience.

- CHAPTER FOUR: CASE STUDY - METHODS AND APPROACH

This chapter presents a brief overview and introduction about the selected study cases within the specified area -New Cairo City-, it contains the information, generated from the secondary data which had direct relation with UQoL, as land use, amenities, services, population composition, housing details,.. Etc. The chapter presents the detailed methodology of primary data collection -surveys-, and the data analysis, as well as the secondary data concerning the selected study area to get the research findings based on several sources and methods. The results are finalized at the end of the chapter by summarizing the guidelines and criteria of UQoL principles and evaluate its application on the study cases, also comparative analysis is carries out between the different cases.

- CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary and conclusion of the research, and results of the examination, on the selected case studies in "New-Cairo City", the perceived evaluation of UQoL is summarized in this chapter.

The research structure can be summarized as -Figure 1-:

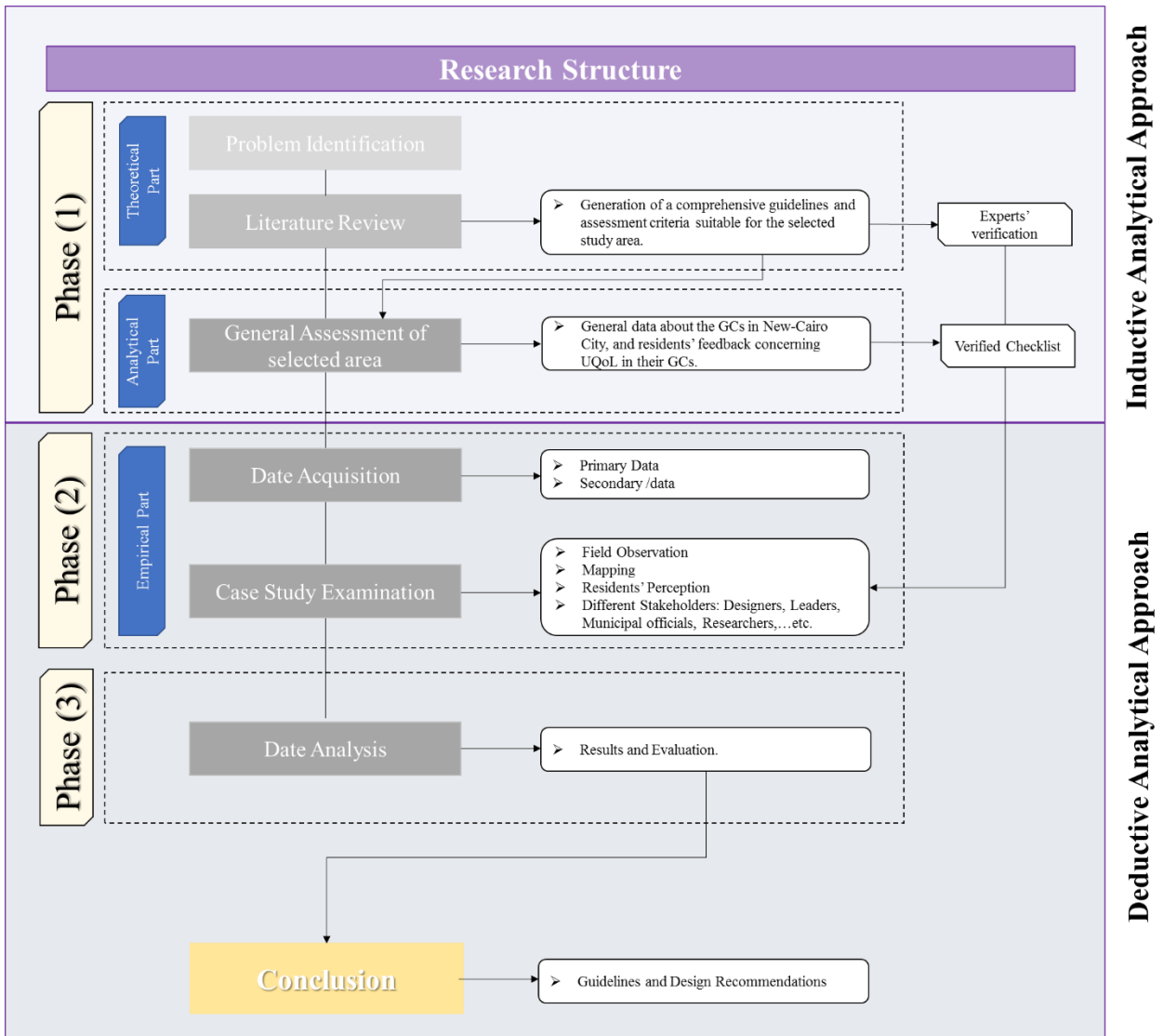


Figure 1: Research Methodology, Source: Author

1.8. Research Flow

The research structure and flow can be understood from the following chart - Figure 2-

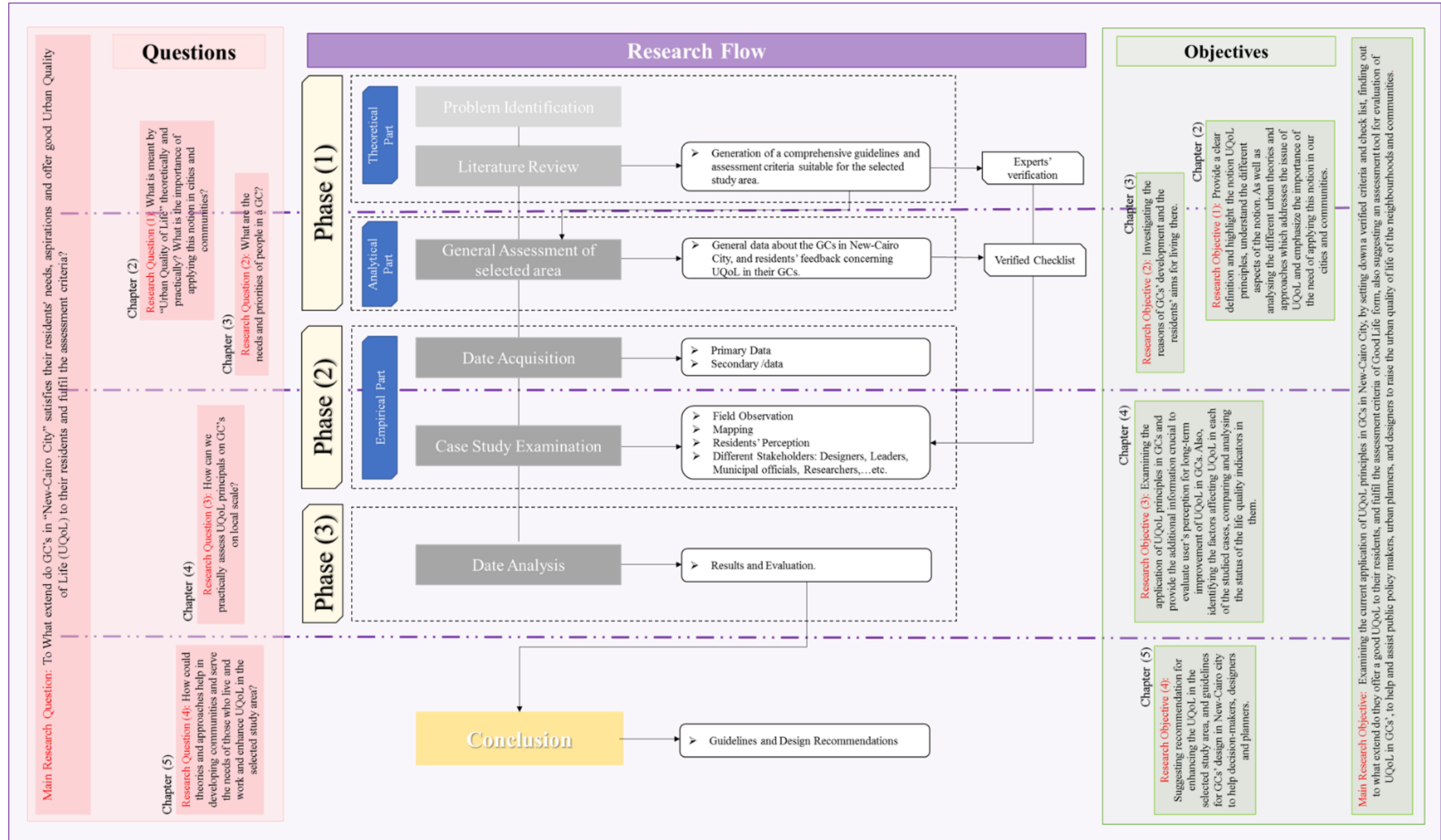


Figure 2: Research Methodology and Flow, Source: Author



CHAPTER TWO: LITERATURE REVIEW OF URBAN QUALITY OF LIFE (UQoL)

2. CHAPTER TWO: LITERATURE REVIEW OF URBAN QUALITY OF LIFE (UQoL)

This chapter represents the theoretical background of UQoL, using related definitions, domains, dimensions, indicators and notions. It also reviews the different criteria and measures of UQoL which is verified by experts and different stakeholders in order to summarize the principles, to be able to suggest and update the indicators and guidelines of examination (in Chapter 3) and examine UQoL in GCs (in Chapter 4) to conduct recommendations and conclusions (in Chapter 5) to help stakeholders, planners and decision-makers. It also includes the different approaches used in UQoL examination and the agreed approach which will be used.

2.1. UQoL: Definition and History

To know and identify the term “Urban Quality of Life”, it must be decomposed into other more precious terms.

2.1.1. “Quality” Definition and Historic review

The definition of this term dates to the ancient ages, Plato (427-347 BC) said that “*Quality as a beauty is a value judgment, as expressed by the user, if you don’t have the user, you don’t have the judgment*”. Aristotle (384-322 BC), who wrote about “the good life” and “living well” beside explaining how public policy can help to enhance it.(Babaei & Ajzashokouhi, 2013)(Velibeyoğlu, 2014), viewed quality as “Quality is not act. It is a habit.”, Lao Tzu defined quality in his “Golden Book” as “Quality as perfection, the ideal without any defects, which must constantly strive”.(Pettit, Craglia, & Thakuriah, 2017:P.4). Quality is the general excellence of standard, According to the UN-Habitat, “Quality” is a word that describes the attractiveness or the excellence of the product(UN-Habitat, 2016), and according to Oxford Dictionaries it is “*The standard of something as measured against other things of a similar kind; the degree of excellence of something.*”(Stevenson, 2010). Peter Drucker - an American leader in the development of management education, educator and author – defines quality as “*Quality in a product or service is not what the supplier puts in. It is what the customer gets out and is willing to pay for. Customers pay only for what is of use to them and gives them value. Nothing else constitutes quality*”.(Darroch, 2009:P.8), this user-driven definition is based on the user’s perception resulting from the evaluation of his\her own entire experience.

2.1.2. “Quality of Life” Definition and History

The QoL notion has been rooted in the urban studies since the nineteenth century, it is a notion which refers to the better living conditions, in various aspects and life dimensions. Through history, there was a big shift from “Standard of Living” -which refers to tangible subjective dimensions and material conditions- to “QoL” - which refers to subjective indicators-.(Martins & Marques, 2009)

“The search for QoL has started with studies in standard of living and extended to the so-called post-industrial and increasingly urbanized societies for more than 40 years.” (Velibeyoğlu, 2014: P.49)

The quality of environment where people live can be viewed from different perspectives each represents a face of their lives. So, QoL should be broadly defined to include the most important aspects of life. The domain is determined through logical decomposing process of the QoL goals, then indicators can be developed by breaking down these domains into measurable elements, QoL is a wide notion whose aim is to make people achieve their goals and ideal lifestyle choices, it includes the overall well-being of the society.(Barofsky, 2004)(Barbara Barcaccia, Giuseppe Esposito, Maria Matarese, 2013)

QoL is a complex term, that requires multiple approaches from different theoretical perspectives, there is no universally accepted definition of QoL, there are more than hundreds of definitions regarding this notion in literature and there have been many attempts to define the notion in the different disciplines, the major definition of QoL can be described through “well-being” related to the individuals, and “good place” related to the location, *“Life quality refers to the degree of excellence or satisfactory character of life. A person’s existential state, well-being, satisfaction with life is determined on the one hand by exogenous (objective) facts and factors of his life and on the other hand by the endogenous (subjective) perception and assessment he has of these facts and factors, of life and of himself”*(Szalai & Andrews., 1982), and the World Health Organization Group defined QoL as *“QoL as an individuals’ perception of their position in life in the context of the culture and value system in which they live and in relation to their goals, expectations, standards, and concerns”, “The shared characteristics residents experience in places and the subjective evaluations residents make of those conditions”*(Myers, 1988).

Mark Rapley’s book “Quality of Life Research” in 2003 referred quality of life to individual’s happiness, life-satisfaction, well-being, self-actualization, objective functioning, balance, equilibrium or ‘true bliss’, prosperity, fulfillment, low unemployment, democratic

liberalism, and a full and meaningful existence, “a state of complete physical, mental and social well-being not merely the absence of disease”.(Podgorelec, 2003)

(Levent & Nijkamp, 2006) define UQoL as “the performance level of urban life towards the needs of communities or societies”, they evaluate the notion from a taxonomic perspective which contains seven dimensions explaining the notion through different terms and thus, they created multi-dimensional aspects of UQoL while addressing the spatial effect and the urban planning policies dimensions. They also conducted a diagram to explain the QoL components and related indicators -Figure 3 -.

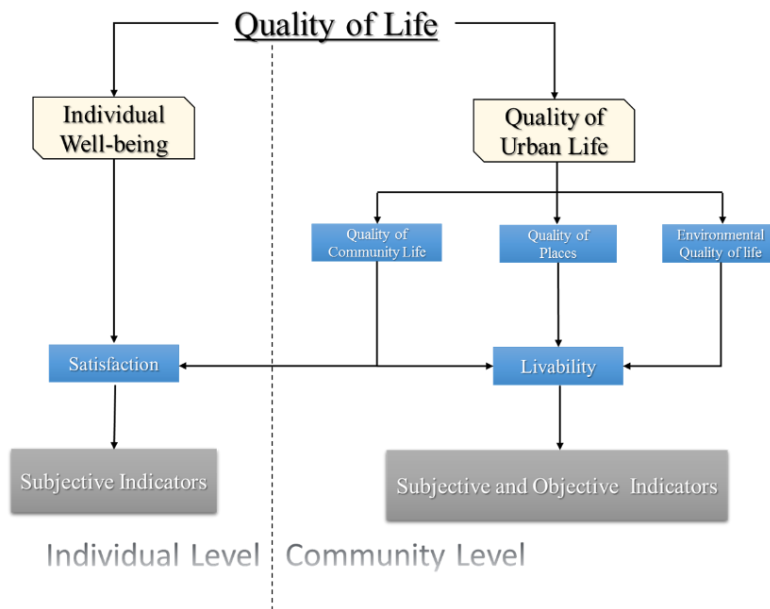


Figure 3: Components of QoL, Source: (Levent & Nijkamp, 2006)

2.1.3. UQoL Definition and History

Many terms definitions of UQoL can be found in literature, such as: livability, place quality, residents' satisfaction and sustainability. “Urban Quality of Life” is not a simple term with an agreed definition, it is rather a complex notion referring to both urban and rural areas, with several definitions defined by various disciplinaries. Among numerous attempts to define the notion, Myer writes that “a community quality of life is constructed of the shared characteristics residents experience in places (For example, air and water quality, traffic or recreational opportunities),

and the subjective evaluations residents make of these conditions’.(Ariane, 2012:P.10). Also, (Lotfi & Solaimani, 2009) concluded that satisfaction in the urban domain represents the overall satisfaction, therefore, policies aimed to improve QoL in region, will also include improving UQoL.

One of the most significance definitions was mentioned in HBRC journal “*The term urban quality of life is not used to describe some physical features but to describe all the relationship, the dynamics, and the reticular relationship that exist between those physical features. Thus, the definition of urban quality of life is network and complex rather than linear and very elementary*” (Serag El Din et al., 2013: p.87).

By studying the notion of UQoL along history, it is clearly concluded that after the second world war, many problems and drawbacks were facing the urban developments, such as:

- Diminished air quality
- Degraded sense of place
- Insufficient service levels
- High vehicle miles of travel
- Segregation in land uses

Therefore, urban theories, movements and approaches appeared in the twentieth century to overcome these draw backs such as: New-Urbanism, Smart Growth, Compact cities, Green Infrastructure, Neo-Traditional Planning, Livable Communities, Sustainable Development,...etc., and hence, controlling urban sprawl and enhancing UQoL through set of principles has become essential, to create proper communities for residents to live and work.(Ariane, 2012)(Abdel-Fattah, 2008)

This transformation through history can be clearly stated through four periods:

Regularization (Before and early 1900s)

The 19th century had witnessed the drawbacks due to the industrial revolution, therefore social reformers, designers and planners wanted to improve the situation, and the solution wasn't only limited to the physical change in the city plan, but also legislation was an important factor. Consequently, urban planning had a great role in improving people's life and enhancing a healthier living conditions in the industrial cities and metropolitan cities where the revolution took place. Plans and regulations were both the key of the required development from the social reformers' point of view and a necessity from economic and political perspectives, for example:

- Concerning British Bye-Law Housing: Designed and constructed healthy living areas.
- Concerning poverty and slums: Social reformers set a minimum standard for housing and wages, based on scientific rights and laws.

Social reformers introduced the term “Standard of Life”, an improved version of the common standards, as they identified the basic needs – food, water, shelter, safety, clothing,..- and calculated the minimum wages\salaries and revenues which meets their needs.(Velibeyoğlu, 2014)

Standardization (Interwar years, 1920 till 1940)

In this era, the term “Quality of Life” was introduced, especially in economics and welfare. Planners and social reformers were influenced by the progress idea in economics which was proposed by Frederick Winslow Taylor - a pioneer in the scientific management trend -. (Turan, 2015)

The idea of standardization in planning was as in any other field, a symbol of modernity. Therefore, in 1920, architects followed the trend and the context while designing and tried to keep costs down as possible, which results in minimum dwellings.

The main guidelines of urban development for designers, social reformers and planners of the post-war years, were:

- Le Corbusier, the founder of Modernism movement in architecture and town planning, oriented the design to masses of good housing with coherent set of quantitative standards through the different scales starting from the neighborhood, the district, the town, till the region.(Le Corbusier, 2007)
- Similarly, in USA, in 1929, Clarence Perry introduced the idea of “Neighborhood Unit” depending on the QoL in local communities (Brownlow, 1929). On the other hand, social reformers, designers and policy makers set higher standards and indicators for a healthy life standard as: easy access to recreational areas, healthy nutrition and good housing, and the state is the provider, so its role is to meet the standards in each discipline – food, clothes, recreational, housing, healthcare, education, ..etc.-. to obtain an affordable solution between the citizens’ need and the economic demand. Generally, quantification and standardization of living were main issues to the planners.

After the World War II, these standards were accepted and put into actions, as a part of “New Deal” policies. Subjective indicators

representing “Standard of living” have to satisfy the citizens’ needs and has been used as a pragmatic tool for measuring the quantitative QoL in urban communities. The main conflict was mainly rooted in the use of the two terms “Standard: predictable and quantitative” and “Living: unpredictable and qualitative”. (Velibeyoğlu, 2014)

Post-war years (1950-1980)

After World War II QoL concept was viewed in a deeper dimension, as it was used to emphasize “good life” depending not only on material affluence, but also encompassing additional factors such as: suitable employment, healthy housing, healthy environment, good healthcare, ..etc.

Post-war year witnessed great development in the urban agenda to achieve qualitative dimensions of well-being in two dimensions:

- *First:* Strong economic growth and production increase to feed the State and increase the income per capita, consequently material conditions improved. Huge projects were also constructed including infrastructure (like: Interstate Highway in the States)
- *Second:* Dissatisfaction with the social and environmental drawbacks and side-effects of the Modernism movement which arise many critiques in social and environmental disciplines. (Michel-Guillou & Meur-Ferec, 2017)(Lang, 2008)

“QoL Movement” can viewed through four main headings:

- *Urban design:* Due to the war, there were destructive effects of public housing and urban renewal projects which were criticized by many urban designers and social reformers, such as: Jane Jacob in 1960s in her most influential and popular book in urban design and city planning “Death and Life of Great American Cities” where she strongly critiques the urban renewal which created the policies related to the urban discipline that caused the destruction of communities and creation of isolation, she also figured out the loss of identity problem in public spaces (Jacobs, 1961). Kelvin Lynch, in 1960 in his book “Image of the City”, explained using mental maps to understand the visual quality from the view’s perspective in urban areas (Lynch, 1960). Appleyard in 1981, while studying the QoL in housing and residential areas, put down four main pillars: the street as ecology, accessibility, neighbourhood identity and child-rearing (Appleyard, 2011). There were also other contributions and studies focusing on

the determination of good physical quality which effects the citizens.

- Social movements: 1960s' cultural and political movements emphasized on keeping the historic urban areas of the city and preserving it from the urban development which changes its features, while the 1970s' environmental movements were keen improve life quality, planners and designers were oriented to improve the standards of living and quality. As despite the political issues, calculating the standards and achieving citizens' satisfaction was essential, since it is a subjective dimension. The main emphasis was "Livability" on qualitative, rather than quantitative features.(Murdie, 1992)
- Change in social science: social movements acted as a catalyst to speed up the changes in the field of social sciences, as the researchers of the field tried to understand the effectiveness and cognitions of the subjective reactions of social process and people. One of the main contributions in this field and the most popular is Maslow, a well-known psychologist, explained the pyramid hierarchy of needs - Figure 4-.

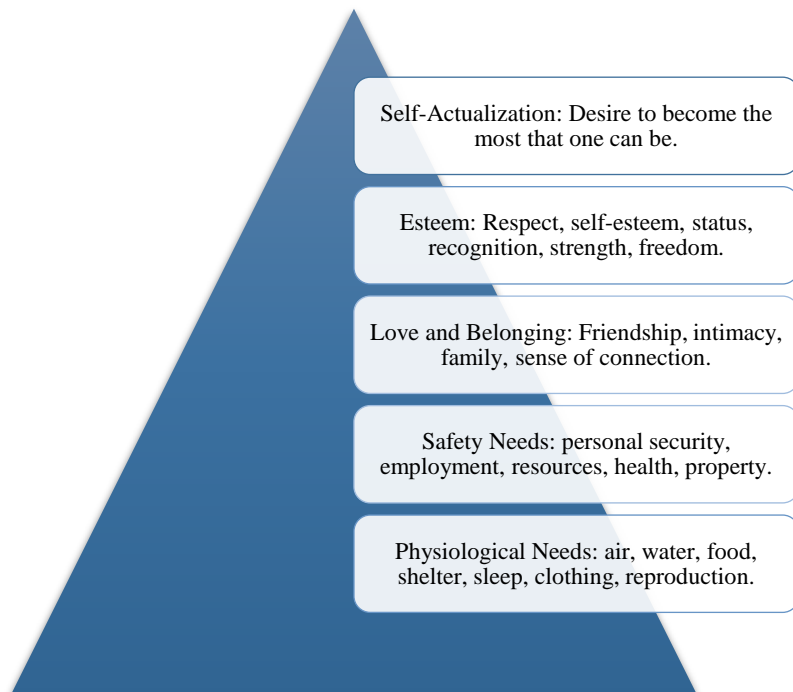


Figure 4: Maslow's hierarchy of needs, represented as a pyramid with the more basic needs at the bottom, Source:(Janis, 1998)

Starting from the 1950s, QoL research field focused on the subjective indicators, as during this period environmental design researchers were greatly concerned to let the residents deeply understand how to deal with their surrounding environments, as it is the main issue to create high quality places and buildings. (McCrea et al., 2011)

- *Economic development planning*: After 1950s, in the field of economic planning development, organizations like UN raised the international criteria of well-being, the Gross National Product (GNP) was regarded as an insufficient measurement. QoL movement was of a great importance, and subjectivity of QoL has been highlighted, and the standards of living as an objective attribute remained an important variable to test and criticize the living conditions evolution. In 1970s and 1980s, the search for the objective attributes of QoL has took place. UQoL indicators are viewed through different scales and levels of participations: city, district, neighborhood, ...etc. according to the World Bank experts, and the local democracy strength had an effective role in measuring QoL as it is an indication to the social participation.(Pacione, 2003)

Post-Industrial years (1980-onwards)

Early 1970s, and thanks to the great technology revolution of that era, a big transformation take place to change capitalism from industrial production to post-industrial bringing with it great changes in the different thinking ways around the world, environmental, political and cultural factors were considered a part of the social development and personal well-being, and thus, the role of the government changed to be an enabler not a provider. (Lotfi & Solaimani, 2009) (Velibeyoğlu, 2014), and the idea of “One size fits all” was avoided, and QoL subjective and objective indicators relation has been examined.(McCrea et al., 2011)

In 1980s, the world gave great importance to the QoL notion, thus it witnessed high rating place in literature, and was used as an indicator to compare cities.(Rogerson, 1999) (Myers, 1988)

Late 1980s, urban designers and economic developers worked together with planners and social reformers to enhance the field of QoL, with the help of local competitiveness, which was a main concern and issue of the post-industrial economy.

In 1990s, QoL discipline was mainly concerned with the local economic and environmental development process. This planning

approach is derived from the QoL studies, together with the sustainable environmental development studies and healthy cities perspective studies. (Murdie, 1992) There were two disciplines of development related to the QoL findings and studies, the first was maintaining the standard of living - QoL as a goal for people who are working in the manufacturing sector or the low order service -, while the second discipline was ensuring QoL as an objective indicator – highly skilled workers who were gaining from the social transformation and the new economic development -. (W. Morris & Kaufman, 1991) consequently, policy makers, planners and designers used QoL assessment and findings as an effective marketing tool and powerful method in attracting high-income knowledge workers, taking their desires more than their requirements and needs. (Rogerson, 1999) Another concern in post-industrial society related to the QoL studies was the increased duplication and fragmentation of urban spaces. The shifting scenario between “Standard” to “Quality” symbolizes the changes from industrial to post-industrial, material to non-material, quantitative to qualitative, objective to subjective, social achievement to marketing and modernity to post-modernity.

2.2. UQOL: Domains, Indicators and Dimensions

2.2.1. QoL Tools

In the specialized literature, many tools were found to measure QoL, it was an interesting field of study for many researchers, among these was Milbrath (1978) who conceives the environment as a collection of elements that has an impact on the individuals, he created a proposal framework with approximately 130 elements to be included in the “environment” definition, so diagnosis of the conditions can possibly be made as well as evaluation of quality. Therefore he differentiated between “environmental conditions” which is an objective attribute – measured objectively- such as: air levels, water quality, education level, indoor housing space area per resident, gross production per capita, rainfall for an area,...etc. While the “environmental quality” which is a subjective perception - measured subjectively-, deals with aspects such as: housing quality, waste management, infrastructure quality,...etc. which are all measured according to the evaluator’s perspective that varies according to different aspects such as: age, gender, education and income. (Velibeyoğlu, 2014)

From an urban social geography perspective, an example of this can be found in “The Geography of Social Well-Being in the United

States” (Marshall Smith, 1973) as he identified six main domains of QoL and he broke down these domains into further details to finally reach forty-eight QoL indicators, and the domains of social well-being are;

- Economic status: income, welfare and employment.
- Environment: housing, air pollution, open spaces and streets.
- Health: morality and chronic stress.
- Education
- Social Disorganization: family breakdowns, overcrowding, safety, public order, delinquency and personal pathologies.
- Participation and Equality

Also, (Rogerson, 1999) - Figure 5- determined the concept of “Environmental QoL” as a combination of material and personal arena, this model has been applied to an urban project in Istanbul Türksever and Atalık, in 2001.(Velibeyoğlu, 2014)

- The Material life arena consists of a series of services, goods and other attributes related to physical, social and economic environment in the geographic space where people live.
- The Personal life arena: characterized by the people and assessment of their satisfaction and well-being.

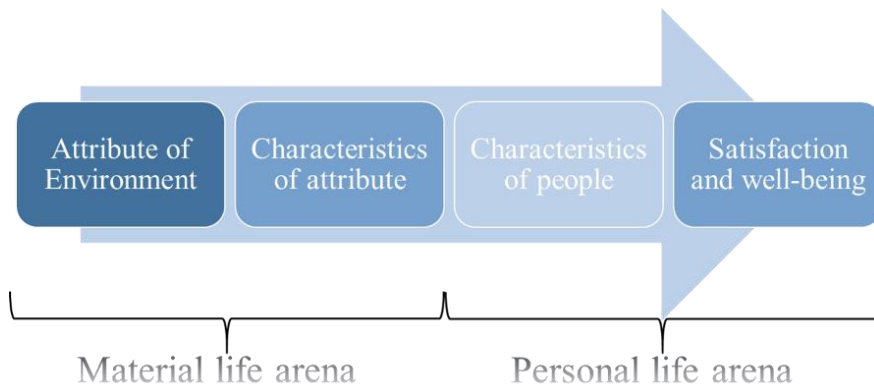


Figure 5: Conceptualization of environmental QoL, Source: (Rogerson, 1999)

While in 2000 Shafer, Turner and Lee in their research “A Tale of three greenway trails: User perceptions related to quality of life” described a conceptual framework -Figure 6 - explaining how livability, QoL and sustainability are related to each other, as “Livability” is the result of the interaction between physical and social domain, “Sustainability” is the result of the interaction between physical and economic domain, the interaction between these three domains represents the QoL.

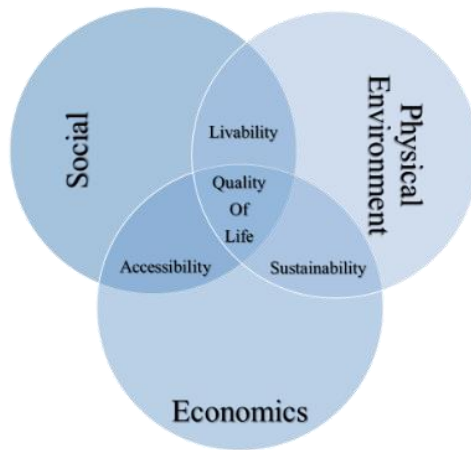


Figure 6: QoL from Human Ecological Perspective, Source: (Shafer, Turner, & Lee, 2000)

2.2.2. QoL Measures

Social reformers and designers in the 1960s added the need of communities, and active citizenship. In 1970s QoL is regarded as an academic discipline, as the scientific journal “Social Indicators Research” was established in 1974. (McCrear et al., 2011), also many international organizations have supported the QoL studies such as The United Nations Educational, Scientific and Cultural Organization (UNESCO), The World Health Organization (WHO) and The Organization for Economic Co-operation and Development (OECD).

In the 1960s, UNESCO aimed to reduce poverty and used the basic need approach in the development process, and it emphasized on achieving residents’ basic needs satisfaction such as shelter and food. Therefore, QoL notion extended to include education, health, security, liberty in addition to the basic needs’ satisfaction (U. N Habitat, 1996). In the 1970s, OECD started to work in social indicators program of work and QoL in this era has been viewed as an indicator for the public health. (Rogerson, 1999) (Marans, 2012).

In 2000s, European Communities researched the comparative study between the QoL in the different European cities, and published a report concerning the issue: “The Urban Audit: Towards the Benchmarking of Quality of Life in 58 European Cities” (European Commission, 2000) and since then The European Quality of Life Survey (EQLS) examines the different dimensions and domains of QoL using surveys.

In 2001, the Centre for Health Promotion, University of Toronto, defined the term quality of life through three main terms: “Being: who

one is, with physical, psychological and spiritual Components, Belonging: connections to one's physical, social and community environments, Becoming: the day-to -day activities that a person carries out to achieve goals, hopes, and aspirations with practical, leisure, and growth aspects.”(Potvin, L., Haddad, S., and Frohlich, 2001).

Starting from 2003, the European Quality of Life Surveys (EQLS) are carried every four years including objective domains such as: Economic situation, Housing, Local Environment, Employment, Education, Skills, Household Structure, Family Relations, Work-Life Balance, Health and Health care and subjective topics such as: Happiness, Satisfaction, Subjective Well-being, Perceived QoL of their society, the results of these surveys are taken into consideration by the public debate at European Union. Through years and from the different surveys, EQLS has put down a various set of indicators in the different domains including environmental and social aspects, these indicators are easily integrated into the decision-making process. So far, Eurofound carried out four waves of these surveys – in 2003, 2007, 2011 and 2016) and compared the different results to investigate the stability and changes. (Grijpstra, de Klaver, van der Graaf, Veldhuis-Van Essen, & Weijnen, 2013)(Shucksmith et al., 2006)

In 2012, (Ariane, 2012) concluded that UQoL includes QoL, Sustainable development and Urban Planning, as in Figure 7:

- Quality of Life: can be classified into public and private. Public QoL is related to public choices such as allocating services like airports, hospitals, amenities,...etc., while Private QoL is concerned with improving the individual's QoL as a part of the environment. Therefore, it can clearly be concluded that the QoL of the individuals in a society include both terms private and public quality of life, and they both are used to fulfil people's aspirations and need.
- Sustainable Development: QoL is strongly related to the sustainable development, QoL doesn't only reflect the social dimension of sustainable development, it is also affected by economic, social and environmental conditions. The world commission on Environment and Development defined Sustainable QoL as “meeting the needs of the present without compromising the ability of future generations to meet their own needs”.

- Urban Planning:

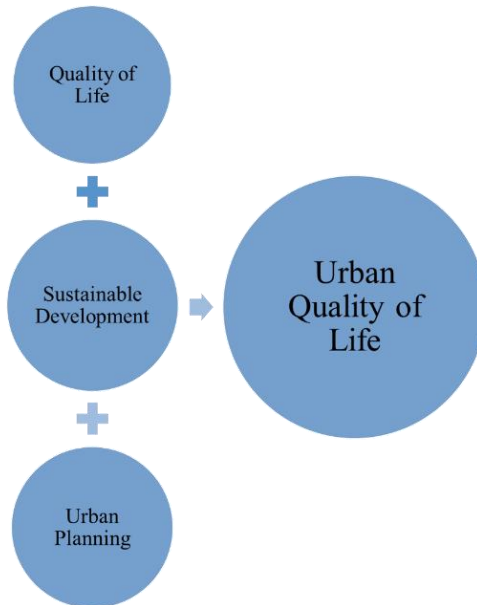


Figure 7:UQoL pillars, Source:(Ariane, 2012)

Specified literature studies on QoL have focused on three main aspects (as shown in Table 1): individual well-being, health-related quality of life (related to the individuals) and urban quality of life (related to the environment), and the UQoL study has become a wide interest in both developed and developing countries, through different disciplines: urban sociology, economics, political, marketing, planning, geography and management.(Velibeyoğlu, 2014) Therefore, QoL can be concluded as a multi-layered multi-dimensional notion, multi-layered as it is represented through many levels individual, family and community, and multi-dimensional because it is a reflection of different disciplines of life like social, economic, physical, etc. and it works on different scales ranging from small to large scales, from a local street, to a country).

Table 1: Research Domains in QoL, Source: Data adapted from (Velibeyoğlu, 2014), visualized by the author

	Individual\ Personal Well-Being	Health-Related QoL	Environmental (Urban) QoL
Related Discipline	-Psychological -Sociological	-Health-Care field (nursing, medicine, mental health, disabilities,)	-Economy -Geography -Urban Planning -Political Science
Research Area	-Residents' satisfaction	-Importance of environmental and social forces for health	-Interacting relationship between people and environment

Finally, it can be clearly concluded most of the studied and literature on QoL agreed that the most common domains of QoL are:

- Social Domain: education, leisure, health and medical care, social environment, public security, social opportunities, community affordability and social well-being.
- Urban Domain: housing, landuse, transportation and mobility, physical environment, natural environment, recreation, population resources, government services, education and health services.
- Economic Domain: employment, food nutrition and financial consumption.
- Political Domain: Justice, government and political rights.

2.2.3. UQoL Domain

The desire of improvement of residents' life quality is an important issue to designers and planners. Therefore, many attempts were carried out to identify UQoL domain, for example: Clark and Khan in 1988, McCreaa et al. in 2005, Chor Chin and Foog in 2006, Richards et al. in 2007.....etc. Improving UQoL doesn't only mean the physical aspects -like the bricks and mortar of the buildings- because UQoL is influenced by all aspects of urban environment including natural, built, economic environments, in addition to:

- Human satisfaction with the different attributes like transportation, existence of public urban spaces, recreational opportunities, land use patterns, population, building densities, services and public amenities accessibility.
- Social attributes such as offering mixed-use of housing and services, promoting equality, social integration, respecting diversity, improving education, preserving historic, spiritual, religious and cultural buildings and districts.
- Environmental attributes such as respecting local landscape and plantation, taking care while treating the local environment.

(Campbell, Converse, & Rodgers, 1976)- Figure 8- illustration of the relationship for different satisfactions domain is very useful, as they argued that the context and the evaluator person are the most important elements in understanding the notion of UQoL. Context-Objective attribute-, is the actual situation of person's life, so they evaluate the residents' assessment concerning life as a whole and their assessment about several domains of their lives, so as to determine the degree of satisfaction of each domain and its relevant to the QoL experience, as they argued that people's assessment reflects the domain satisfaction - objective attribute-, while the quality of a place\neighborhood \city is a subjective attribute which differs according to the evaluator's perception and perspective based on his\hers past experiences. Decision and policy makers are seeking means of enhancing the residents' satisfaction, because satisfaction is an indicator to the individuals' well-being, which is the main outcome in the QoL research.

The authors developed a model - Figure 9- to illustrate the relation between the satisfaction domains and explain the relationship between the different residential domains and how do they contribute in QoL as they work together with other domain satisfactions.

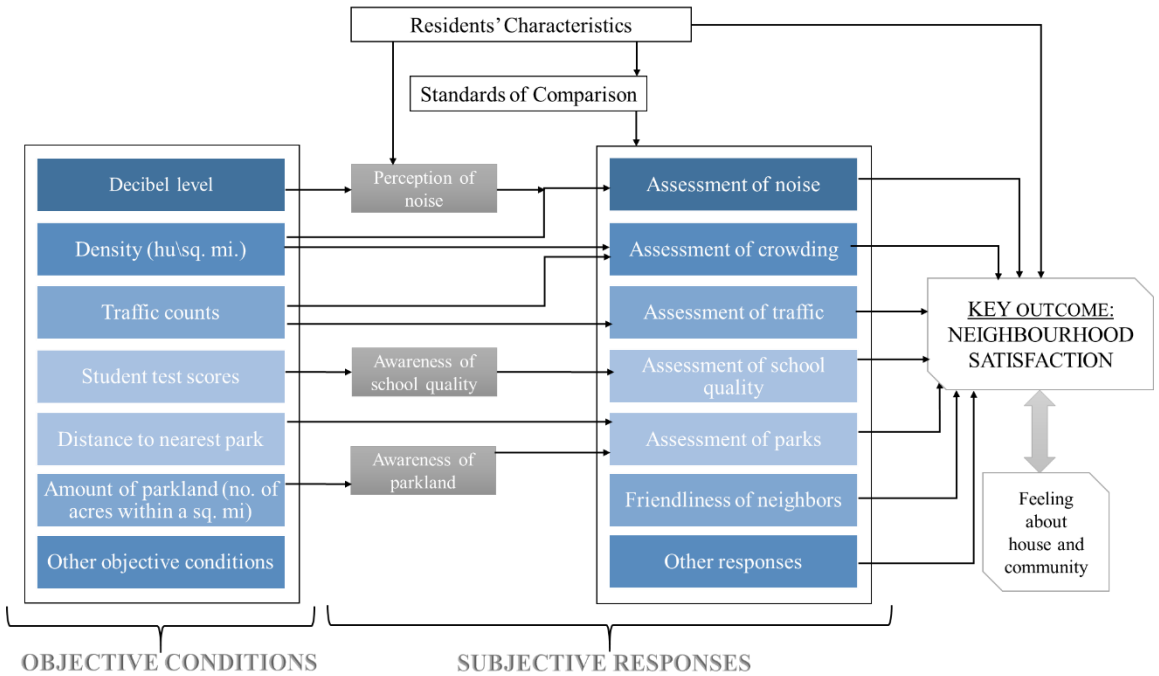


Figure 8: Model illustrating the relation between satisfaction domains, Source: (Campbell et al., 1976)

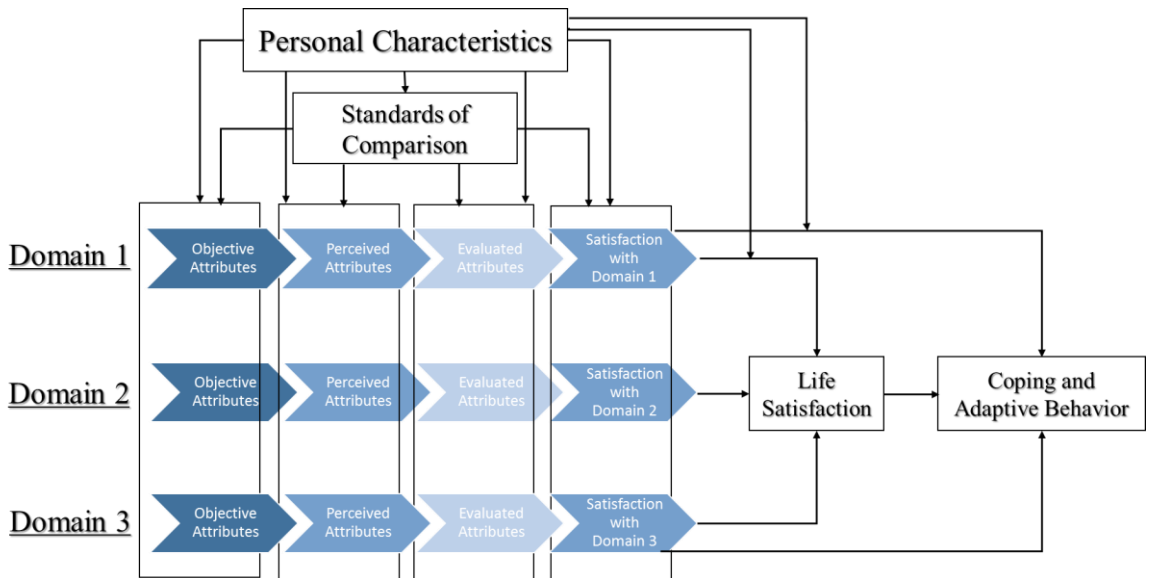


Figure 9: Objective conditions, subjective responses, and neighborhood satisfaction, Source: (Campbell et al., 1976)

(Murdie, 1992) - Figure 10- developed a conceptual framework for explaining QoL as an urban setting incorporated a substantial number of elements taken from traditional writings on the concept, the framework has four main components:

- The First component: outlines the economic, political and social context in which the local government makes its decisions, this component aims to measure the influence of the local conditions on QoL.
- The Second component: contains the quantitative measurements of objective inputs that appear in the local environment and facilities.
- The Third component: includes measurements of outputs which forms the results of the input measurements, for example: the money spending on secondary education per capita (an input measurement), can be related to the drop-out rate in secondary schools (an output measurement).
- The Forth component (most complicated): based on qualitative data, as the household's characteristics, which are affected by personal characteristics, directly affects the overall satisfaction, these two kinds of characteristics can change the perceptions of the objective reality and interpretations of the difference between what is going now and what is desirable.

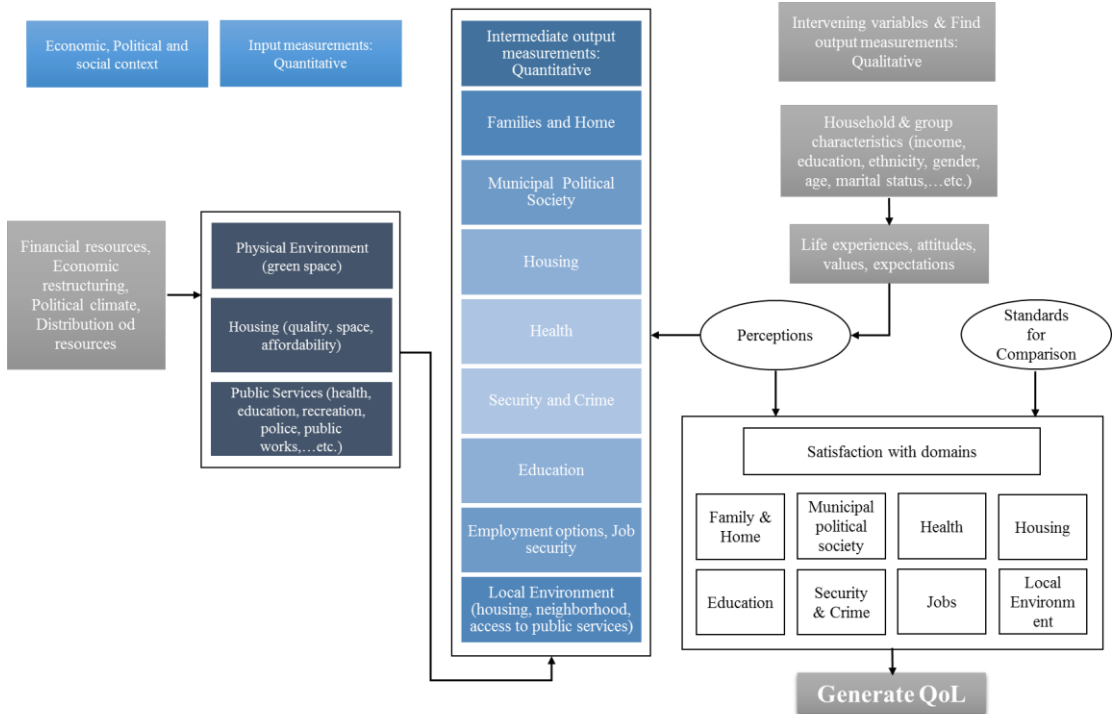


Figure 10: Conceptual Framework of Urban QoL, Source:(Murdie, 1992)

(Pacione, 2003) highlighted the importance of time frame in QoL studies which are applied to urban settings by developing a five-dimensional model - Figure 11- which has a great value for the study of QoL -taking into consideration specific contexts-, to examine the main theoretical and methodological issues related to QoL, as he addressed the urban environment quality and human well-being from different socio-spatial context, the model addresses:

- Domains (level of generality/specificity)
- Scale-level (geographical scale from local to international)
- Time frame
- Indicator type (objective/subjective)
- Social groups (class, age, etc.).

In 2006, Pacione’s model - Figure 11- was used in “Spatial De-Concentration of Economic Land Use and Quality of Life” in European Metropolitan Areas, a three-year project whose aim was to analyze the effects of economic de-concentration on the QoL in 14 European metropolitan cities.

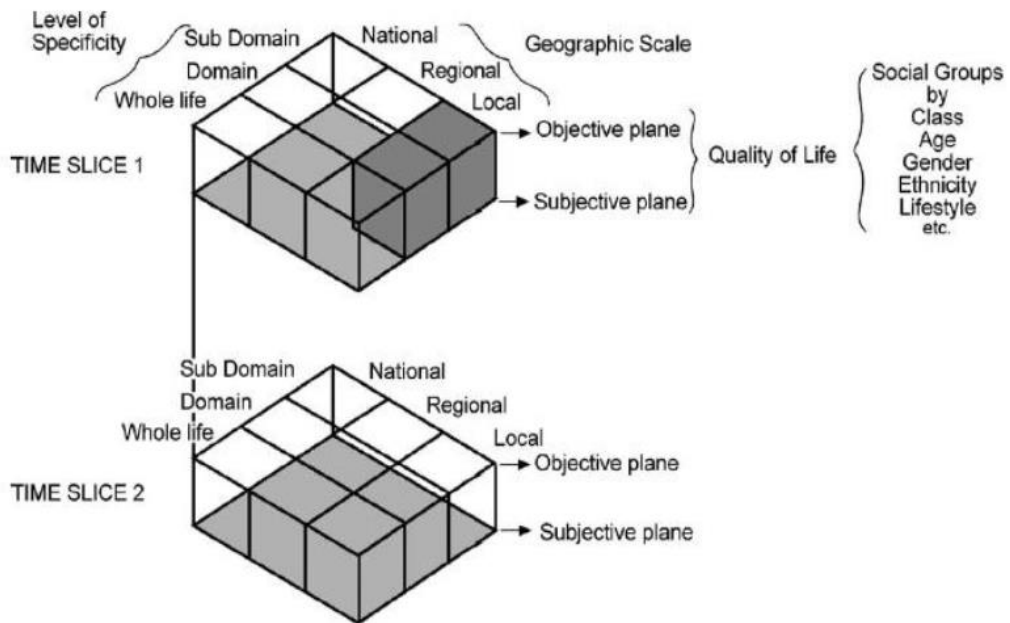


Figure 11: Five-dimensional model of QoL, Source: (Pacione, 2003)

(Jirón & Fadda, 2015) Created an empirical analysis of UQoL from a gender – cuts across all other social relationships such as: age, religion, social class, ethnicity,...- and an environmental perspective, which argued that certain definitions such as: human beings, people, communities, households, etc. contain diversity of relations and not a

necessity to have the same needs, so they cannot be treated as a homogenous group. They argued that the variation in perception is due to the difference in gender relations, the needs and roles to access resources and due to the decision-making processes within the household, these concepts needs evaluation in order to determine the satisfaction degree of users in their habitat, this perspective provides essential criteria for the designing process to obtain direct subjective and objective data.

This review (Conceptualization of UQoL) suggests that there is no agreed conceptual framework has been developed, they rather concluded that based on different theories and notions, a broad range of disciplines addresses different aspects of UQoL. (Marans, 2012) developed an approach of UQoL related to the experience, the overtime change is the main argument of the approach, the behavior changes of residents together with the dynamic change of cities had structured his approach. He assured that the quality of any geographic setting cannot be defined with one single measure, and multiple attributes are required, and UQoL has become a dynamic concept instead of a static one, focusing on the urban development based on a longitudinal measurement, and therefore his approach requires new measurement indicators to be able to take into consideration the overtime changes, and not only assess and describe the current situation, but also predict the unbuilt situations.

2.2.4. UQoL Surveys and Indicators

Quality of a product can be measured according to its physical and functional attributes but concerning UQoL both subjective and objective measurements are essential in the evaluation process. UQoL is a complex relationship between many dimensions, this relationship differs from one context to another according to places, cultures and societies.

(Mccrea & Stimson, 2011) defined UQoL in two broad ways according to two measurements traditions, “Objective measurements” tradition and “Subjective measurements”

Subjective UQoL

- *Subjective*: UQoL has been conceptualized as satisfaction in many domains such as: housing and neighborhood satisfaction, which constitutes the overall life satisfaction along with satisfaction in other life domains. (Mccrea & Stimson, 2011)

Objective UQoL

- Objective : UQoL has been conceptualized as a weight average of various objective measures of urban environment such as: costs of housing, pollution levels and rates of crime. (McCrea & Stimson, 2011)(Lotfi & Solaimani, 2009)

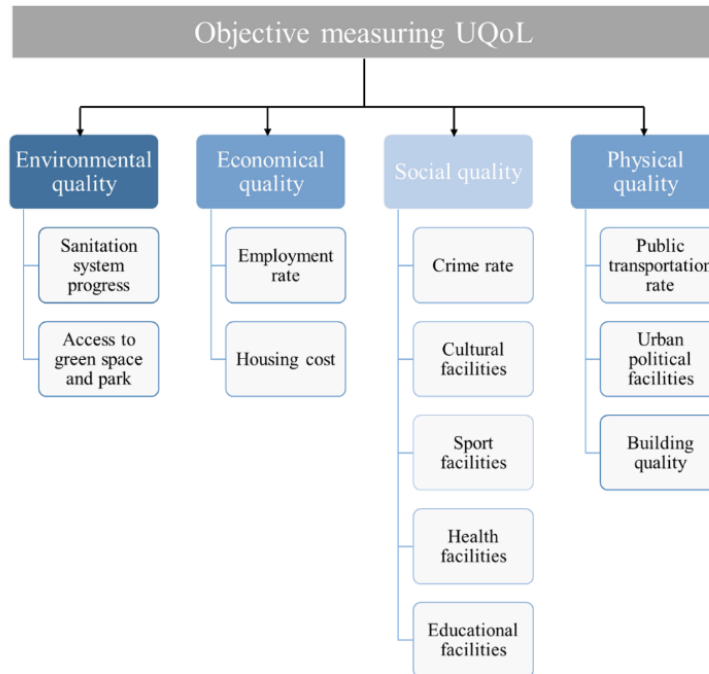


Figure 12: Decision model for objective measuring UQoL, Source:(Lotfi & Solaimani, 2009)

Two sets of indicators can be clearly stated for measuring UQoL ‘Objective’ and ‘Subjective’.

- The first approach: Subjective Indicators, Quantified qualitative indicators, measures of feeling about happiness or satisfaction -in urban domain or the overall satisfaction-through questions, interviews... about their happiness level, then these answers are analyzed and represented through the most two common methods: Likert scale (for example: 1=very satisfied, 5=very dissatisfied) or Bipolar scale (single dimension score, for example: delight, terrible). An evaluation and examination criteria of a selected area, based on the judgment of the researcher, and it depends on the individuals’ conditions and can be achieved only after exploring the necessary situations of people’s life in various aspects.

The second approach: Objective Indicators, Quantitative statistics to determine the fulfilment of residents' basic needs in the surrounding urban environment.(Ariane, 2012) (Mccrea & Stimson, 2011)(Lotfi & Solaimani, 2009). Explores life quality as a multidimensional notion, it aims to describe the multiple domains of the quality of life as well as their interrelations. Researches based on this approach aimed to rank urban settlements according to climatic conditions (air quality), demographic features (population density, income, unemployment rate, crime rate...), transportation and access to urban areas (mix-uses, green network, services allocations...), ecological features (natural assets).

- The third approach, Both Subjective and Objective Indicators, which helps people define their identity, aspirations and the directions of their life, finding meaning when associated with objective life conditions.(Shucksmith et al., 2006)

As agreed by many researches, and from what is previously mentioned, two sets of indicators can be clearly stated for measuring UQoL 'Objective' and 'Subjective', consequently, there are two measuring approaches: 'Objective UQoL' and 'Subjective UQoL' and using both approaches is the most appropriate way to examine to reach precise results. (Babaei & Ajzashokouhi, 2013) "*By weighting each of these criteria, a total score can be calculated for given geographical scale of the study. These scores are supposed to represent the UQoL of this settlement.*"(Velibeyoğlu, 2014:p.2). For these set of indicators to be useful in examining the current state and help in guiding decision makers about further development scenarios, both subjective and objective indicators should be included in the assessment process, as agreed by many researchers: (Mccrea & Stimson, 2011)(Shucksmith et al., 2006)(Barofsky, 2004)

2.3. Planner's Role

From an urban planner's point of view, (Myers, 1988) created a model -Figure 13- to identify planning's axial position in relationships system, in order to understand QoL and its strategy. The conceptual model to explain how do QoL interact with broad process of urban development. The outer loop of the model represents the relationship starting from QoL till business attraction, to urban growth and then back again to QoL. Although QoL enhance economic development, the resultant urban growth changes QoL. The second relationship explains how planning helps to reduce the damage effect resulting

from the growth. Myers has also developed community trends approach, in order to define and measure QoL for a certain community, this approach assures the role of QoL in a system of on-going development process, Myers emphasizes that crucial information needed is locally specifies longitudinal measurement of QoL, although comparisons with other places can be informative. Myer said that QoL changes in time, he also said that as development improves, urban amenities – such as: restaurants, arts, entertainment...etc.- and job opportunities also improve, but other QoL aspects decline, therefore, in order to improve the overall QoL -by offsetting the damage of other components- urban amenities must be developed. He also differentiated between the perceive of the net QoL according to the context, as if the community’s main attractions were rural, therefore the residents’ will perceive the change in the net QoL negatively, but if the community’s main attractions were urban, therefore the residents’ will perceive the change in the net QoL positively.

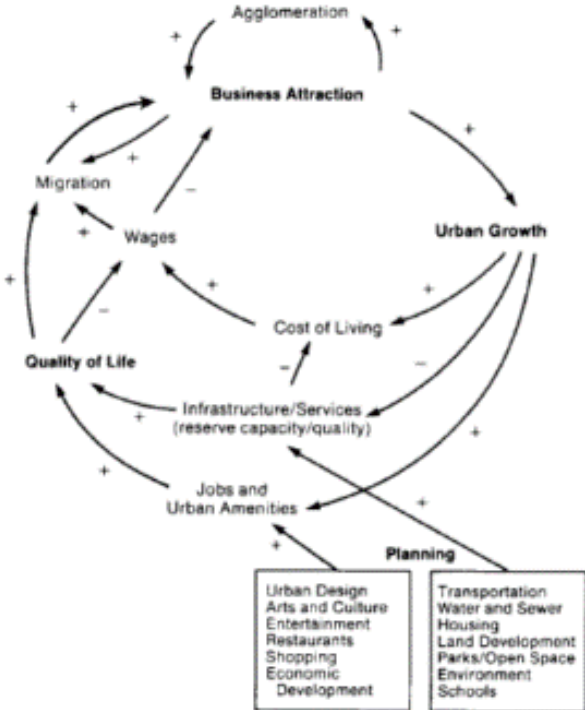


Figure 13: Myers framework, Source:(Myers, 1988)

Also, the planners and designers' role to identify, study and develop the notion along the history can be summarized into - :

Table 2: Relation between Public policy, urban planning and UQoL notion, Source: Data adapted from (U. N Habitat, 1996) (Serag El Din et al., 2013) (Jacobs, 1961) (Michel-Guillou & Meur-Ferec, 2017)

	Public Policy	Urban Planning Strategies	QoL Notion
Regularization (Before and early 1900s)	<ul style="list-style-type: none"> -Struggle against poverty and slums. -Creating healthy environment for peoples to live in, was a main target. 	<ul style="list-style-type: none"> -Social Reformers. -”Garden city” movement. -City planning approach. 	<ul style="list-style-type: none"> -Putting down standards for good living to enhance the living conditions, based on poverty measurements.
Standardization (Interwar years, 1920 till 1940)	<ul style="list-style-type: none"> -Main target: State as a provider of higher standard of living. 	<ul style="list-style-type: none"> -Modernism movement. -Le Corbusier’s vision of architecture and -Minimum dwelling idea. 	<ul style="list-style-type: none"> -Standardization of living. -State as a provider. -Quantitative methods of standard of living. -Start of QoL empirically research.
Post-war years (1950-1980)	<ul style="list-style-type: none"> -Main target: Shifting from basic standard of living to demands for higher order wants. -Environmentalism and Social movements 	<ul style="list-style-type: none"> -Modernist urban renewal and post-modern architecture design. -Focus on the urban space studies, identity and sense of community. -Large scale modernist projects by urbanists as Jane Jacob. 	<ul style="list-style-type: none"> -QoL movement. -QoL was viewed as higher order wants. -Search for objective QoL standards in various levels. -Maslow’s Pyramid of needs. -Development of social indicators.
Post-Industrial years (1980-onwards)	<ul style="list-style-type: none"> -Main target: Enhancing the QoL, especially the economic competitive. -Globalization and change in the economic discipline. -High-tech industries and Sustainability approach development. 	<ul style="list-style-type: none"> -Collaborative planning practice that help to rehabilitate the memory of city. -Urban designers collaborate with economic developers to improve the attractiveness of places, appearance of the importance of placemaking. 	<ul style="list-style-type: none"> -State as Enabler. -The shift from need to desire. -Environmental quality and public health as a new area in the QoL research. -Objective and subjective indicators as main criteria in QoL research.

2.4. Summary

From this chapter, it can be clearly concluded that although many attempts were carried out to define the notion UQoL, still we don't have an agreed definition, UQoL is a wide notion that has been a challenge in the research field in the last decades, not only for researchers, but also for international organizations with its both approaches of study, it started with studies in living standards and extended to what is beyond. In this chapter studying the notion of UQoL took place and the main discussion lines in this field was summarized. UQoL offers innovative methods and dimensions/ways to examine, diagnose and propose alternative solutions to enhance and improve the residents' conditions in both existing urban areas and control the new developments. These dimensions theoretically on a neighborhood scale to guide and help the policy makers and suggested the practical application of the study which will be discussed in the next chapters.

Finally, the main topic points can be classified and concluded in Figure 14 as:

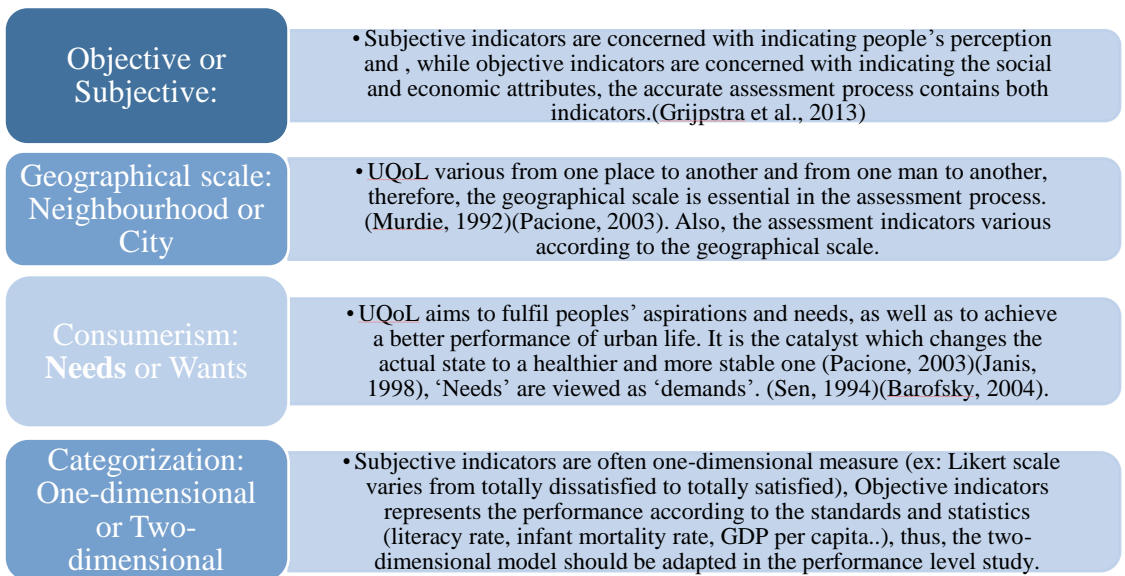


Figure 14: Evaluation and Conclusion of UQoL historic review, Source: Data adapted from (Ariane, 2012) visualized by the author

The chapter also included the dimensions, indicators and approaches used to examine UQoL, these indicators will be updated in (Chapter 3), so as to be used in the examination process which will be carried out in (Chapter 4) to recommend guidelines (Chapter 5).

The research structure and flow by the end of the chapter can be summarized as - Figure 15:

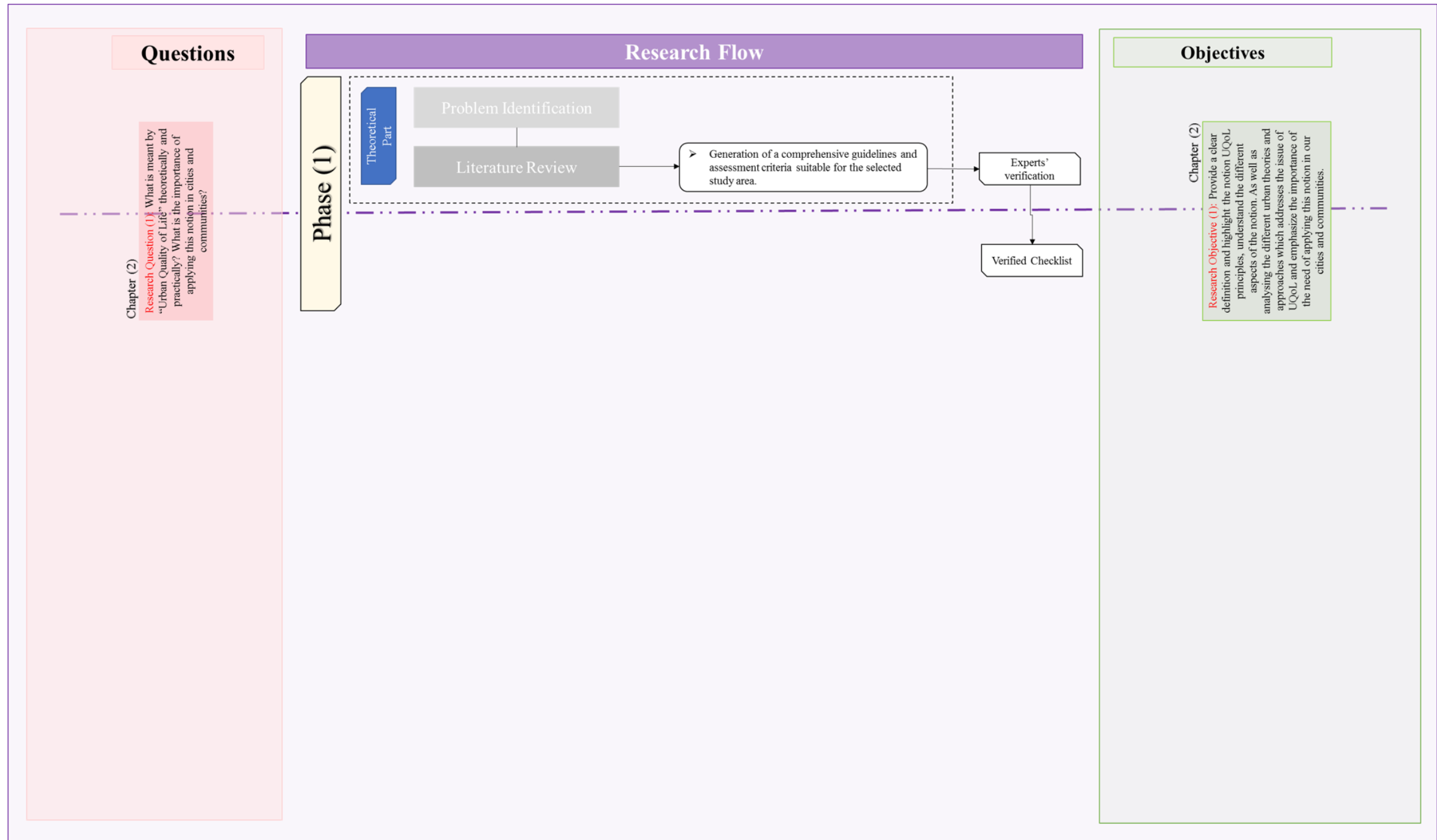


Figure 15: Research Methodology and Flow, Source: Author



CHAPTER THREE: CHAPTER THREE:
UQoL INDICATORS IN GATED

3. CHAPTER THREE: UQoL INDICATORS IN GATED COMMUNITIES

This chapter investigates the definitions, indicators, categories...of GC phenomena. The chapter summarizes the history of GCs development and the classification on the international and local scale, as well as the reasons and consequence of escalation of this phenomenon.

UQoL criteria was conducted (Chapter 2) and will be developed in this chapter to have a criteria of examination of UQoL in GCs which will be used in the examination process (Chapter 4) to find out the recommendations and suggest guidelines (Chapter 5) for the study area (New-Cairo City).

Gated Communities (GCs) have lately been an ‘object of study’ in research field, to highlight its advantages and disadvantages, as no one can remain neutral to this urban fabric since it is increasing all over the world. The chapter will highlight the main aspects and domains related to GCs.

3.1. GCs: Definitions and Characteristics

The influential urban typology is defined using several terms and definitions as: Gated Communities (GCs) (Blakely & Snyder, 1999), ‘enclosed neighborhood’ (Landman, 2000b), ‘gated enclaves’ (Grant, 2005), ‘edge cities’ and ‘city of walls’ (Grant, 2005). GCs is a housing estate containing strictly controlled entrances and fences to only allow the accessibility of people who live there, public spaces inside a GC has been privatized by restricting the entrance of non-residents through implementation of security, It consists of local residential streets with different shared services and amenities, they offer a high quality housing and a better lifestyle for the residents who pay the maintenance fees, they are characterized by having an internal governing body to ensure the achievement of rules. (Ibrahim, 2011a) (Marafi, 2011). First, they were constructed for security issues, but now, they are representing a model for having a better life quality.(Charmes, 2012)

3.1.1 GCs definition through literature

In specialized literature, the phenomena is variously defined through different definitions from different viewpoints and different researchers, as “*A residential area with roads that have gates to control the movement of traffic and people into and out of the area*”(Stevenson, 2010) and generally defined as: “*Gated*

Communities are walled or fenced by boundary, and their public access was restricted, often guarded using CCTV or security personal” (Atkinson & Blandy, 2006:P.177)

(Blakely & Snyder, 1999) studied the wide characteristics of GCs as residential areas strictly accessed to prevent the entrance of non-residents, they are in the suburbs as well as the inner cities, and in all levels of neighborhoods from the richest to the poorest, that is why the researchers viewed gating-up as a phenomenon related to the whole society and not only restricted to just wealthy families.

According to (Landman, 2000a:P.4) *“Gated communities can include both enclosed neighborhoods and security villages. Enclosed neighborhoods refer to existing neighborhoods that have controlled access through gates or booms across existing roads. Many of these neighborhoods are fenced or walled-off, with a limited number of controlled entrances/exits. Security villages refer to private developments where the entire area is developed by a (private) developer. These areas, for example secured golf estates, townhouse complexes, office parks, etc. are physically walled- or fenced off and usually have a security gate or controlled access point.”*

(Caldeira, 2001) viewed GCs as ‘closed condominiums’, which includes firm fenced walls with secured entrances, they contain various open spaces and amenities. Caldeira agreed with Blakely and Synder on some features, in addition to her own attributes such as social homogeneity of citizens, existence of services for the residents and their autonomy, which allow these fabrics to be self-contained. She concluded that these GCs offers good life quality and high level of services, as each GC attract certain target group, which make its residents socially homogenous, regarding several disciplines as: religion, class, interest, values and ethnicity. (Svampa, 2001) assured that social exclusives and segregation are two important issues to be put into consideration while analyzing the GCs, the study disagreed with viewing GCs as isolated areas, but rather articulated with various kinds of services and amenities.

(Graham & Marvin, 2002) viewed GCs as secessionary networked spaces’ that includes built spaces and infrastructure for wealthy citizens.

(Atkinson & Blandy, 2006) highlighted two new points in the GCs definition, first: neighborhood government which manage the responsibilities and rights, the second: existence of a code of conduct to rule life within the GC. They studied GCs as walled housing developments, public users are restricted to enter, only their residents can, and usually contain collective responsibility for management.

But many researchers have questioned, should they be called “GCs”? especially when gates are opened. Besides, many questions were raised on using the term “community” since many researchers tends to prove that these urban fabrics don’t contain encourage having a “community”, thus, some authors use the term: gated residential developments”.

Many studies were conducted to search for a definition concerning this term, they were mainly focused and difference in the physical and social aspects, while they agree on other elements as: housing types, socio-economic status and location.(Roitman, 2010). Some other researchers have a different perspective, (Amin, Graham, & Login, 1997) are among those, they argued that it is impossible to totally with draw a GC from a society, as there will never be a physical separation for a community, so, GCs are not isolated and can never be totally detached from the society.

Therefore, and based the various attempts which were conducted by researchers, we can clearly conclude that GCs’ most agreed definition is: *“Closed urban residential settlements voluntarily occupied by a homogeneous social group, where public space has been privatized by restricting access through the implementation of security devices. Gated communities are conceived as closed settlements from their inception and are designed with the intention of providing security to their residents and prevent penetration by non-residents; their houses are of high quality and have services and amenities that can be used only by their residents, who pay regular compulsory maintenance fees. They have a private governing body that enforces internal rules concerning behavior and construction.”*(Roitman, 2010: P.32)

3.1.2 Identification of GCs

GCs are identified according to various factors:

1. *Physical boundaries*: which create visual screening, define the property line and separate it physically from the surrounding context.
2. *Street network patterns*: inward oriented, mostly cul-de-sac.
3. *Land-use pattern*: (Grant, 2005) argue that single land-use is commonly used in GCs, rarely using mixed uses. (Carmona & Tiesdell, 2007) deduced another perspective *“all over the critics of the functional zoning, market conditions are generally necessitated the mono-functional areas. Because developers and property owners demand to develop their property in its highest and best possible use, so it is caused to*

reduce the secondary uses". GCs are physically separated; public spaces are accessed by the GCs' residents only and not allowed to be accessed by the non-residents.

4. *Housing type patterns*: allocation of similar housing typologies with the same social and financial standards together, to control amenities and services.(Blakely & Snyder, 1997).
5. *Social Homogeneity*: GCs residents form social group of the same social and spatial fabric.(Ibrahim, 2011b)

Many researchers studied the GCs' identification in the Egyptian context and many attempts were made to set a list of identification for GCs, which can be summarized into:

- 1.Official documents and license: Based on government's officials in (NUCA), GCs are licensed as integrated urban project.(NUCA, 1999)
- 2.Closure and Privatization/Physical boundaries: which create visual screening, define the property line and separate it physically from the surrounding context in addition to providing security to the GC. (Shetawy, n.d.) (Stevenson, 2010)
- 3.Street network patterns: inward oriented, mostly cul-de-sac.
- 4.Land-use pattern: (Grant, 2005) argue that single land-use is commonly used in GCs, rarely using mixed uses. (Carmona & Tiesdell, 2007) deduced another perspective
- 5.Housing type patterns: allocation of similar housing typologies with the same social and financial standards together, to control amenities and services.(Blakely & Snyder, 1997).
- 6.Social Homogeneity/Class Homogeneity: GCs residents form a group of same social and spatial fabric.(Ibrahim, 2011b)(Shetawy, 2012)
- 7.Code of governance: GCs have their own private governance. (Shetawy, 2012)
- 8.lifestyle. (Shetawy,2012)

3.1.3 Classification of GCs

Among many attempts to classify GCs, Blakely & Snyder in 1997 defined studied GCs as “GCs are systems of walls and class division are deeply ingrained in historic Europe as a mean of wealthy people protecting themselves from the local population”, (Blakely & Snyder, 1999) and investigated the categorization of GCs into -Table3 -:

Table3: General typologies of GCs, Source: Data adapted from (Grant & Mittelsteadt, 2004) (Nazmy, 2016), Visualized by the Author

Types	Features	Subtypes	Characteristics	Examples
<u>Lifestyle</u>	<ul style="list-style-type: none"> -Leisure class shared amenities. -Reflect small town nostalgia. -May be urban villages, luxury villages or resort villages. 	<ul style="list-style-type: none"> -Retirement -Golf and Leisure -Suburban new town 	<ul style="list-style-type: none"> -Age-related complexes with amenities and activities. -Shared access to active lifestyle amenities. -Master-planned project with amenities and facilities. 	El-Sherouk Panorama, El-Sherouk City.
<u>Prestige</u>	<ul style="list-style-type: none"> -Reflects desire for image, privacy and control. -Focus on exclusivity over community. -Only few shared facilities and amenities. 	<ul style="list-style-type: none"> -Enclaves of rich and Famous -Top-fifth Developments -Executive middle class 	<ul style="list-style-type: none"> -Well-located, secured and gated to only allow the access of residents, who are wealthy celebrities. -Secured access for the nouveau riche and always has guards. -Restricted access but usually no guards. 	Mayfair, El-Sherouk City.
<u>Security Zone</u>	<ul style="list-style-type: none"> -These projects reflect fear, include gates and fences on public streets to control access. 	<ul style="list-style-type: none"> -Perch -Suburban Perch -Barricade Perch 	<ul style="list-style-type: none"> -Restricted public access in the inner-city area to limit traffic and crime. -Restricted public access in the inner-city area to limit traffic and crime. -Closed access to some streets to limit through traffic. 	Loloat El-Shrouk, El-Sherouk City.

While a study conducted the classification of GCs according to the Egyptian context, GCs can be classified into three categories as shown in – Table 4 - (Almatarneh, 2013):

Table 4: GCs Classification, Source: (Almatarneh, 2013)

Types	Features	Examples
<u>High-End</u>	<ul style="list-style-type: none"> ▪ High-cost residential subdivision. ▪ Totally gated on privatized public areas. ▪ Located at the suburbs of GCR ▪ Consists of luxurious housing typologies, villas (predominant type) and apartments. ▪ Offers high-end services and amenities. ▪ Wealthy residents, most of them work in private sectors and international companies. 	-Westown City-SODIC,
<u>Moderate</u>	<ul style="list-style-type: none"> ▪ Medium-cost residential subdivision. ▪ Partially gated, so as to allow public being economy. ▪ Located at the suburbs of GCR as well as the city center. ▪ Consists of moderate housing typologies, apartments (predominant type) and villas. ▪ Offers moderate services and amenities. ▪ More basic design standards. ▪ Moderate-class residents. ▪ Developers tend to increase number of apartment buildings, to reach their goal. As the number of units increases, the price decreases. Also, investors invest in malls, restaurants, food courts,...etc. 	-Sun Capital Compound,
<u>Affordable</u>	<ul style="list-style-type: none"> ▪ Average-income residents, residential subdivision. ▪ Partially gated. ▪ Located at the suburbs of GCR as well as the city center. ▪ Consists of affordable apartments. ▪ Offers basic services and amenities. ▪ More basic design standards. ▪ Most residents are the employees, who wants to live near their jobs. ▪ Developments differ in their selling price. 	-Al-Maamora Compound,

By observing the Egyptian context and New-Cairo city especially, together with the site visits and data analysis, (Nazmy, 2016) suggested a better categorized for GCs based on the housing typologies and the economic status of their residents, rather than (Blakely & Snyder, 1999)'s classification which doesn't fit the context due to the interaction between the features and characteristics which form the Egyptian GCs -

Table 5- :

Table 5: GCs Classification according to the Egyptian context, Source: Data adapted from (Nazmy, 2016), Visualized by the author

Types	Features	Examples
<u>Luxurious</u>	<ul style="list-style-type: none"> ▪ High-cost residential subdivision. ▪ Totally gated on privatized public areas with tight security. ▪ Located at the suburbs of GCR as a new Egyptian urbanization experience. ▪ Consists of luxurious housing typologies, large houses, villas and apartments. ▪ Offers high-end services, facilities, distinctive landscape, amenities and property added value. ▪ Wealthy residents, Upper high economic class. ▪ Similar to “Prestige” GC in Blakely&Synders’s classification but differs in the diversity of the residents’ social standard. 	-Katameya Heights, New-Cairo City.
<u>Moderate</u>	<ul style="list-style-type: none"> ▪ Medium-cost residential subdivision differs in housing prime and features of design from “Luxurious” GCs. ▪ Partially gated, so as to allow public being economy, residents share their lifestyle with the outside non-gated residents. ▪ Located at the suburbs of GCR as well as the city center. ▪ Consists of: moderate housing typologies, apartments (predominant type) and villas. ▪ Offers moderate services and amenities, contains malls and food courts as they are partially accessed by the public. ▪ Moderate-class residents. ▪ Developers tend to increase number of apartment buildings, to reach their 	-El-Rehab City, New-Cairo City.

	<p>goal. As the number of units increases, the price decreases. Also, investors invest in malls, restaurants, food courts,...etc.</p> <ul style="list-style-type: none"> ▪ Similar to “Lifestyle” GC in Blakely&Synders’s classification but differs in some features. ▪ Size of these GCs can increase to reach a small city, but this large scale can reduce the sense of community for residents, separate them from the main community and develop a sense of ownership, consequently, residents refuse sharing the amenities with the non-residents. 	
<p><u>Lower high gated community</u></p>	<ul style="list-style-type: none"> ▪ Average-income residents, affordable residential subdivision. ▪ Provide safety, security and a better lifestyle, and this privilege –according to residents- overcomes the disadvantage of living there away from the city center. ▪ Relatively expensive option than city properties ▪ Consists of affordable apartments. ▪ Property and facilities prices differ from one GC to another. ▪ Low-high economic status residents. 	<p>-El Masrawiya compound, New-Cairo City.</p>
<p><u>Post enclosed Gated Community</u></p>	<ul style="list-style-type: none"> ▪ Doesn’t depend on a single planner, rather a group of residents (with the same job) transfer separate properties into a GC surrounded by gates and walls. Not licensed to be gated. ▪ Gated by boundaries, as residents are seeking more safety and security, as well as increasing the property value. ▪ Privatization of public property, as walls changed public property into private for residents. ▪ Lack the facilities and amenities existence, due to the change in the planning method. ▪ No common or uni-field architecture feature to the housing pattern, since each GC develop itself and don’t depend on a planner. ▪ Similar to “Security-zone” GC in Blakely&Synders’s classification but differs in some features. 	<p>-Diplomats compound, New-Cairo City.</p>

3.1.4 Reasons of escalation

GCs -for many centuries- have housed upper class and rich residents all over the world but recently, GCs have become a way of life for many residents. In Egypt, as well as the whole world, this phenomenon took place, and nowadays, GCs are an important housing prototype for millions of citizens. While questioning residents in gated and non-gated areas in GCR about their main idea and image about GCs, three main categories of answers were gained, and can be classified into:

1. Communities that offers healthy environment, comfort, quite area and consequently good health.
2. Communities having well-designed landscape areas, identified architecture character and distinctive amenities and services.
3. Communities that create imagined societies which offers their residents enhanced urban environment.

Studies explain many reasons for the increase and development of GCs, among these reasons:

- 1) Increasing the neoliberalism philosophy that supports the private property rights and freedom of entrepreneurship.(Kuppinger, 2004)
- 2) Some countries have other responsibilities prior that neighborhood security insurance. (Grant & Mittelsteadt, 2004)
- 3) Imbalanced power, large gap between social classes and economic inequality, which all lead to increasing insecurity, crime rates and violence.
- 4) Some countries wanted to leave the investment market unrestricted.
- 5) Separation and social control is a decision taken by some social groups in order to protect their identity. (Nazmy, 2016)

In the Egyptian context GCs offer variety in the housing typologies, adapting various classes, from middle-class to high-end class. Housing field has always been in an evolution state in the urban fabric, in the whole world as well as in Egypt. GCs started to be the trend in housing development field, and hence, became an object of study since the 1990s to study the expansion of ‘gating-up’ phenomena and examine their different aspects and various characteristic. There are various causes for this phenomenon, which are:

1. Subjective Causes:

- Safety and security: enclosure enhance safety and reduce the fear of crime.(Landman, 2002)
- Social control and homogeneity: each GC is supposed to include same social group with almost the same social behavior, also GCs offer a social distinction within social groups. (A. E. Morris, 1994)
- Higher social status and Prestige: Enclosed walls offer aggrandizement, as enclosure affects the value of property and restrict the place to wealthy people. (Greenberg & Rohe, 1984)
- Better environmental quality: GCs offer better lifestyle and good quality of life, including the environmental discipline, as they offer clean air, clean water and a better environmental quality with less pollution and crowdedness.
- Sense of community: Residents consider the gates' boundaries their own place where they live, love and prefer.
- Amenities and facilities: GCs offer the residents services, facilities and amenities to fulfil their needs and achieve their satisfaction, and outsiders are prevented from using them.
- Privacy: GCs offer an interaction environment taking into consideration the privacy issues, which is more essential in the Arab countries.(Nazmy, 2016)

2. Structural causes:

- Globalization of economy and economic restructuring: The aim to advance the standards of living and the drawbacks of neighborhood areas services (most common justification): the withdraw the basic needs and services of the neighborhoods in the main urban agglomeration of the cities.(Ghonimi, Zamly, Khairy, & Soilman, 2013) (Roitman, 2010)(Blakely & Snyder, 1997)
- Property preservation value: an important issue to GCs units' owner is the property value protection and increasing the profitability of their units.(Nazmy, 2016)

From what is previously mentioned, we can clearly conclude that GCs were first established due to security issues, residents were targeting a safer place, but nowadays, GCs attracts different levels of residents who are eager to have a better lifestyle and enhance their QoL (Marafi, 2011).

3.2. GCs: History and Background

3.2.1. International timeline of GCs' development

The international development of GCs can be summarized in the following timeline -Figure 16 –

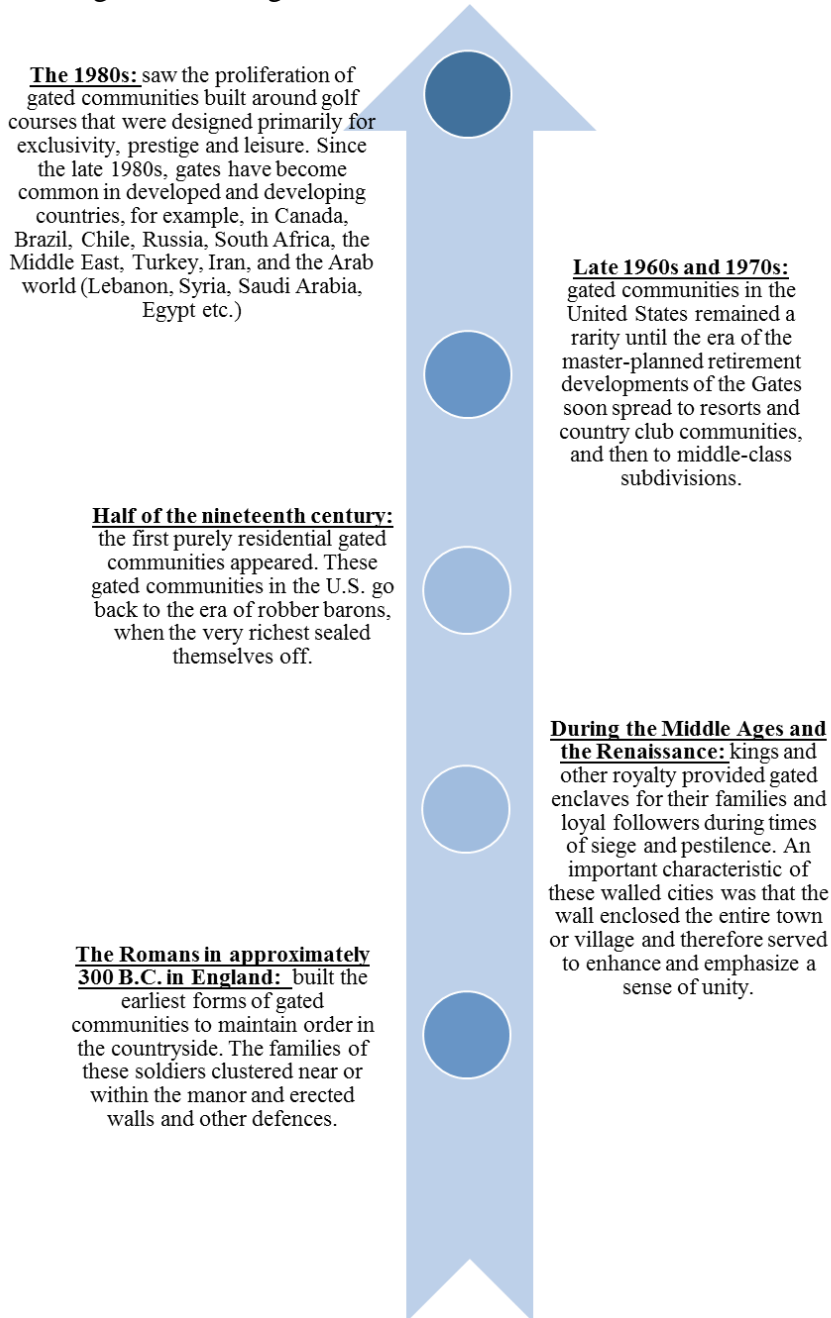


Figure 16: International timeline of GCs' development, Source:(Almatarneh, 2013)

Private communities had always had a place in history, starting from ancient times, through middle ages (walls not only for protection but also for enhancing the society level) and till recent ages (gated residential areas).(Mumford, 1961)

Closed communities remained in western cities for several centuries as a new form of development, until the 20th century when energy crises which took place in the 1970s ended many nations welfare era, therefore, in the 1980s countries governments reduced regulations as neoliberalism grew ascendant, the fear of crime increased, and withdraw from public to private spaces took place in several countries. So, recently countries encouraged the private sector to invest in GCs development.(Hackworth, 2007) (Almatarneh, 2013)(S. Low, 2003) GCs are an international phenomenon and a global trend of different types due to various reasons. For example:

- Brazil: ‘City of walls’, closed condominiums to create socially homogeneous environment, totally gated city. (Caldeira, 2001) described them as: *“A closed condominium is a development of multiple residences, mostly high-rises, invariably walled and with security-controlled entrances, usually occupying a large area with landscaping, and including all sorts of amenities for collective use. In the last decade they have become the preferred residence for the rich ... The enclaves tend to be socially homogeneous environments. People who choose to inhabit these spaces value living amongst selected people (considered to be of the same social group) and away from the undesired interactions, movement, heterogeneity, danger, and the unpredictability of open streets”*.
- South Africa: The safety concern was the main reason of development -Safety villages-. (Landman, 2002)
- England: Gating took place around London and in the south-east to enhance the community quality. (Nazmy, 2016)
- Canada: Age concern was the main reason -Retirement villages-. (Grant, 2005)
- Saudi Arabia: Cultural concern, to separate foreigners with different cultures and religion -Foreigners compounds-. (Glasze & Alkhayyal, 2002)
- Poor countries: GCs are a new form of self-governance, where democratic choices took place, and services organization took place which aren’t provided in other cities, and consequently it widened the gap between the society levels. (Nazmy, 2016)

3.2.2. Arab world's timeline of GCs' development

Researchers argue that these housing typologies started since old towns and only re-appearance is taking place now, the fragmentation and seclusion isn't a new phenomenon. By exploring the typical characteristics of Arab world, it was found that material and socio-spatial fragmentation existed in many towns in pre-modern era, which was described by (André, 1994, P.5) "*Compartmentalization of the city... [was] particularly marked in the case of numerous religious and ethnic communities*".

Traditional urban quarter was a point of interest to many researchers and scholars, it gained many attentions, although the current new gated housing typology hasn't been explored yet.

Researches argue that the reason behind this fragmentation can be summarized into these two main issues:

- 1) The quarter is considered a self-governing community, the inhabitants had autonomy and the neighbourhood fulfilled the functions of a self-governing entity.(Janet L. Abu-Lughod, 1987)
- 2) The courtyard of the house is a social space, the material expression is changed to seclude family life.(André, 1994)

In the middle ages, Arab cities had witnessed many inner conflicts, consequently, residential quarters were only accessible by its residents, through a single gate to easily be barred. While in the 20th century, transformation of the inner cities took place by cutting straight axes through the old city (medina) due to the adoption of the enlightened western modern ideas of urban planning, gates and walls between quarters change the function of the quarter.(Almatarneh, 2013)

3.2.3. Egyptian timeline of GCs' development (GCR outskirts)

In the Egyptian context, and by the late 70s, facing the escalating population growth was a major challenge, therefore, the government approved the establishment of new urban communities at the outskirts of GCR to offer good housing typologies, services and job opportunities. GCs urban fabric formulates most of these new communities. GCs spread widely through most of the Egyptian cities and became a profitable segment in the real estate marketing, and a target for less economic classes also. Citizens are seeking better lifestyle and more security. The phenomena first started in the suburbs of Greater Cairo Region (GCR) due to the availability of land parcels,

then started to increase in many cities. The government goal was to redistribute the population and benefit from the economic, natural, physical and human resources; therefore, suburbs were a focus and orientation of development to offer citizens housing with good services, job opportunities and healthy environment. In line with the global trend, GCs formed most the urban fabric of these suburbs, as 59% of the suburbs are now GCs (Metwally & Abdallah, 2013) and 40.3% of New-Cairo's region.(New Cairo City's Government Office, 2019) GCs succeeded in attracting residents and achieving the needs of housing neighborhood . Based on a survey done by the participation of 362 residents of Greater Cairo Region (GCR) 64.5% of them are willing to move from non-gated to gated areas. (Ghonimi et al., 2013)(New Cairo City's Government Office, 2019)

Since the mid of 1990s, due to the privatization of urban development, GCs has been a growing trend in the suburbs of GCR (including governorates of Cairo, Giza and Qaliobeya), and these regions have changed from a remote scattered village to a residential commercial hub. The main reason was to provide housing and reduce population density in the main urban agglomeration. Researchers have related this phenomenon to various factors as:

- 1) Increase in population, and the need of suburb development to host the growing population.
- 2) Globalization.
- 3) Urbanization and seeking a better lifestyle.
- 4) Economic re-structuring.
- 5) Availability of government owned lands at the suburb and outskirts of GCR.

At this time, GCs started to attract the wealthier segment, who were searching for a better lifestyle, therefore, the luxurious compounds were the main trend such as: Green Hills, Beverly Hills, Palm Hills, Eastown, Westown, ...etc.

Those GCs can be viewed as privatization trend of housing market and westernization of urban spaces, they represents social exclusiveness, as the gates separate them physically in addition to the unique architecture style, amenities, security and leisure areas. (Almatarneh, 2013)

3.2.4. GCs' development in New Cairo City

New-Cairo city is the main key in the new communities around the GCR. GCs there varies in layouts configuration, some of them were planned and designed by the government, while others were gated-up by the residents. Therefore, many researchers were recently interested in exploring these types of GCs and their different features. (Nazmy, 2016) studied the GCs development in New-Cairo to find-out the appropriate form and type which fits the Egyptian context generally and New-Cairo city especially.

In the Egyptian context, and by the late 70s, facing the escalating population growth was a major challenge, therefore, the government approved the establishment of new urban communities at the outskirts of GCR to offer good housing typologies, services and job opportunities. In line with the global trend, GCs formed most the urban fabric of these suburbs and spread widely through most of the Egyptian cities and became a profitable segment in the real estate marketing. GCs succeeded in attracting residents and achieving the needs of good quality housing neighbourhood, residents have been recently moving from non-gated to gated areas. (Ghonimi et al., 2013)(Metwally & Abdallah, 2013).

New-Cairo is a growing city and a large attention has been paid to it according to the national vision and development strategy.(New Cairo's Government Office, 2018)(NUCA, 1999)

Further details concerning the selected area and its history will be clarified in the next chapter.

3.3. The Consequence of GC's Development

Economic, social, political and spatial effects results from GCs development, which explains the complexity of urban development. Egypt has witnessed great change in the urban fabric due to GCs development, forming an urban phenomenon with positive effects – such as: improvement of local economy, availability of job opportunities, creation of a better quality space, improvement of social neighborhood relations,...etc. - as well as negative effects – such as: encouraging the social fragmentation, privatization of spaces, dominance of private transportation methods,...etc.- researchers invested many studies to understand causes and impacts of the phenomenon so that decision makers and other stake-holders bear in mind all the impacts and consequences of this phenomena to take the relevant decision when permitting this housing typology.

The consequences of the study can be classified into several disciplines:

- 1) *Spatial*: Creation of spaces with high quality is one of the main advantages of GCs development, in addition to the hierarchy of spaces – existence of public, semi-private, and private spaces according to the surrounding context -(Roitman, 2010), on the other hand, there are negative impacts related to this discipline which includes fragmentation of spaces, loss of liveability in city centre (S. M. Low, 2001)
- 2) *Economic*: GCs became an important factor in the real estate marketing, GCs development can improve the local economy (Carmona & Tiesdell, 2007), GCs also provide various job opportunities for different skills levels (Roitman, 2010), however, they can have negative impact on economy, the monthly and annual maintenance imply higher costs for residents, (Landman, 2000) and existence of GC in a certain area, can reduce the property value of the surrounding non-gated areas.(Charmes, 2012)(Ghonimi et al., 2013)
- 3) *Political*: the main positive issue is the public participation and engagement of residents within a GC, (Charmes, 2012) GCs also have a good management policy which helps in creating a self-sustained community. However, (Blakely & Snyder, 1999) argued that GCs don't usually increase participation. GCs also strengthen 'covenants, conditions and restrictions' laws (S. M. Low, 2001) which is viewed by (Blakely & Snyder, 1999) as very intrusive. (Caldeira, 2001)
- 4) *Social*: One main advantage can be seen in literature, as some studies argue that GCs increase and encourage the sense of community, due to the existence of shared public spaces, activities, services and amenities.(Roitman, 2010) while other studies argue that the physical walls do sharply separate the GC resident which causes segregation in community (Marafi, 2011) rather than offering equality among all different residents, therefore, there is no agreement in literature to prove whether GCs enhance sense of community or not, and thus, (Manzi & Smith-bowers, 2005) suggested using "gated residential development" as a replacement term for "gated communities".

On the other hand, negative consequences in this discipline can be clearly stated through social tensions and segregation between the inside and outside.(Jacobs, 1961)(Denis, 2006)

due to several reasons as: privatization of space and amenities, the physical barrier which separate residents and non-residents and limit the social contact and interaction between the society groups (S. M. Low, 2001) and also the class difference is a conflict driver (Amin et al., 1997). (Blakely & Snyder, 1999) argued that GCs created a new housing option but resulted in social conflicts, (Caldeira, 2001) noted that the gates are a reason for the social segregation rather than a security tool, as social splitting make residents in GCs perceive the non-residents as a threat.

(S. M. Low, 2001) studied that the social stress and economic declines of the middle-class citizens are the main reasons for the social segregation, their willingness to maintain their social status, while other researchers argue that GCs don't contribute to segregation but rather change the scale of segregation. Segregation isn't only intended, but also unintended consequence of GCs development.(Roitman, 2010) and this segregation is reduced when GCs are built in low-income periphery, as spatial proximity allows lower-class residents to interact and integrate with GCs residents due to economic relationships as employment opportunities. (Roitman, 2010)(Svampa, 2001).

And thus, while examining the UQoL, these disciplines should be taken into consideration to verify the examination process and the aim of GCs development.

3.4. Developing indicators for UQoL examination and Framework of GC's Development

Examining UQoL has been an argument for researchers in the past decades and there are still arguments in this field till now. The examination process includes comparative analysis between various case studies to test and analyse the UQoL in various GCs in New-Cairo City. Hence, and based on the HBRC principles, several indicators have been defined in this part, these set of indicators differ from one place to another and from one person to another. The focus of the research is the examination of UQoL assessment indicators in GCs, these indicators are verified by different stakeholders to be used in the examination process.

3.4.1. Indicators development

Indicators are parameters and measurable values that are used to represent quantity or factor, these indicators should be relevance (reflect the component to be measured carefully), measurable (in addition to the possibility of periodical updates), information efficiency (give the information clearly and simplified) and analytically consistence (correspondence to standards and ability to highlight the relations).(UN-Habitat, 2016)(Ghonimi Islam, Hassan Alzamly, 2010) The examination process can take place through these approaches subjective and objective approach which was studied in Chapter (2).

UQoL in Egyptian context have been conducted through several studies, it has gained impetus after 2000s. Nearly all of them are related to the QoL of urban and rural areas including different geographic scales (city level, housing areas and neighbourhood scale) and various indicators. A study conducted in 2012, in Cairo university entitled “Neighbourhood Urban Quality of Life, Guidelines for Urban Planning and Development of New Assessment Tool” the aim of the study is to notion and solve the question of the urban planning role in improving the individuals’ QoL within a neighbourhood .

From the significant studies, was conducted in the Housing and Building National Research Center (HBRC) in 2013, the study tried to deduce the methods of enhancing the UQoL and introduced solutions to the problems facing the Egyptian neighbourhood context in the existing urban areas and the new developed areas through various indicators, and the measurement of UQoL is conducted through the relation between these dimensions and not only through one of them.(Serag El Din et al., 2013) HBRC conducted a study that proposed the principles and guidelines for the neighbourhood design that achieves a better UQoL. Assessing the actual state of UQoL and enhancing it has become an important issue in urban studies and policy-making, Economists and geographers measure UQoL using objective indicators -secondary visualized data-like income, housing expenditure, public school quality and urban amenities, on the other hand, Social psychologists, use QoL interchangeably with subjective indicators -perceived quality- like satisfaction, happiness, residents’ surveys of perception, evaluation and satisfaction with their urban areas.

In the Egyptian context, the main criteria of measuring the UQoL on neighbourhood scale can be divided into seven main dimensions -as stated in HBRC journal – and these dimensions are dependent on each other, they have an interacting relation -Figure 17-.

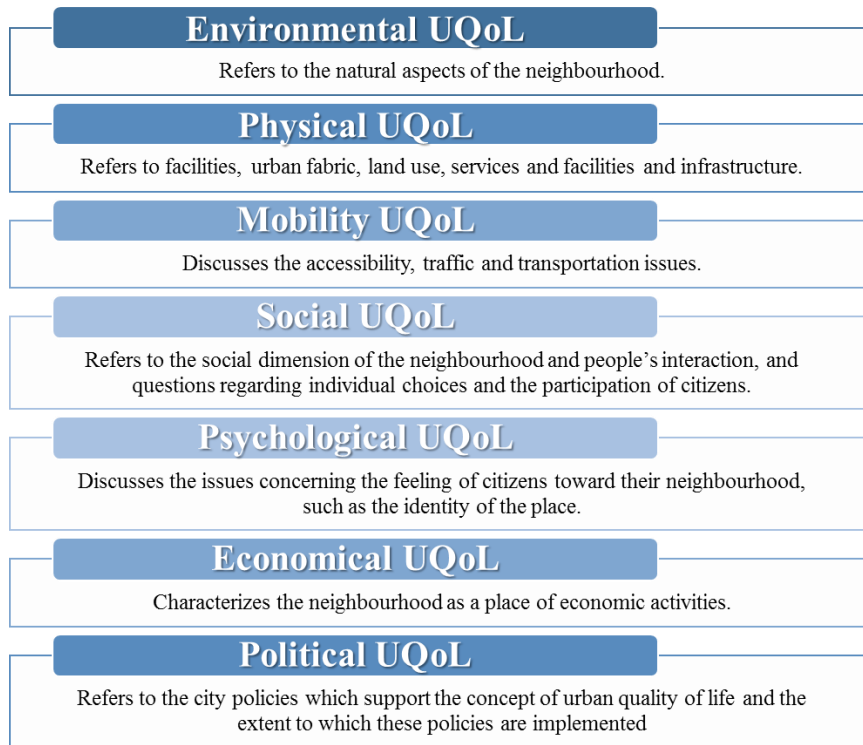


Figure 17: Seven main dimensions of UQoL, Source: Data adapted from (Serag El Din et al., 2013), Visualized by the Author

Each one of the previous dimensions is divided into sub-dimension – as shown in **-Error! Reference source not found.-**, each sub-dimension has a toolbox of assessment.

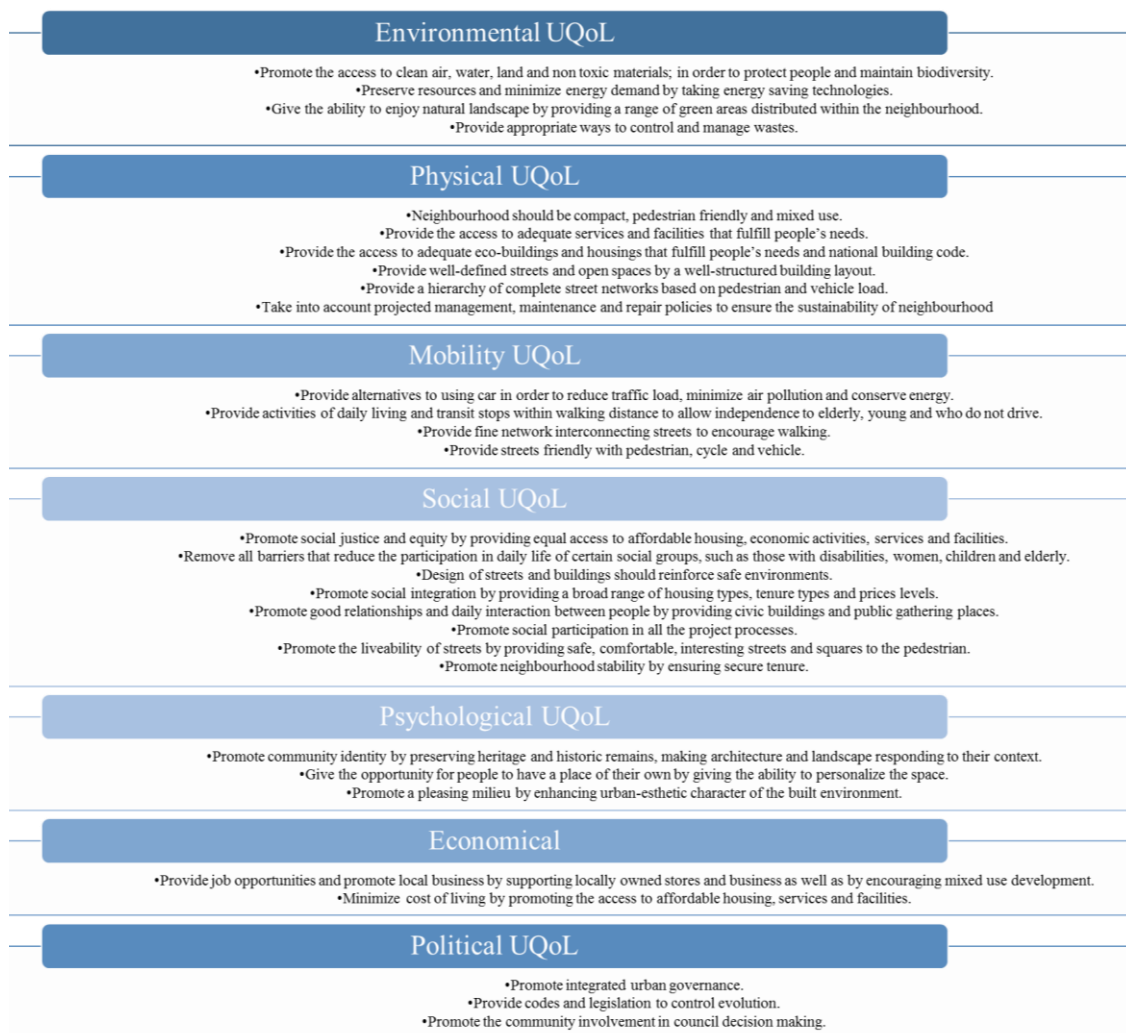


Figure 18: Sub-dimensions of UQoL, Source: Data adapted from (Serag El Din et al., 2013), Visualized by the Author

3.4.2. Toolbox of examination

(Ariane, 2012) Studied the indicators and designed an assessment model to test and examine UQoL in neighbourhood and developed indicators for examining the UQoL in neighbourhood scale theoretically, and by reviewing the literature concerning GCs, these indicators were updated to fit the research scope and be applicable on GCs in the study area, therefore the final indicators and toolboxes can be summarized into the following table:

Psychological UQoL

Psychological is related to the mind and residents' motivations, habits disciplines and behavior, it is related to the residents' perception and reaction towards the space which affects the individual's quality.

Table 6: Psychological UQoL examination, Source:(Ariane, 2012) (Serag El Din et al., 2013)

	Variable	Item	Subjective/ Objective
Psychological Examination	1.Community identity: Urban image	Examining the clear identification and recognition of boundaries, paths, focal points and landmarks in the GC.	Subjective
	2.Community identity: Responsive design	Examining the allowance of local vernacular inside the GC.	Subjective & Objective
	3.Community identity: Space personalization	Checking the residents' territory in addition to the personalized front area of each dwelling for each resident especially the ground floor unit	Subjective
	4.Pleasing Milieu: Architectural quality	Assessing the architectural quality and homogeneity of all GC's buildings and dwellings.	Subjective & Objective
	5.Pleasing Milieu: Landscape quality	Assessing the landscape quality of open areas	Subjective & Objective

Social UQoL

"Healthy public spaces are the springboard for revitalizing communities, whatever they are and wherever they are. That an attractive, active, well-functioning public space can jumpstart economic development in a community – from a small rural town to a big city – is being recognized increasingly around the world."(UN-Habitat, 2012: P.3)

Social UQoL is issued with the social relation between residents and social spaces to provide civilized area, where residents can work, live and interact together to form a stable community and increase urban vitality and residents' happiness. Therefore, Social UQoL includes human behavior and built environment, it can also be discussed through people, public realm, space, neighbourhood, accessibility, safety and security. (Ariane, 2012)(Potvin, L., Haddad, S., and Frohlich, 2001)

While interviewing a group of 43 experts, 75% considered Social UQoL the most important dimension in the examination process, as strong communities can adapt any challenges and have fewer social problems. (Landman, 2000a). People aren't only considered individuals in a housing area but a community where residents' sense of belonging increase.

Social UQoL can be developed through the following guidelines:

1. Enhance the social interaction between residents by the availability of social spaces for interaction. (Ariane, 2012)
2. Social control among residents and accepting the locally norms. (Ariane, 2012)
3. Providing residents with safety and security, by the availability of all modes of security. (Ariane, 2012)
4. Enhancing the social equality and connectedness. (Ariane, 2012)(Marco Rieckmann, 2018)
5. Availability of spaces for public participation, for residents to share their own thoughts and aspiration for improving their neighborhood. (UN-Habitat, 2012)
6. Existence of social, religious, educational, cultural and entertainment activities and events, which enhance residents' social relations.(Lang, 2008)(Shafer et al., 2000)
7. Commercial area plays an important role in residents' gathering and socializing.(UN-Habitat, 2012)(Lora, Powell, Praag, & Sanguinetti, 2010)

Table 7: Social UQoL examination, Source:(Ariane, 2012) (Serag El Din et al., 2013)

	Variable	Item	Subjective/ Objective
Social Examination	1.Social equity and inclusion: Inclusive communities	Examining the personal safety, comfort, familiarity, distinctiveness and legibility of neighbourhood inside the GC.	Objective
	2.Social equity and inclusion: Inclusive communities	Checking the disabilities' accessibility to amenities and facilities designed according to the code.	Subjective & Objective
	3.Social connectedness: Social integration	Calculating the housing index, studying the government housing provision and equability index calculation of mixed type of tenure.	Objective
	4.Social connectedness: Social network	Studying the provision of open space network and telecommunication services. In addition to the provision of religious, social and cultural facilities of the GC.	Subjective & Objective
	5.Social connectedness: Social participation	Examining the participation in management and maintenance, planning process and legislations of the GC.	Subjective
	6.Behavioral performance: Public awareness	Examining the demonstration of "Life Awareness Strategy" which was developed primarily by the design team and updated at the final construction phase of the GC.	Subjective & Objective
	7.Behavioral performance: Neighbourhood stability	Measuring residents' security perception in the neighbourhood and in their dwellings inside the GC.	Subjective & Objective
	8.Behavioral performance: Neighbourhood stability	Temporary buildings percentage illustration inside the GC.	Objective
	9.Behavioral performance: Neighbourhood vitality	Checking the existence of active facades containing a various range of functions and land-uses.	Objective

Physical UQoL

It is issued with the physical built environment surrounding residents, which is created by humans (man-made) and always includes their feelings and aspirations about their lives. It is considered a shelter where the human activities take place, it has various scale ranging

from a personal area to a neighbourhood and city shelter.(Ariane, 2012) (Conference, 2009)(Lora et al., 2010)

Table 8: Physical UQoL examination, Source:(Ariane, 2012) (Serag El Din et al., 2013)

Physical Examination	Variable	Item	Subjective/ Objective
	1.Land-use: Mixed land-use	Calculating the diversity index and examining the neighbourhood completeness as well as examining land reuse to ensure the effective use of the GC's land.	Objective
	2.Land-use: Neighbourhood services & facilities	Examining the availability of clean and good quality infrastructure, services, facilities and amenities inside the GC.	Subjective
	3.Compact neighbourhood: Density & graded density	Calculating the gross residential density, the floor-area ratio and the graded density, as well as assessing the law consideration by comparing the actual state and the standard measurements.	Subjective & Objective
	4.Urban layout: Street and square network	Examining the existence of well-designed complete streets, to enable accessibility and travelling for all users, including pedestrians, bicyclists, motorists and public transport inside the GC.	Subjective & Objective
	5.Urban layout: Street and square network	Examining the existence of evacuation and escape routes in case of natural hazards or fire.	Subjective & Objective
	6.Urban layout: Building blocks	Analysing the building line, as well as the parking areas and its integration with the residential dwellings in the GC's clusters. Also, calculating the ratio between building height and the width of the urban space.	Subjective & Objective
	7.Housing & Building quality: Housing quality	Assessing the building technologies used to enhance the attractiveness, performance and quality of buildings. Also, checking the buildings' fulfilment of codes.	Subjective & Objective
	8.Housing & Building quality: Building quality	Examining the durability, adaptability, accessibility to facilities, amenities and infrastructure of the GC. Also, calculating the overcrowding average.	Subjective & Objective
	9.Management and Maintenance:	Checking the maintenance policies and responsibilities and checking the availability of residents' manual and on-site offices.	Subjective & Objective

Mobility UQoL

Mobility UQoL is issued with the travelling of residents to their required destination, either pedestrian or using a vehicle. The number of car per capita has been clearly increasing in the last decades, consequently, the use of public transportation has been decreasing, as a result, many drawbacks took place, including the increase of air pollution, increasing traffic jams and congestion, decreasing the overall air quality and humans' health,...etc. Therefore, mobility dimension is an important aspect while examining the UQoL, due to its important role in the increasing or decreasing the overall life quality. Therefore, many studies were dedicated to solving this equation and increase quality by using public transportation rather than private cars and enhance pedestrian walks rather than riding a vehicle. Mobility dimension, existence of sidewalks and pedestrian network develops the neighbors' relations and creates a vital community. As residents are willing to go for walks together and decrease the use of vehicles to reach their destination points inside the GC

UNESCO was one of the from these studies, (Marco Rieckmann, 2018) which stated guidelines for increasing mobility UQoL:

1. Land-use and transportation network integration, to enhance pedestrian and decrease vehicle's use, also, to increase the use of public transportation rather than private cars.
2. Enhancing the use of non-motorized transportation modes as cycling, walking,.....etc. by well-designing their paths to encourage people to use them.
3. Paying a huge attention to the transportation infrastructure and transportation management.
4. Exchanging information globally through representatives.
5. Assessing the current energy combustion and the targeted combustion to evaluate the energy-use. (Banister, 2011)(Shafer et al., 2000)

Table 9: Mobility UQoL examination, Source:(Ariane, 2012) (Serag El Din et al., 2013)

	Variable	Item	Subjective/ Objective
Mobility Examination	1.Accessibility: Pedestrian catchment area	Checking that the average distance between the furthest residential dwelling/point and the primary or the secondary facilities to make sure that it covers 80% of the residents inside the GC.	Objective
	2.Accessibility: Connectivity	Examining the connection of the whole area, through "Direct index", "Connectivity index" and "Block size".	Objective
	3.Walkability & Cyclability: Walkable network	Examining the availability of well-designed pedestrian networks with safe sidewalks and crossing areas inside the GC.	Subjective & Objective
	4.Walkability & Cyclability: Cyclable network	Examining the availability of bicycling facilities and areas inside the GC.	Subjective & Objective
	5.Walkability & Cyclability: Traffic calming	Examining the presence of speed limit precautions to ensure residents' safety.	Objective
	6.Public transportation: Inside the area	Examining the availability of affordable, frequent, safe and various modes of public transportation in a connected network.	Subjective & Objective
	7.Public transportation: Surrounding connection	Checking the easily accessibility to public transport facilities (such as a bus stop or train station).	Subjective & Objective
	8.Traffic Load: Traffic volume	Calculating the traffic flow index, residents' vehicular ownership and their daily trips to work (means and distance).	Subjective & Objective
	9.Traffic Load: Transportation management	Examining the travel strategy and processing level analysis.	Subjective & Objective

Economical UQoL

Economical dimension is related to enhancing the residents' prosperity in their urban community, it is issued with all the economic activities of residents including their ability to purchase housing units as well as food and goods. It is also concerned with the resident's employment and the job opportunities which is offered by the new urban community.

Table 10 : Economical UQoL examination, Source:(Ariane, 2012) (Serag El Din et al., 2013)

Mobility Examination	Variable	Item	Subjective/ Objective
	Economic development: Employment	Calculating the employment, local skills and Job-Housing opportunities	Subjective & Objective
	Economic development: Local business	Assessing the locally owned and new business within the housing area	Subjective & Objective
	Economic standard of living: Cost of living	Calculating the affordable housing, cost of services and amenities rate, also calculating the housing prices index and mixed ways of housing finance.	Subjective & Objective

Political UQoL

Political dimension is concerned with the national policies which supports UQoL, which takes place through the policies, strategies and laws. Codes and guidelines are the main factor in this dimension in order to promote a better life and have a constant vision and development strategy.

Table 11 : Political UQoL examination, Source:(Ariane, 2012) (Serag El Din et al., 2013)

Political Examination	Variable	Item	Subjective/ Objective
	Urban Policies and strategies: UQoL policies	UQoL policies and Strategies development.	Subjective & Objective
	Urban Policies and strategies: UQoL strategies	Providing a framework of good integrated governance and management.	Subjective & Objective
	Urban Policies and strategies: Urban governance and management	Residents' participation in governance and decision-making process at both local and national level.	Subjective & Objective
Civil and political rights: Community	UQoL policies and Strategies development.	Subjective & Objective	

3.5. Summary

This chapter studied the definitions, indicators, categories...of GC phenomena. It summarized the historic review of this phenomenon along the different eras. Criteria of UQoL examination was summarized to fit the GCs examination which will take place in (Chapter 4). From this chapter, it can be concluded that there were many attempts to define, investigate and classify GCs. Among the classification attempts was (Nazmy, 2016) who suggested a better categorized for GCs based on the housing typologies and the economic status of their residents, which will be used to classify GCs in New-Cairo City, to select the study cases according to a specified criteria which will be conducted in (Chapter 4). Previous research was carried out on the theoretical part and recommended the application of the proposed model for various Socio-economic level and updating the model's indicators to adapt the examination area. This will take place in the coming chapter. Four cases will be selected to be examined, to find out the recommendations and suggest guidelines (Chapter 5) for the study area (New-Cairo City).

The research structure and flow by the end of the chapter can be summarized as -Figure 20-:

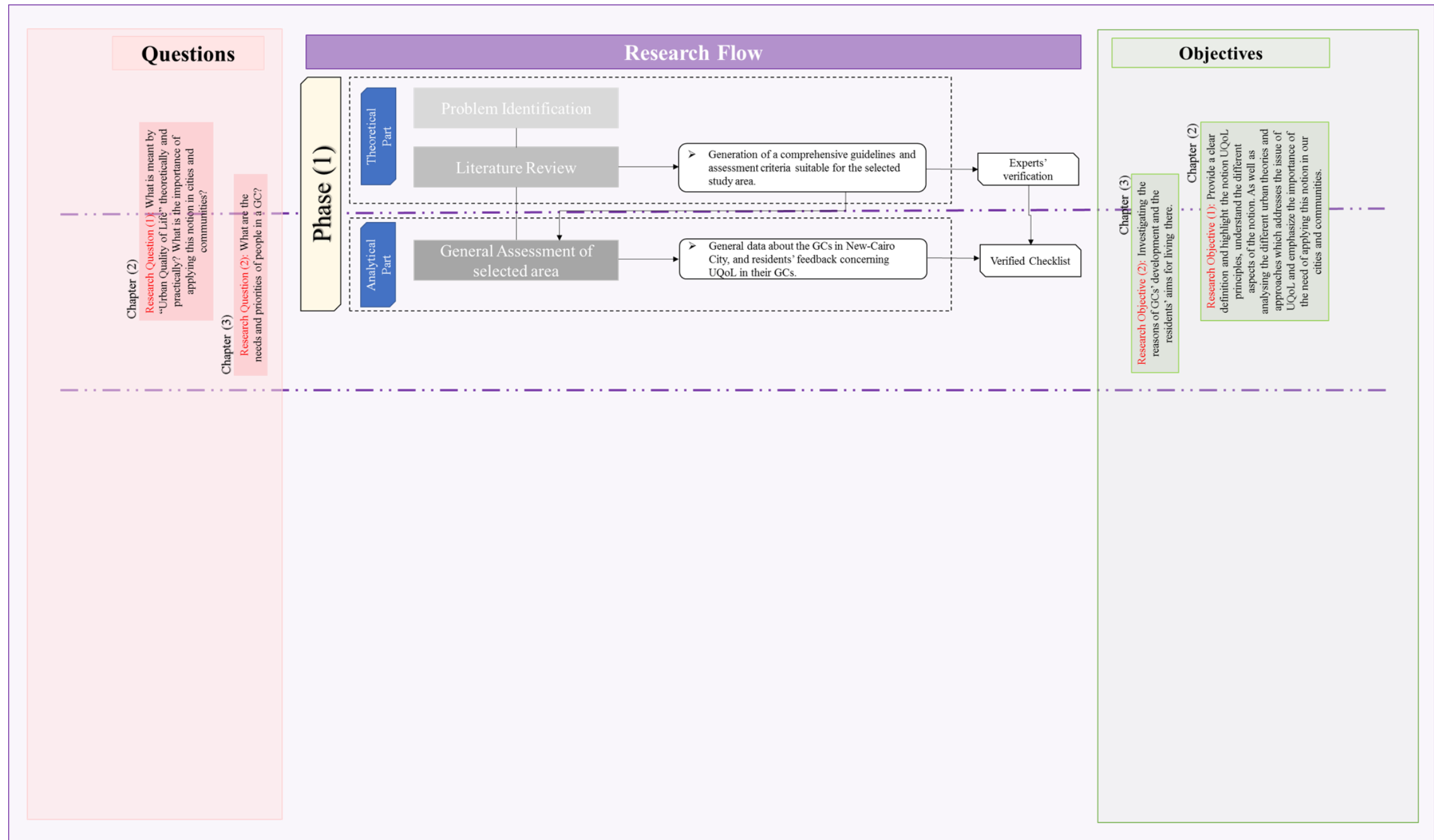


Figure 18: Research Methodology and Flow, Source: Author



CHAPTER FOUR: CASE STUDY (NEW-CAIRO CITY)

4. CHAPTER FOUR: CASE STUDY (NEW-CAIRO CITY)

This chapter presents the empirical part, after studying the specified literature related to UQoL (Chapter 2) and GCs (Chapter 3), and conducting criteria of examination (in Chapter 3) which will be applied in this chapter on the selected cases, in order to find out recommendations and guidelines related to the study area (in Chapter 5).

It contains a brief overview and introduction about New-Cairo City and the selected study cases within the specified area, it contains the information, generated from the secondary data which had direct relation with UQoL, as land use, amenities, services, population composition, housing details,.. Etc, as well as the primary data which was gathered from the residents. The chapter presents the detailed methodology of primary data collection -surveys, interviews, focus groups...-, and the data analysis, as well as the secondary data concerning the selected study area to get the research findings based on several sources and methods.

The methodology of this chapter is divided into:

- Collection of data and identification: grouping and tracing of all GCs located in the study area, categorization and selection of the required study cases for the examination process based on certain criteria of selection.
- Documentation of Data: through acquiring the required primary and secondary data.
- Questionnaire, Interviews and Focus groups: Survey for GC's residents, individual interviews with residents of the selected study cases as well as experts' interview.
- Analysis of data: to conclude and achieve the aim and objective of research.

It is essential to study both the residents' aspirations, values, desires and attitudes, together with the existing physical status in the selected cases, to point out the difference and compare them, to promote the UQoL. The results are finalized at the end of the chapter by summarizing the guidelines and criteria of UQoL principles and evaluate its application on the study cases, also comparative analysis is carries out between the different cases.

4.1. Introduction to New-Cairo City

Cairo city's population exceeds 18 million, and so, it is considered one of the largest population cities, and occupied a third position in the Islamic world after Jakarta and Istanbul. (Nazmy, 2016). Greater Cairo Region includes governorates of Cairo, Giza, Qaliobeya, Helwan and 6 of October. (Hassan & Salheen, 2010)(Nazmy, 2016).

Urban approach varies according to the nature of the urban society. New urban communities differ from the existing cities in terms of purpose, method of handling, etc. New-Cairo City as a new urban complex combines the features and indicators of existing urban communities, dating back to the seventies of the last century (1970) and the features of new urban communities where the target is development.

With the population growth, the problem of housing has become the main problem that needs to be solved in the process of urban development. Urbanization plays an important role especially in identifying the structure of the city and its architectural characteristics, which is directly reflected on the urban structure of the city and its urban characteristics, both in terms of the uses or activities practiced in the city.

New urban communities were established at the outskirts of Cairo, towards the east and west in the desert un-inhabitant areas, forming an extension of Cairo city. These satellite cities are used mainly to provide new residential communities to decrease the population density in the main city. Cairo city is surrounded by 8 new cities, New-Cairo, towards the east (New-Cairo city, El-Shorouk city, 15th May, Badr, 10th Ramadan and El-Obour City), while towards the west (6th of October city, El-Shiek Zayed) Residents always search for an environment which meets their needs and aspirations; therefore, the goal is not only a physical place to live in, but also, a place that creates a healthy environment.

The first generation of Cairo city's new settlements were economically independent towns, attracting residents was one of the main issues of these settlements, while the consequent ones relied on the first generation and were located near the urbanized area. Residents were attracted to them and high suburban settlements replaced the low income, this took place in some cities as a part of 6th of October city, New-Cairo city and El-Shorouk city. (The Ministry of Housing- Utilities and Urban Communities (MHUC), 2012)

New-Cairo city is one of the most developed cities in GCR. (Nazmy, 2016) It passed through various phases until it reached the final current phase and still growing.

4.1.1. Location of New-Cairo City

New-Cairo city is one of the new communities related to the New Urban Communities Authority (NUCA), it is surrounded by four regional roads (Cairo / Suez road north - Katameya road / Ain Sokhna south - Middle road east – Regional Ring road west). The area of the city is approximately 69154 feddan, in addition to El-Amal triangle and the southern extensions of the city -according to the republic decision 499 in 2016-.



Figure 19: City's borders, Source: NUCA demographic studies in 2019, Google Earth Program From 1/1970 To 3/2019 & Wika mapia Program

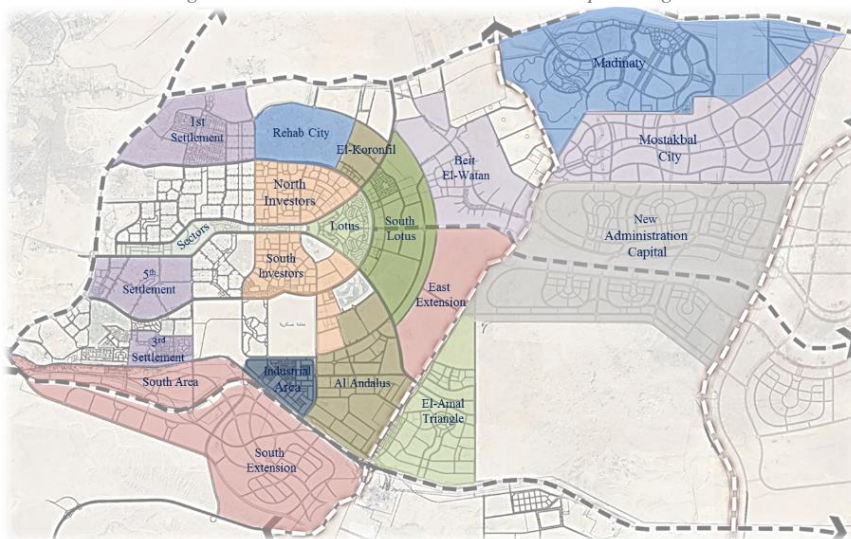


Figure 20: Adminstrative division, Source: Data adapted from NUCA demographic studies in 2019, Google Earth Program 2019 & Wika mapia Program 2019, Visualized by the Author

4.1.2. The City growth

Since the promulgation of the Law of establishment of the New Urban Communities Authority (NUCA) No. 59 of 1979, the Ministry of Housing has started to develop a strategic vision to solve the problems of Greater Cairo region (GCR), which is related to the General Organization for Physical Planning (GOPP) and French experts were hired. The study was conducted to handle the increase in population, to limit the indiscriminate growth of the region and the encroachment on the state lands, it highlighted the need to construct a ring road around the GCR with a length of about 100 km; to set borders to the region. The study also suggested dividing the lands surrounding the ring road into a group of homogeneous sectors (10 or 15 homogeneous sectors) to absorb the expected population increases for the region, to organize the existing urban agglomeration and achieve a degree of self-sufficiency within each of these sectors as availability job opportunities, sufficient service areas, connection to the transportation and roads network, ..etc. Each sector should also have its own identity according to its features, activities, potentials, opportunities and assets. Many Egyptian consulting companies designed the master plans for these areas (Sabour - the Arab Office - Cuba Office - Muharram Bachoum), each settlement contains residential districts, main service area and secondary areas - the 3rd and 5th settlements contain a minor industrial zone-, and they are all linked to the ring road.

The city has passed through four main stages;

Phase I: Cairo City Extension of Nasr City:

Through the privilege right of Nasr City company in 1970, the ring road was proposed to limit the extension of Cairo's urban agglomeration. The idea of constructing new urban communities at the suburb of Cairo was proposed to act as development attraction poles to reduce the urban mass of Cairo, therefore, urban extensions were located at both east and west of Cairo city. Since the 1950's, right of privilege were given to Nasr-City company in 1952 and another in 1970 to start the east urban extension with an approximately 13600 feddan around the Suez road, and the following settlements were identified:

- First and Second settlement, along the Suez-road.
- Third and Fifth settlement, along the ring road.
- Forth settlement, was added later to New-Cairo city.

The idea of establishing 10 settlements around Cairo city has faced many amendments, as some proposals were cancelled and some were modified until reaching the final decision of establishing the First, Third and Fifth settlements.

Phase II: New-Cairo City:

While reviewing the economic developments plans in the 1990s, adjusting and modifying the urban development orientation -to cope with the real estate economy- was essential especially in the new communities in Cairo, this was the main reason to re-orient the urban and real-estate strategy, leading to modifying some residential and services projects at these settlements so as to service various economic levels as well as linking the 3 settlements forming the first of "New-Cairo City", which contains all the main components of a sufficient city including residential areas, amenities, services, investment projects.

Phase III: New-Cairo City and its East extension (El-Lotus):

As a result of the increasing demand on housing in New-Cairo city, which has become popular due to its distinctive residential and high-end housing, in addition to the availability of services, especially the educational field (distinguished schools and universities). The extension areas were proposed to the east of the investors' area (El-Mostasmereen) known as El-Lotus -Lotus flower- whose center is designed to limit possibility of extending the city again, with the end of the city from the eastern side of the main road linking the Suez and Ain Sokhna roads. The extension focuses on the unique residential uses, by providing plots of land for individuals, or large plots of land for investment companies.

Phase IV: New-Cairo City and the inclusion of external projects:

During 2007, with the development of New-Cairo city and the continuation of the provision of services such as commercial centers, universities and schools, as well as the transfer of some of the main administrative services -such as The Family Court, Natural Gas Company,..etc.- and the availability of modes of transportations, the transfer of some ministries from Cairo to New-Cairo city was important, so as to be the focus of the polarization of some of these ministries, without prejudice the planning and architectural guidelines specific to the city. Consequently, the attraction to the city increased and the extension increased in the surrounding areas of New Cairo, "The Future City -Madinat El-Mostaqbal-", (which included the strategic plan for the development of the Greater Cairo area), facing El-Shrouk city now.

Finally, the current situation is:

- New Cairo City is the extension of eastern Cairo and is easily connected to it without obstacles.
- It is influenced by the future development since the seventies and eighties in the direction of the Suez Canal region, and in the new development axes represented in the new Ain Sokhna axis.
- It is easily connected to the Greater Cairo area, either from the ring road linking it to North Cairo (Heliopolis, El Marg) or south (Maadi, Helwan), or the axial axes connecting it to the main urban agglomeration of Cairo (Heliopolis through Suez, Nasr City and Mokattam and downtown through the NA axis).

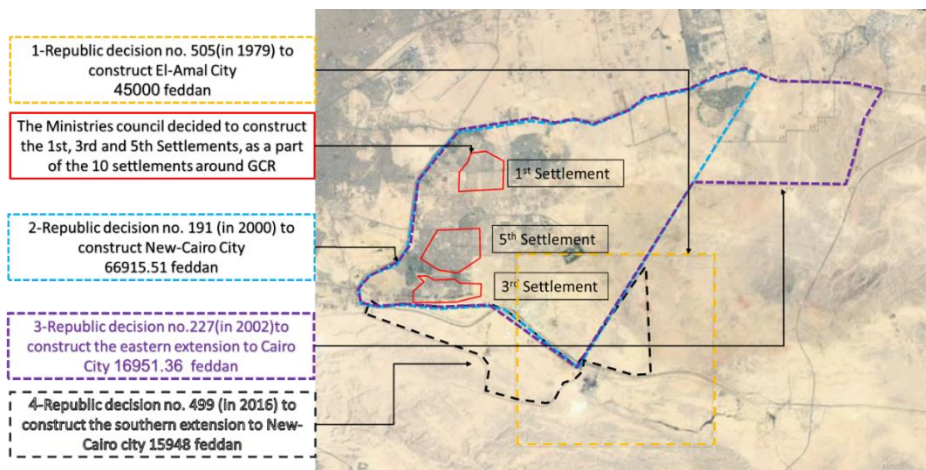


Figure 21: New-Cairo city borders, Source: New-Cairo City borders, Source: Data adapted from (NUCA, 1987)(NUCA, 1999) (New Cairo's Government Office, 2018), Visualized by the Author

4.2. Description of GCs in New-Cairo City

Gated Communities play an important role in New-Cairo city forming 40.3% of it, with a total number of 229 gated communities, and total area of 27854 feddan. Gated Communities have various areas ranging between 3 to 8000 feddan. The Practical part will examine the UQoL in GCs in New-Cairo city as it is one of the main new cities and most important region with a high development rate, allocated 10 miles east of Cairo. It contains 227 GCs, which varies in their features and configuration.(New Cairo City's Government Office, 2019)

GCs are mapped as the following:

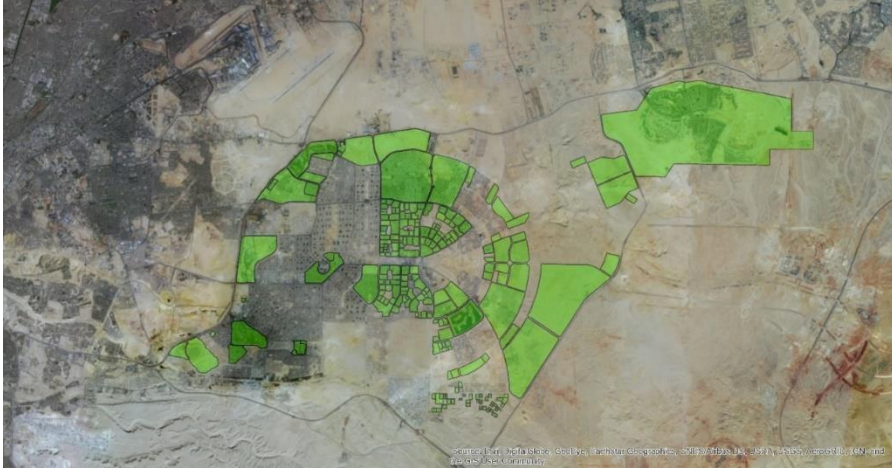


Figure 22: Gated Communities in New-Cairo City, Source: Data adapted from NUCA demographic studies in 2019 (NUCA, 1999) (New Cairo's Government Office, 2018) Google Earth program 2019

GCs are mainly located in:

- El-Mostasmereen (Investors) area: Located in the core of the city, it contains 134 GCs which represents 59% of the total number of GCs.

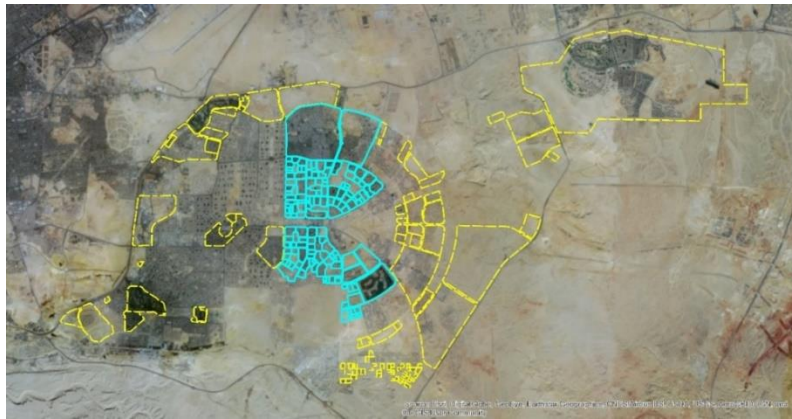


Figure 23: El-Mostasmereen area, Source: NUCA demographic studies in 2019 (NUCA, 1999) (New Cairo's Government Office, 2018) Google Earth program 2019

- The Eastern extension area: Located at the east area of the city, it contains 25 GCs which represents 11% of the total number of GCs.

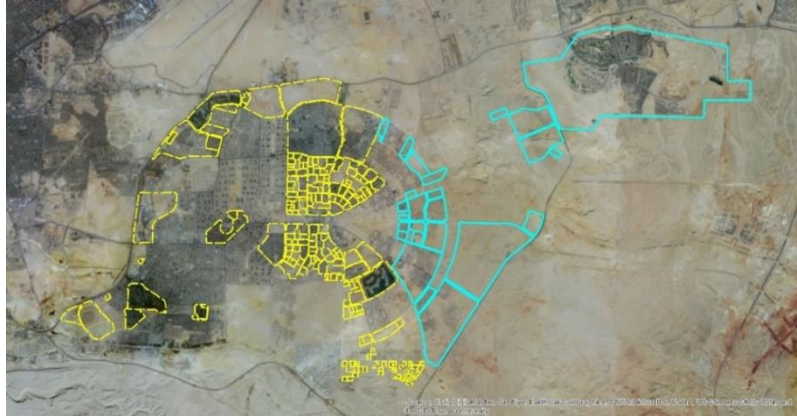


Figure 24: Eastern Extension area, Source: NUCA demographic studies in 2019 (NUCA, 1999) (New Cairo's Government Office, 2018) Google Earth program 2019

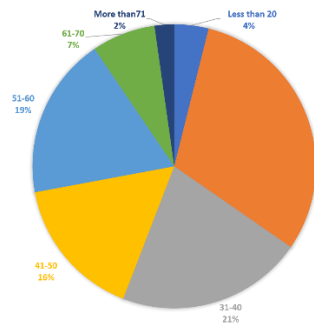
4.3. Extensive Survey Questionnaire

Information used, and data gained are based also on extensive survey questionnaire – attached in appendix A- to get general data about the whole study area, the survey was filled by New-Cairo City GC's residents, the sample size was determined according to "Sample size Calculator" and included 276 residents (According to Raosoft sample size calculator, confidence level= 90%, margin of error= 5%, the sample size should be 271). In addition to the specific interviews and focus groups that occurred in the selected cases. The questionnaire was designed with close-ended questions to measure the UQoL indicators in addition to few open-ended questions for further examination, it is designed in an accurate way so as not to gain any private data and to be with reasonable length to be answered by as many number of residents as possible. The survey was then analyzed and studied.

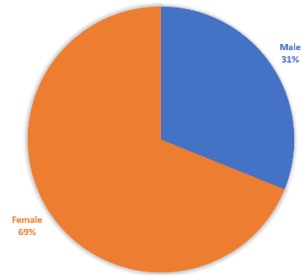
4.3.1. Survey Data

The first part was concerned with the demographic residents' and personal information.

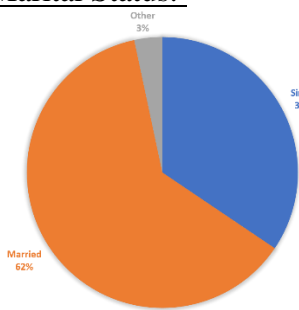
Age:



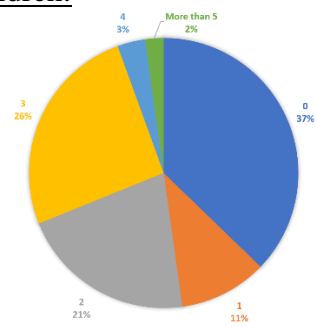
Gender:



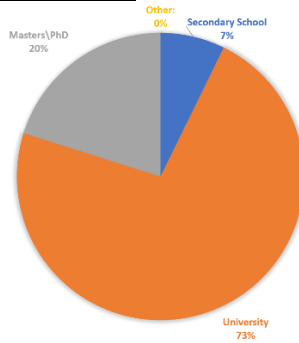
Marital Status:



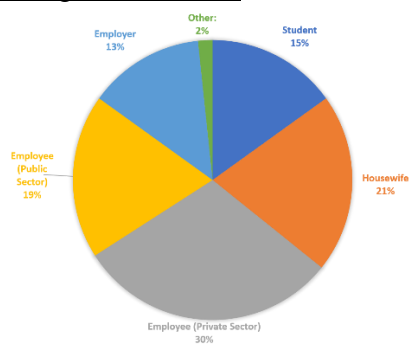
Children:



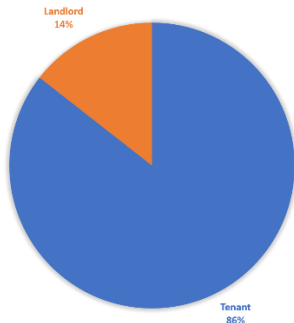
Education:



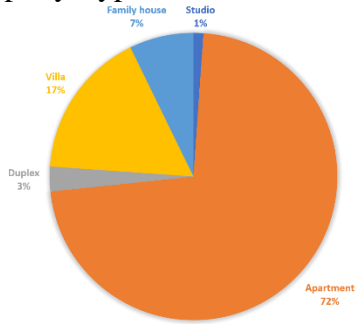
Working Conditions:



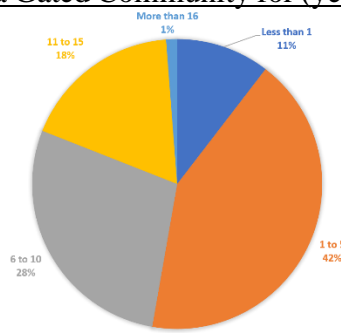
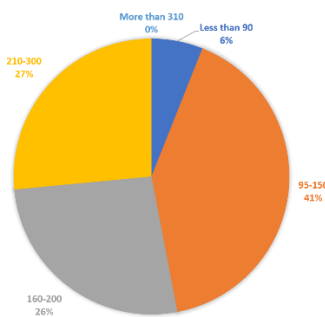
Property status:



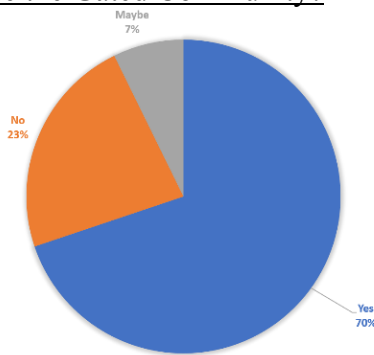
Property Type:



Property Area (in Sq.m.): Living in a Gated Community for (years):

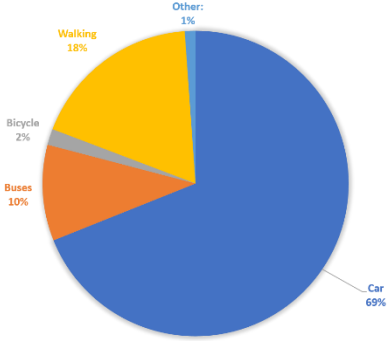


Do you find all your required services (bakery, pharmacy, grocery...etc.) inside the Gated Community?

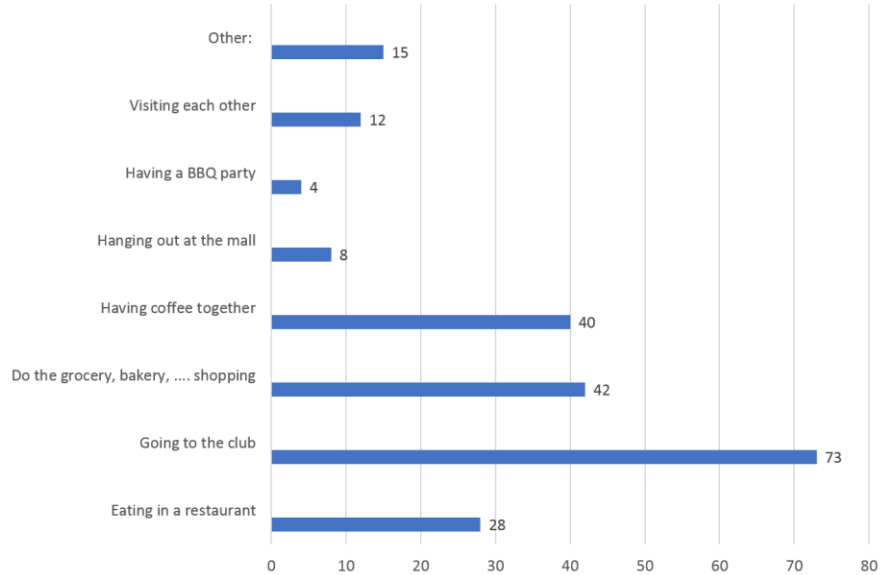


The second part is concerned with the residents' needs and expectations in their neighbourhood. It is also concerned with their priorities and urban needs.

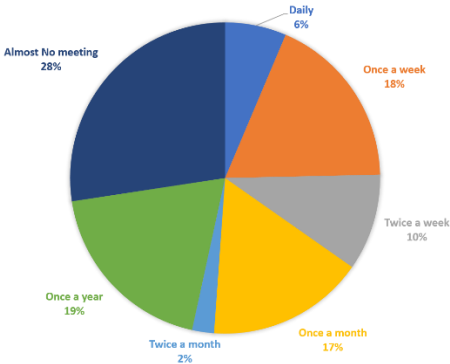
How do you move inside your Gated Community (Compound)?



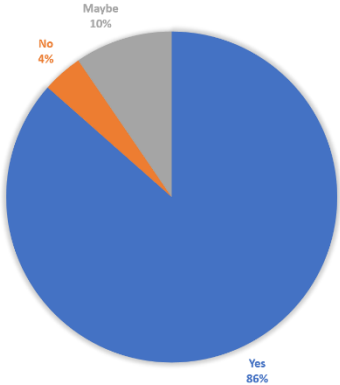
What type of activities do you prefer to do with your neighbors?



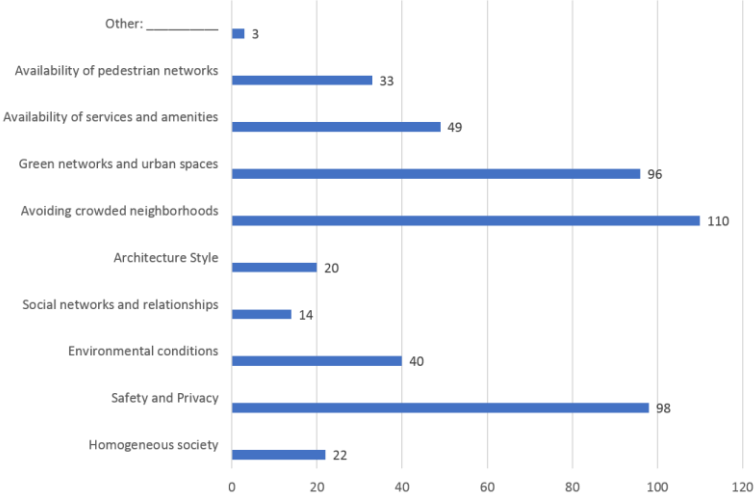
How often do you do these activities with your neighbors?



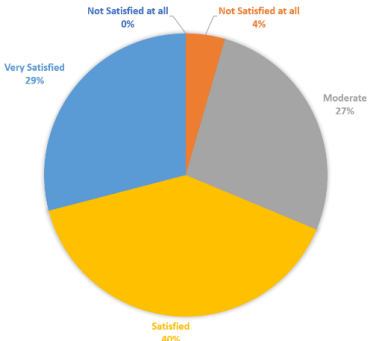
Do you have your own privacy and security inside the Gated Community (Compound)?



Why did you choose to live in a Gated Community (Main reason(s))?



Evaluate your satisfaction degree as a Gated Community (Compound) resident:

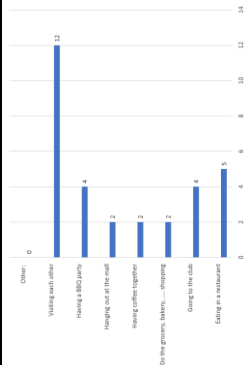
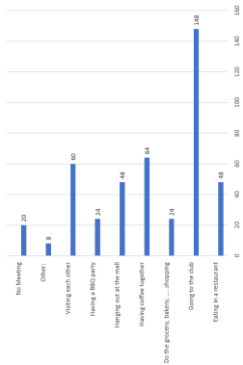
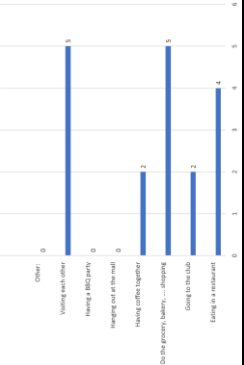
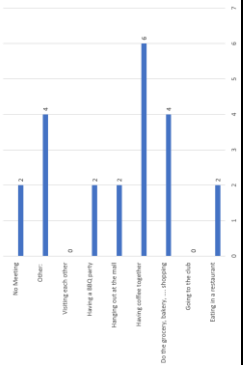


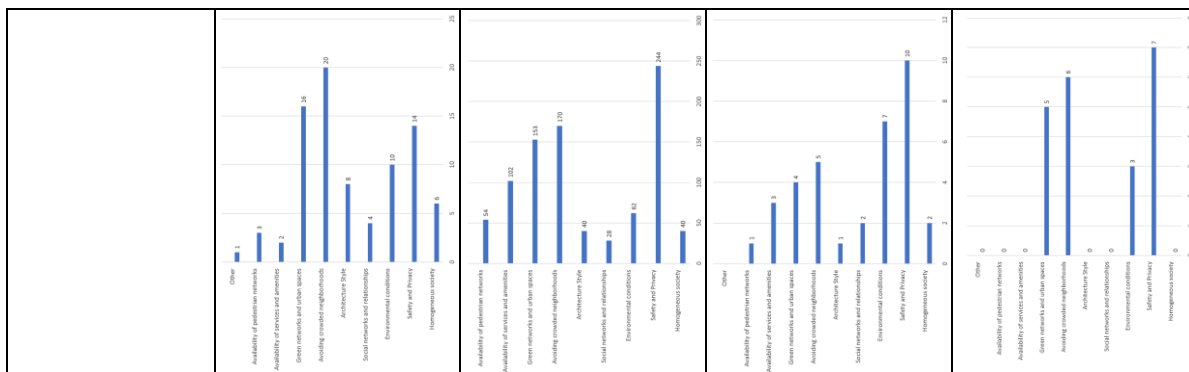
The third part is concerned with the residents' suggestions and aspirations for enhancing quality through open-ended questions. Also, to identify the meaning of a high-quality area from residents' perception.

4.3.2. Evaluation of research findings

	Luxurious GC	Moderate GC	Lower high GC	Post-Enclosed GC
Responds:	7.22%	83.9%	6.66%	2.22%
Gender:				
Male	38.46%	74.60%	16.67%	75%
Female	61.54%	25.39%	83.33%	25%
Total (App.)	100%	100%	100%	100%
Age:				
< 20	0%	2.38%	16.67%	25%
21-30	0%	37.3%	33.34%	0%
31-40	46.15%	13.49%	33.34%	50%
41-50	23.08%	16.67%	16.67%	0%
51-60	30.77%	21.42%	0%	0%
61-70	0%	7.94%	0%	0%
> 71	0%	0.79%	0%	25%
Total (App.)	100%	100%	100%	100%
Marital Status:				
Single	30.77%	34.13%	66.67%	50%
Married	69.23%	61.9%	33.33%	50%
Other	0%	6.35%	0%	0%
Total (App.)	100%	100%	100%	100%
Children:				
0	30.77%	36.5%	50%	50%
1	15.3%	11.9%	0%	0%
2	30.78%	20.43%	33.33%	0%
3	15.3%	23.24%	16.67%	50%
4	0%	5.55%	0%	0%
+5	7.85%	2.38%	0%	0%
Total (App.)	100%	100%	100%	100%
Education:				
Secondary School	0%	7.94%	16.67%	0%
University	46.15%	76.98%	66.67%	100%
Masters\PhD	53.85%	15.08%	16.67%	0%

Total (App.)	100%	100%	100%	100%
Working Condition:				
Student	0%	13.49%	33.33%	25%
Housewife	7.85%	27.78%	16.67%	0%
Employee (Private)	7.85%	26.99%	16.67%	25%
Employee (Public)	46.15%	19.84%	33.33%	0%
Employer	38.15%	8.73%	0%	50%
Other:	0%	3.17%	0%	0%
Total (App.)	100%	100%	100%	100%
Property Status:				
Tenant	0%	82.54%	16.67%	0%
Landlord	100%	17.46%	83.33%	100%
Total (App.)	100%	100%	100%	100%
Property Type:				
Studio	0%	0.79%	0%	0%
Duplex	7.85%	1.58%	0%	0%
Villa	46.15%	10.33%	0%	0%
Apartment	46%	87.3%	100%	100%
Total (App.)	100%	100%	100%	100%
Property Area:				
< 90	0%	4.76%	16.67%	25%
95-150	7.85%	34.13%	50%	0%
160-200	23.08%	27.77%	33.33%	0%
210-300	53.85%	20.63%	0%	25%
>310	15.39%	12.71%	0%	50%
Total (App.)	100%	100%	100%	100%
Living for (Years):				
< 1	0%	9.52%	0%	0%
1-5	61.54%	24.12%	83.33%	0%
6-10	38.46%	34.62%	16.67%	75%
11-15	0%	19.84%	0%	25%
> 16	0%	11.9%	0%	0%
Total (App.)	100%	100%	100%	100%
Availability of needs:				
Yes	7.85%	88.1%	50%	0%
No	92.15%	6.35%	50%	75%
Maybe	0%	5.55%	0%	25%
Total (App.)	100%	100%	100%	100%

Mobility inside GC:				
Car	38.46%	73.02%	50%	100%
Bus	0%	13.49%	0%	0%
Bicycle	0%	3.97%	0%	0%
Walking	61.54%	9.52%	50%	0%
Total (App.)	100%	100%	100%	100%
Activities:				
				
Neighbours meeting:				
Daily	0%	10.32%	0%	0%
Once a week	23.08%	26.19%	16.67%	50%
Twice a week	0%	14.28%	16.67%	25%
Once a month	15.39%	26.63%	16.67%	0%
Twice a month	0%	4.76%	0%	0%
Once a year	53.68%	7.5%	50%	25%
Other	7.85%	10.32%	0%	0%
Total (App.)	100%	100%	100%	100%
Security and Privacy:				
Yes	92.15%	86.52%	100%	100%
No	7.85%	3.17%	0%	0%
Maybe	0%	10.31%	0%	0%
Total (App.)	100%	100%	100%	100%
Reasons of living in a GC:				



Satisfaction Degree:

1	0%	0%	0%	0%
2	15.38%	1.59%	0%	25%
3	23.08%	23.80%	16.67%	50%
4	23.08%	40.06%	66.67%	25%
5	38.46%	35.27%	16.67%	0%
Total (App.)	100%	100%	100%	100%

Residents' Recommendations:

	<p>1.Availability of services area especially daily requirements such as the bakery, market,...</p> <p>2.Availability of social, cultural,...event s to enhance the social aspects among residents, as some of them aren't satisfied with the their social relation with their neighbours.</p> <p>3. Existence of Law to manage the residents' behaviour inside the GC.</p>	<p>1.Availability of a better security and emphasizing on closing the gates.</p> <p>2.Availability of public transportation related to the GC or availability of stations to access public transportation.</p> <p>3.Availability of social, religious and cultural events to enhance the social relations among residents.</p>	<p>1.Availability of services area especially daily requirements such as the bakery, market,...</p>	<p>1.Residents' participation in the GC management.</p> <p>2. Availability of services area especially daily requirements such as the bakery, market,...</p> <p>3. Existence of Law to manage the GC and the relation between stakeholders and residents.</p>
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4.4. Methodology

By interviewing a group of experts and a focus group to understand the major categories of residents' needs in the selected area. As mentioned in the literature review chapter, (Lang, 1994) created a framework to understand the relation between residents' needs and physical structure based on Maslow's pyramids of needs -as mentioned in chapter 2-, he classified the needs into two main categories, these categories were studied by (Velibeyoğlu, 2014) and updated by the experts' to adapt the study area and context:

Table 12: Lang's quality dimension identification, based on Maslow's triangle of needs, Source:(Velibeyoğlu, 2014)

Basic needs:	Higher level needs:
<ul style="list-style-type: none"> - <u>Shelter</u>: Housing affordability, Building materials, Design, good management, Size. - <u>Urban environment and services</u>: Amenities, Sustainable parks, Services, Green infrastructure, Activities. - <u>Security</u>: Safety, Gates. - <u>Social</u>: neighbours, events, urban spaces. 	<ul style="list-style-type: none"> - <u>Self-Esteem</u>: personal skills, learning opportunities, personal satisfaction. - <u>Self-Actualization</u>: Ecological behavior, Design environment.

Gated Communities play an important role in New-Cairo city forming 40.3% of it, with a total number of 227 gated communities, and total area of 27854 feddan.(New Cairo City's Government Office, 2019)

The research methodology is designed to be carried out in three phases;

- ✓ Phase 1: Pre-Field Phase
- ✓ Phase 2: Field Work Phase
- ✓ Phase 3: Post-Field Phase

The study included:

- Pre-Field Phase: Mapping and collecting data related to the selected cases.
- Pre-Field Phase: Survey designed and revised by urban design and urban planning experts, then was answered by residents in GCs in New-Cairo City.
- Field Work Phase: Observation and site visits.

- Field Work Phase: Residents' interviews and focus group in each of the selected cases based on the checklist derived from the literature review.
- Field Work Phase: Research work (Newspapers, websites and real estate agencies) and Stakeholder's interviews (Local authorities).
- Post-Field Phase: Statistical representation of data and conclusion.

4.4.1. Source of Information (Design Sample)

Selection of variables for this analysis is done following the previous research and literature review on the UQoL. The variables are as follows: gender, age, educational, attainment, monthly household income, length of residence, accommodation (dwelling) type, perceived property value, tenure, neighbourhood (place) attachment, community attachment, and activity and participation in solving common issues in the GC. It is assumed that these variables can cause differences in objective living conditions, as well as in the way individuals experience and evaluate their UQoL. In other words, understanding which factors contribute to different levels of satisfaction can play an important role in urban design policies, decision maker and city development.

Data Acquisition

To achieve the objectives and answer the research questions, primary and secondary data were obtained from various sources.

- Primary Data: The data that feeds directly to the understanding the residents' perception for the objective GCs elements, facilities and dimensions
- Secondary Data: This will be through different types of documents – Earlier researches, Client history, Government Publications - and includes:

Sample Design:

Mixed Sample (Systematic Sampling) containing different categories of Residents which differ in age, gender, job title, education level, perception.....etc.

4.4.2. Data Collection Methods and Tools

The field studies were carried out, then, a comprehensive physical survey was designed with closed ended questions and distributed in each of the GCs based on UQoL indicators. In addition to residents' individual interviews (semi-structured) and focus groups, containing five-point scale, on a random sample of households chosen from GC's residents. Statistical procedures are used to conduct the results.

Observation & Mapping

Observation through site visits of case studies for documenting and testing the current situations, mapping will be used for straight forward obvious physical properties of the GCs that can be mapped, analysed and translated into results.

Socio-spatial characteristics were collected using the following tools:

- Surveying Maps for documenting and analyzing urban form and fabric through both micro GCs pattern, and macro grouped city level.
- Field survey and observation to update surveying maps, using survey and observation forms.
- Photographs for tracing the interrelated relationships and dynamic nature of the selected case studies.

Questionnaires

A Questionnaire was designed to gather information in the case of large numbers of people to acquire the essential data required. The answers are represented statistically that gives indications clarifying more the info from the user's direction-Collective Questionnaire-. Different questionnaires are used for Residents per their different category - to make sure that different groups are included in the sample-: Age, gender, education level, Job title, period of habitation...etc. Small groups of these users will be excluded and will be questioned through interviews – individually and Focus group interview -.

Interviews and Focus groups

Interviews will be used to verify the concluded criteria and guidelines of design from the theoretical part of the research, through asking experts in this field – Semi-Structured -.

Focus groups are a second phase which follows the questionnaires in order to understand more the justification of different phenomena and getting deeper to know different personal ideas and opinions.

4.4.3. Data Analysis Methods

Mixed Approach - through sequential approach - will be used to analysis the collected data, to measure both qualitatively and quantitatively (through Likert Scale).

The study population included various groups:

1. Government officials: Semi-structured interviews with officials in New Urban Communities Authority (NUCA) and New Cairo City's Government Office.
2. GC's administration: Semi-structured interviews with planners, designers, managers, decision-makers, and other stakeholders.
3. Architects, planners, designers and urban planning academics.
4. Residents: including various categories according to age, gender, education level, job title, period of habitation...etc. First, a questionnaire was designed then, some interviews were made followed by a focus group; to measure both the subjective and objective dimensions of UQoL using likert scale. Questions were designed as a five-point form; ranging from 1=strongly agree to 5=strongly disagree, to be translated into qualitative values - **Error! Reference source not found.**-.

Table 13: Quality scores calculation, Source: (Babaei & Ajzashokouhi, 2013)

Quality score	Evaluation
1-1.8	Strong disagree/Terrible quality
1.8-2.6	Disagree/Low quality
2.6-3.4	Almost content/Average quality
3.4-4.2	Agree/High quality
4.2-5	Strong agree/Excellent quality

4.5. Selected Study Cases

Case study were selected according to a specific criterion of selection:

1. License: Selected GCs should be officially licensed as an integrated urban project.(NUCA, 1995)
2. Classification: based on GCs' classification, one of each type is selected (Almatarneh, 2013).
3. Construction and population status: selected GCs should be built and occupied.
4. Services availability: selected GCs should include services, green areas, amenities and facilities and different land use.
5. Various housing typologies: selected GCs should contain various housing types and patterns.
6. Area: GCs have various areas ranging between 3 to 8000 feddan, selected cases are from the most common segment. (Velibeyoğlu, 2014)(Lora et al., 2010).
7. Heterogenous neighborhood: selected cases should be heterogenous in density and social profile.

By applying these criteria to all GCs in the study area – attached in Appendix A-, four cases were selected and will be studied in the coming section and summarized in - **Error! Reference source not found.** - .

Table 14: Examination data summary, Source: Author

	C.S. (1) Katameya Heights	C.S. (2) Zizinia	C.S. (3) El-Masrawiya	C.S. (4) Diplomats
Area (Feddan)	144.27& 379.18	59.02	50	55.5
Density (Person/feddan)	20	65.5	123	N.A.
Social profile (Income)	High Class	Middle& Low-High Class	Middle& Low-High Class	Low-High Class
Heights	Apartments: 3 Floors Villas: 2 Floors Services: 3 Floors	Apartments: 4 Floors Villas: 2 Floors Services: 2 & 4 Floors	Apartments: 5 Floors Services: 3 Floors (Still under construction)	Dwellings: 2 & 3 Floors Services: 3 & 5 Floors
No. of Surveys	43	126	105	56

4.5.1. Case (1): Katameya Heights Golf & Tennis Resort

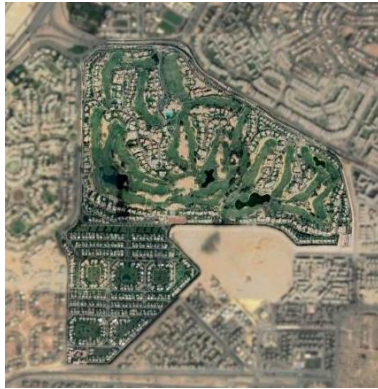
Located 9.15 KM away from The American University in Cairo (AUC), at Gamal Abd El-Nasser and Mohamed Farid Axis, 7.5 KM away from the main urban agglomeration with a total area 1596001.412 Sq.m., it is owned by a private investor.

According to NUCA, Katameya Heights was established in 2010.



Figure 25: Katameya Heights Compound location, Source: NUCA demographic studies in 2019, Google Earth Program 2019 & Wika mapia Program

The GC is surrounded with fence and gates and is almost fully built and occupied, services and amenities (tennis courts, club houses, social areas,...etc.) are available (as shown in the attached images) (New Cairo City's Government Office, 2019)(NUCA, 1999). According to literature and experts' opinion, a sample size of 47 residents were interviewed. Residents' are from the high economical class.



- Residential
- Services
- Main Green Park
- Streets

Figure 26: Katameya Heights Land-use map, Source: NUCA demographic studies in 2019
 Figure 27: Katameya Heights Layout, Source: Google Earth Program 2019 & Wika mapia Program

Project Program:

- Residential areas, 29.97%
- Services and Administration area, 0.63%
- Green, Open spaces and Golf areas, 52.41%
- Streets and Parking areas, 16.99%



Figure 28: GC's entrance gates, Source: Google earth 2019
 Figure 29: GC's entrance area, Source: Author

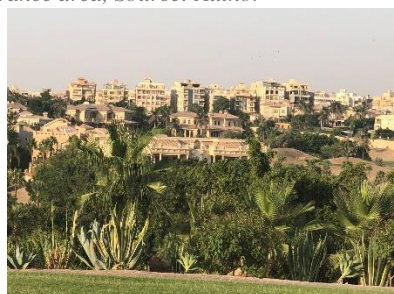


Figure 30: The main circulation method inside the compound is the golf cars, Source: Author
 Figure 31: Common architecture style and identity, Source: Author



Figure32 : Architecture identity of apartments, Source: Author



Figure 33: Architecture identity of villas, Source: Author



Figure34 : The GC's club house, Source: Author



Figure 35: Availability of services area and amenities, Source: Author



Figure36 : Golf and tennis areas, Source: Author



Figure 37: Landscape elements in the GC, Source: Author

4.5.2. Case (2): Zizinia Compound

Located 1 KM away from The American University in Cairo (AUC), at Gamal Abd El-Nasser Axis, 15 KM away from the main urban agglomeration with a total area 247884 Sq.m., it contains 78.83% apartments, 14.21% villas and 6.96% family houses, it is owned by a private investor.



Figure 38: Zizinia Compound location, Source:

NUCA demographic studies in 2019, Google Earth Program 2019 & Wika mapia Program

According to NUCA, Zizinia was established in 2002 and took 11 years. The GC is surrounded with fence and gates and is almost fully built and occupied but the services area and some amenities were given to other activities but still closed (as shown in the attached images) (New Cairo City's Government Office, 2019)(NUCA, 1999). According to literature and experts' opinion, a sample size of 126 residents were interviewed from a total actual population of 3865 residents for the validation of the study. Residents' are from the middle and low-high economical class.

The spaces between buildings are limited, consequently, limited urban spaces can be found and these spaces are rather used as car parking lots, although there are some spaces used as green areas, but aren't designed to handle any activities and no clear pedestrian paths are available.



Figure 39: Zizinia Layout, Source: Google Earth Program 2019 & Wika mapia Program
 Figure 18: Zizinia Land-use map, Source: NUCA demographic studies in 2019

Project Program:

- Residential areas, 45%
- Services and Administration area, 11.28%
- Green and Open spaces, 23.24%
- Streets and Parking areas, 20.48%



Figure 40: GC's entrance gates, Source: Author
 Figure 41 : GC's fence with clear entrance gates, Source: Author



Figure 42: Suitable roads for vehicle's circulation and availability of parking lots, Source: Author

Figure 43: Common architecture style and identity, Source: Author



Figure 44: Architecture identity of Villas, Source: Author

Figure 45: Architecture identity of apartments, Source: Author



Figure 46 :Availability of services area physically, although most of the residents agreed that it isn't functioning well, Source: Author

Figure 47: Space in front of the Masjed used as prayer area in the religious events and festivals, Source: Author



Figure 48: Designed to be a social building/club for residents' gathering, but it was switched to be kids' nursery, Source: Author

Figure 49: Landscape elements in the GC, Source: Author

4.5.3. Case (3): El-Masrawiya Compound

Located 1.70 KM away from The American University in Cairo (AUC), at Mohamed Naguib Axis and South Tesen Street, 12.5 KM away from the main urban agglomeration with a total area 210000.18 Sq.m., it contains apartments and duplexes inside the building, it is owned by a private investor. Residents' are from the middle and low-high economical class.



Figure 50: El-Masrawiya Compound location, Source:

NUCA demographic studies in 2019, Google Earth Program 2019 & Wika mapia Program

According to NUCA, El-Masrawiya was established in 2002. The GC services and amenities areas are still under construction, therefore, residents have to go outside the GC to get their requirements. (New Cairo City's Government Office, 2019)(NUCA, 1999). According to literature and experts' opinion, a sample size of 105 residents were interviewed from a total actual population of 6150 residents for the

validation of the study. The GC is surrounded with fence (as shown in the attached images) with clear entrance gates for the aim of separation.

The spaces between buildings are limited, consequently, limited urban spaces can be found and these spaces are rather used as car parking lots, although, a small park is found in the middle of the GC. The streets and parking lots are enough to handle the vehicles circulation inside the GC, but no clear pedestrian paths are available. The GC contains phases, the building's architecture style varies from one phase to another.



Residential
Services
Main Green Park
Streets

Figure 51: El-Masrawiya Layout, Source: Google Earth Program 2019 & Wika mapia Program

Figure 53: El-Masrawiya Land-use map, Source: NUCA demographic studies in 2019

Project Program:

Residential areas, 52.94%

Services and Administration area, 7.54%

Green and Open spaces, 11.45%

Streets and Parking areas, 28.07%



Figure 52: GC's fence with clear entrance gates (1st Phase entrance), Source: Author

Figure 53: GC's fence with clear entrance gates (2nd Phase entrance), Source: Author



Figure 54 : Suitable roads for vehicle's circulation and availability of parking lots, but lack of pedestrian paths, Source: Author

Figure 55: Common architecture style and identity, Source: Author



Figure 56: Architecture identity in the first phase, Source: Author

Figure 57: Architecture identity of the second phase, Source: Author



Figure 58 : Services area (related to the 2nd phase) still under construction, Source: Author

Figure 59: Landscape elements in the GC, Source: Author

4.5.4. Case (4): Diplomats Compound

Located 6 KM away from The American University in Cairo (AUC), at Gamal Abd El-Nasser and Talaat Harb Axis, 10 KM away from the main urban agglomeration with a total area 233100.20 Sq.m. According to NUCA, Diplomats area was established as separate residential units, then a fence surrounded them, hence, it wasn't planned to be a GC from the beginning. The GC is surrounded with fence and gates and is almost fully built and occupied but there is no services area since the area wasn't planned to be a GC, although, nowadays a service mall is being constructed at the edge of the GC. (New Cairo City's Government Office, 2019)(NUCA, 1999). According to literature and experts' opinion, a sample size of 56 residents were interviewed for the validation of the study. Residents' are from the high-middle economical class.



Figure 60: Diplomats area location, Source: NUCA demographic studies in 2019, Google Earth Program 2019 & Wika mapia Program

Since the area was planning to be individual residential units, there is almost no spaces between buildings, consequently, limited urban spaces can be found and these spaces are rather used as car parking lots. The streets and parking lots are enough to handle the vehicles circulation inside the GC, but no clear pedestrian paths are available. Also, there is no architecture identity or common architecture style, each building is completely different than the adjacent one.



- Residential
- Services
- Main Green Park
- Streets

Figure 61: Diplomats Layout, Source: Google Earth Program 2019 & Wika mapia Program

Figure 62: Diplomats Land-use map, Source: NUCA demographic studies in 2019

Project Program:

Residential areas, 60%

Services and Administration area, 2.63%

Green and Open spaces, 5.40%

Streets and Parking areas, 31.97%



Figure 63: GC's fence with clear entrance gates, Source: Author

Figure 64: GC's fence with clear entrance gates, Source: Author



Figure 65: Suitable roads for vehicle's circulation and availability of parking lots, Source: Author

Figure 66: Various architecture style and identity, Source: Author



Figure 67: Various architecture styles, Source: Google Earth 2017
<https://lh5.googleusercontent.com/p/AF1QipNQydJzX6wx6H-h7BtiWQJ8Titwg4oWoC10dCHY=h1440>

Figure 68: Various architecture styles, Source: Author



Figure 69: Administration building inside the GC, Source: Author

Figure 70: Landscape elements of the GC, Source: Author



Figure 71 : Services area still underconstruction, Source: Author

Figure 72: Hospital inside the GC, Source: Author

4.6. Comparative Analysis Between the Cases

4.6.1. Social UQoL Assessment

Table 15: Social UQoL Assessment, Source: Author

Variable	Item	Subjective/ Objective	C.S. (1)	C.S. (2)	C.S. (3)	C.S. (4)
1)Social equity and inclusion: Inclusive communities	Examining the personal safety, comfort, familiarity, distinctiveness and legibility of neighbourhood.	Objective	3.97	3.65	2.78	2.12
2)Social equity and inclusion: Inclusive communities	Checking the disabilities' accessibility to amenities and facilities designed according to the code.	Subjective & Objective	3.89	1.95	2.14	1.88
3)Social connectedness: Social integration	Calculating the housing index, studying the government housing provision and equability index calculation of mixed type of tenure.	Objective	3.43	4.45	4.45	2.18
4)Social connectedness: Social network	Studying the provision of open space network and telecommunication services. In addition to the provision of religious, social and cultural facilities.	Subjective & Objective	2.93	2.06	3.12	2.44
5)Social connectedness: Social participation	Examining the participation in management and maintenance, planning process and legislations.	Subjective	3.44	3.62	3.97	2.45
6)Behavioural performance: Public awareness	Examining the demonstration of "Life Awareness Strategy" which was developed primarily by the design team and updated at the final construction phase.	Subjective & Objective	3.21	2.44	2.77	1.89
7)Behavioural performance: Neighbourhood stability	Measuring residents' security perception in the neighbourhood and in their dwellings.	Subjective & Objective	4.78	4.31	4.47	4.27
8)Behavioural performance: Neighbourhood stability	Temporary buildings percentage illustration.	Subjective & Objective	4.76	4.7	4.64	4.51
9)Behavioural performance: Neighbourhood vitality	Checking the existence of active facades containing a various range of functions and land-uses.	Subjective & Objective	4.18	3.92	3.34	2.27

4.6.2. Physical UQoL Assessment

Table 16: Physical UQoL Assessment, Source: Author

Variable	Item	Subjective/ Objective	C.S. (1)	C.S. (2)	C.S. (3)	C.S. (4)
1)Land-use: Mixed land-use	Calculating the diversity index and examining the neighbourhood completeness as well as examining land reuse to ensure the effective use of land.	Objective	3.56	3.35	1.94	1.77
2)Land-use: Neighbourhood services & facilities	Examining the availability of clean and good quality infrastructure, services, facilities and amenities.	Subjective	4.31	2.65	2.46	2.33
3)Compact neighbourhood: Density & graded density	Calculating the gross residential density, the floor-area ratio and the graded density, as well as assessing the law consideration by comparing the actual state and the standard measurements.	Subjective & Objective	4.40	4.13	3.21	3.68
4)Urban layout: Street and square network	Examining the existence of well-designed complete streets, to enable accessibility and travelling for all users, including pedestrians, bicyclists, motorists and public transport.	Subjective & Objective	4.64	3.76	3.66	4.11
5)Urban layout: Street and square network	Examining the existence of evacuation and escape routes in case of natural hazards or fire.	Subjective & Objective	2.41	1.34	1.32	1.89
6)Urban layout: Building blocks	Analysing the building line, as well as the parking areas and its integration with the residential dwellings.	Subjective & Objective	4.48	4.37	2.77	3.97
7)Housing & Building quality: Housing quality	Assessing the building technologies used to enhance the attractiveness, performance and quality of buildings. Also, checking the buildings' fulfilment of codes.	Subjective & Objective	3.78	1.82	2.08	3.14
8)Housing & Building quality: Building quality	Examining the durability, adaptability, accessibility to facilities, amenities and infrastructure. Also, calculating the overcrowding average,	Subjective & Objective	3.94	2.94	2.77	2.47
9)Management and Maintenance:	Checking the maintenance policies and responsibilities and checking the availability of residents' manual and on-site offices.	Subjective & Objective	4.30	3.24	3.47	2.87

4.6.3. Mobility UQoL Assessment

Table 17: Mobility UQoL Assessment, Source: Author

Variable	Item	Subjective/ Objective	C.S. (1)	C.S. (2)	C.S. (3)	C.S. (4)
1)Accessibility: Pedestrian catchment area	Checking that the average distance between the furthest residential dwelling/point and the primary or the secondary facilities to make sure that it covers 80% of the residents.	Subjective & Objective	3.13	3.10	3.66	2.89
2)Accessibility: Connectivity	Examining the connection of the whole area, through "Direct index", "Connectivity index" and "Block size".	Subjective & Objective	4.7	4.12	4.34	4.22
3)Walkability & Cyclability: Walkable network	Examining the availability of well-designed pedestrian networks with safe sidewalks and crossing areas.	Subjective & Objective	4.86	3.98	3.54	3.77
4)Walkability & Cyclability: Cyclable network	Examining the availability of bicycling facilities and areas.	Subjective & Objective	4.12	1.25	2.21	1.44
5)Walkability & Cyclability: Traffic calming	Examining the presence of speed limit precautions to ensure residents' safety.	Objective	2.73	2.53	3.12	2.67
6)Public transportation: Inside the area	Examining the availability of affordable, frequent, safe and various modes of public transportation in a connected network.	Subjective & Objective	4.31	1.41	2.44	1.30
7)Public transportation: Surrounding connection	Checking the easily accessibility to public transport facilities (such as a bus stop or train station).	Subjective & Objective	2.31	1.82	3.67	1.73
8)Traffic Load: Traffic volume	Calculating the traffic flow index, residents' vehicular ownership and their daily trips to work (means and distance).	Subjective & Objective	3.48	4.14	2.41	4.34
9)Traffic Load: Transportation management	Examining the travel strategy and processing level analysis.	Subjective & Objective	3.79	2.41	3.12	2.21

4.6.4. Phycological UQoL Assessment

Table 18: Psychological UQoL Assessment, Source: Author

Variable	Item	Subjective/ Objective	C.S. (1)	C.S. (2)	C.S. (3)	C.S. (4)
1)Community identity: Urban image	Examining the clear identification and recognition of boundaries, paths, focal points and landmarks.	Subjective	4.43	4.12	4.37	2.84
2)Community identity: Responsive design	Examining the allowance of local vernacular.	Subjective & Objective	3.87	3.17	3.79	2.61
3)Community identity: Space personalization	Checking the residents' territory in addition to the personalized front area of each dwelling for each resident.	Subjective	4.72	2.45	2.04	3.79
4)Pleasing Millieu: Architectural quality	Assessing the architectural quality and homogeneity of all buildings and dwellings.	Subjective & Objective	4.77	2.76	3.12	1.18
5)Pleasing Millieu: Landscape quality	Assessing the landscape quality of open areas	Subjective & Objective	4.69	2.66	2.41	2.28

4.1.1. Economical UQoL Assessment

Table 19: : Economical UQoL Assessment, Source: Author

Variable	Item	Subjective/ Objective	C.S. (1)	C.S. (2)	C.S. (3)	C.S. (4)
1)Economic development: Employment	Employment, local skills and Job-Housing opportunities	Subjective & Objective	2.68	3.89	2.17	2.48
2)Economic standard of living: Cost of living	Affordable housing, cost of services and amenities rate, Housing prices index and mixed ways of housing finance.	Subjective & Objective	3.67	4.07	3.97	4.14

4.6.5. Political UQoL Assessment

Table 20: Political UQoL Assessment, Source: Author

Variable	Item	Subjective/ Objective	C.S. (1)	C.S. (2)	C.S. (3)	C.S. (4)
1)Urban Policies and strategies: UQoL policies & strategies	UQoL policies and Strategies development.	Subjective & Objective	4.14	3.21	2.66	1.98
2)Urban Policies and strategies: Governance & management	Providing a framework of good integrated governance and management.	Subjective & Objective	4.47	3.19	2.89	3.17
3)Civil and political rights: Community	Residents' participation in governance and decision-making process at both local and national level.	Subjective & Objective	3.49	3.90	1.87	1.77

4.7. Summary

This chapter represents the empirical part of the research, it studied the history, allocation and growth of New-Cairo city as well as the description, mapping and computing of GCs in the study area. The chapter also included the extensive survey which was carried out on all the whole study area and the examination process on the selected cases.

The dimensions of UQoL examination was studied in (Chapter 2) and updated in (Chapter 3) to fit the study cases. Criteria of selection was applied to all GCs allocated within the study area, to select 4 cases, UQoL criteria was used in this chapter to examine and calculate UQoL of the selected cases in order to find out recommendations and guidelines related to the study area (New-Cairo City) in (Chapter 5).

The research structure and flow by the end of the chapter can be summarized as-Figure 75-:

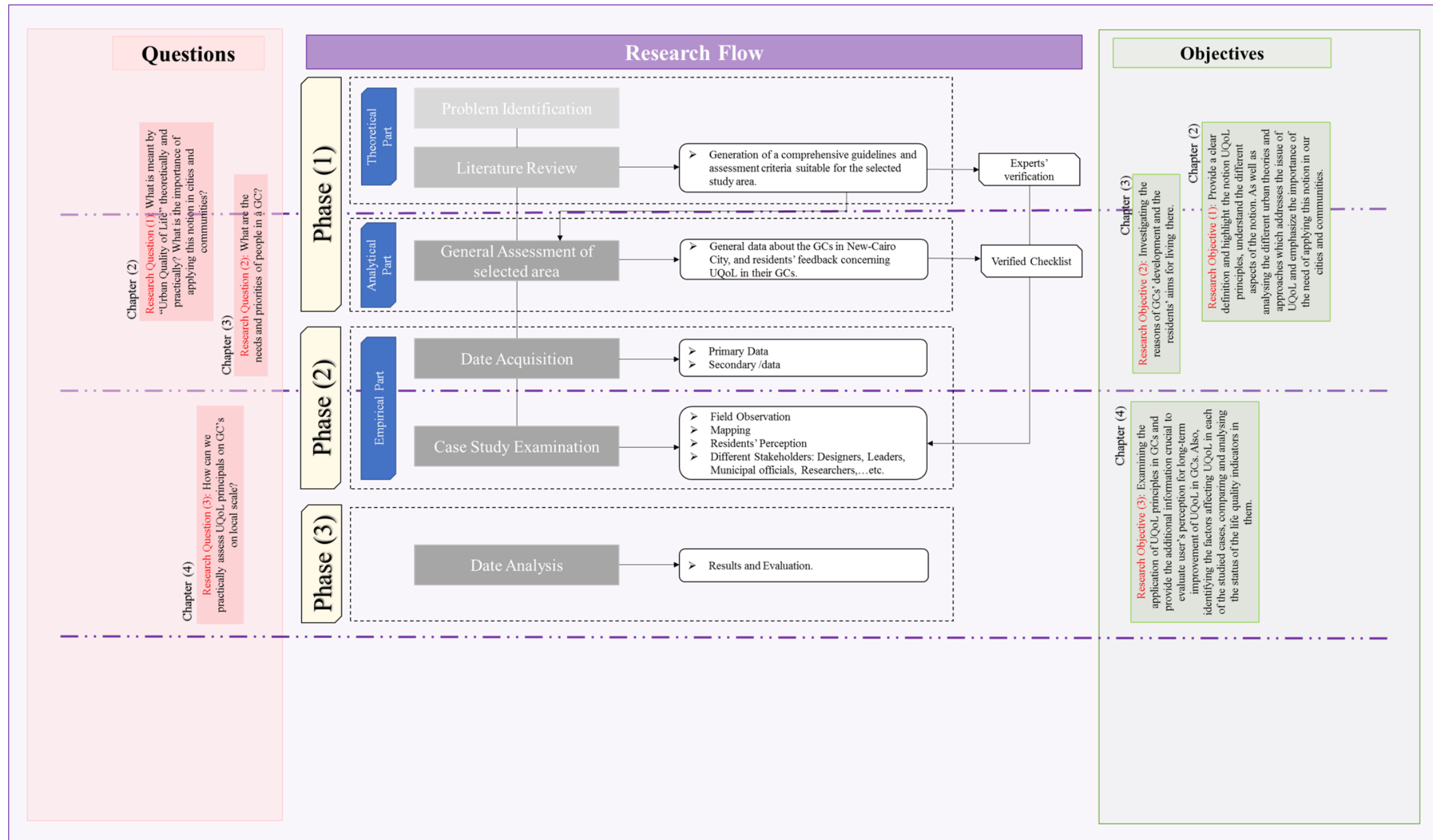


Figure 73: Research Methodology and Flow, Source: Author



CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

5. CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

5.1. Conclusion

This part of the thesis is issued with evaluating and assuring the answer of research questions which was discussed along the chapters, as well as assuring the achievement of the research objective and aim. The chapter also includes the recommendations based on the studied cases. It also includes the further research recommendations. The conclusion is divided into three main categories.

General Conclusion

From the previous analysis, we can clearly conclude certain points, which can be summarized as:

1. There is not agreed worldwide definition for what UQoL should be or what components should be included. On the other hand, this concept is still new in Egypt and has no clear definition or settled criteria till now. Each group of people has their own definition of what constitutes quality of life. So, residents' preferences should be carefully considered by planners and decision makers when designing new communities or upgrading an existing one.
2. The relationship between the urban planning and individual quality of life could explain why people prefer to live in some areas rather than others; therefore the urban quality of life assessment tool with its different dimensions proposed by the researcher could give the planners and decision makers a guideline for developing or redeveloping communities.
3. It is important to underline that the relative weight of urban quality of life indicators differs between different groups of people. The relative weight should be achieved through a focus group whereas participants should be selected according to the target assessed area.
4. There is an obvious relation between oversizing the GC and decreasing the UQoL, therefore, the area of GC plays an important role in UQoL assessment. It was clearly seen that occupied GC from the top 10 largest GCs suffer despite the availability of services and amenities, because these areas are accessed by non-residents more than the actual residents.

Therefore, non-occupied large GCs should put this into consideration.

5. The importance of community participation in decision-makings about the neighborhood and raising the sense of spatial belonging, in both large and small GCs, it was clearly seen the effect of residents' participation in increasing the rates and the general UQoL in the area.
6. According to literature and practical examination, GCs aren't only restricted to wealthy people, they have different economical categories.
7. GCs in Egypt do better follow (Ariane, 2012) rather than (Blakely & Snyder, 1997)'s classification, due to the difference in certain features and attraction factors, also a major factor is the residents' economic status which isn't always related to the social level and social control isn't always applicable as was clearly seen in the questionnaire and the case study.
8. The social status isn't necessarily an indication to the economic status, they are not accompanying each other, and this was clearly proved through the selected sample. Large GCs (such as: El-Rehab city) contains diversity range of social and economic status.
9. Despite of increasing the property value, most of the GCs residents refused to share the facilities, amenities and services with the non-residents, they also emphasis on building stone walls and fences to completely separate them and provide extra privacy. They don't also accept the oversizing of the GC (example: El-Rehab city).
10. Marketing is a powerful tool for the escalation of GCs especially when it is based on another example (ex: El-Rehab and Madinaty). Most of the marketing campaigns use the term "UQoL" as a powerful tool in attracting residents.
11. There was a significance relation between UQoL and economic indicator in the selected cases. It is also significant that physical and social indicators are the most effective indicators in the examination process.
12. There is an obvious relation between oversizing the GC and decreasing the UQoL, therefore, the area of GC plays an important role in UQoL assessment. It was clearly seen that occupied GC from the top 10 largest GCs suffer despite the availability of services and amenities, because these areas are accessed by non-residents more than the actual residents.

Therefore, non-occupied large GCs should put this into consideration.

13. Existence of a social club plays an essential role in enhancing the social relations between neighbors, as it is clearly concluded that GCs with social spaces especially clubs have better social relations.
14. It is clearly concluded from the land parceled GCs that parceling of lands inside the GC make it lose many of its characteristics as a GC, especially physical and psychological dimensions. Therefore, pre-planned GCs are always a better solution than post-enclosed ones. This was also recommended by designers and decision makers experts especially NUCA's expert.
15. Community participation is developed by residents' if not developed by the decision makers, especially in over-sized GCs. (ex: El-Rehab and Madinaty)
16. The importance of using smart solutions and technologies in the assessment process and the importance of applying researches in real life development and creating a criterion for sustainable design of new towns, especially GCs, since they are the developing urban fabric in new cities.
17. Luxurious GCs residents prefer to be isolated socially and physically. Therefore, they prefer wall gates and fences to be isolated from the surrounding non-residents, also, each resident prefer a private isolated unit to limit socialization.

Extensive Survey Conclusion based on GCs' Classification

Luxurious GCs

1. Luxurious GC residents are satisfied with the services and needs they get from their GC.
2. Residents' of Luxurious GCs prefer to be completely isolated from the surroundings, even their neighbours in the same GC.
3. Although luxurious GCs are considered the fanciest one, they lack the availability of daily services and therefore, this effect the satisfaction of their residents.

Moderate GCs

4. Concerning Moderate GCs, 95% of residents who said that they are not fully satisfied with the GC, recommended increasing the security, especially at the gates.

5. Safety and Privacy are the most important issues from Moderate GC residents' perspective, 95.13% voted that it is the main reason for moving to a GC. On the other hand, Social relations was the least reason for moving.
6. Large moderate GCs suffer from lack of good management and maintenance; therefore, residents complain about the lack of rules application due to the weak supervision of the GC's authority.
7. Although "Social aspect" wasn't one of the main reasons for residents to move to GC, it became one of the most important aspect of living in a certain GC and they refuse to change their living area so as not to leave their neighbours.

Lower-High GCs

8. Residents' are satisfied with what they get and the value of money.

Post-Enclosed GCs

9. Residents of post-enclosed GCs are satisfied with the gating process; they don't care about the general harmony of the architecture identity.
10. Residents in Post-Enclosed GCs agreed that the GC lack the availability of main services (bakery, supermarket, café, sports area,....)

Based on UQoL Indicators:

By using the UQoL indicators – subjective indicators- an analysis was carried out to conduct residents' perspective. One of the main highlights of the extensive survey is determining the relative weight of every dimension from residents' perspective. Social UQoL has the highest relative weight according to residents and experts. Social activities are the main reason of residents' interaction, and hence development of neighbours relations. Social amenities and gathering areas play an important role in this, existence of social club helps significantly in development a good relationship among residents and increase sense of familiarity. Physical dimension has the second highest relative weight according to residents and experts.

Psychological UQoL:

Table 21 : Psychological UQoL examination, Source:(Ariane, 2012) (Serag El Din et al., 2013)

Variable	Item	
Community identity: Urban image	Examining the clear identification and recognition of boundaries, paths, focal points and landmarks in the GC.	The material of the gates and fences surrounding the GC as well as using technology and CCTV plays an important role in the residents' feeling of safety and security, it is one of the important items which can identify the type of GC, as luxurious GCs always have strong physical walls, while moderate and low-high GCs have fences. This clearly explains the residents' strong feeling of safety and security in luxurious GCs.
Community identity: Space personalization	Checking the residents' territory in addition to the personalized front area of each dwelling for each resident especially the ground floor unit	Some GC offer a landscape territory to their ground floor units' residents -for example: Rehab City, Madinaty-.
Pleasing Milieu: Architectural quality	Assessing the architectural quality and homogeneity of all GC's buildings and dwellings.	GCs offers prestige to all their residents as was the objective of their development, this prestige is various from one category to another as the economic level varies. Although, it is clearly concluded that prestige can also be related to housing

		prototypes, as by the existence of building apartments only, prestige decrease.
Pleasant Milieu: Landscape quality	Assessing the landscape quality of open areas	Residents' in Luxurious and Moderate GCs are satisfied with the quality and maintenance of landscape areas, while residents in post-enclosed GCs suffer from lack of maintenance of landscape area and they recommended the public participation of residents in the GC management policy.

Political UQoL:

Table 22 : Political UQoL examination, Source:(Ariane, 2012) (Serag El Din et al., 2013)

Variable	Item	
Urban Policies and strategies: UQoL policies	UQoL policies and Strategies development.	Luxurious and moderate GCs' residents were informed with the policies and strategies of the GC when they buy or rent a unit.
Urban Policies and strategies: Urban governance and management	Residents' participation in governance and decision-making process at both local and national level.	Most of moderate and lower-high GCs participate in the management and maintenance of the GC. On the other hand, most of luxurious and post-enclosed GCs don't participate, therefore, residents recommend the participation of residents in the decision-making process.

Social UQoL:

Table23 : Social UQoL examination, Source:(Ariane, 2012) (Serag El Din et al., 2013)

Variable	Item	
Social equity and inclusion: Inclusive communities	Examining the personal safety, comfort, familiarity, distinctiveness and legibility of neighbourhood inside the GC.	By declination of residents' economic level, social control is not applicable.
Social connectedness: Social network	Studying the provision of open space network and telecommunication services. In addition to the provision of religious, social and cultural facilities of the GC.	Residents recommended the availability of social events to enhance the relation between the neighbors.
Social connectedness: Social participation	Examining the participation in management and maintenance, planning process and legislations of the GC.	Most of moderate and lower-high GCs participate in the management and maintenance of the GC. On the other hand, most of luxurious and post-enclosed GCs don't participate.
Behavioural performance: Neighbourhood stability	Measuring residents' security perception in the neighbourhood and in their dwellings inside the GC.	Most of residents have their privacy and security inside the GC including all categories.
Behavioural performance: Neighbourhood vitality	Checking the existence of active facades containing a various range of functions and land-uses.	According to residents, one of the main advantages of GC is the availability of near daily services and amenities within walking distance.

Physical UQoL:

Table24: Physical UQoL eamination, Source:(Ariane, 2012) (Serag El Din et al., 2013)

Variable	Item	
Land-use: Mixed land-use	Calculating the diversity index and examining the neighbourhood completeness as well as examining land reuse to ensure the effective use of the GC's land.	Availability of amenities and services area objectively isn't usually an indication for the availability of residents' requirement, Madinaty and Rehab-City residents aren't satisfied with the service areas as it is accessed by non-residents especially the adjacent GC's residents whom they lack availability of services at their GC. (During a weekend at Rehab-City a quick survey was carried out and revealed that: 63.4% of people at the food court area, 36.6% of people at commercial areas were non-residents, from a total number of 118 person)
Land-use: Neighbourhood services & facilities	Examining the availability of clean and good quality infrastructure, services, facilities and amenities inside the GC.	
Urban layout: Street and square network	Examining the existence of well-designed complete streets, to enable accessibility and travelling for all users, including pedestrians, bicyclists, motorists and public transport inside the GC.	Finding a clear well-designed pedestrian network was one of the main poles of attraction to residents. In addition to having an internal public transportation network, which most residents considered it an important asset.
Management and Maintenance:	Checking the maintenance policies and responsibilities and checking the availability of residents' manual and on-site offices.	As the area of the GC increase, more attention should be paid to the

		management discipline of the GC, as it is clearly concluded from the survey that residents of the largest occupied GCs are complaining about the management of the GC.
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Mobility UQoL:

Table 25 : Mobility UQoL examination, Source:(Ariane, 2012) (Serag El Din et al., 2013)

Variable	Item	
Walkability & Cyclability: Walkable network	Examining the availability of well-designed pedestrian networks with safe sidewalks and crossing areas inside the GC.	Finding a clear well-designed pedestrian network was one of the main poles of attraction to residents.
Walkability & Cyclability: Cyclable network	Examining the availability of bicycling facilities and areas inside the GC.	Bicycling facilities aren't common in the study area's GC. Although some GC residents use bicycles but without having defined routes for them.
Public transportation: Inside the area	Examining the availability of affordable, frequent, safe and various modes of public transportation in a connected network.	Availability of an internal public transportation network, which most residents considered it an important asset.
Public transportation: Surrounding connection	Checking the easily accessibility to public transport facilities (such as a bus stop or train station).	

Economical UQoL:

Table 26: Economical UQoL examination, Source:(Ariane, 2012) (Serag El Din et al., 2013)

Variable	Item	
Economic development: Employment	Calculating the employment, local skills and Job-Housing opportunities	Segregation of residents' according to their economic status only, which is not related to their education or social status.
Economic development: Local business	Assessing the locally owned and new business within the housing area	Most of residents have daily work trips outside the GC. Only 3% of all residents have locally owned business.

5.2. Research Limitations

- Environmental UQoL, as it needs experts and professional examination.

5.3. Future Research

1. Visualization of people's perception, satisfaction degree (Subjective indicators) and Social behavior, gives fruitful and useful information, however it cannot be validated due to the lack of secondary data on subjective indicator application which gives accurate percentage of the residents' satisfaction.
2. Another limitation is the Objective indicator, using the G.I.S. data base, because the visualization of the UQoL using objective indicators and software needs further research, and cannot be complied in this research.
3. Environmental UQoL as they need experts and professional examination they can be examined in separate research.
4. Applying the examination criteria for different socioeconomic neighbourhoods.

Finally, the research structure and flow by the end of the chapter can be summarized as -Figure 76-:

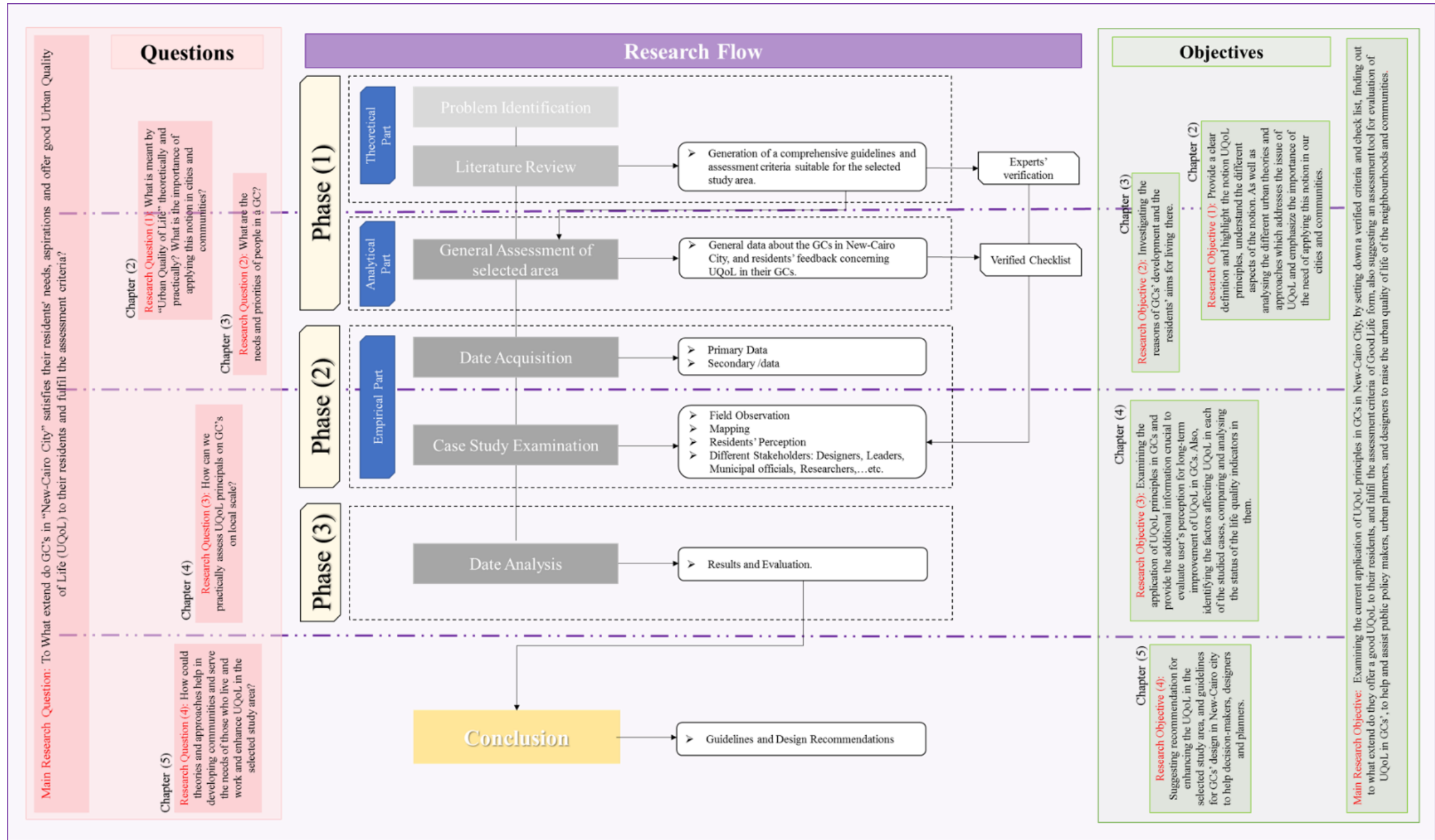


Figure 74: Research Methodology and Flow, Source: Author



REFERENCES

REFERENCES

- Abdel-Fattah, A. (2008). *Appropriating the New Urbanism Principles to the Egyptian Context*. Ain-Shams University.
- Almatarneh, R. T. (2013). *Choices and changes in the housing market and community preferences: Reasons for the emergence of gated communities in Egypt: A case study of the Greater Cairo Region, Egypt*. *Ain Shams Engineering Journal* (Vol. 4). Faculty of Engineering, Ain Shams University.
<https://doi.org/10.1016/j.asej.2012.11.003>
- Amin, A., Graham, S., & Login, R. (1997). *The ordinary city. Transactions of the Institute of British Geographers* (Vol. 22).
<https://doi.org/10.1111/1468>
- André, R. (1994). Islamic city, Arab city: orientalist myths and recent views. *British Journal of Middle Eastern Studies*, 21(1), 3–18.
- Appleyard, B. (2011). Principles for Measuring and Achieving Livability in Planning and Design Decisions.
- Ariane, S. A. M. El. (2012). Neighbourhood Urban Quality of Life Guidelines for Urban Planning and Development of New Assessment Tool.
- Atkinson, R., & Blandy, S. (2006). *International Perspectives on The New Enclavism and the Rise of Gated Communities*. Glasgow: Department of urban studies, Glasgow university.
- Babaei, J., & Ajzashokouhi, M. (2013). *A comparative study of the quality of urban life The case study of Mashhad neighbourhood s (Kosar and Saber)*. Mashhad, Iran.
- Banister, D. (2011). *Transport and Urban Development. Routledge* (18 November 2011). <https://doi.org/10.1017/CBO9781107415324.004>
- Barbara Barcaccia, Giuseppe Esposito, Maria Matarese, M. B. and M. G. D. M. (2013). Quality Of Life: Everyone Wants It, But What Is It? *IESE Insight*.
- Barofsky, I. (2004). *Quality of Life Research: A Critical Introduction. Quality of Life Research* (Vol. 13).
<https://doi.org/10.1023/B:QURE.0000025693.23152.fe>
- Blakely, E. J., & Snyder, M. G. (1997). *Divided We Fall: Gated and Walled Communities in the United States. Architecture of Fear*. Retrieved from <http://www.academia.edu/download/40799575/dividedwefall.pdf>
- Blakely, E. J., & Snyder, M. G. (1999). *Fortress America: Gated Communities in the United States*. Brookings Institution Press.

- Brownlow, L. (1929). *The neighbourhood unit*. By Clarence Arthur Perry. Volume VII, *Regional New York and Its Environs, Monograph I*. New York, 1929. *National Municipal Review* (Vol. 18).
<https://doi.org/10.1002/ncr.4110181012>
- Caldeira, T. (2001). *City of Walls Crime, Segregation, and Citizenship in São Paulo*. São Paulo.
- Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). *The Quality of American Life Perceptions, Evaluations, and Satisfaction*. Michigan.: Russell Sage Foundation.
- Carmona, M., & Tiesdell, S. (2007). *Urban Design Reader*. Great Britain: Elsevier. https://doi.org/10.1007/SpringerReference_12454
- Charmes, E. (2012). Gated Communities: Ghettos for the Rich?, 1–12.
- Conference, I. (2009). *ARCHCAIRO 2009, Department of Architecture, Cairo University*, 5.
- Darroch, J. (2009). Drucker on marketing: An interview with Peter Drucker. *Journal of the Academy of Marketing Science*, 37(1), 8–11.
<https://doi.org/10.1007/s11747-008-0111-3>
- Denis, E. (2006). Cairo as Neoliberal Capital ? Diane Singerman and Paul Amar. *American University in Cairo Press*, 47–71.
- Dissart, J., & Deller, S. (2000). Quality of Life in the Planning Literature. *SAGA Journal*, 15(1), 135–161. Retrieved from
<https://doi.org/10.1177/08854120022092962>
- European Commission. (2000). *The Urban Audit. Towards the Benchmarking of Quality of Life in 58 European Cities. Volume I: The Yearbook*. Retrieved from
http://ec.europa.eu/regional_policy/archive/urban2/urban/audit/ftp/volume1.pdf
- Ghonimi, I., Zamly, H. El, Khairy, M., & Soilman, M. (2013). *The contribution of gated communities to urban development in Greater Cairo Region, New Towns* (Vol. 6). Cairo.
- Ghonimi Islam, Hassan Alzamly, M. K. & M. S. (2010). *Understanding and formulating gated communities inside GCR new towns urban fabric*. ISOCARP Congress.
- Glasze, G., & Alkhayyal, A. (2002). Gated housing estates in the Arab world: Case studies in Lebanon and Riyadh, Saudi Arabia. *Environment and Planning B: Planning and Design*, 29(3), 321–336.
<https://doi.org/10.1068/b12825t>

- Graham, S., & Marvin, S. (2002). *Splintering Urbanism: Networked Infrastructures, Technological Mobilities, and the Urban Condition. Technology and Culture* (Vol. 43).
<https://doi.org/10.1353/tech.2002.0124>
- Grant, J. (2005). *Planning responses to gated communities in Canada. Housing Studies* (Vol. 20).
<https://doi.org/10.1080/026730303042000331772>
- Grant, J., & Mittelsteadt, L. (2004). Types of gated communities. *Environment and Planning B: Planning and Design*, 31(6), 913–930.
<https://doi.org/10.1068/b3165>
- Greenberg, S. W., & Rohe, W. M. (1984). Neighbourhood Design and Crime A Test of Two Perspectives. *Journal of the American Planning Association*, 50(1), 48–61.
- Grijpstra, D., de Klaver, P., van der Graaf, A., Veldhuis-Van Essen, C., & Weijnen, T. (2013). *Third European Quality of Life Survey - Quality of life in Europe: Trends 2003-2012*. <https://doi.org/10.2806/46819>
- Hackworth, J. (2007). *The Neoliberal City: Governance, Ideology and Development in the American City*. London, U.K.: Cornell University Press.
- Hassan, G. F., & Salheen, M. A. (2010). Distribution of Densities within Metropolitan Cities : The Case of Greater Cairo region, 1–15. Retrieved from [http://cpas-egypt.com/pdf/GhadaFarouk/Research's/English/004 Distribution of Densities within Metropolitan Cities.pdf](http://cpas-egypt.com/pdf/GhadaFarouk/Research's/English/004%20Distribution%20of%20Densities%20within%20Metropolitan%20Cities.pdf)
- Ibrahim, I. G. (2011a). *Identification of gated communities in Egypt*.
- Ibrahim, I. G. (2011b). *Testing The Validity Of The Impacts Of Gated Communities On Urban Development In Egypt Abstract : Aim : Methodology :*
- Jacobs, J. (1961). *Death and Life of Great American Cities*. United States of America: Vintage Books.
- Janet L. Abu-Lughod. (1987). Janet L . Abu-Lughod THE ISLAMIC CITY-HISTORIC ISLAMIC ESSENCE , AND CONTEMPORARY RELEVANCE. *International Journal of Middle East Studies*. Vol. 19, No. 2 Pp. 155-176, 19(2), 155–176.
<https://doi.org/http://dx.doi.org/10.1017/S0020743800031822>
- Janis, I. (1998). Hierarchy of Needs of Abraham Maslow. In *A First Look at Communication Theory* (pp. 235–246). McGraw-Hill.
<https://doi.org/10.1525/sp.2007.54.1.23>.

- Jirón, P., & Fadda, G. (2015). *LIFE TO URBAN AND HABITAT DEVELOPMENT*. Oxford.
- Körreveski, K. (2011). Measuring Well-Being and Quality of Life Using Oecd, 38–44.
- Kuppinger, P. (2004). Exclusive Greenery: new gated communities in Cairo. *University of California Press, Journals Division*, 16(2), 35–61.
- Landman, K. (2000a). *Gated Communities and Urbain Sustainability: Taking a closer look at the Future. 2nd Southern African Conference on Sustainable Development in the Built Environment*.
- Landman, K. (2000b). *The urban future: Enclosed neighbourhood s? Urban Futures Conferences*.
- Landman, K. (2002). *Gated communities in South Africa: Building bridges or barriers*. Germany. Retrieved from http://www.researchgate.net/profile/Karina_Landman/publication/228802441_Gated_communities_in_South_Africa_Building_bridges_or_barriers/links/54884fb70cf289302e308b96.pdf
- Lang, J. (1994). *Urban design : the American experience*. New York: New York : Van Nostrand Reinhold.
- Lang, J. (2008). *URBAN DESIGN: A TYPOLOGY OF PROCEDURES AND PRODUCTS Illustrated with over 50 Case Studies. Urban Studies* (Vol. 45). Architectural Press, An imprint of Elsevier. <https://doi.org/10.1177/0042098007087342>
- Le Corbusier. (2007). *Toward a new architecture*. New York: Dover Publication.
- Levent, T. B., & Nijkamp, P. (2006). *Urban quality of life: Analysis and Policies*. Istanbul, Turkey. Retrieved from http://www.ae-info.org/attach/User/Baycan_Tuzin/Publications/baycan_tuzin_publications.pdf
- Lora, E., Powell, A., Praag, B. M. S. Van, & Sanguinetti, P. (2010). *The Quality of Life in Latin American Cities. The Quality of Life in Latin American Cities*. <https://doi.org/10.1596/978-0-8213-7837-3>
- Lotfi, S., & Solaimani, K. (2009). An assessment of Urban Quality of Life by Using Analytic Hierarchy Process Approach (Case study: Comparative Study of Quality of Life in the North of Iran). *Journal of Social Sciences*, 5(2), 123–133. <https://doi.org/10.3844/jssp.2009.123.133>

- Low, S. (2003). *Behind the gates: life, security, and the pursuit of happiness in Fortress America*. New York: Routledge.
- Low, S. M. (2001). The Edge and the Center: Gated Communities and the Discourse of Urban Fear. *American Anthropologist*, 103(1), 45–58. <https://doi.org/10.1525/aa.2001.103.1.45>
- Lynch, K. (1960). *The Image of The City*. England: Massachusetts Institute of Technology Cambridge, Massachusetts, and London, England. <https://doi.org/10.2307/427643>
- Manzi, T., & Smith-bowers, B. (2005). Gated Communities as Club Goods: Segregation or Social Cohesion ? Gated Communities as Club Goods: Segregation or Social Cohesion ? *Housing Studies*, 20(2), 345–359. <https://doi.org/10.1080/0267303042000331817>
- Marafi, S. (2011). The American University in Cairo School of Humanities and Social Sciences THE NEOLIBERAL DREAM OF SEGREGATION RETHINKING GATED COMMUNITIES IN GREATER CAIRO A CASE STUDY AL-REHAB CITY GATED COMMUNITY A thesis submitted to The Department of Sociology , Anth.
- Marans, R. W. (2012). Quality of Urban Life Studies: An Overview and Implications for Environment-Behaviour Research. *Procedia - Social and Behavioral Sciences*, 35(December 2011), 9–22. <https://doi.org/10.1016/j.sbspro.2012.02.058>
- Marco Rieckmann. (2018). *Key themes in education for sustainable development. Issues and trends in education for sustainable development*. UNESCO Publishing. Retrieved from file:///C:/Users/Dornhoff/Downloads/Leicht, Heiss et al (Hg) 2018 - Issues and trends in Education.pdf
- Marshall Smith, D. (1973). The Geography of Social Well-Being in the United States: An Introduction to Territorial Social Indicators.
- Martins, I., & Marques, T. (2009). Evaluating quality of life in cities: towards new tools to support urban planning. *City Futures*. Retrieved from http://www.cityfutures2009.com/PDF/55_I_Martins_T_S_Marques.pdf
- Mccrea, R., Marans, R. W., & Stimson, R. (2011). Investigating Quality of Urban Life, 45. <https://doi.org/10.1007/978-94-007-1742-8>
- Mccrea, R., & Stimson, R. J. (2011). *Investigating Quality of Urban Life* (Vol. 45). <https://doi.org/10.1007/978-94-007-1742-8>

- Metwally, M., & Abdallah, S. (2013). *Major Trends of the Gated Communities Development in Egypt an Approach to Urban Sustainability. International Conference- Privet Urbana Governance and Gated Communities, University of Brighton, UK(26-28 June. 2013).*
- Michel-Guillou, E., & Meur-Ferec, C. (2017). *Living in an “At Risk” environment: the example of “coastal risks.” Handbook of Environmental Psychology and Quality of Life Research.* https://doi.org/10.1007/978-3-319-31416-7_26
- Morris, A. E. (1994). *History of urban form : before the industrial revolutions.* London ; New York : Routledge: Harlow, Essex: Longman Scientific & Technical.
- Morris, W., & Kaufman, J. A. C. (1991). *THE NEW URBANISM: AN INTRODUCTION TO THE MOVEMENT AND ITS POTENTIAL IMPACT ON TRAVEL DEMAND WITH AN OUTLINE OF ITS APPLICATION IN WESTERN AUSTRALIA.*
- Mumford, L. (1961). *The City in History: Its Origins, Its Transformations, and Its Prospects.* New York: New York: Harcourt, Brace and World, 1961.
- Murdie, R. A. (1992). *Modelling Quality of Life Indicators in Canada : a Feasibility Analysis.* Canada: Canada mortgage and housing corporation.
- Myers, D. (1988). *Building knowledge about quality of life for urban planning. Journal of the American Planning Association (Vol. 54).* <https://doi.org/10.1080/01944368808976495>
- Nazmy, E. (2016). Residents’ Satisfaction at Gated Communities In Egypt. *International Journal of Scientific & Engineering Research*, 7(4), 1185–1196. Retrieved from <http://www.ijser.org>
- New-Cairo city adminstration.* (2019).
- New Cairo’s Government Office. (2018). *Gated Communities in New-Cairo City.* Cairo.
- New Cairo City’s Government Office. (2019). *New-Cairo City Gated Communities.* Cairo.
- NUCA. (1987). *The Master Plans of the First, Third and Fifth Settlements Final Report.* Cairo.
- NUCA. (1995). *New Cairo City: General Master Plan: Final Report.* Cairo.

- NUCA. (1999). *New Cairo City Eastern Extension Master Plan: Final Report*. Cairo.
- Pacione, M. (2003). Urban environmental quality and human wellbeing - A social geographical perspective. *Landscape and Urban Planning*, 65(1–2), 19–30. [https://doi.org/10.1016/S0169-2046\(02\)00234-7](https://doi.org/10.1016/S0169-2046(02)00234-7)
- Pettit, C., Craglia, M., & Thakuriah, P. (Vonu) M. F. (2017). Quality of Life. *Research Data Alliance*, 1–3.
- Podgorelec, S. (2003). Mark Rapley, Quality of Life Research – a Critical Introduction. *Migracijske i Etničke Teme*, 19(4), 454–457.
- Potvin, L., Haddad, S., and Frohlich, K. L. (2001). *Beyond process and outcome evaluation: a comprehensive approach for evaluating health promotion programmes*. WHO Evaluation in health promotion: Principles and perspectives. Retrieved from http://www.euro.who.int/__data/assets/pdf_file/0007/108934/E73455.pdf
- Rogerson, R. J. (1999). *Quality of life and city competitiveness*. *Urban Studies* (Vol. 36). <https://doi.org/10.1080/0042098993303>
- Roitman, S. (2010). *Gated communities: definitions, causes and consequences*. *Urban Design and Planning* (Vol. 26). London, U.K. <https://doi.org/10.1680/udap.2010.163>
- Serag El Din, H., Shalaby, A., Farouh, H. E., & Elariane, S. A. (2013). *Principles of urban quality of life for a neighbourhood*. *HBRC Journal* (Vol. 9). Housing and Building National Research Center. <https://doi.org/10.1016/j.hbrcj.2013.02.007>
- Shafer, C. S., Turner, S., & Lee, B. K. (2000). *A tale of three greenway trails: User perceptions related to quality of life*. Texas.
- Shetawy, A. (2012). GATED COMMUNITIES : AN ERA FASHION IN A COLLISION COURSE IN THE NEW CAIRO SETTLEMENT , EGYPT. *Port-Said Engineering Research Journal*.
- Shucksmith, M., Cameron, S., & Tanya Merridew. (2006). *First European Quality of Life Survey: Urban-rural differences*. (Claire Wallace, Ed.). Vienna: Institute for Advanced Studies, Vienna. Retrieved from <http://www.eurofound.europa.eu/pubdocs/2006/63/en/1/ef0663en.pdf>
- Stevenson, A. (2010). Oxford dictionary of english. *Oxford University Press*, 3(ISBN-13: 9780199571123), 1777. <https://doi.org/10.1093/acref/9780199571123.001.0001>
- Svampa, M. (2001). *Los que ganaron. La vida en los countries y barrios privados*. Buenos Aires: Biblos. *Eure* (Vol. 29). Biblos, Buenos Aires.

<https://doi.org/10.4067/S0250-71612003008800010>

- Szalai, A., & Andrews, F. M. (1982). *The Quality of Life: Comparative Studies*. London: Beverly Hills.
- The Ministry of Housing- Utilities and Urban Communities (MHUC). (2012). *Greater Cairo Urban Development Strategy; Part I: Future Vision and Strategic Directions*. Cairo.
- Turan, H. (2015). Taylor's "Scientific Management Principles": Contemporary Issues in Personnel Selection Period. *Journal of Economics, Business and Management* (Vol. 3).
<https://doi.org/10.7763/JOEBM.2015.V3.342>
- U. N Habitat. (1996). *United United Nations Conference on Human Settlements. Habitat II* (Vol. 02500). Retrieved from
<https://documents-dds-ny.un.org/doc/UNDOC/GEN/G96/025/00/PDF/G9602500.pdf?OpenElement>
- UN-Habitat. (2012). *Placemaking and the Future of Cities (Draft). Project for Public Spaces*. Retrieved from
<http://www.pps.org/reference/placemaking-and-the-future-of-cities/>
- UN-Habitat. (2016). *Urbanization and Development: Emerging Futures. UN Habitat World Cities Report 2016*. [https://doi.org/10.1016/S0264-2751\(03\)00010-6](https://doi.org/10.1016/S0264-2751(03)00010-6)
- Velibeyoğlu, H. (2014). *Assessing Subjective Quality of Urban Life at Neighbourhood scale*.



APPENDIX

GC's Classification based on types:

Luxurious GCs:

Gated Community Name	Gated Community Name	Total Area (in feddan)	Completion Percentages	Residents' Occupation	Landuse		Housing Typologies		Classification
La Nova Vista	لاتوفا فيستا	40.81	More than 65%	Occupied	✓	✓	-	✓	Luxurious GC
Bellagio	بيلاجيو	97.61	More than 65%	Occupied	✓	✓	-	✓	Luxurious GC
Waterway	ووتر واي	23.88	More than 65%	Unoccupied	✓	✓	✓	-	Luxurious GC
River Walk	ريفر ووك	27.51	More than 65%	Occupied	✓	✓	-	✓	Luxurious GC
Seasons Residence	سيزونز	45.84	More than 65%	Occupied	✓	✓	-	✓	Luxurious GC
EI Patio 1	الباقيو 1	15.68	More than 65%	Occupied	✓	-	-	✓	Luxurious GC
EI Patio 2	الباقيو 2	23.22	More than 65%	Occupied	✓	-	-	✓	Luxurious GC
EI Patio 3	الباقيو 3	9.05	More than 65%	Occupied	✓	-	-	✓	Luxurious GC
Flowers Park	فلاورز بارك	30.13	More than 65%	Occupied	✓	-	-	✓	Luxurious GC
Gardenia Springs	جاردنيا سبرينج	57.59	More than 65%	Occupied	✓	-	-	✓	Luxurious GC
Katameya Plaza	القمامية بلانزا	30.00	More than 65%	Occupied	✓	✓	✓	✓	Luxurious GC
Villino New Cairo	فيلاينو	21.18	More than 65%	Occupied	✓	✓	-	✓	Luxurious GC
Katameya Breeze	القمامية بريز	7.05	More than 65%	Occupied	✓	-	-	✓	Luxurious GC
Paradise Katameya	باراديس القمامية	25.28	More than 65%	Occupied	✓	✓	-	✓	Luxurious GC
Moon Valley (1)	مون فالي (1)	48.40	More than 65%	Occupied	✓	✓	✓	✓	Luxurious GC
Katameya Palms	قمامية بالمز	19.10	More than 65%	Occupied	✓	✓	-	✓	Luxurious GC
90 Avenue	نابليكي افيو	46.85	From 25% to 65%	Unoccupied	✓	✓	✓	-	Luxurious GC
Midtown	ميدت تون	17.23	From 25% to 65%	Unoccupied	✓	✓	✓	-	Luxurious GC
Layan Residence	لايان ريزيدنس	227.69	More than 65%	Unoccupied	✓	✓	-	✓	Luxurious GC
Palm Hills Katameya	قمامية بالم هيلز	221.06	More than 65%	Unoccupied	✓	✓	-	✓	Luxurious GC
Katameya Dunes	القمامية ديونز	459.41	More than 65%	Occupied	✓	✓	-	✓	Luxurious GC
La Mirada	لا ميرادا	21.82	More than 65%	Unoccupied	✓	✓	-	✓	Luxurious GC
Katameya Gardens	قمامية جاردنز	93.68	More than 65%	Occupied	✓	✓	✓	✓	Luxurious GC
Mirage City	الميراج	384.62	More than 65%	Occupied	✓	✓	✓	✓	Luxurious GC
Swan Lake	سوان ليك	107.83	More than 65%	Occupied	✓	✓	-	✓	Luxurious GC
Katameya Heights	قمامية هايتس	379.18	More than 65%	Occupied	✓	✓	✓	✓	Luxurious GC
Katameya Heights	قمامية هايتس	144.27	More than 65%	Occupied	✓	✓	-	✓	Luxurious GC
EI Safwa Resort	الصفاة ريزورت	10.82	More than 65%	Occupied	✓	✓	-	✓	Luxurious GC
Stone Park	ستون بارك	451.93	More than 65%	Occupied	✓	✓	-	✓	Luxurious GC
Katameya Hills	قمامية هيلز	37.32	More than 65%	Occupied	✓	✓	-	✓	Luxurious GC

Lower-High GCs:

Gated Community Name	Gated Community Name	Total Area (in feddan)	Completion Percentages	Residents' Occupation	Landuse		Housing Typologies		Classification
Raihana/Rayhan Villas	ريحان	18.43	More than 65%	Occupied	✓	-	-	✓	Lower High GC
Madinet El Sahafyeen	مدينة المسحفين	36.87	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
Rawdat Al Azhar	روضة الأزهر	30.48	More than 65%	Occupied	✓	✓	-	-	Lower High GC
Yasmina	ياسمينيا	32.07	More than 65%	Unoccupied	✓	✓	-	-	Lower High GC
Zahret El-Tagamoe	زهرة التجمع	73.14	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
Sunset	مسح سيت	16.84	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
Remas City	ريماس سيتي	11.40	More than 65%	Occupied	✓	✓	-	-	Lower High GC
Al-Rawda	الروضة	13.45	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
El-Feda Gardens	حدائق الفداء	11.52	More than 65%	Occupied	✓	✓	-	-	Lower High GC
Ashrafeya Residence	حي الاشرفية	31.33	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
Gawhareh El-Tagamoe	جوهرة القاهرة الجديدة	36.45	More than 65%	Occupied	✓	✓	-	-	Lower High GC
EI-Talaea For Housing	العائشة لتسكان	24.41	More than 65%	Unoccupied	✓	✓	-	-	Lower High GC
Zizinia Rose	زيزينيا روز	17.90	More than 65%	Occupied	✓	-	-	✓	Lower High GC
Hayati Residence	حياتي ريزيدنس	24.13	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
El-Gawhara	الجوهرة	5.22	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
Al-Maram Landmark	المرام لاند مارك	4.36	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
The Village	القرية	25.06	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
El-Zahowa Village	قرية الزهراء	25.93	More than 65%	Unoccupied	✓	✓	-	✓	Lower High GC
Zahret El-Madaen	زهرة المدن	24.13	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
El-Masrawyeh	المسراوييه	50.00	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
Gannati	حنطي	30.07	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
Al Asil Compound	حي الأسيل	21.31	More than 65%	Occupied	✓	-	-	✓	Lower High GC
Dahyet El-Shark	شاطحة الشرق	58.00	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
Al Zohoor Village	قرية الزهور	5.94	More than 65%	Unoccupied	✓	-	-	✓	Lower High GC
EI-Koronfel Compound	كوموند القرونفل	88.02	More than 65%	Unoccupied	✓	-	-	✓	Lower High GC
Promenade New Cairo	بروميناد القاهرة الجديدة	33.10	More than 65%	Unoccupied	✓	-	-	✓	Lower High GC
Sephora Heights	سيفورا هايتس	20.10	More than 65%	Unoccupied	✓	✓	-	✓	Lower High GC
Dora El-Karaz	درة الكرز	120.00	More than 65%	Unoccupied	✓	✓	-	✓	Lower High GC
El-Fida Gardens	حدائق الفدا	18.37	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
El-Fida Gardens	حدائق الفدا	5.82	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
Light City	لايت سيتي	9.68	More than 65%	Unoccupied	✓	-	-	✓	Lower High GC
Housing	سكن	8.48	More than 65%	Occupied	✓	-	-	✓	Lower High GC
Akoya	أكويا	13.60	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
HighLand Park	هاي لاند بارك	11.90	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
Royal Paradise	رويال پاراديس	19.68	More than 65%	Occupied	✓	✓	-	✓	Lower High GC
Ministry of Finance workers' Housi	اسكان الموظفين بوزارة المالية	73.64	More than 65%	Occupied	✓	✓	-	✓	Lower High GC

Moderate GCs:

Gated Community Name	Gated Community Name	Total Area (in feddan)	Completion Percentages	Residents' Occupation	Landuse	Housing Typologies	Classification
El-Rehab City	مدينة الرحاب	1461.35	More than 65%	Occupied	√	√	Moderate GC
El-Rehab City Extension	امتداد مدينة الرحاب	895.00	More than 65%	Occupied	√	√	Moderate GC
Acacia Compound	مجمع أكاسيا	46.84	More than 65%	Occupied	√	√	Moderate GC
Dyar Park	ديار بارك	60.92	More than 65%	Occupied	√	√	Moderate GC
Dyar	ديار	105.89	More than 65%	Occupied	√	√	Moderate GC
Landmark	لاند مارك	15.54	More than 65%	Occupied	√	√	Moderate GC
Maxim Country Club Compound	مكسيم كاتري كلوب	74.29	More than 65%	Occupied	√	√	Moderate GC
Stella New-Cairo	ستيلد نو كايرو	29.21	More than 65%	Occupied	√	√	Moderate GC
Lago Vesta	لاجو فيستا	13.85	More than 65%	Occupied	√	√	Moderate GC
Palma Resort	منتجع بالميا	25.71	More than 65%	Occupied	√	√	Moderate GC
Golden Heights (1)	جولدن هايتس 1	32.62	More than 65%	Occupied	√	√	Moderate GC
Golden Heights (2)	جولدن هايتس 2	13.90	More than 65%	Occupied	√	√	Moderate GC
Family Park	عائلي بارك	16.30	More than 65%	Occupied	√	√	Moderate GC
Villa Residence/Villar Compound	فيلار ريزيدنس	83.07	More than 65%	Occupied	√	√	Moderate GC
Casa Verdi	كازا فيردي	23.03	More than 65%	Occupied	√	√	Moderate GC
Village Avenue	فيليج اڤينيو	8.31	More than 65%	Occupied	√	√	Moderate GC
Mountain View	ماونتن فيو	33.96	More than 65%	Occupied	√	√	Moderate GC
Moon Valley (2)	مون فالي (2)	18.22	More than 65%	Occupied	√	√	Moderate GC
El-Hayat Heights	الحيات هايتس	12.95	More than 65%	Occupied	√	√	Moderate GC
Tulip Compound	توليب	24.49	More than 65%	Unoccupied	√	√	Moderate GC
Sun City Gardens	سمن سيتى جاردنز	24.58	More than 65%	Occupied	√	√	Moderate GC
El-Hayah Residence	مجمع حياه السكي	43.47	More than 65%	Occupied	√	√	Moderate GC
One Piece Compound	وان پيس	10.38	More than 65%	Unoccupied	√	√	Moderate GC
Durrat Al Qahira	دره القاهرة	28.50	More than 65%	Occupied	√	√	Moderate GC
Lena Springs	لينه سبرينجز	36.39	More than 65%	Unoccupied	√	√	Moderate GC
Zizinia Garden	زيزينيا جاردن	27.20	More than 65%	Occupied	√	√	Moderate GC
Riyad Secon	رياد سكون	68.00	From 25% to 65%	Unoccupied	√	√	Moderate GC
Serena Heights	سيرينا هايتس	27.47	More than 65%	Unoccupied	√	√	Moderate GC
La Konita/La Quinta	لاكوتينا	10.00	More than 65%	Unoccupied	√	√	Moderate GC
Concordia	كونكورديا	10.29	More than 65%	Occupied	√	√	Moderate GC
Top View	توب فيو	6.95	More than 65%	Occupied	√	√	Moderate GC
Royal Lagon	رويال لاجون	9.72	More than 65%	Occupied	√	√	Moderate GC
Jolie Heights	جوليه هايتس	15.05	More than 65%	Occupied	√	√	Moderate GC
Etoile Des Villes	ايتوال دو في	20.77	More than 65%	Occupied	√	√	Moderate GC
MarryLand/Emerald Park	ميراند بارك	24.14	More than 65%	Occupied	√	√	Moderate GC
Park View	بارك فيو	23.25	More than 65%	Occupied	√	√	Moderate GC
Dyar	الديار	405.09	More than 65%	Occupied	√	√	Moderate GC
East Town Resident	استاون	204.28	From 25% to 65%	Unoccupied	√	√	Moderate GC
Tiba	طيبة	39.18	More than 65%	Occupied	√	√	Moderate GC
La Terra Compound	لاتيرا	34.70	More than 65%	Occupied	√	√	Moderate GC
El Villa Project	مشروع الفيلاد	37.41	More than 65%	Occupied	√	√	Moderate GC
Sunrise	سمن رايز	24.07	More than 65%	Occupied	√	√	Moderate GC
Retaj City	ريتايج سيتى	23.39	More than 65%	Occupied	√	√	Moderate GC
Village Gate Compound	فيليج جيت	31.21	More than 65%	Occupied	√	√	Moderate GC
Orkedia Resort	اوركيديا ريزورت	20.23	More than 65%	Occupied	√	√	Moderate GC
Arabiya District	حي عربية	12.75	More than 65%	Occupied	√	√	Moderate GC
Grand Residence	جراند ريزيدنس	60.37	More than 65%	Occupied	√	√	Moderate GC
New Merryland	نيو ميرييلند	17.99	More than 65%	Occupied	√	√	Moderate GC
Zizinia	زيزينيا	59.02	More than 65%	Occupied	√	√	Moderate GC
Mena Residence	مينا ريزيدنس	24.43	More than 65%	Occupied	√	√	Moderate GC
Concord Gardens	كونكوردي جاردن	58.01	More than 65%	Occupied	√	√	Moderate GC
Al Guezira / Green Park	الجزيرة (جرين بارك)	31.45	More than 65%	Occupied	√	√	Moderate GC
La Rose Compound	لاروز	10.11	More than 65%	Occupied	√	√	Moderate GC
Garden View	جاردن فيو	18.98	More than 65%	Unoccupied	√	√	Moderate GC
Riviera Heights	ريفيرا هايتس	23.16	More than 65%	Occupied	√	√	Moderate GC
Fountain Blue	فونتين بلو	12.29	More than 65%	Occupied	√	√	Moderate GC
Riviera Hills	ريفيرا هيلز	10.00	More than 65%	Occupied	√	√	Moderate GC
Smart Life	سمارت لايف	16.98	More than 65%	Occupied	√	√	Moderate GC
El-Defaa El-Madany	الدفاعة المدني	12.90	More than 65%	Occupied	√	√	Moderate GC
El-Mostashareen	المستشارين	14.80	More than 65%	Occupied	√	√	Moderate GC
El-Defaa El-Watany	الدفاعة الوطني	35.20	More than 65%	Occupied	√	√	Moderate GC
Barwa	بروه	2020.81	Less than 21%	Unoccupied	√	√	Moderate GC
Fifth Square ALMARASEM	فيفث سكوير	158.27	Less than 21%	Unoccupied	√	√	Moderate GC
Les Rois	لي روي	168.33	More than 65%	Occupied	√	√	Moderate GC
Galleria Moon Valley	جاليريا مون فالي	71.25	From 25% to 65%	Occupied	√	√	Moderate GC
Villette	فيليت	301.48	From 25% to 65%	Unoccupied	√	√	Moderate GC
La Fontaine	لا فونتين	34.42	Less than 21%	Unoccupied	√	√	Moderate GC
Palm Hills New-Cairo	بالم هيلز القاهرة الجديدة	501.09	More than 65%	Unoccupied	√	√	Moderate GC
Fountain Park	فونتين بارك	54.89	More than 65%	Occupied	√	√	Moderate GC
Eagle Residence	ايجل ريسيدنس	47.02	More than 65%	Unoccupied	√	√	Moderate GC
Mivida	ميفيدا	891.87	More than 65%	Occupied	√	√	Moderate GC
Hyde Park	هايد بارك	1447.94	More than 65%	Occupied	√	√	Moderate GC
Mena Gardens	مينا جاردنز	115.01	Less than 21%	Unoccupied	√	√	Moderate GC
Palm Resort	قرية النخيل	639.14	More than 65%	Occupied	√	√	Moderate GC
Royal Maxim	رويال مكسيم	18.03	More than 65%	Occupied	√	√	Moderate GC
Bright City	برايت سيتي	31.57	More than 65%	Occupied	√	√	Moderate GC
Cairo Festival City	كايرو فستيفال سيتي	688.36	From 25% to 65%	Occupied	√	√	Moderate GC
Arabella	ارابيلد	75.89	More than 65%	Occupied	√	√	Moderate GC
Arabella Park	ارابيلد بارك	20.24	More than 65%	Occupied	√	√	Moderate GC
Lake View	ليك فيو	308.88	More than 65%	Occupied	√	√	Moderate GC
Le Reve	لوريف	116.06	More than 65%	Occupied	√	√	Moderate GC
Madinaty	مدينيتي	8000.00	More than 65%	Occupied	√	√	Moderate GC

APPENDIX B
RESIDENTS' ONLINE SURVEY
Residents in New-Cairo City's, Gated Communities
(Compounds) Survey

Dear,

This is an online survey for the residents in New-Cairo City's Gated Communities (Compounds), the results will be used in the completion of the Master's Thesis of Salma M. Anwar, Post-graduate Student at Ain-Shams University, Faculty of Engineering, Department of Urban Design and Planning, therefore your participation is highly appreciated.

The researcher confirms that the data and answers of all the participants in this survey will be confidential and will not be used anywhere else, other than this scientific research.

If you have any inquiries please contact salma.anwar@eng.asu.edu.eg
Thank you for your time.

*Required

Specify your Gated Community (Compound) name: *

Age: *

- Less than 20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- +71

Gender: *

- Female
- Male

Marital Status: *

- Single
- Married
- Other: _____

Children: *

- 0
- 1
- 2
- 3
- 4
- +5

Education: *

- Secondary School
- University
- Masters\PhD
- Other: _____

Working Conditions: *

- Student
- Housewife
- Employee (Private Sector)
- Employee (Public Sector)
- Employer
- Other: _____

Property status: *

- Tenant
- Landlord
- Other: _____

Property Type: *

- Studio
- Apartment
- Duplex
- Villa
- Family house
- Other: _____

Property Area (in Sq.m.): *

- Less than 90
- 95-150
- 160-200
- 210-300
- More than 310

You have been living in a Gated Community (Compound) for (in years): *

- Less than 1
- 1-5
- 6-10
- 11-15
- More than 16

Where have you been living before moving to the Gated Community (Compound)? *

Do you find all your required services (bakery, pharmacy, grocery...etc.) inside the Gated Community (Compound)? *

- Yes
- No
- Maybe

In Case "NO" or "Maybe", What is missing?

How do you move inside your Gated Community (Compound)? *

- Car
- Buses
- Bicycle
- Walking
- Other: _____

What type of activities do you prefer to do with your neighbors? *

- Eating in a restaurant
- Going to the club
- Do the grocery, bakery, shopping
- Having coffee together
- Hanging out at the mall
- Having a BBQ party
- Visiting each other
- Other: _____

How often do you do these activities with your neighbors? *

- Daily
- Once a week
- Twice a week
- Once a month
- Twice a month
- Once a year
- Other: _____

Do you have your own privacy and security inside the Gated Community (Compound)? *

- Yes
- No
- Maybe

In Case "NO" or "Maybe", Why?

Why did you choose to live in a Gated Community (Main reason(s))? *

- Homogeneous society
- Safety and Privacy
- Environmental conditions
- Social networks and relationships
- Architecture Style
- Avoiding crowded neighbourhoods
- Green networks and urban spaces
- Availability of services and amenities
- Availability of pedestrian networks
- Other: _____

Evaluate your satisfaction degree as a Gated Community (Compound) resident: *

Not satisfied at all

- 1
- 2
- 3
- 4
- 5

Very satisfied

Why? *

What do you miss inside your Gated Community (Compound)?

What do you recommend developing in your Gated Community (Compound)?

Other Comments/Notes:

APPENDIX C

FOCUS GROUP STUDY SURVEY

This sector is concerned with the residents' focus group survey for the examination of the UQoL. There are seven categories that you may need in your daily life, these categories help in the examination process.

Part (I):

*Evaluate and Justify: Below these categories are semi-closed ended questions to assess your feedback, evaluate and justify your opinion (from 1>>>not satisfied at all till 5>>> very satisfied).

Environmental UQoL

1. The degree of satisfaction with the air quality.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

2. The degree of satisfaction with the water quality.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

3. The degree of satisfaction with the Ecological footprint.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

4. The degree of satisfaction with the material selection.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

5. The degree of satisfaction with the green areas (percentage, accessibility, activities, ...etc.).

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

6. The degree of satisfaction with the quietness/calmness of the neighborhood in the GC (avoiding noise pollution).

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

7. The degree of satisfaction with the lighting in the compound (nature and man-made lighting).

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

8. The degree of satisfaction with the odor of the GC (controlling the odor impact).

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

9. The availability of renewable energy projects inside the GC.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

10. The Availability of waste management process (waste collection and treatment).

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

Physical UQoL

11. The degree of satisfaction with the neighborhood completeness.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

12. The degree of satisfaction with the availability of infrastructure.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

13. The degree of satisfaction with the availability of services and amenities (locations, cleanliness, types, walking distance to them, ...etc.)

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

14. The degree of satisfaction with the population density.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

15. The availability of pedestrian network and well-functioned streets inside the GC.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

16. The availability of well-integrated parking lots inside the GC.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

Mobility UQoL

17. The availability of pedestrian catchment areas for the primary and secondary facilities inside the GC.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

18. The integration of mobility modes and safety of pedestrian crossing.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

19. The availability of well-integrated and designed bicycle facilities (lane, parking, ...etc.).

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

20. The availability of affordable integrated various public transportation modes with constant frequency at known stations.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

Social UQoL:

21. The ease of owning a residential unit.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

22. The degree of satisfaction of accessing the services and facilities areas inside the GC.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

23. The familiarity and comfort between the residents inside the GC.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

24. The ease access of disabilities within the GC.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

25. The personal safety and security inside the GC.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

26. The availability of open spaces and activity areas inside the GC.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

27. The importance of having shared events and activities to enhance the communication between neighbors in the GC. (social, cultural, religious, etc. event celebration).

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

28. The importance of community participation actions in planning and maintenance processes inside the GC.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

29. The importance of having awareness sessions concerning your surrounding context and UQoL.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

Psychological UQoL:

30. The identification of elements (paths, buildings, landmarks, boundaries, focal points, ..etc.).

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

31. The preservation of the vernacular style and of historic sites or heritage elements (if found).

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

32. The degree of satisfaction concerning the architecture quality.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

33. The degree of satisfaction concerning the landscape quality.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

Economical UQoL:

34. Your satisfaction degree by the value you get for the money you pay.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

35. Your satisfaction degree by the housing price index.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

36. Your satisfaction degree by the cost of services and facilities.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

Political UQoL:

37. The availability of codes, guidelines and frameworks to improve the UQoL in the GC.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

38. The availability of good governance and good urban management.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

39. The participation of residents in representative governance and decision-making processes at local and national levels.

1 (Low) Not satisfied at all	2 Not satisfied	3 Moderate	4 Satisfied	5 Very satisfied

Part (II):

*Answer the following: These are open ended questions to assess your feedback.

As a GC resident,

1. How do you perceive the meaning of "UQoL"?

2. What is the main reason for living in a GC?

3. What are the pros of living in a GC?

4. What are the cons of living in a GC?

5. To what extent did your wants meet your needs in your GC?

6. What are the factors that affects the satisfaction process?

7. In your opinion, what are the factors that determine the UQoL in a GC?

APPENDIX D

EXPERTS' INTERVIEW

This sector is concerned with the experts' guided interviews for the examination of the UQoL in GC through open-ended questions.

Part (I):

As an expert, from your point of view,

1. What are the main reason(s) for living in a GC?

2. What are the pros and cons of GCs in New-Cairo City?

3. Do you prefer to live in a GC? Why?

4. To what extent do GCs in New-Cairo City achieve their objectives, goals and visions?

5. How do you see the future of GC in New-Cairo City?

6. What do you recommend developing in New-Cairo City GCs?

7. To what extend do these GCs in offers a good UQoL?

8. What are the factors that determine the UQoL in a GC?

Part (II):

1. How do you perceive the meaning of "UQoL"?

2. How can the UQoL be assessed or examined?

3. What is the best housing typologies where UQoL can be achieved?

4. What are the factors that determine the UQoL in these GCs?

5. What are your recommendations to enhance the UQoL in these GCs?

APPENDIX E

CASE STUDY RESIDENTS' SURVEY

هذا الاستبيان خاص بقاطني كومبارند زيرينيا بمدينة القاهرة الجديدة. نتاج هذا الاستبيان ستستخدم في إتمام رسالة الماجستير الخاصة بسلمى محمد أنور ، طالبة دراسات عليا بقسم التصميم الحضري والتخطيط كلية الهندسة، جامعة عين شمس. بالتالي فإن مشاركتكم في هذا الاستبيان تستلزم الشكر والتقدير
يؤكد الباحث على سرية البيانات الخاصة بجميع المشاركين في هذا الاستبيان وانه لن يتم استخدامها في أي مكان آخر
في حالة وجود أي استفسارات يرجى مراسلة بخلاف هذا البحث العلمي salma.anwar@eng.asu.edu.eg
شكرا جزيلاً

يمكنك ذكر الاسباب في كل سؤال: السن:..... نوع العقار: شقة / فيلا

- قيم مدى رضاك عن توافر شبكات البنية التحتية (الطرق وشبكات إمدادات المياه والصرف الصحي وإدارة النفايات الصلبة والكهرباء وشبكات إمداد الغاز وشبكات الهاتف والاتصالات)

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

- قيم مدى رضاك عن توافر الخدمات (البقال-الصيدلية-المخبز-...) والمرافق التي تلبي احتياجات السكان

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

- قيم مدى رضاك عن جودة ونظافة المناطق الخدمية والترفيهية

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

- قيم مدى رضاك عن طرق الإخلاء المصممة للمخاطر الطبيعية والوقاية من الحرائق

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

- قيم مدى رضاك عن اماكن و اعداد مواقف السيارات Parking

1	2	3	4	5

غير مرضى تماما		مرضى		مرضى جدا

● قيم مدى رضاك عن المناطق المفتوحة الداخلية (الحدائق ومناطق التجمعات)

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

● قيم مدى رضاك عن حالة المباني (من حيث مواد البناء-التشطيبات-التهوية-الاضاءة-.....الخ)

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

● قيم مدى قرب المناطق السكنية من مناطق الخدمات (من حيث مسافة السير)

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

● قيم مدى وجود شبكات المواصلات العامة داخل الكومباوند

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

● قيم مدى سهولة الوصول الى محطات المواصلات العامة

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

- قيم مدى رضاك عن المناطق الخدمية (من حيث الجودة-التكلفة-القرب)

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

- قيم مدى وجود بيان يشرح كيف يتطور الكومباوند لتلبية احتياجات السكان بكل الفئات الحالية والمحتملة ، وما هي الخطوات التي اتخذت لجعل التنمية في متناول الجميع السكان المحليين؟

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

- قيم مدى رضاك عن طرق السيارات (من حيث الاضاءة- وسع الحارات- جودة الرصف-...الخ)

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

- قيم مدى شعورك بالامن والامان داخل الكومباوند (ضد الكوارث الطبيعية والبشرية)

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

- قيم مدى رضاك عن وجود خدمات ثقافية واجتماعية ودينية

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

- قيم مدى مشاركة السكان فى عملية التخطيط بالكومباوند

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

- قيم مدى سهولة الوصول للاماكن المختلفة بالكومباوند و سهولة معرفة الطرق سواء المشاه او السيارات

1	2	3	4	5
غير مرضى تماما		مرضى		مرضى جدا

- كم مرة تتقابل وتجتمع مع الجيران لممارسة تلك الأنشطة؟

- ما الأنشطة التي تفضل ممارستها عند مقابلة الجيران؟

- تناول الطعام بمطعم
- أحتساء القهوة
- الذهاب لشراء متطلبات المنزل (خضروات و فاكهه, مخبوزات,....الخ)
- الذهاب الى النادي
- الذهاب الى المول
- حفلة شواء
- زيارة منزلية
- أخرى:

- لماذا اخترت السكن في المجتمع المسور(الكومباوند) (السبب / الأسباب الرئيسية)؟

- تجانس المجتمع
- الأمان والخصوصية
- الظروف البيئية
- العلاقات الإجتماعية
- الطابع المعماري
- الهدوء والأبتعاد عن المجاورات السكنية المزدحمة
- المناطق الخضراء و الفراغات العمرانية
- توافر الخدمات ووسائل الراحة
- توافر شبكات المشاه
- أخرى:

- ما الذي تفتقده بالمجتمع المسور (الكومباوند)؟

.....

- بماذا تنصح لتطوير المجتمع المسور (الكومباوند)؟

.....

الملخص

إن التمتع بمستوى مقبول من جودة الحياة هو من الحقوق الأساسية للسكان في مجتمعاتهم ، ولذلك يتطلب تحديد مستوى جودة الحياة (UQoL) لهذه المناطق، لتحديد مستواها ورفع مستوى المناطق منخفضة الجودة الى مستويات عادية ومستقرة وصحية. (UQoL) هي واحدة من المفاتيح الرئيسية في حل المعادلة. يتم استخدام كلمة "الجودة" بشكل متكرر لتحديد جودة المنتج ، اما جودة الحياة (QOL) فهي درجة تلبية الاحتياجات الأساسية للسكان ، (UQoL) هو أداء الحياة الحضرية تجاه احتياجات السكان وتوقعاتهم. لذلك ، أصبحت الفكرة مؤخرًا مصدر اهتمام للعديد من المخططين والباحثين وصناع القرار نظرًا للدور الفعال لـ (UQoL) في تحسين حياة السكان ، و قد تم إيلاء اهتمام متزايد لدراسات (UQoL) منذ سبعينيات القرن الماضي ؛ تهدف إلى تعزيز جودة حياة السكان وبيئتهم. على هذا الأساس ، كان نهج المجتمعات المسورة *Gated Communities (GCs)* في مصر أحد الحلول لسد الفجوة بين احتياجات السكان وضعهم الحالي في الأحياء القائمة ، وبالتالي ، فقد كان السكان يركضون مؤخرًا إلى GCs باحثين عن أفضل حياة، حيث توفر GCs نظامًا تسويقيًا جديدًا للمطورين وجذب السكان الذين يرغبون في الهروب من احتقان وتدهور المدينة الداخلية. تم إجراء دراسة وصفية تحليلية في هذا البحث اعتمادًا على الملاحظة ، ورسم الخرائط و الاستبيانات و إجراء مقابلات مع المعنيين بالامر (السكان والمديرين والمخططين والمصممين وصناع القرار).

تم حساب النتائج وتحليلها فيما يتعلق بمراكز GCs المحددة ، من أجل اقتراح توصيات لتحسين (UQoL) في منطقة الدراسة وإرشادات لتصميم GCs في منطقة الدراسة.

الكلمات المفتاحية: مجال التصميم الحضري، تحليل مقارن ، مؤشرات الاختيار ،محددات التنمية الحضرية ، المشاركة السكانية.

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