INFLUENCE OF TEACHER EFFICACY ON TRANSFORMATIVE QUALITY IN PRIVATE HIGHER EDUCATION INSTITUTIONS

A

Thesis

Submitted in Fulfilment of

the Requirements for the Award of the Degree of

DOCTOR OF PHILOSOPHY

Submitted by

SEERAT KAUR GILL

(Registration No. 951613003)

Research Supervisor

Dr. Gurparkash Singh

Associate Professor

L.M. Thapar School of Management

Thapar Institute of Engineering and Technology

Patiala – 147004

Punjab, India

L.M. Thapar School of Management

Punjab – India

(November 2020)

Dedicated to my husband and best friend, Gurfateh.

TABLE OF CONTENTS

Declaration

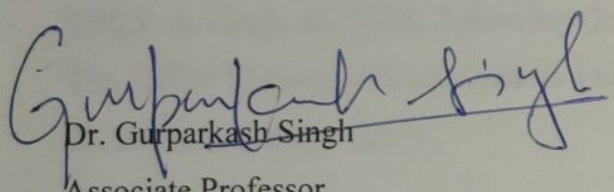
I hereby declare that the work presented in the thesis entitled "Influence of Teacher Efficacy on Transformative Quality in Private Higher Education Institutions" for the award of degree of DOCTOR OF PHILOSOPHY submitted to L.M. Thapar School of Management, Thapar Institute of Engineering and Technology, Patiala, is an authentic record of my own research carried out under the supervision of Dr. Gurparkash Singh, Associate Professor, L.M. Thapar School of Management, Thapar Institute of Engineering and Technology, Patiala. Any material previously published or written by another author or person in the text is well-acknowledged and referred in the thesis.

(Seerat Kaur Gill)

Registration No. 951613003

Certificate

This is to certify that the thesis entitled "Influence of Teacher Efficacy on Transformative Quality in Private Higher Education Institutions" is being submitted by Ms. Seerat Kaur Gill (Registration No. 951613003), in fulfilment of the requirements for the award of the degree of DOCTOR OF PHILOSOPHY in MANAGEMENT at L.M. Thapar School of Management, Thapar Institute of Engineering and Technology, Patiala, Punjab. It is a bona fide record of candidate's original research work carried out under my supervision and guidance. To the best of my knowledge, the matter presented in this thesis has not been submitted to any other University or Institute for the award of any degree or diploma.



Dr. Gurparkash Singh
Associate Professor
L.M. Thapar School of Management
Thapar Institute of Engineering and Technology
Patiala, India

List of Publications

ABDC RANKED JOURNALS:

Gill, S. & Singh, G., 2019, Developing Inclusive Learning Environments at Higher Education Institutions, ***International Journal of Educational Management*** (ESCI, 2.1 impact factor, Rank B), Vol. 34, Issue 5, pg. 823-836.

CONFERENCES:

Gill, S. & Singh, G., 2019, Developing Inclusive Learning Environments at Management Education Institutions, ***Academy of Management Proceedings***, Vol. 2019, No. 1, p. 10197, August 9-13, 2019, Boston, Massachusetts.

Gill, S. & Singh, G., 2018, Achieving Quality in Higher Education Through Transformation: The Perfect Mélange of Inclusiveness and Excellence, ***EAIR 40th Annual Forum,*** August 26-29, 2018, Budapest, Europe.

AFFILIATIONS:

Member/Doctoral Research Assistant (May 2020-Present)

Program for Research on Private Higher Education (PROPHE), SUNY Albany, Albany, New York

- Collected data on private higher education in India.
- Researched and analysed data on policy frameworks, higher education landscape of India, private versus public sector, private-unaided colleges and universities.
- Presently, working on a paper tentatively titled 'Impact of COVID-19 on Public and Private Sector Higher Education: Case Study on India'.

Acknowledgments

The idea of this research came about while I was working in a private-unaided higher education institution. Despite policy guidelines, good intent, why were these institutions caught in an endless rut? The quality war had begun to seem unconquerable. Where industry falters, academia always provides answers. Thus, began my motivation to study, research and understand the elusive quality in the private-unaided higher education sector.

This research journey would not have been possible solely through my own efforts. I am indebted and thankful for the constant support, encouragement and guidance of many, who have contributed in several ways during my doctoral journey.

I would like to warmly acknowledge the contribution of my doctoral supervisor, Dr. Gurparkash Singh (Associate Professor, L.M. Thapar School of Management) for his unflinching support, encouragement and motivation. His expertise, knowledge, inputs, and constant guidance during the entire process of doctoral program invigorated me to complete this research work. I remain indebted to Sir for his patience and support, and for enabling me to do my best during the span of this research.

I am very thankful to Prof. Padmakumar Nair (Director, L.M. Thapar School of Management), for his support and sessions of reflection and discourse, which gave me direction oriented to my research. I am also grateful to Dr. Piyush Verma (Associate Professor, L.M. Thapar School of Management), for his valuable insights and constructive feedback during the course of this work.

I am grateful of other members of the doctoral committee, Dr. Karminder Ghuman and Dr. Vipul Gupta, as well as Dr. Gaurav Goyal, Dr. Anita Sharma, Dr. Harjot Singh and Dr. Inderjit Kaur for their valuable inputs and support during progress review meetings.

I also express my gratitude to Prof. Prakash Gopalan (Director, Thapar Institute of Engineering and Technology, Patiala) and Dr. Rafat Siddique (Dean, Research and Sponsored Projects) for providing me with a stimulating learning environment in order to pursue my doctoral research.

I wish to express my sincere gratitude to my colleagues and dear friends, Kangan Syal, Aashna Sharma, Supreet Kanwal, Sharneet Jagirdar and Rajendar Singh, for their words of encouragement, support, and intellectual interaction on the days when this journey seemed tough.
I would also like to thank all the respondents of the survey. Needless to say, their inputs have been very helpful in my work.

I am thankful to my friends, Devina Singh, Tanya Malik and Gitika Goel, who have stimulated me to do my best in this research journey.

My deepest gratitude goes to my family for their unflagging support and love during the course of my research journey. A special thanks to my parents in-law (Dr. Harinder Singh Gill, Mrs. Kamaldeep Kaur), who supported my decision to return to academia from the very beginning; my parents (Dr. Gurmohan Singh Sandhu, Mrs. Bubbu Tir) for their words of comfort; my grandmothers (Late Mrs. Tirlochan Kaur, Mrs. Manjit Kaur) for pushing me to excel; my extended family, brothers and sisters (Dr. Gurpreet Singh Gill, Dr. Manraj Kaur, Dr. Guntas Singh Gill, Mr. Sehajbir Singh Sidhu Dr. Nimrat Sidhu, my nephews Abir and Zoraan) for being my cheerleaders; my domestic helper (Ms. Vishnu) who enabled me to devote my time to productive research even at home. I am full of gratitude towards my two daughters (Sehar Kaur Gill, Mehreen Kaur Gill), who have unknowingly inspired me to work hard. This thesis is dedicated to my husband (Mr. Gurfateh Singh Gill), who is the wind beneath my wings and the pillar of my support. I am indebted to him for his indispensable and unwavering support in fulfilling my research ambitions.

Finally, my greatest regards to the Almighty, for bestowing upon me courage to face the complexities of life, fulfill my other responsibilities as well, and complete this endeavour successfully.

Abstract

Among the three major private higher education (HE) systems (China, India, USA), India has been recognized as the "big one", holding a share of 21.9% of global private HE enrolments (Levy, 2018, p. 707). The global phenomenon of privatization and resulting 'massification' in Indian HE, eventually led to a spate of debates on inclusiveness-excellence and access-quality issues, thus making the existing quality measures in a post-massification dichotomous HE system questionable. The reason for this questionability is because the current quality measures signify a self-fulfilling process of selectivity, in which the private-unaided higher education institutions (HEIs) continue to rank at the bottom.

This research redefines quality as Transformative Quality (TRFQ) in HE, and develops it as a measure which can transcend a dichotomous HE system. Since quality is a relative concept, it is imperative to define whose perspective. Therefore, this research uses front-line faculty perspectives for establishing TRFQ in HE. This endeavour addresses the Research Objective 1, that is, to define and develop a quality measure which can transcend a dichotomous HE system. Furthermore, since the dimensions of TRFQ are teachable, it is crucial to investigate the impact of Teacher Efficacy (TE) on TRFQ in HE, which forms Research Objective 2. The Research Objective 3 is to provide a policy framework for addressing quality issues plaguing the private-unaided HE sector based on the results of RO1 and RO2.

Research Objective 1 is partially addressed through a thorough literature review of concepts on quality in HE, and its questionability in addressing quality issues in a dichotomous HE system. Thereafter, TRFQ measure is prepared based on valuable feedback from academia and industry. This process helped in ensuring comprehensiveness, clarity, readability and face validity of the survey instrument. Reliability analysis was conducted through Cronbach's alpha values, which were above 0.7 and acceptable according to literature (Nunnally, 1978). The same procedural steps were followed for TE as well. Purposive sampling of faculty employed in thirteen AICTE-approved private-unaided HEIs was used for data collection. Data collection was conducted in two phases. After reliability analysis, an exploratory factor analysis (EFA) was done on Phase I data, to explore the factors. Factor loadings were grouped into a six-factor solution and a two-factor solution for TRFQ and TE respectively. The new factors were *Critical Confidence*, *Approach-avoidance Problem Solving Skills*, *Overall Awareness*, *Overcoming Prejudices*, *Skillfulness*, *Emotionality*; *Instructional Engagement* and *Within-class Management*. Thereafter, Phase II of data collection was carried out, and a confirmatory

factor analysis (CFA) was conducted to confirm the underlying factor structure. This resulted in the deletion of Emotionality factor, and the resulting five-factor solution for TRFQ completely addressed the Research Objective 1.

Further, the remaining factors were hypothesized for investigating the relationship between TE and TRFQ in HE, through Structural Equation Modeling (SEM). This exercise addressed the Research Objective 2. The results of the hypotheses provided clear insights about addressing specific quality issues plaguing the private-unaided HE sector, and giving a practical policy framework based on empirical analysis.

The research's findings revealed a significant impact of TE on TRFQ and its dimensions. It showed that TE can negatively impact critical confidence of students because of faculty perception. Thus, it draws attention of institutional management to recruit faculty members who are firm of their belief of student potential, rather than those who fall prey to prejudices and popular perceptions (Tsui, 2001). The removal of Emotionality post-CFA, despite being supported in various academic publications (Sanchez-Ruiz, Mavroveli, & Poullis, 2013) has important implications as well. One reason for non-inclusion of emotionality from faculty's perspective could be the glaring exclusion of aspects of Social and Emotional learning (SEL) in the continuous professional development of teachers (Deccan Herald, 2019), which reflects in the poor loadings of emotionality dimension of TRFQ. Prior research has endorsed SEL, because these skills are teachable, and they can benefit students from all backgrounds (Cohen, 2006). The exclusion of Emotionality in the context of private-unaided HEIs is a crucial finding for policymakers to lay stress on the importance of SEL training for teachers, with the assistance of which they can further support and enhance emotional stability among their students, and thus contribute towards Transformative Quality of an institution.

These insights can help not only existing HEIs, but also those intending to enter the private-unaided HE sector. The erstwhile access providers cannot be pushed into poverty at the cost of providing inclusiveness and access. To break free from the rigmarole of self-fulfilling ranking systems, the private-unaided HEIs must work towards enhancement and empowerment of their key stakeholder – the student. Since the front-line faculty has direct access to students, and closely interacts with them, their perspectives on quality become vital. Therefore, it is important for policymakers to take into account, the previously ignored class of stakeholders of HE sector, that is, the front-line faculty.

List of Tables

List of Figures

List of Abbreviations

Abbreviation	Description
AICTE	All India Council of Technical Education
AMOS	Analysis of Moment Structures
AQIP	Academic Quality Improvement Program
CFA	Confirmatory Factor Analysis
df	Degrees of freedom
EFA	Exploratory Factor Analysis
HE	Higher Education
HEI(s)	Higher Education Institution(s)
HLC	Higher Learning Commission
GFI	Goodness of Fit Index
MHRD	Ministry of Human Resource Development
NFI	Normalized Fit Index
RMSEA	Root Mean Square Error of Approximation
SEL	Social and Emotional Learning
SEM	Structural Equation Modeling
SPSS	Statistical Package for Social Sciences
SRMR	Standardized Root Mean Square Residual
TE	Teacher Efficacy
TLI	Tucker Lewis Index
TRF	Transformative Quality
UGC	University Grants Commission

Key Definitions

1. **Access**: Equal and equitable opportunities for students to take full advantage of their education by not only gaining entry to higher education, but also through retention and successful completion of studies is 'access' to higher education (Schendel & McCowan, 2016; Prodan, Maxim, Manolescu, Arustei, & Guta, 2015). The higher education institutions primarily providing access are 'access-providers'.
2. **All India Council for Technical Education (AICTE):** A statutory body and a national-level council for technical education, under Department of Higher Education, Ministry of Human Resource Development in India, in charge of accrediting specific categories of postgraduate and graduate programs for Indian institutions (AISHE, 2019).
3. **Bricolage**: This concept was introduced by Lèvi-Strauss in 1967, and is defined as "making do by applying combinations of the resources at hand to new problems and opportunities" (Phillips & Tracey, 2007, pp. 316-317).
4. **Burgeoning demographic dividend**: With median age of India about 26 years, and nearly 600 million people in the working age group, it can be stated that India has a rapidly expanding young population, which is referred to as burgeoning demographic dividend (Ernst & Young, 2013).
5. **Capitation Fee**: Illegal one-time fee charged above regulatory norms, at the time of admission is called capitation fee (Tilak, 1993).
6. **Coercive isomorphism**: Organizational similarity which is a result of formal and informal pressures on organizations by forces such as agencies, governmental mandates, cultural expectations and financial reporting requirements (DiMaggio & Powell, 1983).
7. **De-institutionalization**: De-institutionalization refers to "the processes by which institutions weaken and disappear" (Scott, 2001, p. 182). It is the process wherein one set of practices and beliefs weaken, a new one evolves and institutionalization process begins once again (Scott, 2001).
8. **Demand absorbers**: Institutions at the bottom tier, which respond to current demands of the growing population, through their course and degree programs are demand

absorbers (Altbach, 2014). These institutions are 'market-driven', and hence remain most vulnerable in the dynamic higher education sector.

9. **De-privatization**: This refers to a decreasing role for private component in the changing public-private dynamics in terms of funding and provision (Kwiek, 2017).
10. **Dichotomous higher education system**: A higher education system wherein there are strong boundary markers, which hamper upward institutional mobility, and tend to stratify distinctions between access-providers, quality-providers and confirm social class stratifications (Moutsios & Kotthoff, 2007).
11. **Divergent strategies**: Strategies having conflicting goals are divergent strategies. For instance, improving quality requires greater allocation of resources as opposed to increasing quantity of students by lowering resources allocated per student (Gereffi, Wadhwa, Rissing, & Ong, 2008).
12. **Elite and Non-elite institutions**: Elite institutions are private-unaided higher education institutes, which cater to the privileged class. The non-elite institutions cater to the burgeoning middle-class (Tilak, 2004).
13. **Excellence**: Quality as excellent refers to a gold-standard and a pre-supposition to maintain elitism and high class (Harvey, 1999). Some traditional 'excellent' activities at higher education institutions may be research funding, use of latest technologies and teaching methodologies, global institutional rankings, and top-quality professors (Brusoni, et al., 2014).
14. **Flagship Institutions:** Flagship higher education institutions are usually the most prominent public institutions, which also receive support from the state (Schendel & McCowan, 2015).
15. **Front-line Faculty:** Faculty members having *significant interaction with students* and *not having significant administrative responsibilities* comprise front-line faculty. This means that front-line faculty members spend a greater proportion of their time in teaching and learning activities, as opposed to performing administrative tasks (Hall, 2015). This distinction, rather than simply referring to research participants as "faculty", "academics" or "lecturers", helps in providing scholar the information regarding their important characteristics and responsibilities.

16. **Higher Education**: This comprises education that takes place in postsecondary institutions, and entails awarding a degree, diploma or certificate of higher studies on completion is higher education (AISHE, 2019).
17. **Inclusiveness in higher education**: It refers to equal and equitable treatment, and also striving for minority involvement and encouraging representation across students from all groups (Tilak & Mathew, 2016).
18. **Indian Higher Education System:** The Indian Higher Education System comprises central universities, institutions of national importance (both are usually elitist), state universities (which regulate private-unaided institutions), private universities, central government-funded and autonomous institutions, having the right to give diplomas and degrees (elitist), and finally, private-unaided institutions (which is the context for this research) (UGC, 2020). The private-unaided institutions are access-providers and usually have poor quality as indicated by existing rankings by MHRD (MHRD, 2018; Altbach, 2014). Indian higher education currently follows '10+2+3' for granting graduate degree. Universities in India, including affiliating universities, are controlled by the UGC. Colleges are governed through AICTE (AISHE, 2019) (refer Figure 1.1).
19. **Institutional Isomorphism**: Similarity among processes or structures of organizations due to either imitation or independent evolvement under similar constraints results in institutional isomorphism (DiMaggio & Powell, 1983).
20. **Instrumental learning**: A way of learning which is based on consistent positive or negative reinforcement, in order to fulfill a certain requirement. In this research, the sample institutions are often known to promote this type of associative learning, wherein the primary goal remains to get a job placement (Harvey, 2000).
21. **Intrinsic regulatory model**: It is a model of quality of higher education, which is not judged based on criteria imposed by an external centre of power. Instead, the intrinsic regulatory model balances multiple perspectives and interests of those having interest in quality of education (Weert, 1990).
22. **Knowledge Economy**: An economy, which uses knowledge to generate intangible and tangible values, with focus on the service sector, people and their skills. In a knowledge economy, knowledge-intensive and high technology industries contribute to the long-term growth of its economy (Gupta & Gupta, 2012).

23. **Liberalization, privatisation and globalization policies (LPG Policies)**: The policies wherein the goal is to make the economy more market and service-oriented, with major investment of private and foreign players are LPG policies (Tilak, 1993).
24. **Massification**: Greater access to college and university education, because of which there is an increase in student enrollment, is called 'massification'. This process of 'massification' results in increased number of graduates in the labour market (Hornsby & Osman, 2014). When massification is a natural result of economic development, it is called "active mode". On the other hand, "passive and catching-up mode" of massification is a result of 'leap forward' approach by the governments (Sarkar, 2020). Typical effects of a post- passive and catching up massification system are access-quality and inclusiveness-excellence divides (Altbach, 2014).
25. **McDonaldization**: Term given by sociologist George Ritzer, which focuses on reconceptualizing rationalizing. When rationalization is used in education, it implies to reducing education to a commodity, which can be packaged, marketed and sold. McDonaldization implies 'massification' through highly structured higher education programs (Hayes, 2017; Vaidhyasubramaniam, 2013).
26. **Moral Hazard**: When there is a goal conflict between the principal and agent, it becomes difficult to assess and directly observe the agent's behaviour, thus leading to a phenomenon called 'moral hazard'(Kivistö, 2005).
27. **Multidimensionality**: The characteristic of exhibiting several dimensions or traits, thus making it problematic to operationalize a construct in a brief sentence (Schindler, Puls-Elvidge, Welzant, & Crawford, 2015).
28. **National Education Policy (NEP)-2020**: A national policy on education, approved by the Union Cabinet of India on 29 July 2020, outlining the vision of India's new education system. NEP-2020 replaces the erstwhile NEP-1986.
29. **Non-viable and under enrolled institutions**: Institutions, which lack financial support and do not have requisite number of students, are non-viable and under enrolled (DeHaan, 2008; Agarwal, 2006).
30. **Peripheral Institutions**: Peripheral higher education institutions are the ones which are located in peripheral regions, and are more likely to be affected when public funding is concentrated in flagship institutions. They may also be referred to as regional

institutions, and are known to cater to a more diverse population of students (Schendel & McCowan, 2015).

31. **Post-massification Higher Education System**: An 'overshoot' aspect of massification, wherein the expansion of higher education in a national setting exceeds demand, thus leading to complex policy and institutional quality issues (Lin, 2018).
32. **Primary Education**: First stage of formal education which takes place in primary school and middle school is referred to as primary education.
33. **Private-unaided higher education institutions**: Unaided institutions affiliated to state universities, providing higher education in domains such as engineering, technology, management, architecture, town planning, humanities, commerce, pharmacy and applied arts and craft are private-unaided higher education institutions (MHRD, 2017). The government regulates these institutions, and their cost recovery is through tuition fee (Tilak, 2004).
34. **Privatization of education**: It is the process of transfer of activities, assets and responsibilities from the government institutions to private agencies and individuals (Jamshidi, Arasteh, NavehEbrahim, Zeinabadi, & Rasmussen, 2012; World Bank, 2000).
35. **Quality**: Quality in higher education is a multidimensional and a dynamic construct. It is difficult to define it in a brief sentence. However, for simplicity, it can be understood as fostering the adoption of higher cognitive skills (Hornsby & Osman, 2014).
36. **Secondary Education**: The second stage, which follows primary education, is called secondary education, and is the intermediate between primary and college/higher education (Tilak, 2018; Marginson, 2006).
37. **Social and Emotional Learning (SEL)**: The teaching of social and emotional skills through either embedding in curriculum or alongside with the aim of fostering socially responsible thoughts and actions among students is social and emotional learning (Vesely, Saklofske, & Leschied, 2013; Collie, Shapka & Perry, 2012).
38. **Stratified society/Social stratifications**: A society wherein there is ranking of categories of people in a hierarchy is a stratified society (Yi, 2017). It is characterized by unequal access to resources, exploitation among certain segments and specialization of work (Palumbo, 1987).

39. **Structural adjustment policies (SAP)**: Economic policies that a country should adopt in order to qualify for World Bank and International Monetary Fund loans are structural adjustment policies. SAP's emphasizes on export-led growth, privatisation, free-market efficiency and liberalization (Benería, 1999).
40. **Teaching shops**: An institution providing education at a fee, which is far greater than the cost of instruction is referred to as teaching shop (Mathew, 1990; Nair & Ajit, 1984).
41. **Teacher Efficacy**: A teacher's judgment of his/her own capabilities to bring out the best in his/her students, including difficult and unmotivated students (Chan, 2008; Tschannen-Moran & Hoy, 2001).
42. **Tertiary Education**: Tertiary education is the post-secondary education which takes place in colleges, universities, vocational and technical training institutions (Marginson, 2006).
43. **Transformative Quality in Higher Education**: Enhancement and empowerment of students through traits which are teachable, namely, emotional stability, confidence, critical thinking, problem-solving, transcending prejudices and acquisition of knowledge, skills and abilities (Teeroovengadum, Kamalanabhan, & Seebaluck, 2016).
44. **Trilemma**: The state of business dilemma, which exists regarding how scale (or size), costs and quality can be reconciled in a higher education institution is called 'trilemma' (Kapur, 2011).
45. **Underprepared students**: Students who lack domain knowledge and requisite soft skills and are thus deemed unemployable by the labour market are underprepared students (Astin, 1984).
46. **University Grants Commission (UGC)**: A statutory organization of Government of India, for the coordination, determination, and maintenance of teaching standards, examination and research in universities (UGC, 2020).

Chapter 1

Introduction

"For, usually and fitly, the presence of an introduction is held to imply that there is something of consequence and importance to be introduced."
-Arthur Machen

World over, higher education (HE) is increasingly metamorphosing to become a complex combination of words, ideas, knowledge, finance, and inter-institution dealings, with several levels of autonomy and hierarchy (Marginson, 2006). This implies that HE cannot be viewed through a unitary lens any longer. HE systems around the world are being revamped to cater to a growing and diverse population in the most efficient and economical way (McCowan, 2016; Teixeira, 2009). However, tertiary education and its policies have been undergoing tumultuous changes globally (Pitman, 2014; Schuetze & Slowey, 2002). Especially in the West, higher education institutions (HEIs) have been battling diverse challenges related to their efficacy and federal funding (Vossensteyn, et al., 2018; Waddock & Lozano, 2013). However, there remain country-specific challenges as well, which usually fail to find a platform in North American and European scholarly forums (Nkomo, 2015). With the advent of privatisation, these challenges are now increasingly being felt across several emerging as well as developed economies.

A surge of private growth in the educational landscape began when the World Bank significantly began promoting different forms of privatization within and beyond the realms of HE (World Bank, 2000). Privatization of education refers to a system of self-funding by private providers of education, wherein students (buyers) pay for tuition (Jamshidi, Arasteh, NavehEbrahim, Zeinabadi, & Rasmussen, 2012). These private institutions in most cases have been providers of technical and vocational education in domains such as engineering, technology, management and architecture (Atchoarena & Esquieu, 2002). Privatization is a "promising alternative to that of a public good" (Daviet, 2016, p. 8), contributing towards the general interest of the society and involving collective decision making of the state, market and the civil society (Daviet, 2016). Hence, privatization paved the way for 'massification' in global HE systems. Massification implies greater access to college and university education,

and increased number of graduates in the labour market, thus making education a common good in the society (Mok & Jiang, 2017). This *massive quantitative phenomenon* which fuelled *massive privatization of higher education* became a global policy to meet the expanding needs of increasing access to HE (Sanyal & Johnstone, 2011).

1.1 Massification of Higher Education in India

The global phenomenon of massification in higher education (HE) is also witnessed in India, wherein private higher education institutions (HEIs) have an enrolment of almost 64.3% (AISHE, 2019). As access providers to such a large student population, the role of the private sector is supremely important. In such a landscape of HE, quality, which can be defined as fostering the adoption of higher cognitive skills (Hornsby & Osman, 2014), and 'excellence' have become confined to a few pockets of HE in a country. Few pockets of excellence imply that quality-providing elitist HEIs are few in number in India. This has led to 'trilemma' of scale, cost and quality, out of which the policy makers can only choose two of the three goals (Tilak & Mathew, 2016). This implies that one of the other two goals, that is, recurring costs and institutional quality are sacrificed in order to fulfil the chosen goal, that is, mass access to HE. Although massification in HE gave students equal and equitable opportunities to study further, but it lowered the overall quality of education being provided (Altbach, 2013; Kapur, 2011; Shin & Harman, 2009). This lowering of quality is documented by reports and institutional rankings, and is reflected in the number of institutional closures, which have been the highest in nine years (AISHE, 2019). The trilemma, although faced by all governments, is gravely exacerbated in India, because of the existing low institutional quality of HEIs in India, and the rapid expansion of the private sector (Kapur, 2011). This trilemma has rendered 'inclusiveness' and 'excellence' in HE as divergent strategies. Private-unaided HEIs continue to provide inclusiveness at the cost of being pushed into penury. This has led to compromising on quality, and eventually an 'access-quality' and 'inclusiveness-excellence' divide (Hazelkorn, 2012). These divides and dichotomies of access-quality and inclusiveness-excellence are negative manifestations of a post-massification Indian HE, and form the background of this research.

1.2 Background of the Research

Indian higher education (HE) broadly consists of elite institutions, catering to the privileged,

and the non-elite institutions, serving the burgeoning demographic dividend (refer Figure 1.1). As shown in Figure 1.1, the Indian HE system has Central Universities, State Universities and Stand-alone Institutions. The Stand-alone Institutions, apart from those governed by Central and State Government, are mostly privately-owned and managed. These private institutions form the access-providers, and suffer from low institutional quality (Mok & Jiang, 2017). They are enmeshed in problems such as consistent low institutional rankings, having graduates which are unemployable and having low quality teaching faculty. These non-elite institutions are government regulated, but remain mostly privately-owned and managed through trusts or societies (Altbach, 2014). The elite institutions focus on traditional excellence indicators in HE, such as research funding, latest teaching methodologies, global rankings, and top-quality professors (Brusoni, et al., 2014). The non-elite, on the other hand, focus on access, even at the cost of quality (Mok & Jiang, 2017). Though students earn a degree, unfortunately it does not hold much value in the global labour market (Altbach, 2014; Agarwal, 2006).

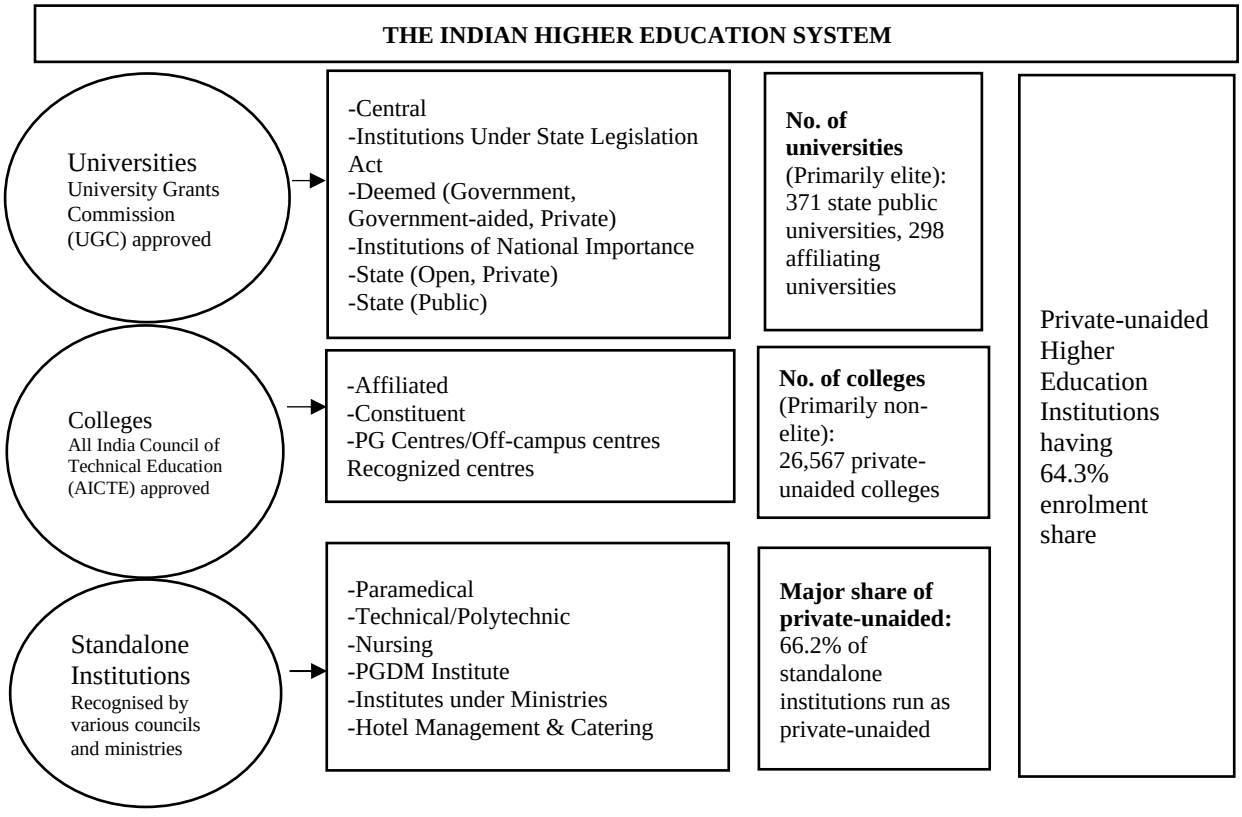


Figure 1.1: The Indian Higher Education System (Source: Author)

'Access' at private-unaided institutions refers to merely increasing enrolment numbers by providing students an opportunity to pursue HE, for whom 'access' was circumscribed by financial and socio-economic factors (Dassin, 2012), as compared to access being defined as providing equitable educational opportunities to disabled and underprivileged communities. Hence, in this dichotomous HE system, wherein there is a strong boundary between access and quality HEIs, the latter have been reduced to be a mere alternative to elite public and expensive private institutions (Altbach, 2014).

Moreover, since quality is multidimensional and dynamic, different stakeholders in HEIs have differing perspectives on measuring and defining quality (Schindler, Puls-Elvidge, Welzant, & Crawford, 2015). This *stakeholder-perspective gap* is important to address when addressing quality issues at HEIs because, if left unaddressed, it can lead to an implementation gap (Anderson, 2006). For instance, prior literature shows that institutional management views quality management processes more positively than faculty members (Barandiaran-Galdós, Ayesta, Cardona-Rodríguez, Mijangos del Campo, & Olaskoaga-Larrauri, 2012). This can lead to an implementation gap, wherein faculty 'merely goes along', rather than deeply engaging in quality management. This implementation gap, also defined as the *rhetoric-reality gap*, indicates a gap between the espoused emphasis on improvement and its translation into actual accountability. This dichotomy can profoundly impact quality at private-unaided HEIs despite quality management mechanisms in place.

1.2.1 The Access-providing Higher Education Institutions

The discussion in previous sections demonstrates that private-unaided higher education institutions (HEIs), as compared with elite institutions are plagued with access-quality, inclusiveness-excellence, rhetoric-reality and stakeholder-perspective divides. This leads to a pertinent question – *why is it important to study this access providing higher education (HE) sector?* Firstly, the private sector of HE accounts for nearly one-third of the world's total HE enrolment of students (Liu, 2020; Levy, 2015; World Bank, 2000). In India, nearly 78% HEIs are running in the private sector. These institutions are predicted to play a crucial role by indirectly contributing more than 90% to India's GDP by the year 2030 through training its workforce and generating employment (FICCI, 2014). Secondly, one in every four graduates in the world will be a product of the Indian HE system in 2030 (FICCI, 2014), in addition to having the largest working age population in the world (McKenzie, 2020). Hence, in such a

scenario, the vast access-providing HE sector now holds an increased responsibility of ensuring quality, or excellence as well, besides being access providers. This makes the private sector in India, a supremely important component in the landscape of the Indian and global HE system. As mentioned in the previous section, the *access-providing institutions* (which are mostly private-unaided, refer Figure 1.1) are facing severe quality issues. These issues are neatly encapsulated as inclusiveness versus excellence and access versus quality problem in HE (Tilak & Mathew, 2016). The private-unaided HEIs are standing at the crossroads between inclusiveness and excellence, and are assumed to have low institutional quality (Altbach, 2014). On the other hand, the elite institutions focusing on traditional quality indicators, such as research funding, use of latest technologies and teaching methodologies, global institutional rankings, and top-quality professors (Brusoni, et al., 2014), fail at providing inclusiveness, thus making excellence primarily exclusive and distinctive. This clear divide has resulted in *inclusiveness* and *excellence* becoming divergent, rather than being complimentary strategies in HE. With the mass teaching access institutions being pushed into penury at the cost of providing inclusiveness, their institutional quality has significantly lowered (Hazelkorn, 2012), thus aggravating the *access* versus *quality* issue.

The dichotomy between inclusiveness and excellence is also manifested in the manner in which stakeholders view quality in HE (Anderson, 2006). Therefore, it becomes vital to identify the stakeholder before addressing quality issues afflicting the private-unaided HEIs. Since there is a significant gap in perspectives on quality between management and the faculty, there exists an implementation gap. According to Barandiaran-Galdós et al. (2012), the implementation gap is alarming given the rigourous quality implementation mechanisms in place. This leads to the rhetoric-reality gap, that is, the espoused emphasis on quality improvement does not translate to actual emphasis on accountability.

The issues afflicting the private-unaided HE sector have been depicted in the form of research problem in Figure 1.2. The right side in Figure 1.2 indicates:

- the access-quality gap, wherein the private-unaided HEIs remain essentially access-providers, and have low institutional quality;
- as a result of access-quality divide, the private-unaided HEIs have become providers of inclusiveness, but fail to fulfill traditional excellence indicators in HE, thus leading to inclusiveness-excellence gap.

The left side in Figure 1.2 indicates the:

- stakeholder perspective gap, which implies the differences among the perspectives of different stakeholders on defining and measuring quality;
- rhetoric-reality gap, which implies the implementation gap, or the gap between the espoused emphasis on improvement and actual emphasis on accountability, leading to quality being considered as bare compliance.

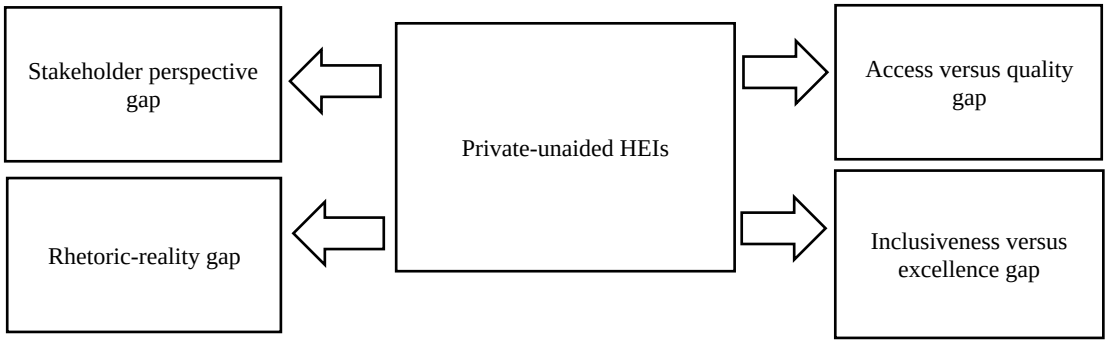


Figure 1.2: Issues plaguing private-unaided HEIs: The Research Context

(Source: Author)

The research context depicted in Figure 1.2 raises several important theoretical and practical questions. *Are the existing measures of quality adequate to measure quality in a dichotomous higher education system?* The current quality indicators such as institutional rankings, research grants, quality of faculty, infrastructural requirements are self-reinforcing quality measures, wherein access providing HEIs continue to remain at the bottom. The top-ranking institutions attract better students and achieve management yield rates, which makes the current quality measures a self-fulfilling process of selectivity (Araya & Marber, 2014). This indicates the questionability of current quality measures in a dichotomous HE system.

1.2.2 Addressing quality concerns

A careful rethinking and reconceptualising of quality through rigorous theory-driven models can help in redefining quality in context of access-providing higher education institutions (HEIs). Chapter 2 further establishes the rationale for redefining quality as Transformative, consisting of teachable traits, in the context of private-unaided HEIs. However, there are certain practical problems in measuring Transformative Quality. For developing solutions for the

contextualised problem and advancing theory building in the field of Transformative Quality in higher education (HE), this thesis firstly, redefines quality as Transformative for private-unaided HEIs. Secondly, the thesis develops a psychometrically sound measurement instrument to measure the erstwhile elusive Transformative Quality in HE (Zhang, Choudhury, & He, 2019). Thus, this thesis develops a rigourous Transformative Quality scale, for measuring the contextualised and transformative definition of quality in HEIs, through the perspectives of front-line faculty, a key stakeholder, detailed in forthcoming chapters.

Since quality is a multi-dimensional and dynamic concept; its definition varies depending upon the stakeholder. Thus, it is crucial to identify the stakeholder-perspective for redefining quality in the context of private-unaided HEIs. There remains an implementation gap because of the stakeholder-perspective divide between institutional management and the faculty (Hall, 2015; Barandiaran-Galdós et al., 2012). Keeping in mind that (1) front-line faculty have the closest interaction with students on a daily basis (Watty, 2006), and (2) the traits of redefined quality are teachable, it becomes relevant to investigate front-line faculty perspectives on quality.

1.2.3 Addressing stakeholder perspectives

As shown in Figure 1.2, the rhetoric-reality gap is that the institutional management perceives quality more positively than the front-line faculty, thus leading to a rhetoric-reality gap (Barandiaran-Galdós et al., 2012; Stensaker, Langfeldt, Harvey, Huisman, & Westerheijden, 2011). This implementation gap leads to a superficial engagement of faculty in quality management activities. It is important to understand that meaningful engagement of front-line faculty is key to successful quality management activities. It becomes even more crucial because of their close interaction with students, thus making them an important influence on students, and the achievement of learning outcomes. Besides, prior literature has shown that there is a far greater documentation on *faculty experience*, rather than *faculty perspectives* in quality management (Barandiaran-Galdós et al., 2012). Faculty perspectives implies to what faculty thinks of quality and quality management activities. Therefore, investigating front-line faculty perspectives will address the stakeholder-perspective gap, and enable bridging the rhetoric-reality gap, thus contributing towards the existing dearth of empirical literature on beliefs and perspectives of front-line faculty on quality (Hall, 2015; Hassad, 2007).

1.2.4 The Research Problem

Prior studies have shown that for quality purposes, the emphasis remains on teaching and learning activities, which stem from Teacher Efficacy (Alzafari & Ursin, 2019). Particularly, in a resource-constrained environment (such as private-unaided higher education institutions (HEIs)), faculty can play a crucial role in impacting the quality of HEIs (Henard & Roseveare, 2012). Globally, the Teacher Efficacy construct is increasingly being included in major higher education (HE) policies (Sin, 2015), because of its far-reaching impacts on student achievement and transformation. Interestingly, the cumulative effect of a teacher's efficacy persists for over three years (Sanders & Horn, 1998), thus significantly impacting the students' *transformative* experiences throughout their pursuit of HE. Thus, this research investigates the impact of Teacher Efficacy on Transformative Quality, which comprises teachable traits, through the Teacher Efficacy-Transformative Quality (TE-TRF) Model. The TE-TRF Model (elaborated in Chapter 3) will provide insight into the impact of efficacy of teachers' on specific dimensions of Transformative Quality. Addressing these objectives will enable a policy framework for improvement in the quality of private-unaided HEIs.

1.3 Objectives of the Research

The primary objective of the research is to address quality issues in private-unaided higher education institutions (HEIs). This is done by, first recognizing the self-fulfilling prophecy of existing quality measures, which makes these measures questionable in a dichotomous HE system. Hence, using front-line faculty perspectives, a quality measure which can transcend the access-quality and inclusiveness-excellence divides in HEIs is proposed in the form of Transformative Quality. Second, the Teacher Efficacy-Transformative Quality model is validated by investigating the impact of Teacher Efficacy on the proposed measures of Transformative Quality. Thus, this research endeavours to investigate how Teacher Efficacy can impact specific dimensions of Transformative Quality, and help in contributing to the same. The Research Objectives are:

1. To define and develop the definition of 'quality' in the context of private-unaided higher education institutions in a dichotomous higher education system from the perspective of front-line faculty.
2. To investigate the relationship between Teacher Efficacy and redefined Transformative Quality in private-unaided higher education institutions.
3. To propose a policy framework for enabling improvement in the quality of private-unaided higher education institutions for varying stakeholders in higher education.

1.4 Scope of the Research

The broader domain of this research focuses on quality in higher education (HE). Specifically, this research is concerned with addressing quality in private-unaided higher education institutions (HEIs) from the perspectives of front-line faculty. These private-unaided HEIs are affiliated to AICTE, across North-Western India (Punjab). Since the current quality measures remain questionable in the post-massification HE systems, this research attempts to redefine and develop a quality measure in context of private-unaided HEIs.

The thesis defines its theoretical scope by studying the concepts of quality; the redefined notion of quality, that is, Transformative Quality; and Teacher Efficacy. For achieving this, front-line faculty employed in privately-owned, demand-absorbing, AICTE-affiliated HEIs which are products of massification, and now facing quality issues have been studied. Based on purposive sampling, perspectives of front-line faculty employed across thirteen such institutions from Punjab have been investigated, with an endeavour to provide insight into the quality issues which afflict similar AICTE-affiliated private-unaided HEIs across India. In the present research, front-line faculty members represent the faculty having *significant interaction with students* and *not having significant administrative responsibilities*. This implies that front-line faculty members are faculty members who spend a greater proportion of their time in teaching and learning activities, as opposed to performing administrative tasks (Hall, 2015).

Initial institutional resistance in participating in this research was an impediment, however, researcher access to HEIs in the state of Punjab provided the opportunity for data collection. This research does not aim to provide generalization, but rather, attempts to provide an in-depth understanding and addressal of quality issues among private-unaided HEIs, which are tertiary education providers to the largest student population in the country.

1.5 Significance and Rationale of Research

There has been unprecedented expansion of the private higher education (HE) system (Altbach, 2014; Carnoy & Dossani, 2013; Tilak, 2004). However, a new body of literature is emerging, which states that an era of de-privatization has begun (Kwiek, 2017). It may not be wrong to conclude that de-privatization might take place in Western Europe and other countries due to declining demographics (Kwiek, 2017). However, such a scenario seems unlikely in India because the median age of India is about 26 years, with nearly 600 million people in the working age group (Subbarao, 2013), in addition to the largest working age population by 2030 (McKenzie, 2020). There are nearly 35 million students enrolled across 52,000 institutions in India (Jena, 2020). However, to cater to such a vast student population, India's HE system is woefully inadequate in reference to its public institutions alone. Private higher education institutions (HEIs) play a highly important role in catapulting India to the next level of economic growth, and thus help in taking full advantage of its burgeoning demographic dividend (Ernst & Young, 2013). Hence, to fully take advantage of such a large young population, it is pertinent to take immediate action and focus on the quality of HE being imparted by the private-unaided HEIs. This is crucial because the private-unaided HEIs are a major provider of tertiary education in the country, with 78% colleges running in private sector, and a student enrolment of nearly 64.3% (AISHE, 2019). Despite catering to a large student population, the private-unaided HEIs continue to remain in the periphery of the educational system (Schendel & McCowan, 2015). It has been seen that the private-unaided HE sector, which has been mostly "demand-absorbing", largest to emerge, access-providers to a wide student population, is currently facing great difficulties to survive (Kwiek, 2017). A daunting observation in the last few years has been that the educated youth remain unemployed (McKenzie, 2020; Tilak & Mathew, 2016; Goel, 2011). The education received by students at these demand-absorbing institutions does not add value, as they remain unemployed or if employed, get low packages. Mere 'massification' cannot benefit the society. Therefore, it is essential to ensure access to the rapidly growing numbers of students, and at the same time emphasize on quality to truly contribute to the burgeoning demographic dividend (Schendel & McCowan, 2016). The idea is to move from the concept of "massification to adding value by virtue of educational experience" (Trow, 1973, p. 13).

This can be done by redefining quality as Transformative Quality and developing a measure for it. This redefined quality comprises specific dimensions, which are teachable, and can

enhance and empower students to transform. This will not only help in addressing the questionability of the current quality measures in post-massification HE, but also offer a policy framework based on the impact of teachers' efficacy on the specific quality dimensions.

1.6 Overview of the Thesis

Chapter I – Introduction

This chapter focuses on introducing the research, by first describing the background of the research and the evolving role of higher education, at a global and national level. It highlights the role of privatisation in promoting massification, and the resulting access versus quality and inclusiveness versus excellence debate. This chapter also briefly discusses quality in higher education. The research questions, objectives, scope of the research, and its importance and contribution have been discussed.

Chapter II – A Review of Literature

This chapter presents the literature review pertaining to the research and discusses the concept of quality, particularly in higher education. This chapter focuses on basing the research on classical theories of management (refer Table 2.1). The literature review acts as a solid basis for further development of the research model. It includes the concepts of quality in higher education, and presents a critique of current quality measures (refer Table 2.2). This chapter establishes a working definition of quality in higher education, and offers Transformative Quality as a panacea to several issues plaguing this sector. It further discusses specific dimensions impacting the quality of private unaided higher education institutions.

Chapter III – The Research Framework

This chapter proposes and illustrates the use of a new measure of quality which transcends the dichotomous higher education system, and is represented through specific dimensions which are teachable, from front-line faculty perspectives. It focuses on revisiting the research objectives through an understanding of research gaps from the literature and the research problems (refer Table 3.2). It presents the Teacher Efficacy-Transformative Quality (TE-TRF) model (refer Figure 3.1) for addressing the research objectives.

Chapter IV – Research Methodology

This chapter discusses the adopted methodology in terms of research design, sampling design, questionnaire design, data collection methods and data analysis. It includes the steps taken for

scale development of TE and TRF. It also includes the pre-testing of the questionnaires, checking their validity and reliability, and data analysis techniques of final data employed.

Chapter V – Data Analysis and Results

The research methodology involves two phases of data collection. This chapter sheds light on Phase I and Phase II of data collection. It details the methodology and its outcomes. It presents the results of Exploratory Factor Analysis, Confirmatory Factor Analysis and Structural Equation Modeling using different statistical softwares. The resulting factors are used to formulate hypotheses for this research. These hypotheses are investigated based on the proposed research framework.

Chapter VI – Findings and Discussions

This chapter discusses the findings of this research, while taking support from existent literature. It endeavours to highlight the contribution of this research on the access-quality and inclusiveness-excellence debates as well as address the stakeholder-perspective gap and the rhetoric-reality gap. It provides a detailed discussion about the significance of the results generated through investigated hypotheses, situates the results in the wider body of knowledge and accounts for the practical and theoretical contributions.

Chapter VII –Conclusion and Future Scope

This final chapter summarizes the findings of this research. Based on the research findings, it provides a lucid direction for future research, while accounting for the limitations of the current research.

1.7 Concluding Remarks

In this chapter, a brief overview of the research has been given, which includes the introduction to the research problem. It presents a background of the research (refer Figure 1.1), the need for conducting the research and research objectives. The next chapter presents the literature review and lays the theoretical background for this research.

Chapter 2

A review of literature

"Literature is one of the most interesting and significant expressions of humanity."
-P.T. Barnum

2.1 Introduction

The review of literature is essential in a research project. For this research, literature has been reviewed with the goal of getting acquainted with previous work done in quality, specifically in the post-massification higher education systems. This further facilitates identification of specific research gaps, which plague private-unaided higher education institutions. This chapter presents a review of literature related to several aspects relevant to this particular research. It begins with a discussion on global higher education systems and the higher education system in India. It further outlines the theoretical lens for analyzing the research problems afflicting the private-unaided higher education institutions in India. This chapter also presents a detailed discussion on quality in higher education, and a critique on the questionability of existing quality measures in a dichotomous higher education system. This discussion builds the need for redefining quality in higher education as Transformative Quality. The objective of this chapter is to shed light on specific issues afflicting the private-unaided higher education institutions, encapsulated as the research problem, and discuss possible theory-informed answers for (1) redefining quality as Transformative Quality, and (2) investigating front-line faculty perspectives on quality.

2.2 Global Higher Education Systems

To cater to a burgeoning population in an efficient and economical way (McCowan, 2016), higher education (HE) around the world has undergone a complete change, and is now synonymous with multiple levels of autonomy and hierarchy (Marginson, 2006). Challenges related to rising tuition costs and efficacy of higher education institutions (HEIs) in developing practitioners for contemporary organisations in the West, have been well recognised (Waddock & Lozano, 2013; Dunne & Martin, 2006). However, there remain country-specific challenges (Nkomo, 2015), which are increasingly being felt across several emerging as well as developed economies, especially because of the advent of privatisation. Privatisation in the form of massification in HE, began when the World Bank began promoting different forms of

privatization, thus leading to a surge of private growth in the higher educational landscape. Privatization made education a common good in the society. This gave students equitable opportunities and access to study further. According to Sarkar (2020), two modes of massification have been identified globally. One mode is the "active mode", which is more prevalent in economically developed countries, wherein massification is a natural result of economic development. The other mode, "passive and catching-up mode", is when massification is a result of a 'leap-forward' approach by the government, without taking into consideration the economic development. Typically, countries exhibiting "passive and catching-up mode" of massification rely much more on private institutions (Sarkar, 2020). This heavy dependence on privately-managed institutions for massification has impacted the overall quality of education being provided (refer Figure 1.2) (Sarkar, 2020; Mok & Jiang, 2017; Altbach, 2013). This chapter discusses how the impacted quality is manifested in private-unaided HEIs in a post-massification HE system. As shown in Figure 1.2, there exist access-quality and inclusiveness-excellence gaps.

Access-quality gap

The access providing institutions are facing severe quality issues, which have dichotomised access and quality in HE. According to Moutsios & Kotthoff (2007), there exists a very strong boundary between access-providing and quality-providing HEIs, which hampers upwards institutional mobility. The access-quality gap is one which stratifies distinctions between access-providers, quality-providers, and further confirms social class stratifications (Moutsios & Kotthoff, 2007). This means that these private-unaided HEIs primarily cater to students who cannot afford expenses at elite private universities, and fail to get admission in reputed public HEIs. This lack of access to quality HE is a critical factor which impedes several developing economies from realizing economic growth (Staub, 2017). This dichotomy has emerged over time, and now stands in the way of creating and sharing HE systems which can create value.

Inclusiveness-excellence gap

The access-quality gap has also led to numerous debates on inclusiveness versus excellence as a strategic focus in HE (Tilak & Mathew, 2016). These access-providing institutions today, stand at crossroads between inclusiveness and excellence and are often assumed to have low institutional quality (Mok & Jiang, 2017; Altbach, 2014). On the other hand, the elite

institutions focus on traditional indicators of quality and excellence, such as research funding, widespread use of latest technologies and teaching methodologies, global institutional rankings, and top-quality faculty (Brusoni, et al., 2014), but may fail at providing inclusiveness, thus making excellence primarily exclusive and distinctive. In fact, "in the dominant culture of the academy, inclusion and excellence would seem to be in conflict with one another" (Williams, Berger, & McClendon, 2005, p. 9). Hence, inclusiveness and excellence have become dichotomous, rather than complimentary strategies in HE. Mass teaching access institutions providing inclusiveness, are being pushed into penury, thus further lowering their quality (Hazelkorn, 2012). This lowered quality has gravely exacerbated the dichotomy between access and quality, and thus manifested in the form of shortage of funds, qualified faculty, bureaucratic hurdles and the rapid expansion of the private sector, and low graduate employability. It has resulted in severe ripple effects on economy, governance and a veritable socio-economic and cultural impact (Sharma & Singh, 2015; Kapur, 2011; Clinebell & Clinebell, 2008). It has been agreed, at a global level, that mass education is a threat to academic standards and quality (Pitman, 2014). Although evaluated as a process of improvement, quality in private-unaided HEIs is alarmingly emphasized as a bare compliance.

Such a scenario raises an important theoretical and practical question. *Are the existing measures of quality adequate to measure quality in a dichotomous higher education system?* The current quality indicators such as institutional rankings, research grants, quality of faculty, infrastructural requirements are self-reinforcing quality measures, wherein access providing HEIs continue to remain at the bottom. The top-ranking institutions attract better students and achieve management yield rates, which makes the current quality measures a self-fulfilling process of selectivity (Araya & Marber, 2014). This indicates the questionability of such quality measures in a dichotomous HE system. According to Altbach & Hazelkorn (2017), pursuing rankings in the age of massification has lost its meaning, since rankings primarily assess research productivity, overall reputation among peers and overall strength in sciences (Altbach & Hazelkorn, 2017). In such a scenario, demand absorbing HEIs experience even greater social stratification and reputational differentiation, since they are much smaller, teaching-oriented institutions. Hence, the game of current measures of quality rankings has become an unwinnable and unproductive endeavour for access-providing HEIs (Lozano, Bofarull, Waddock, & Prat-i-Pubill, 2018).

The review of literature in the forthcoming sections reveal the questionability of the self-fulfilling prophecies of existing ranking systems for the private-unaided HE sector, which is characteristically marked by 'passive and catching-up mode' of massification in HE, and access-quality and inclusiveness-excellence divide (or dichotomies).

2.3 Higher Education in India

India has the third largest higher education (HE) system in the world with 903 universities and 39,050 colleges (AISHE, 2019). The private sector plays a major role in contributing towards the workforce, since they are access providers to a large student population (MHRD, 2018; Gupta & Gupta, 2012; Tilak, 1993). In fact, these mass-affiliated colleges are the principle providers of education throughout India (Pilkington, 2014). Even though there has been a phenomenal growth of higher education institutions (HEIs), there has also been a major dwindling of standards, in terms of quality of institutions, infrastructure, faculty problems and overall lack of vision (Sayeda, Rajendran, & Lokachari, 2010). It has been seen that students in mass learning exhibit overly instrumental learning, wherein the primary goal remains to only attain a job (Harvey, 2000). However, now, these institutions are unable to provide employability to their students (Sarkar, 2020; Altbach, 2014). These quality issues in private HE stem from resource constraints, small elite population and insufficient number of qualified academic faculty. By concentrating funds in a limited number of flagship institutions, quality is negatively impacted in regional institutions and peripheral institutions (Schendel & McCowan, 2016). This in turn, affects equity across the system. *Nevertheless, the idea of the research is not to argue against massification and existing quality measures, but instead to provide for a more realistic understanding and redressal about the quality implications and questionability of quality measures in a dichotomous HE system*. Therefore, a careful rethinking and reconceptualising of quality through rigorous theory-driven models is needed, to address the questionability of quality measures because of the access-quality and inclusiveness-excellence dichotomy (or divides) (Cheng, 2016; Jungblut, Vukasovic, & Stensaker, 2015; Lomas, 2004).

2.4 Theoretical Tenets for Analyzing Research Problem

In order to develop a body of research which has solid theoretical contribution, it is imperative to understand "the underlying psychological, economic or social dynamics that justify the

selection of factors and the proposed causal relationships" (Whetten, 1989, p. 491). The theoretical model should have a theoretical glue to weld it together (Dublin, 1978). For this purpose, the research endeavours to take support from classical theories of management, such as *institutional theory*, *resource dependency theory* and *agency theory* to critically evaluate the Indian higher education (HE) system. These theories help in analyzing global HE and Indian HE, and directs researchers' attention to specific issues of quality.

2.4.1 Institutional theory

The institutional theory helps in understanding the process of institutional isomorphism among private-unaided higher education institutes (HEIs) (Jepperson, 1991; DiMaggio & Powell, 1983; Zucker, 1977; Stinchcombe, 1968; Selznick, 1957). Pillars of institutional isomorphism are normative, regulative and cultural-cognitive (Scott, 2001).

The *normative* pillar includes the norms of the scholarly community, teachers and accreditation bodies. These norms, after being institutionalized, make every affiliated private-unaided HEI look similar in infrastructure. Even the curriculum and pedagogy prescribed by the affiliating universities is similar, thus making all the affiliated private-unaided HEIs appear similar. The norms dictating faculty performance are also similar. Normative pressure is a result of all the stakeholders' interest in following norms of professional bodies and agencies. This normative pressure can also lead to some degree of mimicking among the colleges. The institutionalised faculty is dictated by the normative pillar, which influences the faculty qualifications, designation and performance.

The *regulative* pillar includes the governmental regulatory agencies such as All India Council of Technical Education (AICTE) and affiliating state universities (refer Figure 1.1), which enforce coercive pressure on HEIs to conform to laid down rules and regulations regarding curriculum, student intake, student-teacher ratio and infrastructural requirements. If the private-unaided HEI meets the regulatory requirements, it loses out on its distinctiveness, and becomes a victim of coercive isomorphism. On the other hand, if the private-unaided HEIs do not meet regulatory requirements, there remains a risk of losing out on market share (Levy, 2013), and thus, their legitimacy. This legitimacy also manifests in current measures of quality, which continue to remain an unwinnable endeavour for demand-absorbing HEIs (Lozano et al., 2018). It is important to understand that the private-unaided HE sector grows explosively not only when the demand exceeds supply, but also when the regulatory framework is

inadequate (Levy, 2013), which is then followed by ‘delayed regulation’, wherein licensing and accreditation norms become stricter. More stringent regulation, in a severe resource constrained environment, causes fraud, inefficiency and lack of innovation (Bhutiani, Nair, & Hicks, 2014), thus impacting the quality of the institutions.

The third pillar, *cultural-cognitive*, includes the beliefs and expectations about HE and its providers. For instance, it was generally expected that a ‘good’ HEI would provide campus placement to its students. Hence, several affiliated colleges promoted and falsely advertised their placement numbers, rather than emphasizing on equipping students with necessary skills, such as strengthening domain knowledge, soft skills and generic competencies to find gainful engagement on their own (Tilak & Mathew, 2016). Therefore, according to the cultural-cognitive pillar, a ‘good’ private-unaided HEI would be one providing soft skills training to its students, thereby increasing their employability in the industry. Post COVID-19 pandemic, the cultural-cognitive pillar about ‘good’ HEIs is increasingly changing to HEIs providing digital/online learning and minimum disruption of coursework.

2.4.2 Resource Dependency Theory

Private-unaided HEIs have a narrowly defined input, which is students who are unable to secure admission in public funded institutions, and belong to a certain age cohort (roughly, 18 or 19 years of age) (Altbach, 2014). These students, after interacting with faculty and fellow students, enter the environment as ‘output’, and are continually evaluated by certain societal groups and coalitions for their usefulness (Pfeffer & Salancik, 2003; Parsons, 1956). In the case of private-unaided HEIs, the students are likely to be evaluated by management and prospective employers. Students graduating from institutions with fewer resources, as is the case of private-unaided HEIs, find it harder to flourish in a technologically advanced and competitive environment (Powell & Rey, 2015). Moreover, with a substantial drop in the supply of incoming students, the private-unaided HEIs are now facing problems.

The self-financed private HEIs lack institutional autonomy, which leads to enhanced dependency on centralized regulatory mechanisms such as All India Council of Technical Education (AICTE) and University Grants Commission (UGC) (refer Figure 1.1). Such dependency hampers innovation, and the result is academic mediocrity, with no pedagogical or institutional innovation. The private-unaided HE sector is most vulnerable, as it is ‘demand absorbing’ and ‘market-driven’. Hence, the assurance of a ‘steady input’ (Pfeffer & Salancik,

2003), that is, students, is least certain and leads to under enrolment in demand absorbing private-unaided HEIs. The vulnerability heightens due to declining enrolment, dwindling retention rates and resource constraints (Duderstadt & Womack, 2003). In such a scenario, the *transformation* of students learning experience gets hampered.

2.4.3 Agency Theory

The agency problem arises when there is a conflict in the goals of the principal and agent and it is difficult for the principal to verify agent's behaviour (Eisenhardt, 1989). This problem of principal being unable to directly observe agent's actions, is referred to as moral hazard (Kivistö, 2005). Moral hazard behaviour in HEIs may have negative manifestations such as, low institutional quality. To counter it, specific monitoring mechanisms need to be established. However, these come at a significant cost and may also be subject to error. One way of countering this moral hazard among agents (say faculty) can be through establishment of monitoring and reporting procedures by the principal (say HEI management/ HEI promoters). For instance, investigating the impact of a teacher's level of efficacy on quality of HEI is likely to reveal the agent's behaviour to the principal, which will enable the agent to more likely behave in the interests of principal. Furthermore, understanding quality from faculty's perspective is a significant attempt to reduce the prevalent information asymmetry between the management and the faculty. Hence, agency theory can provide profound insights, for understanding quality issues in demand-absorbing HEIs.

These aforementioned theoretical tenets can enable the researcher to navigate and analyse quality issues which plague the Indian HE sector, as depicted in Table 2.1. These classical theories provide insight and help in narrowing attention to specific issues, particularly in private-unaided HEIs. The first and second columns in Table 2.1 specify the theory and theoretical tenets respectively. The third column on the right outlines the resulting insights, which direct researcher's attentions to specific issues afflicting private-unaided HE sector. For instance, institutional isomorphism makes most of the private-unaided HEIs appear alike, thus making them conspicuously different from elite HEIs. This is manifested in the access-quality and inclusiveness-excellence dichotomy which is plaguing post-massification HE systems worldwide (refer Section 2.2). The inclusiveness-excellence gap too is an outcome of the instrumental learning which takes place in access-providing HEIs, vis-à-vis excellent outcomes

promoted in quality-providing HEIs. This stems not just from the cultural-cognitive pillar of the institutional theory, but is also explained through the resource dependency theory, wherein students fail to flourish in resource-constrained learning environments. As shown in Figure 1.2, besides access-quality and inclusiveness-excellence gap, the private-unaided HEIs also face stakeholder-perspective and rhetoric-reality divide (refer to left side of Figure 1.2). These two issues are briefly discussed as follows:

Rhetoric-reality divide

There remains a gap between espoused emphasis on improvement and actual emphasis on accountability, leading to quality being considered as bare compliance. This information asymmetry between institutional management and faculty leads to the implementation gap, called the rhetoric-reality divide. This rhetoric-reality divide can be understood as the goal-conflict between the principal and the agent. The lack of curricular and pedagogical innovation, and institutionalization of faculty contributes towards this implementation gap.

Stakeholder-perspective divide

The rhetoric-reality divide further lends understanding towards the divide among stakeholder perspectives on quality, which results in faculty 'merely going along' in quality management activities. This superficial faculty engagement in quality management activities does not lead to *transformation* among students' learning experience.

The theoretical tenets direct the researchers' attention towards specific problems, and enable the researcher to identify the area of study (Refer Table 2.1). The institutional theory aids in understanding institutional isomorphism, which gives answers to why most of the private-unaided HEIs are facing a similar situation. The normative pillar gives insight into the faculty, curriculum and pedagogy which has been institutionalized and makes these institutions look similar. The resource dependency theory gives insight into the vulnerability of this sector because of lack of 'steady input' as resources. Also, the agency theory with its concepts of principal and agent, provides cognizance of the rhetoric-reality gap which exists in HE.

Theory	Tenets	Insights
Institutional theory	Institutional isomorphism makes most private-unaided higher education institutions appear alike.	There is increasing dichotomy between access-providing and quality-providing institutions.
	The presence of institutionalized faculty, and inadequate regulatory framework leads to a lack of curricular and pedagogical innovation.	There is a gap between emphasis on improvement and emphasis on accountability.
	The cultural-cognitive pillar implies to the instrumental learning that takes place in these institutions, thus leading to learning outcomes largely based on getting job placement.	Students from private-unaided higher education institutions remain bereft of excellence, hence contributing towards the inclusiveness-excellence divide.
Resource Dependency theory	Students are the input resources of private-unaided higher education institutions, who are further evaluated by employers.	Students remain bereft of excellence, and find it difficult to flourish in a resource-constrained environment. The quality and traditional excellence indicators in demand-absorbing higher education institutions are compromised.
	The enhanced dependency on regulatory mechanisms further hampers transformation and innovation.	It leads to a lack of innovation in curricula, teaching and learning practices, and adversely impacts teacher efficacy.
	The low assurance of steady input, in addition to the resource-constrained environment makes the demand-absorbing higher education sector highly vulnerable.	This has led to low student enrolment in private-unaided higher education institutions, which is why this sector is facing many closures.
Agency theory	There is a clear goal-conflict between principal and agent. This goal conflict manifests as a divide between perspectives of institutional management and faculty.	This leads to a clear rhetoric-reality divide. Faculty merely 'goes along', instead of truly engaging in quality activities.

Table 2.1: Theoretical Tenets and Research Problem (Source: Author)

Thus, Table 2.1 helps in summarising specific issues plaguing the private-unaided HEIs:

- The private-unaided HE sector provides inclusiveness at the cost of being pushed to penury. It is evident in the number of closures these institutions are facing in India (AISHE, 2019). On the other hand, the elite institutions focus on traditional indicators of excellence, but may fail at providing inclusiveness. This ***inclusiveness-excellence dichotomy*** further lowers the institutional quality of these institutions and manifests in the form of ***access-quality dichotomy***.

- The varying stakeholder perspectives impede true engagement of faculty in quality activities. There remains a ***divide between the perspective of institutional management and the faculty***, wherein the former views quality more positively as compared with latter.
- There exists a ***rhetoric-reality divide***, wherein the espoused emphasis on improvement does not translate to actual emphasis on accountability. This leads to an implementation gap because of the information asymmetry between the management and the faculty.

Therefore, the theoretical insights indicate the importance of addressing quality in private-unaided HEIs, and the important role of front-line faculty in quality endeavours. Faculty provide a foundation to help the researcher familiarize and sensitize with the relevant work done in the area of interest (Rowley & Slack, 2004), that is, review the literature in context of quality in private-unaided HEIs. The purpose is to critically evaluate existing quality concepts with an intent to redefine quality. The succeeding sections aim to understand quality and its meaning in HE and give an account of existing quality scales in a dichotomous HE system. Further, the need to redefine quality in HE by revisiting concepts of quality from Harvey & Green's (1993) seminal work is detailed in forthcoming sections, which leads to the need for investigation of perspectives of front-line faculty in this research. Hence, the proceeding sections can be summarized as an extensive literature review, which has been conducted:

(i) To understand the theoretical advancement in the concepts of quality and quality measurement in context of higher education.

(ii) To redefine a quality measure that transcends a dichotomous higher education system.

(iii) To investigate faculty perspectives on quality for addressing the institutional management-faculty divide in implementing quality.

2.5 Quality in Higher Education

Quality has been a topic of intrigue and research, transcending all management areas, since several decades. Nearly 30 years after Ball's article titled, "What the hell is quality?" (Ball, 1985), researchers are still struggling to define quality. In fact, quality has even been defined as a bureaucratic burden (Newton, 2010). A plethora of literature has been recorded on quality,

however, there has been no consensus on its definitions (Schindler, Puls-Elvidge, Welzant, & Crawford, 2015). This is a challenge, which can be attributed to three main reasons:

1) Quality is subject to multiple interpretations, because of *varying stakeholder perspectives*. These stakeholders include providers, users of products, users of outputs and employees of the concerned sector (Cullen, Joyce, Hassall, & Broadbent, 2003; Harvey & Green, 1993). These multiple stakeholders have their own unique perspectives of measuring and defining quality, which makes consensus a difficult task.
2) Quality itself is a concept exhibiting *multidimensionality*, which reduces a one-sentence, brief definition of quality as meaningless.
3) Quality is not, and ideally should not be a static concept. Its *dynamicity* must be considered while defining it in the context of a larger educational, economic, political and social landscape. For instance, a few years earlier, quality was synonymous with achieving prestige, however, due to falling public trust in HE, HEIs began focusing more on student learning instead (Amaral & Rosa, 2010). More recently, it has shifted emphasis to pedagogical innovation, virtual teaching and digitalisation of HE in light of the COVID-19 pandemic (Crawford, Butler-Henderson, Rudolph, & Glowatz, 2020).

2.6 Quality Scales in Post-Massification Higher Education Systems

To meet the aforementioned challenges in defining quality, it is first important to conduct an extensive review of literature on quality and its measurement. It is crucial to understand that private-unaided higher education institutions (HEIs) are afflicted by issues which are unique and contextual (refer Figure 1.2 and Sections 2.2 and 2.4). Despite the contextual nature of quality issues in a dichotomous higher education (HE) system, the measures of quality across *all* kinds of HEIs remains the same. These quality measures have been discussed in this section. There have been several measures for understanding and assessing quality in HE. Barnett (1994) established a connection between conceptions of HE, varying approaches to quality and identification of different performance indicators. For example, HE, if conceived as a production of highly qualified human resources, will consider graduates as products, wherein their employment and earnings will be related to the quality of their received education. These conceptions consider input and output, but they view HE as a black box. There is no focus on the educational process or the quality of learning achieved by the student. Later, Barnett

conceptualised HE with focus on quality of student experience. However, these conceptions were complex and difficult to capture objectively. Hence, the usefulness of performance indicators in defining quality were considered highly doubtful (Tam, 2001).

The Total Quality Management scale (TQM) has been used widely; however, it is a customer-centric quality scale. Studies were published conceptualizing TQM in HE, with a special emphasis on *delighting* the customer (Sahney, Banwet, & Karunes, 2004) The pertinent question that arises is about who the customer is in HE. A survey conducted by Owlia & Aspinwall (1996), established that among the different 'customers', students were accorded the highest rank (Owlia & Aspinwall, 1996). This may be incorrect, because students are also products, suppliers and co-processors in HE (Sony, Karingada, & Baporikar, 2020). Even if it is assumed that students are customers, the notion of treating students as customers in HE would imply that *customer is always right*. Such a notion is corrosive to the educational process (Eagle & Brennan, 2007). Previous literature has reported that students are not 'purchasing' a qualification, and they may not possess awareness of skills and knowledge required for employment (Clayson & Haley, 2005). This is the reason why TQM model may not be a good quality model in HE. The pressing argument remains that although industry techniques are highly relevant in administrative/auxiliary areas, education cannot, and should not, be reduced to a business activity. This customer-oriented approach, which has been used in several studies in the past (Elbeck & Vander Schee, 2015; Mark, 2013), is problematic, because it negates the dynamic and interactive nature of HE.

Similarly, ISO 9000, developed primarily for manufacturing environments, provides a set of standards having twenty elements for assessing quality, however, it has a limited impact, and requires a tremendous amount of effort (Quinn, Lemay, Larsen, & Johnson, 2009). However, it is important to analyse whether the industry-based frameworks can competently propose a good fit and promote improvement in higher education (Houston, 2008). Moreover, the notion of quality and standards have been entangled for a long time, which has resulted in great confusion, of whether ISO 9000 is separate from TQM or is a part of it (Harvey, 2001). Even if industrial models have proven beneficial in HE, the benefits have predominantly been in administrative and service functions (Aly & Akpovi, 2001). This indicates the tendency of HE being standardised and subjected to being considered a business organisation, with focus on concept of efficiency. This emphasis on a flawed fit of industrial models on education leads to

corporatisation of HEIs, and a failure to address learning experiences and student *transformation* outcomes (Becket & Brookes, 2008).

The Malcolm Balridge quality framework recognises best quality practices by considering seven factors, such as leadership, strategic planning, customer and market focus, measurement analysis and knowledge management, human resource focus, process management and business results. However, prior literature has so far documented only anecdotal evidence about addressing quality issues. Despite providing a comprehensive conceptual framework, it fails to quantify results through data (Quinn et al., 2009). It has been reported that the "rhetoric embodied in the model does not play out during implementation" (Banister, 2001, p. 27). This implies, that although well-intentioned, this quality measure is over-whelming for administrators and faculty, who are already enmeshed in a web of quality jargon, surveys and activities (Banister, 2001). The Balridge Education Criteria for Performance Excellence (BECPE) positions HE as a business in the market, using a particular set of assumptions (Houston, 2008). Such a position undermines the unique elements of higher educational culture. Even the recent versions of the model have failed to sufficiently recognise the purpose of a HEI in context of the society (Houston, 2008).

The Six Sigma measures, also an industry quality measure, provide a systematic methodology for process improvement, however, their approach remains limited to specific administrative settings only (Sunder, Ganesh, & Marathe, 2018; Quinn et al., 2009). This approach is little published, and more importantly, the dependence on certified Black Belt specialists for quality purposes serves little purpose in an already resource-constrained environment of private-unaided HEIs.

The Academic Quality Improvement Program (AQIP) focuses on processes such as helping students learn, accomplishing distinctive objectives, understanding stakeholder needs, valuing people, and building collaborative relationships, but lacks rigour because it is too new, and its sponsors, a regional institutional accreditor Higher Learning Commission (HLC), may be a little too enthusiastic about promoting it (Houston, 2008). These frameworks may be ideal, but remain divorced from real improvement (Houston, 2008), thus further adding to the divide between the rhetoric of quality and the reality of quality.

The critique of existing quality measures is that they are 'external', thus rendering them bureaucratic and incapable of asking the right questions (Harvey, 2002). This shifted the emphasis on internally developed and implemented quality management systems (Sahney,

Banwet, & Karunes, 2004), and eventually led to "the identification of quality characteristics by various stakeholders of HEIs" (Iacovidou, Gibbs, & Zopiatis, 2009, p. 148). The Service Quality (SERVQUAL) model (Parasuraman et al., 1998) proffers information on improvement measures by providing useful data on service gaps (that is, perception-expectation gap). There have been several studies which have explored the dimensions of HE service quality through reconceptualization of service quality constructs (Sony, Karingada, & Baporikar, 2020; Sharma, 2008). The studies (Sohail & Shaikh, 2004; Lagrosen, Seyyed-Hashemi, & Leitner, 2004; Oldfield & Baron, 2000; Kwan & Ng, 1999; LeBlanc & Nguyen, 1997; Soutar & McNeil, 1996) offered primarily variations of SERVQUAL, but ignored the technical aspects of quality, such as the delivery and assessment of quality (Kang, 2006). This means that the emphasis on what is delivered and the assessment of quality as an outcome has been studied little, and the aspect of quality of how service is provided is much more researched (Wu & Ko, 2013). However, the critical question is that, does reduction of service gaps translate to improvement in quality? This reduction can also mean falling of customer expectations, and hence lesser perception-expectation gap.

To address the aforementioned shortcoming in the SERVQUAL model, the SERVPERF (service performance perception-only model) instrument was established. It attempts to focus on the 'perception' component alone, rather than on 'expectations' as well (Cronin & Taylor, 1994). Several studies have been published based on perception-expectation gap (Mahapatra & Khan, 2007). However, it is reduced to only a skeletal frame, since it requires modification to fit a specific system. Similarly, Higher Education Performance-only (HEdPERF) (Abdullah, 2006) too, has lacked wide acceptance in education field, and being a single-industry based instrument, HEdPERF scale does not exhibit flexibility of applications based on types and characteristics of institutions (Brochado, 2009). Thereafter, HEdQUAL scale was proposed, in order to measure the quality of education at different levels, rather than at macro level (Icli & Anil, 2014), which offered to access quality in terms of academics, administration, library services, career opportunities and supporting services. This again, remains a self-fulfilling endeavour, wherein access-providing HEIs continue to rank low.

Certain studies were also conducted using the importance-performance (I-P) grid (Silva & Fernandes, 2011; Angell, Heffernan, & Megicks, 2008; Joseph, Yakhou, & Stone, 2005). This tool has been used to translate customer perceptions of service quality into analysis of specific areas for focusing organizational resources and attention (Hermmasi, Strong, & Taylor, 1994).

This methodology offers four quadrants denoting which areas require priority and which do not. However this method has been heavily critiqued because of its arbitrary measurement of importance and its resulting poor discriminatory and predictive validity (Azzopardi & Nash, 2013).

Srikanthan & Dalrymple (2004) proposed the Learning University model, which lays focus on laying a foundation for a holistic HE model with the use of a transformative approach and a responsive university (Srikanthan & Dalrymple, 2004). The authors propose the use of TQM for addressing service areas in education, and a generic model for addressing educational aspects. Since the use of TQM in education is highly contested (as mentioned earlier), and the generic model lacks clarity and specificity, the Learning University model has remained a well-meaning, albeit under-explored concept. The generic model has a clear focus on transformation, but it fails to define transformation and at what levels it focuses on. Thus, Learning University has remained only an abstract concept, lacking depth.

In most of the aforementioned quality measures in HE, it is imperative to note that the presence of 'quality' translates to the presence of certain 'dimensions', such as academic reputation, extracurricular activities, career opportunities, tangibles, facilities, resources, administrative infrastructure, competent faculty, support services, campus environment, financial resources, and industry tie-ups. However, private-unaided HEIs, which are typically resource-constrained, and remain bereft of the aforementioned 'dimensions', continue to rank low on these quality measures. Thus, these quality measures remain self-fulfilling and do not enable redressal of issues afflicting private-unaided HEIs (refer Figure 1.2). Therefore, what purpose do rankings or quality measures serve in the Indian HE system wherein 63.4% institutions are private-unaided? (refer Figure 1.1). In other words, *in a HE system which is marked by broadly two kinds of institutions – access-providing and excellence-providing, is there a quality measure which can be used for both, and enable transcendence of the dichotomy between access-quality and inclusiveness-excellence?*

The role of finances and resources cannot be undermined, however, despite the lack of it, the present research argues that the demand-absorbing private-unaided HEIs can be ranked on quality 'dimensions' which are teachable (Staub, 2017), and contribute towards a redefined version of quality. In fact, these dimensions require dedicated teaching efforts, and can be taught and measured (Hesse, Care, Buder, Sassenberg, & Griffin, 2015). Dimensions such as

critical thinking and problem solving have been credited as teachable skills, extensively examinable and helpful (Hansen, 1998). Recognizing a teachable moment gives ample opportunity to introduce and enhance in students, the dimensions of confidence, self-awareness and the ability to transcend prejudices (Peters, Geursen, & Lunenberg, 2018). To develop a quality measure comprising of teachable dimensions which can transcend a dichotomous HE system, the seminal concepts of quality given by Harvey and Green (1993) are revisited in the succeeding section.

2.7 Revisiting Quality Concepts in Higher Education

Since "external" quality monitoring systems were subject to critique for their incapability of asking the right questions, there was a clear shift on identifying internal quality characteristics (Iacovidou et al., 2009). This shift of redefining quality in higher education has revealed two main strategies (Schindler et al., 2015):

1) One strategy is to identify a central goal, construct themes around it, and build upon a definition. Based on this strategy, there are thirteen broad definitions of quality. Some examples may be, fulfilment of stated mission, pursuit of excellence, meeting standards, accountability, transforming students and so on. These broad conceptualizations of quality have been more or less consistent for the last twenty years (Schindler, Puls-Elvidge, Welzant, & Crawford, 2015). These definitions can be further condensed to four primary classifications, namely, *purposeful*, *exceptional*, *transformative*, and *accountable*, wherein exceptional and perfection have been categorized as one, by Shindler et al. (2015).
2) The second strategy is constructing quality definitions based upon inputs (example, faculty) and outputs (example, graduate employability). A thorough literature review has revealed over 50 specific indicators, which lie in four distinct categories, namely, *administrative indicators*, *student support indicators*, *instructional indicators*, and *student performance indicators*.

Keeping in mind these broad and specific indicators, this research draws on the former strategy, by viewing quality in higher education as *perfection*, *exceptional*, *value for money*, *fitness of purpose* and *transformative.* The reason for choosing the former strategy is because the latter treats HE as an input-output process, without taking into account the uniqueness and contextual

constraints of private-unaided HEIs. Table 2.2 briefly defines the existing quality definitions, and provides a critique in the context of access-providing HEIs.

Quality as *perfection* is meaningless in academic standards (Harvey, 1999), because students are diverse, having different competencies and capabilities. However, *perfection* is related to the expectation of a minimum prescribed level of professional competence. In a resource constrained environment of private-unaided HEIs, the minimum level becomes the primary goal, which further hampers institutional quality instead of improving it.

When quality is seen as *exceptional*, it implies to a gold-standard, and a pre-supposition to maintain elitism and high class (Harvey, 1999). However these mostly relate to traditional notions of excellence. Since massification does not align itself with the traditional criteria of excellence such as research funding, use of latest technologies and teaching methodologies, global institutional rankings, and top-quality professors; this notion of quality does not fit in with the context of private-unaided higher education institutions.

Quality, when seen as *fitness for purpose*, encourages the notion of students being treated as customers (McCulloch, 2009). This notion reduces HE to a mere service product, wherein the central theme remains to meet student satisfaction (Cheng, 2016). When quality is understood in terms of student satisfaction, it becomes even more elusive, because satisfaction is a subjective notion (Elliott & Shin, 2002). Fitness for purpose is related to management by objectives, which is articulated by institutions through mission statements. However, it might be difficult to assess stated objectives either qualitatively or quantitatively, as they are not clearly stated or implied (Cheng, 2016). Also, when there is overemphasis on quality for management purposes, HEIs start competing against each other. In case of private-unaided HEIs, the competition is cutthroat, more so for attracting students, which can lead to fear, insecurity and distrust towards quality evaluation, thus causing loss because of concentrating upon fulfilling certain quality evaluation rules and thus reducing it to a box-ticking exercise (Cheng, 2017; Cheng, 2011). This box-ticking exercise manifests in the form of institutional isomorphism (refer Section 2.4).

Quality as *accountable* (or *value for money* approach) is associated with a neoliberal ideology which advocates a self-regulating market and focuses on individuals who take decisions using a cost benefit analysis (Giroux, 2005). The students need to satisfy university entry requirements and educational criteria, and do not 'return' the earned degree if dissatisfied. Since education is a complex process, it is important to understand that there is much more

than just economic exchange between students and institutions (Saunders, 2011). Hence, fitting students in the traditional mould of a customer is a problematic notion, because unlike customers, students can exert only a limited freedom of choice (Delucchi & Korgen, 2002). Furthermore, a student may not realise for years whether the education received has met their needs, which puts a question mark on the notion of 'customer knows best' approach to education (Cheng, 2016). It can be stated that the notion of conceptualising quality as customer-centric in HE is problematic, because none of the stakeholder groups have a purely market relationship with the university (Eagle & Brennan, 2007). Labelling any stakeholder as the customer in HE, oversimplifies the demands of HE, and is generally considered as a misfit in defining quality in HE (Houston, 2008).

Quality Parameter	**Definitions** (Harvey, 1999; Harvey & Green, 1993)	**Critique**
Perfection	Quality is seen as a consistent outcome. This consistency is expected in external quality monitoring system.	It is not the purpose of a higher education institution to *produce* students who are the same. This definition of quality is rendered meaningless as the aim of higher education is not to produce defect-free graduates (Watty, 2003).
Exceptional	Quality is viewed as elitist. It heavily emphasises on traditional values. It relates quality as maintenance of academic standards. The goal is to maintain a 'gold standard' in learning and research, thus giving higher education institutions an exclusivity.	It is more than likely for these resource-constrained 'demand absorber' institutions to "fail at traditional 'excellent' activities" (Harrison, 1990, p. 207). This notion of quality being 'exceptional' assumes a sense of distinctiveness, inaccessibility and unattainability, and makes the system appear exclusive (Harvey & Green, 1993), which is against the primary tenets of mass education.
Accountable	Quality is seen in terms of rate on investment. The goal is to achieve the same outcome at a lower cost or better outcome at a similar cost. Using the same (or dwindling) unit of resource, the idea is to maintain or improve academic standards, and thus acquire a 'good deal' for the customer. Accountability function refers to accountability towards external	This notion of accountability relates to expense and economic exchange, which may more than likely lead to prioritisation of financial outcomes over educational outcomes (Cheng, 2016). Optimal use of resources does not imply improving upon 'poor quality', but rather moving resources away from poor provision (Harvey & Green, 1993). Such an approach may do more harm than good to the private higher education sector.

	funding agencies, regulating bodies and the customers it caters to.	Quality as value-for-money recognises only economic exchange between higher education institutions and the students (Cheng, 2016) thus rendering the applicability of this free-market logic in HE as insufficient.
Fitness for purpose	Quality is seen in terms of fulfilment of customer's needs, desires, requirements.	This approach can be subject to being reduced to a mere box-ticking exercise (Cheng, 2017). It also puts the onus on the customer and the provider as well. Fitness for purpose is defined through a clearly articulated institutional mission, however, it may still become difficult to assess the objectives either qualitatively or quantitatively (Cheng, 2016).
	Quality is directly related to specified, purpose-related objectives.	This quality indicator can be developmental because the purposes are susceptible to change over time (Harvey & Green, 1993). The fitness for purpose approach to quality does not clearly answer 'what purpose it is?' and 'whose purpose is being served?' This ambiguity may do harm to the fabric of higher education. For instance, if the purpose of a higher education institution is graduate employability, it will endeavour to provide its students with transferable skills, thus shifting focus from people-building purpose of higher education institutions (Cheng, 2016). This narrowly defined purpose is more than likely to result in encouraging profit and consumerism culture, which may negatively impact quality.
	The emphasis is on assessing students based on certain criteria.	Value-for-money and fitness-for-purpose approach have encouraged the notion of treating students as customers (Cheng, 2016; Cheng, 2011). This idea distances quality from its true meaning, and showcases higher education as a mere service product. By deeming higher education as a service product alone, the emancipatory power of higher education, as well as developmental needs of academics and students get marginalised.

Table 2.2: Critique of Existing Quality Conceptions (Source: Author)

As shown in Table 2.2, column 3, the traditional definitions of quality fail to appropriately define quality in the context of access-providing HEIs (Harvey & Green, 1993). In a post-massification HE system, plagued with access-quality gap, inclusiveness-excellence divide, a rhetoric-reality gap and a stakeholder-perspective gap (refer Figure 1.2), the existing notions of quality fail to provide a quality measure in a dichotomous HE system. This failing shifts focus to the fifth traditional notion of quality, that is, *transformative*.

2.8 Panacea for Access-Quality and Inclusiveness-Excellence Divide: Transformative Quality in Higher Education

The previous sections contain a detailed discussion on the quality issues afflicting private-unaided higher education institutions (HEIs) (refer Figure 1.2). Chambliss & Takacs(2014) state that even in an era of shrinking resources, there are methods which are reliable, powerful, available and cheap, which can improve what students gain from college, thus propelling the research community to explore the panacea to the divides plaguing a post-massification dichotomous HE system. This section discusses Transformative Quality as panacea to two of the stated issues – access-quality divide and inclusiveness-excellence divide.

The notion of quality as *transformative* pertains to the change of physical and cognitive form through enhancing and empowering the student (Harvey & Green, 1993). The core idea of the transformative approach to quality is transforming students by enhancing their knowledge, skills, attitudes and abilities, and making them take charge of their own learning (Kolb & Kolb, 2005). At the same time, the students should be empowered to emerge as reflective and critical thinkers (Harvey, 2000). Transformation implies to a complete democratization of process, and not just the outcomes (Kis, 2005). Transformative Quality in higher education (HE) focuses on transformative life-long learning, and employability becomes of a subset of this dimension, rather than becoming the primary goal (Harvey, 2000). Such transformation considers the moral dimension of quality through encouraging academics and students, besides supporting students on how to learn and focusing on improvising academics' teaching practice (Cheng, 2016). This approach to Transformative Quality in HE has been promoted by Cheng (2016) as virtue of professional practice. This Transformative Quality is inclusive of concepts of cognitive transcendence, student empowerment, emancipation of education, developmental transitions, mindfulness, and change at individual and social level (Cheng, 2014).

Transformative Quality in HE is more than just significant cognitive change (Harvey, 2009). It is a continual process of inculcating confidence in students, building new understandings in them and enhancing them (Mezirow, 1991) through redefining methods of teaching, wherein emphasis is on collaborative learning, experiential pedagogies, contemplative practices, service learning as well as creative and artistic experiences (Duerr, Zajonc, & Dana, 2003). The panacea to ailments of private-unaided HEIs in India is an academic culture marked with

merit-based norms and competitions on one hand, and moderate measures of autonomy and accountability on the other hand (Umashankar & Dutta, 2007). In other words, it calls for a quality which empowers and enhances the participant, that is the student, which is attainable through transformative quality.

Since the mass education private sector increasingly caters to students from low socio-economic backgrounds, rural and regional communities, the access providing HEIs have higher chances of exploring their potential and bringing a real change for a country in terms of economic productivity (Pitman, 2014). A small-scale research conducted with a sample of senior managers revealed that transformative quality best describes massification in HE (Lomas, 2002). Another research which investigates the teaching experience of Teaching Excellence Awards winners at a university in England, revealed that most of the faculty Award winners associate the concept of institutional quality with transformative learning (Cheng, 2011). In a study regarding conception of quality, conducted in Oman, the three key stakeholders, that is, students, faculty and employers established transformative as the most preferred definition for quality in HE (Zachariah, 2007). Transformative has been a unanimous definition of quality from student perspectives, during a study conducted on students across eight European countries (Jungblut, Vukasovic, & Stensaker, 2015). In fact, for quality enhancement in massification, transformative has been considered as most appropriate definition for quality (Lomas & Ursin, 2009; Lomas, 2004). Understanding quality as transformation is capable of addressing concerns of all stakeholder groups (Srikanthan & Dalrymple, 2003).

Despite transformation being considered as the most appropriate definition in HE, both quality and transformation have been considered elusive since long (Cheng, 2014). This is because both these constructs are subject to multiple, diverse interpretations, thus making it difficult to quantify and interpret. Despite the obstacle of not being able to operationalise quality as transformation, it is still increasingly becoming a key agenda in quality enhancement educational processes around the world (Cheng, 2014). In fact, research indicates that some of these traits are teachable (Staub, 2017), and can contribute to greater levels of innovation and economic growth. Though difficult to quantify, Transformative Quality has been

operationalised on a 5-point Likert scale, with the following scale items (Teeroovengadum, Kamalanabhan, & Seebaluck, 2016):

- enabling students to be emotionally stable, anchored at 1=strongly disagree and 5=strongly agree;
- increasing self-confidence of students, anchored at 1=strongly disagree and 5=strongly agree;
- development of students' critical thinking, anchored at 1=strongly disagree and 5=strongly agree;
- increasing self-awareness of students, anchored at 1=strongly disagree and 5=strongly agree;
- enabling students to transcend their prejudices, anchored at 1=strongly disagree and 5=strongly agree;
- acquiring knowledge and skills to perform future job, anchored at 1=strongly disagree and 5=strongly agree;
- increasing knowledge, abilities and skills in students, anchored at 1=strongly disagree and 5=strongly agree.

A transformative notion of quality implies that instead of considering massification as 'more means worse', the focus should lie on making it 'more means different' (Lomas, 2002). Massification, though bereft of traditional indicators of excellence, should rightfully not share the same missions and objectives as traditional 'excellent' universities. Their unique mission, specific target students, academic disciplines and organisation styles should be distinct and clearly specified. Rather than lower institutional quality and standards, these institutions need to transform and add to the diversity of HE, by not submitting to the same missions and objectives of traditional universities, at the cost of penury. A diverse HE system consisting of institutions with different missions is more capable of meeting the student and labour market needs, as well as increasing the Efficacy and innovation of HEIs by permitting a healthy combination of both elite and mass institutions (Hazelkorn, 2012).

Achieving quality is undoubtedly a path riven with difficulties, especially for the resource constrained access providers. In times where inclusiveness and excellence, access and quality, have become divergent strategies (refer Figure 1.2), it is important to understand how the two can come together as a perfect mélange, through Transformative Quality, and resolve the

trilemma plaguing HE. In fact, the transformative aspect of quality in HE can help in creating an inclusive learning environment in HEIs (Cheng, 2016; Umashankar & Dutta, 2007; Srikanthan & Dalyrymple, 2003). This can help in addressing the access-quality and inclusiveness-excellence divide (refer Figure 1.2) afflicting the dichotomous HE system, and provide a quality measure which is not self-fulfilling, and can rather transcend the dichotomy that exists in the present HE system.

The aforementioned dimensions of Transformative Quality will be used as a starting point for developing the research framework in Chapter 3, and further for developing a measure of quality in Chapter 5. This endeavour will help in addressing the Research Objective 1 of redefining and developing a measure of quality which can transcend a dichotomous HE system. Redressal of rhetoric-reality divide and stakeholder perception of quality issues afflicting private-unaided HEIs, as depicted in Figure 1.2, are discussed in the next section.

2.9 Addressing Stakeholder Perspective and Rhetoric-Reality Gap Through Front-line Faculty

The previous section suggested that Transformative Quality can be used to redefine quality in a dichotomous HE system for addressing access-quality and inclusiveness-excellence divide prevalent in private-unaided HEIs. For redressal of other issues afflicting private-unaided HEIs, namely, stakeholder-perspective gap and rhetoric-reality gap, it is first important to understand that quality is essentially a relative concept. It holds different meanings to different people. It is thus essential to address, '*of whose quality?*' Depending upon the stakeholders and their differing views, the definition of quality varies. This implies that the measurements and standards applied will vary for all notions of quality (Tam, 2001).

Previous literature suggests that there exists a significant gap between institutional management perspectives and faculty perspectives on quality (Barandiaran-Galdós et al., 2012; Stensaker, Langfeldt, Harvey, Huisman, & Westerheijden, 2011). It has been reported that management tends to view quality management processes more positively as compared to faculty members of the institution (Cartwright, 2007; Anderson, 2006; Hoecht, 2006). In fact, faculty resists quality management activities, or simply goes along with them without real, meaningful involvement (Houston, 2008; Newton, 2002). Such superficial involvement of faculty in quality management activities impedes the process of achieving Transformative Quality, rather than enhancing it. Previous studies have shown that most of the academicians

went along with quality activities in their HEIs, as they were sceptical about quality management processes at their institutions (Cartwright, 2007). Empirical studies have shown that some faculty members *go along with* quality activities (Hall, 2015), and some *actively resist them*, and found them a *burden* (Anderson, 2006), *problematic* (Ezer & Horin, 2013), *politicized* (Harvey, 2005), and *meaningless because it was mandatory rather than voluntary* (Brennan & Shah, 2000).

Engaging front-line faculty in quality management activities can be key for attaining quality in HE, since front-line faculty have the most impact on student learning outcomes and student transformation, and thus are a strong influence on students' transformation (Coates & Seifert, 2011; Perry & Smart, 2007). Front-line faculty members have significant interaction with students and a strong influence, as a result of spending greater proportion of their time on teaching and learning activities, as opposed to administrative duties (Hall, 2015). Prior research further endorses this strong influence, and urges faculty in HE to don the role of a broker, that is, possess boundary-crossing competence, stimulate a learning attitude among students and enable transformation among them (Oonk, et al., 2020). Prior studies have also been consistent in proposing the need for faculty to be able to switch, connect, change, adapt and integrate multiple courses and practices relevant in HE (Lansu, Boon, Sloep, & Van Dam-Mieras, 2013; Akkerman & Bakker, 2011). Moreover, previous studies have also emphasised on the need for faculty to possess a collaborative learning attitude, rather than being limited to their own specific domains (Wals, Van Der Hoeven, & Blanken, 2009; Tigelaar, Dolmans, Wolfhagen, & Van Der Vleuten, 2004). These practices enhance Teacher Efficacy and enable transformation, thus inching the HEIs closer to Transformative Quality (Guzmán-Valenzuela, 2015; Whitmer, et al., 2010).

Front-line faculty perspectives, particularly for Transformative Quality, become even more relevant for this research because quality as *transformative* by faculty has been espoused in several previous studies. For instance, in a qualitative study of faculty perspectives on quality, Harvey and Green's (1993) conceptualisation of quality as transformative garnered the most support, rather than other definitions of quality (Watty, 2006). On similar lines, in another study based in Portugal, faculty emphasised student outcomes, rather than giving precedence to customer satisfaction (Rosa, Tavares, & Amaral, 2006). Lomas (2002) has described transformative as the most appropriate definition in massification HE systems. Gill & Singh (2018) have described transformative quality as an antidote to the ills plaguing post-

massification HE system. However, there has been a glaring lack of empirical work on Transformative Quality in HE.

Furthermore, literature has shown little development on faculty perspectives on quality. There is greater documentation on *faculty experience*, rather than *faculty perspectives* in quality management (Barandiaran-Galdós et al., 2012). This implies, that much of the literature examines how faculty experiences quality management. The small amount of information regarding how faculty define quality in HE, reveals a significant gap between what the faculty thinks, and what is implemented for quality in HEIs. This gap, is also called the implementation gap between "rhetoric" of quality, and "reality" of quality (refer Figure 1.2).

It is also important to note that faculty perspectives may vary depending upon institutional types and other factors (Massy, 2003). In this light, there have been very few empirical studies which address faculty perspectives across different institutional types in HE. This research aims to address the aforementioned gaps by investigating faculty perspectives on redefining quality.

The discussion on faculty perception of quality shows that:

- there exists a gap between what the institutional management and faculty think about quality;
- there is a dearth of literature on faculty perception of quality at their HEIs, especially across different institutional types;
- there is a dearth of empirical literature which distinguishes between research participants as "academics", "lecturers", "faculty";
- faculty have known to endorse quality as Transformative, however, there is a lack of empirical work on Transformative Quality;
- there exists a rhetoric-reality gap in quality implementation; and an emphasis on improvement, rather than accountability; and
- research has primarily been on quality assurance, rather than on quality enhancement.

Hence, by investigating front-line faculty perspectives for redefining quality in HE, the gap between stakeholder-perspectives can be effectively bridged. There exists a rhetoric-reality divide, wherein the espoused emphasis on improvement does not translate to actual emphasis on accountability. This leads to an implementation gap because of the information asymmetry between the management and the faculty. Addressing stakeholder-perspective gap will further

enable the espoused emphasis on improvement to translate to actual emphasis on accountability, and thus address the rhetoric-reality gap in quality (refer Figure 2.1).

This aim of this research is to provide a realistic understanding and redressal about the quality implications in private-unaided HEIs. Figure 2.1 elucidates the objectives of the research, wherein the right side of the figure shows that

- Access-quality and inclusiveness-excellence gap could be investigated through Transformative quality, which partially addresses the Research Objective 1 as stated in Chapter 1; and the left side of Figure 2.1 shows that:
- Since front-line faculty have the closest interaction with students, investigating their perspectives on quality can help in addressing the rhetoric-reality gap. It can also address the stakeholder perspective issue, because of which there remains an information asymmetry between institutional management and faculty, and thus superficial engagement of faculty in quality management activities. This addresses the Research Objective 1 as stated in Chapter 1.

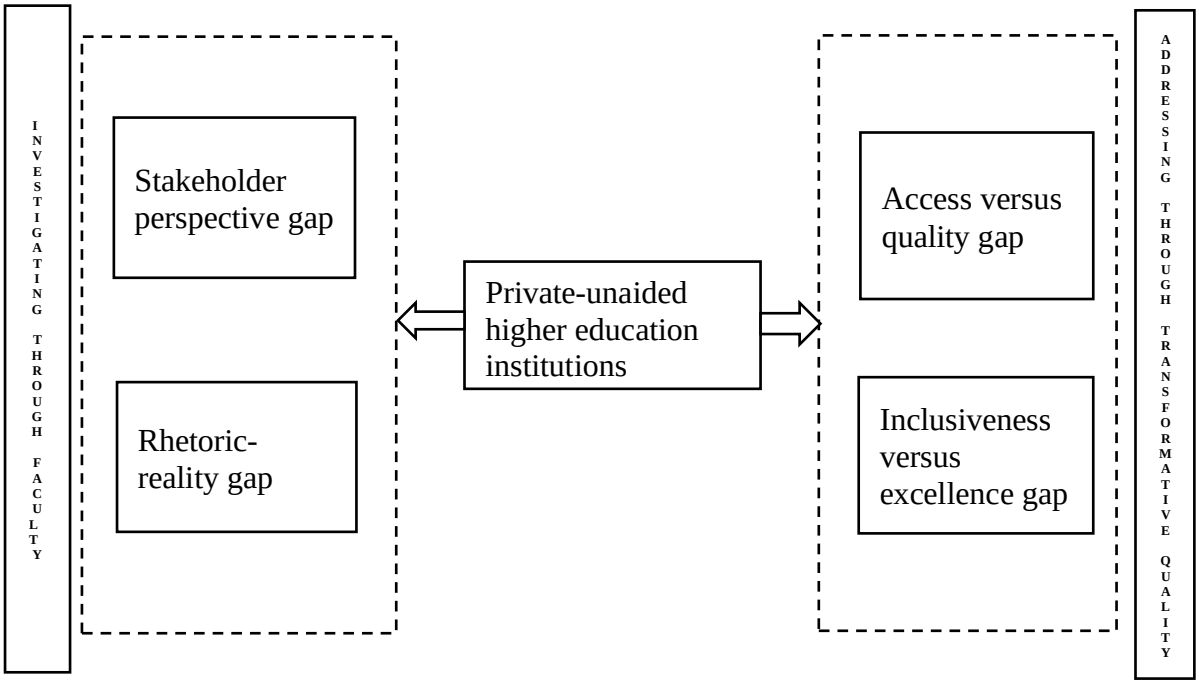


Figure 2.1: The Research Problem (Source: Author)

2.10 Concluding Remarks

This chapter comprised the review of existing literature on quality in higher education. It enabled an understanding of the issues plaguing the private-unaided higher education institutions through classical theories of management. The critical review of quality literature demonstrated the need of a new measure of quality which can transcend access-quality and inclusiveness-excellence gap in a dichotomous higher education system. This redefined measure of quality, that is, Transformative Quality, partially addresses the Research Objective 1 of redefining quality for private-unaided HEIs. Further exploration of stakeholder perspectives revealed that analysing front-line faculty perceptions on quality can enable addressing the rhetoric-reality divide in HEIs. This chapter provides a foundation for the theoretical framework of the research, which is explicitly discussed in Chapter 3.

Chapter 3

The Research Framework: Teacher Efficacy-Transformative Quality (TE-TRF) Model

"We are caught up in a paradox, one which might be called the paradox of conceptualization. The proper concepts are needed to formulate a good theory, but we need a good theory to arrive at the proper concepts."-Abraham Kaplan

3.1 Introduction

The previous chapter provided a comprehensive literature review on quality and its related concepts in context of private-unaided higher education institutions. The review leads to a discussion on specific research gaps discussed in this chapter, and enables the researcher to formulate a research framework for this research. It discusses concepts of redefined quality from front-line faculty perspectives. The chapter reiterates the importance of faculty in quality management, and sheds light on the concept of Teacher Efficacy. This discussion lays foundation for the research framework for this thesis.

3.2 Revisiting the Research Gaps

A detailed discussion in the previous chapter has revealed that most of the current measures of quality in higher education (HE) remain self-fulfilling for elite institutions (refer Section 2.6) (Fowles, Frederickson, & Koppell, 2016). In a post-massification HE system like India, the demand-absorbing HEIs continue to remain at the bottom of all rankings. Such quality measures further exacerbate the access-quality and inclusiveness-excellence divide prevalent in a dichotomous HE system. A redefined quality measure, Transformative Quality, can address access-quality and inclusiveness-excellence gaps plaguing private-unaided HEIs (refer Figure 2.1). Moreover, by investigating front-line faculty perspectives on quality, stakeholder-perspective and rhetoric-reality divide can also be addressed (refer Figure 2.1).

3.3 Defining Transformative Quality

When higher education (HE) lays emphasis on instrumental knowledge and skill learning alone, it becomes narrow and fragmented, thus defeating its very purpose. Quality in HE needs

to be viewed as an internal process of transformation (Cheng & Tam, 1997). For real transformation to take place, HE needs to soften the mind by emphasizing on faculties of empathy, reflexivity and communion (Pathak, 2019). These domains have been captured extensively in the Transformative Quality (Teeroovengadum et al., 2015). Transformative Quality (TRFQ, hereon) has been defined by these dimensions:

(a) Enabling students to be emotionally stable;
(b) Increasing self-confidence of students;
(c) Development in students' critical thinking;
(d) Increasing self-awareness of students;
(e) Development of problem-solving skills with respect to their field of study;
(f) Enabling students to transcend their prejudices;
(g) Acquiring adequate knowledge and skills to perform future job;
(h) Increasing knowledge, abilities and skills of students.

These dimensions are complex higher-order and non-cognitive constructs, which collectively contribute towards enhancement and empowerment of students, and thus contribute towards Transformative Quality in HE.

3.3.1 Measuring Transformative Quality

The dimensions of Transformative Quality, as discussed in the previous section, comprise of complex constructs, presented in brief one-line sentences. These exceedingly complex psychological and theoretical constructs such as 'emotional stability', 'self-confidence', 'critical thinking', 'self-awareness' and 'transcending prejudices' cannot be measured using brief, one-line sentences. Testing them through generic statements, such as, '*Does your university make you emotionally stable?*', '*Does your university make you think critically?*' and so on, does not fulfil the prerequisites for establishing a sound psychometric scale.

Measurement challenges are prevalent for theoretically complex constructs such as Transformative Quality, since it consists of many different, possibly related and unrelated dimensions (Cording, Christmann, & Weigelt, 2010). Thus, it is vital to have measures which closely reflect the proposed theory in the defined context (Baum & Powell, 1995). Teeroovengadum et al's (2015) measure of Transformative Quality fails to capture the complexity of this construct through its brief single-line sentences, thus requiring the need for

developing a more sophisticated and nuanced measure of the various dimensions which form Transformative Quality in HE. Moreover, as mentioned in Section 2.5, quality being a multidimensional concept, cannot be captured in single sentences. Thus, this TRFQ scale given by Teeroovengadum et al (2015) negates the multidimensional nature of quality itself. Keeping in mind these drawbacks of TRFQ scale, this research enhances and further develops a scale with reliability, content validity, construct validity and practicality for advancing the theory on Transformative Quality (Rothwell & Arnold, 2007). For this purpose, this thesis uses the definition of Transformative Quality, given by Teerovengadum et al. (2015) as a starting point.

TRF dimensions	**Definition**
Emotional Stability	Emotional stability refers to be calm, relaxed, not anxious, or easily upset (Gosling, Rentfrow, & Swann Jr., 2003). It probes the participant regarding how easily stressed they get, how easily their moods get swayed, how easily offensive they get, and how easily they are prone to sadness. The students who are able to regulate their emotions better also reflect it in their academic achievement (Sanchez-Ruiz, Mavroveli, & Poullis, 2013).
Confidence	It refers to the confidence in the ability of students to behave, in order to be successful academically (Sander & Sanders, 2003). This confidence has been defined as strength of one's belief, trust, or expectation, related to task accomplishment (Stankov, Kleitman, & Jackson, 2015). This confidence also enables students to pursue critical and lifelong inquiries in the world and with one another (Lin & Cranton, 2005).
Critical thinking	Critical thinking has been defined as a deep, more thoughtful and profound reflection, wherein a student has ability to critique assumptions and presuppositions, without reaching hasty conclusions (Kember, et al., 2000). The idea is not to accumulate knowledge and focus on *what to think*, rather, it is to develop capabilities to innovate, adapt and improvise, and focus on *how to think* (Thomas, 2009).
Self-awareness	According to Govern & Marsch (2001), situational 'self-focus' is referred to as self-awareness, which can be further understood as public and private self-awareness, wherein the focus is on the students' surroundings, as well as public and private aspects of self-awareness (Govern & Marsch, 2001; Buss, 1980). Awareness is the crux of all learning, and it focuses on *how one knows what one knows* rather than just *what one knows* (Duerr, Zajonc, & Dana, 2003).
Problem-solving skills	Problem-solving skills are an important skill set, which are of paramount importance to not only students, but to professionals as well (Heppner & Petersen, 1982; Krumboltz, 1965). The problem-solving process of college students has been studied by taking into consideration their confidence in their problem-solving ability, an approach-avoidance style and their personal control (Heppner & Petersen, 1982).
Transcending prejudices	Prejudices, stereotypes, beliefs need to be addressed in higher education, and can be done particularly through engaging students. This further leads to outcomes such as better racial understanding among students, greater participation in community programs and lesser prejudice among students (Chang, 2002; Gurin, Dey, Hurtado, & Gurin, 2002; Milem, 1994).

Acquisition and enhancement of skills, knowledge, abilities	This is an important component, wherein it has been recognised that the primary role of higher education is to transform students by enhancing their knowledge, employability skills, and abilities (Harvey, 2000).

Table 1.1: The Dimensions of Transformative Quality in Higher Education

The overarching goal of the research is, enhancement of the scale by reviewing literature for in-depth definition of constructs, and thus, establishing a more refined and rigourous scale for measurement of Transformative Quality in HEIs. For detailed study of Transformative Quality in HE, each dimension was first defined (refer Table 3.1) and then studied in depth.

Table 3.1 summarizes the dimensions of Transformative Quality in HE. It is crucial to note that these dimensions are teachable, and can further contribute towards greater levels of innovation and economic growth (Staub, 2017). Prior literature has shown that front-line faculty have ample opportunity to recognise a teachable moment to introduce and enhance in students, confidence, self-awareness and the ability to transcend prejudices (Peters, Geursen, & Lunenberg, 2018). This indicates the supremely important role of front-line faculty in developing these dimensions and contributing towards Transformative Quality.

3.4 Teacher Efficacy

The discussions in the previous sections bring focus on the role of faculty being highly crucial for contribution towards Transformative Quality. Despite the presence of multiple quality agencies and bodies, there is little evidence of positive teaching and student learning taking place in private-unaided higher education institutions (HEIs) (Ezer & Horin, 2013; Shah, 2012). Prior literature has emphasised on the importance of engaging the front-line faculty for successful quality management (Coates & Seifert, 2011), and transformative student learning outcomes (Watty, 2006). In the context of front-line faculty engagement, literature is strewn with ambiguous terms such as *teaching and learning processes* (Clemes, Ozanne, & Tram, 2001), *support for teaching and learning* (Harvey, Burrows, & Green, 1992), *teachers' expertise and professional competence* (Pfeifer & Mukatayeva, 2019), and *effective teaching and learning* (Adeyemo, 2012). In fact, the input-output process, wherein, students, faculty and resources are inputs; and student employability and competency are an output, what happens within the confines of a classroom has remained a *black box* (Black & Wiliam, 1998). All these terms – teaching and learning processes, support for teaching and learning, teachers' expertise and professional competence, effective teaching and learning – bear a common overriding goal, that is, Teacher Efficacy. It is the teacher's judgment of his/her own capabilities to bring out

the best in his/her students, including difficult and unmotivated students (Tschannen-Moran & Hoy, 2001), and has an important influence on student outcomes.

In a student's transformative experience, Teacher Efficacy has seldom been examined (Mukwambo, 2019). Teachers' sense of efficacy has been related to student outcomes such as motivation, achievement, classroom behaviour, and their own sense of efficacy (Tschannen-Moran & Hoy, 2001; Moore & Esselman, 1992; Midgley, Feldlaufer, & Eccles, 1989; Anderson, Greene, & Loewen, 1988). Therefore, it is crucial to investigate its role in the endeavour of Transformative Quality. Moreover, since the dimensions of Transformative Quality are teachable, the role of Teacher Efficacy in developing those dimensions becomes crucial.

A vast majority of studies have shown that for quality purposes, the main emphasis remains on teaching and learning activities, which stem from Teacher Efficacy (Alzafari & Ursin, 2019). These outcomes eventually lead to transformation among students, and contribute to the Transformative Quality of a HEI. In fact, Teacher Efficacy plays a crucial role in institutional quality by influencing students' enhancement and empowerment (Dubey, Mehndiratta, Sagar, & Kashiramka, 2019).

Teacher Efficacy is also related to teacher behaviour within the confines of the classroom. High levels of teacher efficacy are characterised by greater levels of planning, organisation, openness to new ideas and methods of teaching and classroom management (Tschannen-Moran & Hoy, 2001). Teachers with higher efficacy exhibit greater enthusiasm for teaching, and are more committed to the profession of teaching (Hall, Burley, Villeme, & Brockmeier, 1992). Quality teaching by faculty is key to increasing the efficiency of teaching and learning process, and thus responding effectively to the rapid changes in HE. In a scenario of resource constraints, and increased competition, faculty can play a crucial role in impacting the quality of HEIs (Henard & Roseveare, 2012).

Student growth is an outcome of Teacher Efficacy, which is manifested in the form of specific faculty behaviour, their instructional efficiency and the overall classroom climate (Cabrera, Colbeck, & Terenzini, 2001). Quality teaching by faculty is increasingly being included in policy-making world over, because of its impact on the quality of HEIs (Sin, 2015), which makes it an important factor to be studied in the context of private-unaided HEIs. What makes this factor even more vital for this research is that the long-lasting cumulative impact of teachers (effective and ineffective) persists over three years (Sanders & Horn, 1998). This can

either significantly enhance or substantially limit the process of student transformative experiences.

Broadly, teachers' efficacy is observed in their (1) *efficacy for instructional strategies* (2) *efficacy for managing classrooms* and (3) *efficacy for engaging students* (Tschannen-Moran & Hoy, 2001). Impact of effective instructional strategies on student outcomes has been evidenced in an impressive body of literature over the past years (Loes, An, & Pascarella, 2019). It has emerged as a key aspect for curriculum implementation, and establishing a relationship with learners at an intellectual level (Adeyemo, 2012). Better instructional efficiency translates into greater student persistence, and thus lower student attrition rates (Loes et al., 2019; Pascarella, Salisbury, & Blaich, 2011). It also leads to better student outcomes. Instructional efficiency of faculty directly impacts students' critical thinking, confidence and learning (Adeyemo, 2012).

The process of engaging students is an organic process, which occurs through activities provided by classroom experience (Loes et al., 2019). This experience is facilitated by efficacy of teachers' classroom management. The goal of effective classroom management is to establish order among students and elicit their cooperation (Reupert & Woodcock, 2010; Emmer & Stough, 2001). Some of the most common classroom management strategies are establishing and maintaining classroom routines, setting classroom rules, appreciating or reprimanding as need be, establishing effective communication and offering rationale (Adeyemo, 2012; Ming-Tak & Wai-Shing, 2008; Kern & Clemens, 2007).

In the complex interplay of a multitude of factors, such as course content, faculty, academic and social experiences and so on, which enable student transformation, *Teacher Efficacy is the common denominator*. In fact, Transformative Quality is a result of this interplay, which would otherwise not be possible in a "classroom vacuum" (Loes et al., 2019, p. 906; Terenzini, Springer, Pascarella, & Nora, 1995). This implies, that infrastructure, teaching and learning aids, effective institutional management, and even advanced curriculum and pedagogy would remain futile, without Teacher Efficacy.

Another important point to note is that, the implications of pursuing *transformation* or Transformative Quality are much more profound and multifarious for faculty, in ways such as *how* to instruct, *how* to manage classrooms, *how* to engage students and overall, *how* to be effective teachers (Fourie, 1999). Thus, in the endeavour of pursuing Transformative Quality, it is important to examine the Teacher Efficacy. This crucial construct, having a long-lasting

cumulative impact, can have significant consequences for student transformations. Furthermore, since the dimensions of Transformative Quality are teachable, the role of Teacher Efficacy becomes even more vital. Faculty becomes an important bearer of the quality of the institution, since these private-unaided HEIs are predominantly teaching institutions (refer Figure 1.1). The interplay among teachers' efficacy for instructional strategies, managing classrooms and engaging students, can have varying impacts on the different dimensions of Transformative Quality. Thus, for establishing a policy framework to address quality issues in private-unaided HEIs, this research investigates the impact of Teacher Efficacy on Transformative Quality in the context of private-unaided HEIs.

3.5 Revisiting the Research Objectives

The primary objective of the research is to address quality issues in private-unaided higher education institutions (HEIs). This is first done by recognizing the questionability of the current self-fulfilling quality measures, and proffering a quality measure which can transcend the dichotomies (access-quality, inclusiveness-excellence) afflicting the private-unaided HEIs (refer Figure 2.1), by further investigating the perspectives of the front-line faculty. Furthermore, this research investigates the role of Teacher Efficacy in Transformative Quality, which can provide a policy framework for quality improvement on specific teachable dimensions. Recognizing a teachable moment gives suitable opportunity to introduce and enhance in students these dimensions (Peters, Geursen, & Lunenberg, 2018). These dimensions contribute towards Transformative Quality in private-unaided HEIs, which are predominantly teaching HEIs (refer Figure 1.1). Table 3.2 enlists the research gaps emanating from literature review done in Chapters 2 and 3, leading to Research Objectives.

Research Gaps from Literature Review	The Research Problem	Research Objectives
Current quality measures are questionable in a dichotomous higher education system. The private-unaided higher education institutions continue to rank at the bottom.	A quality measure is needed which can address the access-quality divide and inclusiveness-excellence divide prevalent in higher education.	To define and develop the definition of 'quality' in the context of private-unaided higher education institutions in a dichotomous higher education system from the perspective of front-line faculty. To investigate the relationship between Teacher Efficacy and redefined Transformative Quality in private-unaided higher education institutions.
(i)Literature is bereft of research on faculty perspectives on quality, as opposed to faculty experiences, which are aplenty. (ii) Front-line faculty play a crucial role in quality of an institution and have a great influence on student transformation because of their close interaction. (iii)There is superficial engagement of faculty in quality activities, because the institutional management views quality more positively than faculty. (iv)There is a clear divide on the espoused emphasis on improvement and actual emphasis on accountability, despite of several quality mechanisms in place.	There is a need to contribute towards literature on faculty perspectives on quality. There is a need to address the stakeholder-perspective gap. There is a need to address the rhetoric-reality gap.	
Since the dimensions of Transformative Quality are teachable, Teacher Efficacy is supremely important. Prior literature indicates that it impacts student outcomes. Teacher Efficacy can have long-term impact on students, thus effecting their transformative process.	There is a need to investigate role of Teacher Efficacy and Transformative Quality.	To propose a policy framework for enabling improvement in the quality of private-unaided higher education institutions for varying stakeholders in higher education.

Table 3.2: Revisiting Research Objectives

(Source: Author)

The right column in Table 3.2 listing the research objectives can be reiterated as the following:

1. To define and develop quality in the context of private-unaided higher education institutions as Transformative Quality by investigating front-line faculty perspectives, through a detailed literature review and scale development.
2. To investigate the relationship between Teacher Efficacy and Transformative Quality from front-line faculty perspective using Structural Equation Modeling.
3. To propose a policy framework to enable quality improvement in the quality of private-unaided higher education institutions for varying stakeholders in higher education.

3.6 The Research Framework

The literature review suggests that an empirical model of redefined quality, that is, Transformative Quality in higher education (HE) from a front-line faculty's perspective can enable redressal of quality issues faced in demand-absorbing higher education institutions (HEIs) (refer Table 3.2). For the purpose of this research, a comprehensive model of Transformative Quality is developed, thus partially addressing Objective 1 of this research. It is anticipated that it will be able to transcend existing quality measures currently used in a dichotomous HE system, thus addressing access-quality and inclusiveness-excellence gap (refer Table 3.2). Moreover, this model can enable bridging of rhetoric-reality gap and stakeholder-perspective gap, by investigating faculty perspective, and addressing Objectives 1 and 2 of this research. The role of Teacher Efficacy on Transformative Quality in higher education is further investigated, results of which can provide a policy framework, for quality improvement, thus addressing Objective 3 of this research (refer Table 3.2).

The role of faculty in transformation, or in pursuing Transformative Quality is indispensable (Waghid, 2002). Since the private-unaided HEIs are primarily teaching institutions, it is important to particularly recognise the importance of *Teacher Efficacy* of front-line faculty in these institutions. Literature reports that Teachers' Efficacy in classroom is associated with social-emotional learning (SEL) in classrooms (Jennings & Greenberg, 2009). Embedding effective intervention strategies in teaching can help faculty in playing a crucial role in enhancing *emotional stability* among students (Kennedy, 2020). *Classroom management* is also associated with emotional stability among students, and can play a vital role in aiding students to handle different problems and improvising their social skills (Leblanc & Skaruppa, 1997).

Furthermore, teachers' confidence in their ability to *manage classrooms*, *engage students* and their *instructional strategies* are associated with job satisfaction and dedication to teach (Collie, Shapka, & Perry, 2012). This overall teaching efficacy has profound effects on the *critical thinking* of students (Tsui, 2001). Research also shows that teachers' perceived sense of efficacy bears association with the achievements and behaviour of students (Caprara, Barbaranelli, Steca, & Malone, 2006; Ross, 1998).

Further research into this construct has revealed that Teacher Efficacy in the form of engaging students through effective instructional teaching strategies, is associated with *confidence* building among students (Sampsel, 2013) and *critical thinking* abilities among them (Cortright,

Collins, & DiCarlo, 2005). Moreover, literature indicates an association between classroom management, and resulting opportunities for students to reflect during the course of the program (Campbell, 2009).

Prior research has shown that Teacher Efficacy, particularly through student engagement has impacts on *prejudices* among students and student participation in community programs (Chang, 2002; Gurin, Dey, Hurtado, & Gurin, 2002; Milem, 1994). Teacher Efficacy is also typically associated with teaching students to develop understanding for presented cases or problems, identifying previous assumptions and *problem-solving skills* among students (Dolmans, Wolfhagen, Scherpbier, & Vleuten, 2003).

Moreover, dimensions of Teacher Efficacy such as engaging students and extending dialogue between faculty and students, is closely associated with developing perspectives about the big picture and developing *self-awareness* (Cook-Sather, Bovill, & Felten, 2014).

Faculty interaction with students also has an impact on general cognitive abilities among students (Terenzini, Springer, Pascarella, & Nora, 1995; Pace, 1990). Rich literature evidences the impact of effective instructional strategies, classroom management and student engagement on student outcomes, such as *acquisition and enhancement of skills, abilities and knowledge* (Martin & Bolliger, 2018; Pianta, Hamre, & Allen, 2012; Mayer, 2002).

Figure 3.1 illustrates the Teacher Efficacy-Transformative Quality (TE-TRF) model, wherein Transformative Quality is the dependent variable, and Teacher Efficacy is the independent variable. The dependent variable is further defined by several sub-dimensions. This model is developed by investigating front-line faculty perspectives, as given in Table 3.2.

Since these constructs are related and have profound impacts, it is important to investigate the proposed Teacher Efficacy-Transformative Quality (TE-TRF) model. It has been depicted in Figure 3.1 as Teacher Efficacy, comprising of *classroom management*, *student engagement* and *instructional strategies*, and Transformative Quality, comprising of *emotional stability, confidence, critical thinking, self-awareness, problem-solving skills, transcending prejudices* and *acquisition and increase in knowledge, skills and abilities*.

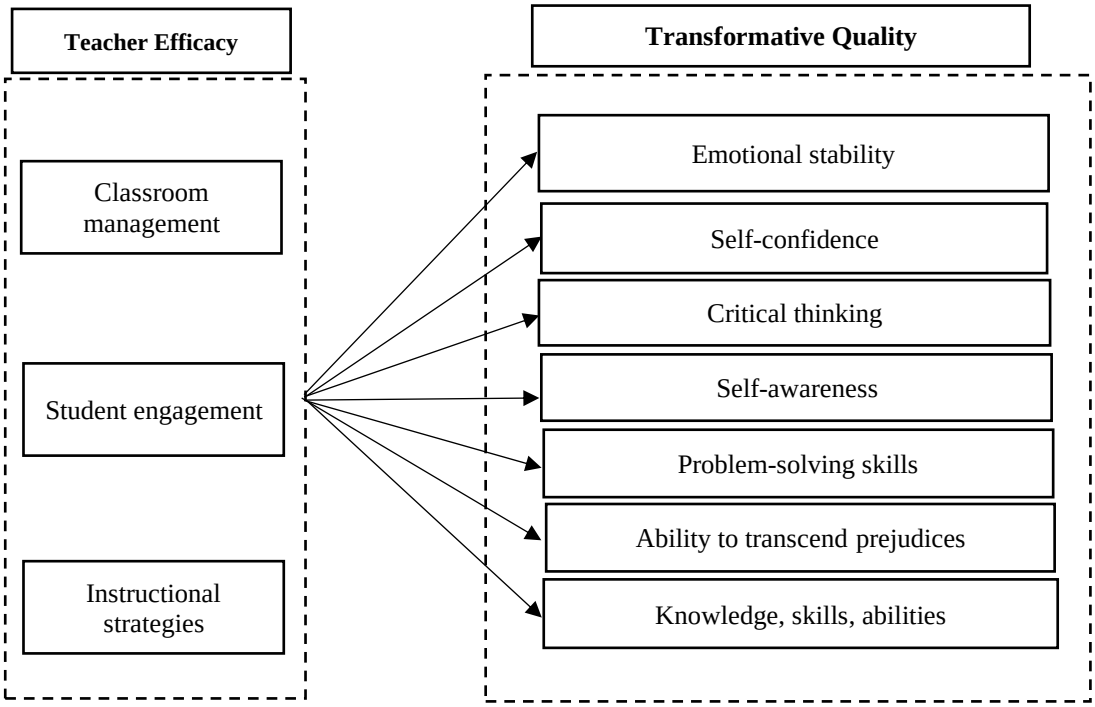


Figure 3.1: Teacher Efficacy-Transformative Quality (TE-TRF) Model

3.7 Concluding Remarks

This chapter discusses the influence of Teacher Efficacy in contributing towards the Transformative Quality in private-unaided higher education institutions. It enlists research gaps, and research objectives to address them, thus leading to the Teacher Efficacy-Transformative Quality (TE-TRF) model as the framework for this research (refer Figure 3.1). Chapter 2 partially addressed Research Objective 1 by critiquing existing quality measures for private-unaided higher education institutions. Figure 3.1 endeavours to completely address Research Objectives 1 and 2. For this purpose, a quantitative research has been conducted to test the proposed model, which has been discussed in Chapter 4.

Chapter 4

Research Methodology

"Methodology should not be a fixed track to a fixed destination but a conversation about everything that could be made of happen."
-J.C. Jones

The previous chapter provided a research framework with well-defined constructs of interest, that is, Teacher Efficacy as independent variable and Transformative Quality as the dependent variable. After defining the independent and dependent variables, a blueprint which guides how research ought to further proceed is required. This blueprint is the research methodology, which is typically characterised by a systematic plan (Carter & Little, 2007). The research design on the other hand, includes the methods and procedures for collecting and analysing data (Malhotra, 2007). As discussed in Chapter 2, the purpose of conducting this research is to address quality issues plaguing private-unaided higher education institutions (HEIs). This research proposes that a new quality measure, Transformative Quality, investigated though the perspectives of front-line faculty can transcend the dichotomous HE system (refer Figure 2.1). Furthermore, an investigation of the impact of Teacher Efficacy on Transformative Quality can provide a policy framework for addressing quality issues afflicting this sector (refer Figure 3.1). This chapter provides a detailed discussion of the methodology used for carrying out the research through its various phases. It further elucidates the tools, techniques and procedures used for analysing and describing the research study (Carter & Little, 2007).

The objective of the research methodology is to pursue a research problem in a scientific manner and achieve a valid and reliable result (Malhotra, 2007). This research comprises data collection from faculty members, across thirteen private-unaided HEIs. The techniques applied are quantitative in nature. For collection of primary data, an instrument to measure the redefined quality, that is, Transformative Quality scale in higher education has been formulated. This well-structured instrument, based on varying Likert scales for different dimensions, has been administered to the respondents. Similarly, a measure for Teacher Efficacy on a nine-point Likert scale has been used. For the purpose of fulfilling the objectives, statistical tools such as Exploratory Factor Analysis, Confirmatory Factor Analysis and Structural Equation Modeling have been employed.

4.1 The Research Methodology

Keeping in mind the objectives and scope of the study, a quantitative methodology is employed for the research. Research Objective 1 directs attention towards the need for redefining quality as Transformative Quality, and developing it as a quality measure transcending a dichotomous higher education system. The first part has been addressed through an extensive literature review. The development of the redefined quality measure requires scale development for which quantitative methodology is appropriate. Furthermore, for addressing Research Objective 2, structural equation modelling is most appropriate to investigate the impact of Teacher Efficacy in Transformative Quality of private-unaided HEIs. This is done using Structural Equation Modelling, as explained in detail in forthcoming sections. Research Objective 3 is fulfilled by situating the results of the generated hypotheses in the wider body of knowledge. The objectives and methodology are explained as following:

Research Objective 1: To define and develop quality in the context of private-unaided higher education institutions as Transformative Quality, in a dichotomous higher education system from front-line faculty perspective.

Methodology: A thorough literature review in Chapters 2 and 3 led to redefinition of quality as Transformative Quality for private-unaided higher education institutions. In light of the questionable self-fulfilling quality measures, it has been proposed that Transformative Quality measure can transcend the dichotomous HE system. However, there are no current reliable instruments to measure Transformative Quality. Thus, a new scale is needed. Item generation for questionnaire will be achieved through literature review and expert validity interactions. Data for pilot testing will be collected on the preliminary scale, and tested for content and face validity. Further, reliability will be checked through Cronbach's alpha, and improved if need be, through item-to-total correlation. This will further be followed by Phase I of data collection for the purpose of factor analysis, to assess the construct validity of the scale. Thereafter, a revised questionnaire will be administered for Phase II of data collection, in order to assess the measurement model for convergent validity, discriminant validity and composite reliability of the scale using Confirmatory Factor Analysis.

Research Objective 2: To investigate the relationship between Teacher Efficacy and Transformative Quality from front-line faculty perspective.

Methodology: Item generation for questionnaire for Teacher Efficacy will be achieved through literature review and expert validity interactions, resulting in development of a preliminary

scale. Data for pilot testing will be collected on the preliminary scale, and tested for content and face validity. Furthermore, reliabilities of these items will be checked using Cronbach's alpha, and improved through item-to-total correlation if needed. Thereafter, Phase I of data collection will allow factor analysis, and provide construct validity of the scale. Thereafter, a revised questionnaire will be administered for Phase II of data collection, in order to assess the measurement model for convergent validity, discriminant validity and composite reliability of the scale using Confirmatory Factor Analysis. The hypotheses will be generated taking into account new factors of both the aforementioned constructs. Structural Equation Modeling will be used to understand the impact of Teacher Efficacy on Transformative Quality in higher education.

Research Objective 3: To propose a policy framework to enable improvement in the quality of private-unaided higher education institutions.

Methodology: The empirical results of generated hypotheses will indicate the specific role of Teacher Efficacy and Transformative Quality. Situating the results of the hypotheses in the wider body of knowledge will provide a foundation for enabling policy framework for addressing specific issues afflicting private-unaided higher education institutions, as depicted in Figure 1.2.

4.1.2 The Methodological Process

Various stages of this research have been depicted in Figure 4.1. The first step of the methodological process followed in this research is conducting an in-depth literature review as given in Chapters 2 and 3. It brings clarity on concepts of quality in higher education, the questionability of existing quality measures, particularly in post-massification HE systems, the theoretical lens for gaining research insights into issues afflicting private-unaided HEIs, Transformative Quality as panacea, investigation of front-line faculty perspectives on quality and the role of Teacher Efficacy in Transformative Quality in higher education. A thorough literature review sets ground for revisiting research objectives in Chapter 3. It further leads to development of a research design for addressing each research objective in Chapter 4. The research design comprises two phases of data collection as depicted in Figure 4.1.

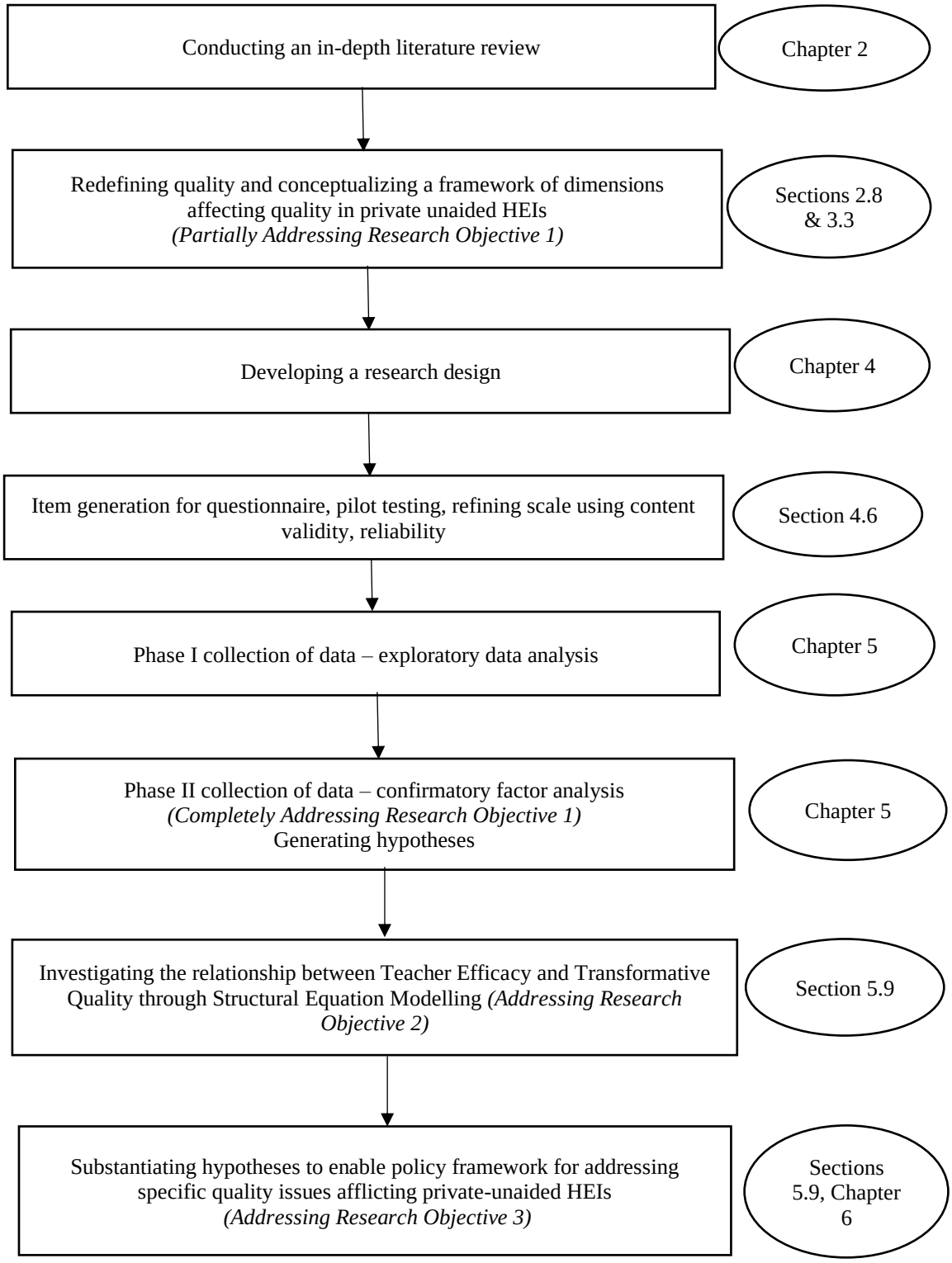


Figure 4.1: The Methodological Process (Source: Author)

4.2 Unit of Analysis

The foremost step of analyzing data is defining the unit of analysis. This implies to the individual or organization which the researcher collects data (Kumar, 2018). For this research, data were collected from faculty, thus defining faculty members employed in thirteen private-unaided higher education institutions across North-Western India as the unit of analysis for this research. The faculty were asked to fill questionnaires pertaining to Teacher Efficacy and dimensions of Transformative Quality. Their demographic data, which comprised information on educational level, years of experience, designation and computer training was also taken.

4.3 Population and Respondents

With the proliferation of private-unaided higher education institutions (HEIs) in India, there are now 25,641 private-unaided HEIs, with an enrolment of 1,19,61,980 students, and total of 12,84,755 employed faculty (AISHE, 2019; AISHE, 2018). There is no doubt that there has been tremendous higher education (HE) expansion, and in particular, private HE expansion, the latter notably including private-unaided HEIs. In the present research, the scope has been confined to private-unaided HEIs, which are affiliated to state universities (refer Figure 1.1). The rationale for selecting these institutions is to address issues specific to private-unaided HE sector, from the perspective of front-line faculty (refer Figure 2.1). Thus, front-line faculty working in thirteen such institutions have been selected as target population for research.

4.4 Sample size

In India, 77.8% of the higher education institutions (HEIs) are privately managed, out of which 63.4% are private unaided (refer Figure 1.1). Out of 24,541 private-unaided HEIs in India, Punjab (a State of India situated in North-Western region) has 630 alone; having an enrolment of 2,19,621 students (AISHE, 2019). The share of private-unaided HEIs in Punjab is 63%, as compared to the private aided colleges and government colleges, which is 18% and 19% respectively (AISHE, 2018). Along with an explosive growth in private-unaided HEIs, a similar trend has been observed in the growth of faculty numbers. In fact, due to privatisation and explosion of private-unaided HEIs, particularly in the technical sector, India is now the third largest reservoir of scientific and technical professional manpower in the world (Sreeramamurty, Sailaja, & Appalanaid, 2012). Out of a national total of 12,84,755 employed faculty members, the number of employed faculty in HEIs in Punjab is 46,284 (AISHE, 2018).

This research administered a total of 715 questionnaires, out of which 45 invalid questionnaires were removed. Thus, this research selects a total of 670 valid respondents for collecting data from various private-unaided HEIs, located in many cities and peripheral towns in Punjab. The purpose of selecting Punjab as a sample is that, Punjab, like other states in the country is reeling under post-massification effects. In the year 2019, 56,582 seats out of 90,415 remained vacant in private unaided HEIs in Punjab (Kaur, 2019). These resource-starved institutions, though approved by valid regulatory agency AICTE (refer Figure 1.1), continue to rank among the lowest year after year in India. Initially, in the higher educational landscape, these private-unaided HEIs were majorly access providers, however, now they are grappling with severe quality issues and gaps as indicated in Figure 1.2.

Therefore, by using North-Western India (Punjab) as a sample for this research, a realistic understanding of issues plaguing private-unaided HEIs is drawn, and a new quality measure which can transcend a dichotomous HE system is proposed. Another reason for choosing Punjab is based on practical considerations, since the researcher is based in Punjab and has access to private-unaided HEIs in the stated region.

The goal of addressing research objectives by surveying using a questionnaire is to:

- Collect data using the questionnaire as a survey instrument and validating it.
- Attain the required input by measuring variables quantitatively and testing the generated hypotheses.

4.5 Sampling and Data Collection

Sampling frame specifies the criteria for selecting sites and/or subjects capable of answering the research question in a study (Devers & Frankel, 2000). The faculty employed in All India Council for Technical Education (AICTE)-approved private-unaided higher education institutions (HEIs) (refer Figure 1.1) across different cities and towns in North-Western India (Punjab) were selected for the research. The faculty members differed in designation and years of work experience. With a goal of maximising heterogenous patterns in a particular context, purposive sampling is most desirable (Erlandson, Harris, Skipper, & Allen, 1993). In this non-probability technique, the researcher has a deliberate participant choice, due to the qualities the participant possesses (Etikan, Musa, & Alkassim, 2015). Hence, by specifically selecting faculty working in the private-unaided HE sector, this research aims to propose a quality measure which can address access-quality and inclusiveness-excellence gap synonymous with

this sector, as well as address the rhetoric-reality divide and stakeholder-perspective divide (refer Figure 2.1).

Pilot Testing

Pilot testing was first done on 100 respondents. Content validity was pursued and reliabilities of all the items of the instrument were checked. Ethical clearance was obtained from the Institutional Review Board before administering the questionnaire. Questionnaires were administered to faculty across thirteen private-unaided higher education institutions, through hard copies. Anonymity and use of pseudo-names were assured. A brief background of the research was given to the faculty, to rein in their interest.

For this research, a total of 715 questionnaires were administered between the time period September 2019 to February 2020 to faculty members working in private-unaided HEIs, out of which, 45 questionnaires were invalid owing to missing, unengaged and incomplete responses. Thereafter, 670 questionnaires were found complete and valid . This collectively formed the Phase I and Phase II of data collection. Alumni networking and personal visits helped in facilitating meetings with faculty. Some faculty members did not wish to participate. The questionnaires were administered voluntarily.

A bigger sample size is preferred for better target population representation and a smaller sampling error (Grossnickle & Raskin, 2001). Ideally, the sample size should be at least five times the number of total items (Bollen, 1989). Hence, data was collected from 350 faculty members for an initial pool of 53 items in Phase I (refer Appendix 2 for questionnaire). It was followed by Phase II of data collection from 320 faculty members, consisting of a pool of 35 items, attained after item deletion through content validity by experts and statistical techniques such as factor analysis (refer Appendix 3 for questionnaire).

4.6 Measuring Transformative Quality and Teacher Efficacy

The constructs of the research, that is, Transformative Quality and Teacher Efficacy (refer Figure 3.1), and the stakeholders for the research, that is, front-line faculty were identified (refer Chapter 2). The questionnaire comprised three sections, one on Teacher Efficacy, second on Transformative Quality and third, on demographic data (refer Appendix 2). The collected information was saved in Excel sheets, in the standardized manner of conducting statistical tests.

The questionnaire design process began with identifying items of Teacher Efficacy and Transformative Quality from literature, and also in consultation with academic and industry experts. Questionnaire development was conducted to record the responses, and attain information which enables achievement of research objectives. This procedure was conducted in multiple phases and is discussed in detail in the following section.

4.6.1 Scale Formation

Scaling is a method of quantifying a particular phenomenon, in order to address a main research objective (DeVellis, 2017). This is done by first identifying the construct, and then generating items relevant to the identified construct.

Construct Identification

As discussed in Chapter 3, the seven dimensions of the proposed Transformative Quality in higher education were used as a starting point for identifying constructs (Teeroovengadum, Kamalanabhan, & Seebaluck, 2016). Each of these dimensions signify a complex psychological construct. Comprehensive literature review was conducted to elaborate its specific dimensions (Refer Table 3.1). Literature was also searched to conceptualize Teacher Efficacy (Refer Section 3.6). This comprehensive literature review formed the basis for the proposed research framework (refer Figure 3.1). After identifying constructs, it is pertinent to identify statements that could effectively capture faculty perspectives on Transformative Quality.

Item Generation

This step entails generation of items which capture the specified domain (Churchill, 1979). The dimensions of Transformative Quality in higher education were identified as latent variables in the research framework. "The underlying phenomenon or construct that a scale is intended to reflect" is referred to as a latent variable (DeVellis, 2017, p. 24). The goal was to develop a set of items to tap each dimension of the constructs in the research, that is, Transformative Quality in higher education and Teacher Efficacy (Churchill, 1979).

The benefits of using established scales as a starting point in the scale development process are well-established. Therefore, measures for Teacher Efficacy were adapted from Tschannen & Hoy's (2001) Ohio State Teacher Efficacy Scale; and for measures of each of the dimensions

of Transformative Quality, extensive literature was reviewed and statements were reconstructed in consultation with academic experts (refer Appendix I).

Items related to Teacher Efficacy were largely derived from the work of Tschannen & Hoy (2001), since it is a widely used measure, and is well-suited to empirically investigate the construct from the front-line faculty perspectives in this research. The questionnaire lay emphasis on understanding faculty's perception on:

- how effectively they can *manage classrooms*;
- how effectively they can control disruptive or noisy students;
- their ability to establish a conducive atmosphere for teaching;
- how effectively they can *instruct*;
- their ability to use different types of assessment and teaching strategies;
- how effectively they were able to *engage students in their classroom*;
- their ability to give their students appropriate challenges, and;
- their ability to address students' confusions or concerns.

Since Transformative Quality in higher education is a relatively new concept, very less academic work has been done in this domain. To the best of our knowledge, Teerovengadum et al. (2015), were the first to empirically define Transformative Quality in higher education (refer Chapter 3), even though Transformative Quality was well-defined in Harvey and Green's (1993) seminal work on quality. Thus, the items for Transformative Quality were designed based on a critical review of literature and argumentative reasoning. Studies from various peer-reviewed journal articles, published conference proceedings, dissertations and working papers were referred. Databases for search included Google Scholar, Education Resources Information Center, EBSCO database, and journals specific to "higher education", and/or "education", and management. Permutations and combinations of specific keywords, such as "massification", "quality", "access", "inclusiveness", "excellence", "privatisation", "transformative quality" were used to search relevant articles. Most of the studies were referred from journals such as *Higher Education*, *Higher Education Quarterly*, *Quality in Higher Education*, *International Journal of Educational Management*, *Studies in Higher Education*, *Economic and Political Weekly*, *Asia Pacific Education Review* and *Academy of Management Learning & Education.* The selected timeline was between 1990 and 2019. Though limited articles were found in 1990s, but it was a crucial time period which marked the advent of privatisation of higher education in India. In mid-2000s, there was a surge in the articles

published on quality in private-unaided HEIs. Contemporary themes at prestigious conferences such as Academy of Management, Association for Institutional Research and The European Higher Education Society, FICCI reports and newspapers were studied as well. This iterative process of developing concepts through reading articles, engaging in discussions with experts, led to the designing of a well-structured questionnaire to assess Transformative Quality from front-line faculty's perspective. The questionnaire lay emphasis on understanding faculty's perceptions on:

- *emotional stability* of students, their state of being calm, relaxed, not anxious in context of the coursework, teaching and learning processes, and other extra-curricular activities;
- *confidence* among students with respect to their ability to succeed academically;
- the ability of students to *think critically*, effectively critique assumptions and presuppositions, without reaching hasty conclusions;
- *self-awareness among students*; their consciousness with regards to themselves, others and the environment;
- the *ability to solve problems*; the tendency to systematically engage with a problem or try to avoid it; the behaviour of students when faced with a problem;
- the ability of students to *transcend common prejudices*, and;
- the *acquisition of skills, abilities and knowledge* among students to increase their employability.

Therefore, referring to existing literature, an initial bank of total 59 items that captured dimensions of Transformative Quality and Teacher Efficacy was developed (refer Appendix 1). These 59 items were further refined through content validity and reduced to 53 items and presented as a preliminary instrument for pilot testing (Appendix 2).

4.7 Reliability and Validity of Research Instruments

A good measurement is typically characterised by its reliability and validity, which means that it should be internally consistent, and also have high correlation between item scores and scale scores (Bernstein & Putnam, 1986). Validity implies to the importance of a model being able to measure what it intends to. The idea is to find "the degree to which an instrument has an appropriate sample of items for the construct being measured" (Polit & Beck, 2004, p. 423). The main goal is to check whether or not the instrument capably samples the domain of interest

when measuring a particular phenomenon (Wynd, Schmidt, & Schaefer, 2003). It is largely based on judgement and takes place in two phases. The a priori phase consists of efforts by the scale or instrument developer to design through clear conceptualisation and careful analysis (refer Section 4.6.1). The second phase, a posteriori effort consists of evaluation for relevance by experts in the domain field (Polit & Beck, 2006; Mastaglia, Toye, & Kristjanson, 2003). This research pursued content validity by first providing the preliminary questionnaire to each of the experts. The content validity in this case was provided by a panel of nine experts. This expert panel comprised five academicians, two members belonging to institutional management, and two industry experts. Thereafter, the experts were asked to respond on (1) the dimension they believe an item belongs to, (2) the relevance of the item with its dimension, and (3) clarity on the items. Based on this procedure, confusing, ambiguous and repetitive items were removed, thus making the resulting questionnaire more parsimonious. This resulted in a temporary research instrument, named TRFQ_V1 comprising 53 items (refer Appendix 2 for questionnaire). The rationale of items removal has been discussed in the succeeding section.

Items removal

The experts suggested a deletion of seven items, in addition to reconstruction of one item into two separate items. In the questionnaire being used for the present research, items such as "*How well can you keep a few problem students from ruining an entire lesson?*" was removed because a similar statement, that is "*How much can you do to calm a student who is disruptive or noisy?*" had been included in the instrument. Item "*How responsive is the university (college) to industry evaluations about the curriculum?*" was also removed, because the experts were of the collective view that private-unaided higher education institutions, since they were affiliated to state universities, could not alter the curriculum. Hence, because of lack of relevancy to the context, this item was deleted. Statements "*As long as the students can remember handout material for examinations, they do not have to think too much*", "*This course at the university (college) has challenged some of my students' firmly held beliefs*", and "*Presently, my students are conscious of all objects around them*" were removed on account of being repetitive. Hence, on grounds of redundancy, these items were deleted from the questionnaire. Item "*The ambience of the university (college) is conducive for research*" was unanimously deleted from the questionnaire because the sample institutions in context are essentially teaching institutions. They lack research component. Hence, because of lack of relevancy, this item was removed. Item "*The students are given value for money in this university (college)*" was recommended

for removal by experts, since the very essence of transformation conflicted with the notion of 'value for money', since the latter emphasises on economic exchange and financial outcomes, rather than educational outcomes (refer Table 2.2). Double-barrelled statements were addressed, for instance, experts suggested reconstruction of the statement, "*How much can you do to control disruptive behaviour in the classroom and establish a classroom management system?*" The identified statements were then reconstructed into two separate items, that is, "*How much can you do to control disruptive behaviour in the classroom?*" and "*How well can you establish a classroom management system with each group of students?*" This resulted in a preliminary instrument, named TRFQ_V1, comprising of 53 items in all (refer Appendix 2 for questionnaire).

Thereafter, the reliability of each item was checked using Cronbach's alpha. Typically, Cronbach's alpha is used when there are multiple Likert-type items, which are summed to take a composite score. The 53-item questionnaire was administered to 100 faculty members, employed in AICTE-approved private-unaided higher education institutions, for the purpose of testing the reliability and validity of the items. The instrument administered for pilot testing has been provided in Appendix 2. The faculty members were personally approached, and the researcher remained in the boardroom while administering the questionnaire. A brief background of the research was given to the faculty to rein in their interest. After collecting the data, values of Cronbach's alpha (α) and factor loadings for each item were recorded. The internal consistency in the present research for Transformative Quality scale and Teacher Efficacy were measured through Cronbach's α. Cronbach's α score is a measure of internal consistency reliability, with a range between 0 and 1 (Gliem & Gliem, 2003). A higher alpha would indicate greater internal consistency of different items which are designed to measure multiple constructs, and thus greater reliability. Cronbach's α values are usually the first measures which are used to assess the quality of an instrument (Churchill, 1979). Usually values above 0.7 are considered satisfactory (Nunnally & Bernstein, 1994). The Cronbach's alpha values for all items of Transformative Quality measure are shown in Table 4.1.

Dimensions of Transformative Quality	Items	Corrected Item-to-Total Correlation	Alpha if item deleted	Cronbach's alpha
Emotional Stability	Coursework, teaching and learning processes and other extra-curricular activities at our university (college) makes …			0.818
	- my students take offence easily.	0.510	0.801	
	- my students often feel blue (sad)	0.550	0.795	
	- my students get caught up in their own problems	0.465	0.807	
	- my students worry about things.	0.593	0.788	
	- my students get overwhelmed by emotions.	0.435	0.810	
	- my students grumble about things.	0.524	0.798	
	- my students feel threatened easily.	0.573	0.791	
	- my students get upset easily.	0.640	0.783	
Confidence	I am confident that my students will be able to …			0.853
	-engage in profitable academic debate with their peers.	0.607	0.848	
	-produce coursework at the required standard.	0.759	0.786	
	-pass assessments at the first step.	0.694	0.813	
	-remain adequately motivated throughout.	0.720	0.802	
Critical Thinking	-This course at the university (college) requires students to understand concepts taught by us (lecturers).	0.845	0.925	0.939
	-My students sometimes question the way others do something and try to think of a better way.	0.735	0.935	
	-As a result of this course at this university (college), the students have changed the way they look at themselves.	0.754	0.933	
	-To pass this course at the university (college), the students need to understand the content.	0.828	0.927	
	-My students often reflect on their actions to see whether they could have improved on what they did.	0.829	0.927	
	-As a result of this course at this university (college), my students have changed their normal way of doing things.	0.824	0.927	

	-My students often re-apprise their experience so that they can learn from it and improve for their next performance.	0.783	0.931	
Self-awareness	Presently, my students are…			0.809
	-self-conscious about the way they look.	0.484	0.829	
	-about what is going on around them.	0.772	0.684	
	-reflective about their life.	0.628	0.761	
	-concerned about what other people think of them.	0.639	0.754	
Problem-solving skills	-When a solution to a problem didn't work, my students examine why it didn't work.	0.489	0.846	0.854
	-When my students are confronted with a complex problem, they try to develop a strategy to collect information so that they can define exactly what the problem is.	0.351	0.860	
	-When the first efforts of my students fail, they do not become uneasy about their ability to handle the situation.	0.416	0.852	
	-After my students have solved a problem, they analyse what went right or what went wrong.	0.419	0.852	
	-My students make decisions and are happy with them later.	0.658	0.832	
	-My students generally do not go with the next good idea that comes to their mind.	0.669	0.830	
	-When my students make plans to solve a problem, they are almost certain that they can make them work.	0.656	0.831	
	-My students try to predict the overall result of carrying out a particular course of action.	0.620	0.835	
	-Given enough time and effort, my students believe that they can solve most problems that confront them.	0.679	0.829	
	-When faced with a novel situation, my students have confidence that they can handle problems that may arise.	0.691	0.828	
Transcending prejudices	The university (college) has enabled my students to transcend their prejudices against…			0.811
	-age.	0.565	0.832	
	-skin-tone.	0.738	0.656	
	-gender-career.	0.689	0.711	

Skills	-The university (college) has helped my students acquire adequate knowledge and skills for suture job. - The university (college) has helped my students to increase their knowledge, skills and abilities.	0.551 0.551		0.709

Table 4.1: Reliabilities of Items for Measuring Transformative Quality

Table 4.1 indicates the Cronbach alpha values of all items of the dimensions of Transformative Quality instrument are above 0.7, thus indicating reliability of the instrument. Similarly, reliabilities for all items of Teacher Efficacy were checked using Cronbach's alpha as shown in Table 4.2. The compound value is 0.911, and for each item it is well above the accepted values of 0.70. This indicates that the instrument used for measuring Teacher Efficacy is reliable.

Items	**Corrected Item-to-Total Correlation**	**Alpha if item deleted**	**Cronbach's alpha**
How much can you do to get through to the most difficult students?	.585	.906	.911
To what extent can you provide an alternative explanation or example when students are confused?	.625	.904	
To what extent can you make your expectations clear about student behaviour?	.490	.909	
How well can you respond to difficult questions from your students?	.623	.904	
How much can you use a variety of assessment strategies?	.560	.906	
How much can you do to help your students value learning?	.669	.903	
How much can you gauge student comprehension of what you have taught?	.585	.906	
To what extent can you craft good questions for your students?	.614	.905	
How much can you do to foster student creativity?	.716	.901	
How much can you do to get students to follow classroom rules?	.658	.904	
How much can you do to calm a student who is disruptive or noisy?	.598	.905	

How well can you establish a classroom management system with each group of students?	.557	.906	
How well can you establish routines to keep activities running smoothly?	.636	.904	
How much can you do to control disruptive behaviour in the classroom?	.589	.904	
How well can you provide appropriate challenges for very capable students?	.637	.904	

Table 4.2: Reliabilities of Items for Measuring Teacher Efficacy

Research Instrument: TRFQ_V1

After checking the reliabilities of items of the pilot test, and removing items not relevant to context, the resulting 53-item questionnaire was further refined. The refined preliminary survey instrument, named TRFQ_V1, is based on the measure of ten latent variables (seven dimensions of Transformative Quality; and three dimensions of Teacher Efficacy) (refer Appendix 2). The self-reporting instrument comprises three sections. The items used in Section 1 of the questionnaire are measured using nine-point scale, and Section 2 of the questionnaire comprises items with varying scales (five-point, six-point, seven-point Likert scales). Section 3 of the questionnaire requires the respondent to fill in demographic data, such as academic experience and designation.

A brief introduction to each section was provided to the respondent to address any emanating confusion. Efforts were made to avoid deliberate, misleading, biased questions. Seemingly difficult words and phrases were explained in brackets to enhance comprehension after conducting content validity. Open-ended questions were not included in the survey instrument. The formatting was simple and elegant, and clearly delineated one section from another. Special care was taken to keep in mind the relevance of questions, the language used, their sequence and layout. Double-barrelled statements were also identified and removed on the recommendation of the expert panel. This resulted in a refined, preliminary survey instrument, named TRFQ_V1, as shown in Appendix 2 for administration to faculty members in Phase I of data collection.

4.8 Data Analysis Methods

The results of pilot testing provided a refined preliminary survey instrument TRFQ_V1, comprising 53 items (15 items for Teacher Efficacy and 38 items for Transformative Quality) (refer Appendix 2). Thereafter, two phases of data collection, Phase I and Phase II were

conducted (refer Appendices 2 and 3), results of which are presented in Chapter 5. The collected data were analyzed through sophisticated software packages, namely Statistical Package for Social Science (SPSS Version 25) and Analysis of Moment Structure (AMOS Version 24). SPSS enabled analysis of data in terms of central tendency (mean), and dispersion (standard deviation, skewness, kurtosis). AMOS and SPSS further helped in analysing data for validity of their proposed models and psychometric properties of the scale. The following section briefly describes the research techniques used:

Exploratory factor analysis (EFA)

EFA has been recognised as a powerful tool to measure construct validity (Cavana, Delahaye, & Sekaran, 2001). This was a part of Phase I of data collection. The dataset was screened for basic assumptions underlying EFA, more specifically factorability of data. Pearson's correlation coefficient of 0.3 or greater indicates the existence of meaningful relationships among items. Also, the factorability of data is indicated by the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (Tabachnick & Fidell, 1996). EFA helps in providing the underlying factor structure of the constructs, TE and TRF, thus partially addressing Research Objective 1. Thereafter, the measurement model is examined. Also, attention was paid to assumptions of multivariate normality, that is, skewness should be greater than 2, and kurtosis greater than 7 (West, Finch, & Curran, 1995).

Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis is used to study the validity of the proposed model. CFA allows the researcher to test the relationship of observed variables and their underlying latent constructs (Suhr, 2006). This was a part of Phase II of data collection. CFA helps in confirming the underlying factor structure of the constructs, TE and TRF, thus completely addressing Research Objective 1.

Discriminant Validity and Average Variance Extracted

Discriminant validity is checked to understand how different the latent variables are. The dominant approach for evaluating discriminant validity is Fornell-Larcker criterion (Henseler, Ringle, & Sarstedt, 2015). The average extracted variances greater than the square of their correlation is a necessary condition to satisfy the test (Holmes-Smith, 2001). Checking discriminant validity and average variance extracted values was a part of Phase II data collection.

The goodness-of-fit indices

The goodness-of-fit indices provide information on the overall fit of the measurement model. This research assesses the model fit based on Comparative Fit Index (CFI), Goodness-of-fit Index (GFI), Normed Chi-square, Normalized Fit Indiex (NFI), Non-Normed Fit Index (NNFI), Adjusted Goodness-of-fit Index (AGFI), Root Mean Square Residual (RMR), Standardised Root Mean Square Residual (SRMR) and Root Mean Square Error of Approximation (RMSEA) (Byrne, 2001; Hair, Anderson, Tatham, & Black, 1998).

The Teacher Efficacy-Transformative Quality model (TE-TRF model) has been proposed (Refer Figure 3.1) consisting of ten dimensions in all. Absolute fit indices, such as $\chi 2$ test, RMSEA, GFI, AGFI, RMR and SRMR indicate how well the proposed theory fits the data (Hooper, Coughlan, & Mullen, 2008). Goodness-of-fit is traditionally evaluated using the Chi-square, wherein a low value indicates non-significance, that is, a lower $\chi 2$ value denotes a good model fit (Fornell, 1994). According to Hair et al. (1998), low $\chi 2$ is indicative of not much difference between actual and predicted matrices. This non-significance is confirmed when 'p' values exceed .01 or .05. However, it is important to note that $\chi 2$ is susceptible to sensitivity in case of large samples. It also assumes multivariate normality, which means that a specified model may be rejected if it severely deviates from normal (Hooper, Coughlan, & Mullen, 2008). Therefore, the use of Normed Chi-square is recommended. The smaller the ratio between $\chi 2$ and degrees of freedom, the better is the model fit. Hence, a Normed Chi-square value of 3 or less is considered good (Kline, 1998). Because of the sensitivity of the $\chi 2$ to the sample size (above 200), it becomes important to consider other indices such as CFI, GFI and NNFI. The recommended values are nearly 0.95 for CFI, and around 0.90 for GFI and NNFI.

Root Mean Square Error of Approximation (RMSEA)

RMSEA indicates how well the model fits with the population covariance matrix. RMSEA favours a parsimonious model with lesser parameters. Generally, a cut-off of 0.6 or a strict 0.7 upper limit is acceptable (Steiger, 2007; Hu & Bentler, 1999).

Goodness-of-fit Index (GFI)

GFI depicts the proportion of variance accounted by estimated population covariance (Hooper et al., 2008). 0.90 is recommended usually, however, this index is seldom reported due to its sensitivity (Sharma, Mukherjee, Kumar, & Dillon, 2005). AGFI adjusts the GFI based on degrees of freedom, but both these indices are not as relied upon in a standalone context, as the last few years (Hooper et al., 2008).

Root Mean Square Residual (RMR) and Standardised Root Mean Square Residual (SRMR)

RMR and SRMR represent the square root of the difference between the residuals of the sample covariance matrix and hypothesized covariance model (Hooper et al., 2008). In instruments consisting of varying scales, RMR is harder to interpret, thus SRMR is reported. Values less than 0.05 indicate well-fitting models, however values up to 0.08 are accepted as well (Byrne, 1999; Hu & Bentler, 1999).

Comparative Fit Index (CFI), Normalized Fit Index (NFI), Non-Normed Fit Index (NNFI)

NFI and CFI are incremental indices, which consider the null hypothesis that all variables are uncorrelated (McDonald & Ho, 2002). According to Hu & Bentler (1999), the recommended values for NFI are greater than 0.95. However, because of the sensitivity of this index to the sample size, NNFI (also known as Tucker-Lewis Index (TLI)) may be reported. It is important to bear in mind that NNFI (or TLI) values may indicate a poor fit despite other statistics in cases of small samples (Kline, 2005). Recommended cut off is 0.80 (Hooper et al., 2008). CFI, on the other hand, performs well even for small sample sizes. Values greater than 0.90 indicate that misspecified models do not get accepted (Hu & Bentler, 1999).

Structural Equation Modeling (SEM)

The structural model is evaluated to establish the relationship between Transformative Quality in HE and Teacher Efficacy. The strength of the relationship is determined through the regression weights. By the use of Structural Equation Modeling (SEM), relationships between multiple variables, and structure of interrelationships can be obtained (Hair, Black, Babin, Anderson, & Tatham, 2006). This technique allows understanding the conceptual differences between independent and dependent variables. In this research, SEM helps in investigating the relationship of Teacher Efficacy and Transformative Quality, thus fulfilling Research Objective 2 of this research. The R-squared values help in predicting the impact (in percentage) of Teacher Efficacy on Transformative Quality in HE, and proposing a policy framework to address specific quality issues, thus addressing Research Objective 3 of this research. Table 4.3 summarises the methodology, detailed steps followed for scale development, followed by SEM for investigating the relationship between Teacher Efficacy and Transformative Quality in HE.

Steps	Sample size	Outcomes	Referenced in Chapters
Construct Identification	Not applicable	The literature review revealed: -Transformative Quality comprising seven dimensions. -the need of investigating front-line faculty perspectives. -the importance of Teacher Efficacy (comprising items on Classroom Management, Student Engagement and Instructional Strategies) and the crucial need to understand its impact on Transformative Quality.	Chapters 2 & 3
Item Generation	Not applicable	Thorough literature review, in consultation with experts generated 59 items in total (refer Appendix 1).	Chapter 4
Refining of scale	Not applicable	Content validity led to removal of items: -deletion of 7 items because of redundancy, unsuitability to current context, repetition; and splitting an item into two separate items. -further refinement by making three distinct sections which generated 53 items in all (refer Appendix 2 for questionnaire).	Chapter 4
Collect data for pilot testing	100	Content validity as well as reliability was checked through Cronbach's alpha values.	Chapter 4
Phase I data collection	350	Exploratory factor analysis led to emergence of new factors: -six factors for Transformative Quality. -two factors for Teacher Efficacy. -53 items for research instrument TRFQ_V1 (refer Appendix 2 for questionnaire).	Chapter 5
Phase II data collection	320	Confirmatory factor analysis led to confirmation of: -Five-factor solution (29 items) for Transformative Quality. -Two-factor solution (6 items) for Teacher Efficacy. -35 items in all (refer Appendix 3 for questionnaire). -checking goodness-of-fit indices for both constructs, average variance extracted, discriminant validity for establishing scales for both constructs. -generating hypotheses using new factors.	Chapter 5
Investigate TE-TRF Model	320	Structural Equation Modeling led to: -checking goodness-of-fit indices. -Beta values for hypotheses acceptance or rejection. -R-squared value independent-dependent variables relationship.	Chapter 5

Table 4.3: Detailed Steps of The Research Design

4.9 Concluding Remarks

This chapter described the methods and procedures used in this research. It accounted detailed steps taken to achieve high reliability and validity for the proposed Teacher Efficacy-Transformative Quality (TE-TRF) model. The data sources, collection methods, research

instruments and data analysis procedures are described for statistical clarity. Chapter 5 presents a detailed discussion of Phase I and Phase II data collections, and results of the data analysis for the Teacher Efficacy, Transformative Quality and the impact of the former on the redefined quality.

Chapter 5

Data Analysis and Results

"Analysis is the critical starting point of strategic thinking."
-Kenichi Ohmae

The previous chapter provided a preliminary research instrument *TRFQ_V1,* for measuring Teacher Efficacy and Transformative Quality by investigating front-line faculty perspectives. It also included a pilot test on 100 respondents, which provided satisfactory reliability and validity of the items of the instrument. The present chapter is dedicated towards the discussion of the statistical analysis and results of the research conducted. Data collected from front-line faculty across thirteen private-unaided higher education institutions has been analysed using SPSS (version 25) and AMOS (version 24). Using quantitative methodology, the chapter begins by discussing Transformative Quality scale development.

- SPSS enabled analysis of data in terms of central tendency (mean), and dispersion (standard deviation, skewness, kurtosis), concepts of Item-to-Total correlation, Cronbach's alpha coefficient and exploring the underlying factor structure through Exploratory Factor Analysis, which help in addressing Research Objective 1.
- A similar procedure using SPSS is followed for Teacher Efficacy, which partially helped in addressing Research Objective 2.
- AMOS further helped in analysing data for validity of their proposed models and psychometric properties of the scale. It allowed for Confirmatory Factor Analysis for both constructs of interest, and finally, testing the Teacher Efficacy-Transformative Quality (TE-TRF) model using Structural Equation Modeling in AMOS. This enables hypotheses substantiation, and thus addressing Research Objective 2 completely.
- The results of the generated hypotheses provide a policy framework for addressing issues afflicting private-unaided higher education institutions, thus addressing Research Objective 3.

5.1 Phase I of Data Collection

In order to measure the identified constructs of interest in this research, that is, Teacher Efficacy and Transformative Quality, a temporary research instrument named TRFQ_V1, consisting of

53 items in all was established (refer Appendix 2). For this purpose, Phase I of data collection is conducted. The temporary survey instrument was administered to 370 faculty members across thirteen private-unaided higher education institutions in North-Western India. Out of these, 20 incomplete and unengaged responses were removed. Thereafter, 350 responses from faculty members were used to investigate the factorial validity of Transformative Quality scale in higher education and Teacher Efficacy. The demographic profile of the respondents of the sample are as given in Appendix 4.

5.2 Exploratory Factor Analysis of Transformative Quality

The dimensions of Transformative Quality were identified through Exploratory Factor Analysis (EFA). Front-line faculty members were asked to give responses to various statements pertaining to different dimensions of Transformative Quality on varying Likert scales. The purpose of Phase I data collection was to purify the items in the temporary survey instrument, and provide a more parsimonious conceptual understanding of the underlying latent constructs (Fabrigar, Wegener, MacCallum, & Strahan, 1999).

5.2.1 KMO and Bartlett's Test of Sphericity for Transformative Quality

The Kaiser-Meyer-Olkin's (KMO) Measure of Sampling Adequacy (Tabachnick & Fidell, 1996) indicates adequacy of the sample for conducting factor analysis. Kaiser (1974) has recommended values above 0.9 as superb, values between 0.7 – 0.8 as acceptable and 0.5 as barely accepted. For this research, KMO value was 0.870, which is acceptable (refer Table 5.1). This implies that a sample of 350 respondents for the purpose of factor analysis is adequate. The Bartlett's test of sphericity is an indication of the strength of the relationship among variables. It tests the null hypothesis, that the correlation matrix is an identity matrix. In this research, the Bartlett's Test is significant (.000) since it is less than 0.05, implying that the correlation matrix is not an identity matrix.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.870
Bartlett's Test of Sphericity	Approx. Chi-Square	4168.274
	df	406
	Sig.	.000

Table 5.1: KMO and Bartlett's Test of Sphericity for Transformative Quality

5.2.2 Total Variance for Transformative Quality

Principal Component Analysis with varimax rotation method is used for extracting factors. Statements having factor loadings greater than 0.40 were considered only. Factors with Eigen values greater to one are selected (Gorsuch, 1983). In addition to that, the scree plot indicates a bend after the 11th component number (refer Figure 5.1). According to Cattell's scree test, the point beyond which the plot between eigen values and corresponding factors levels off, indicate the maximum number of factors to be considered (Cattell, 1978). An eleven-factor solution was presented with Eigen values over 1.0. This solution explained a total variance of 71.74%. The communality values are indicative of the proportion of each item's variance explained by the factors. A low communality suggests that the particular item has little in common with other items (Fullagar, 1986). However, in this research, all the communalities were well above 0.5. The final total variance explained after obtaining the rotated component matrix has been shown in Table 5.2.

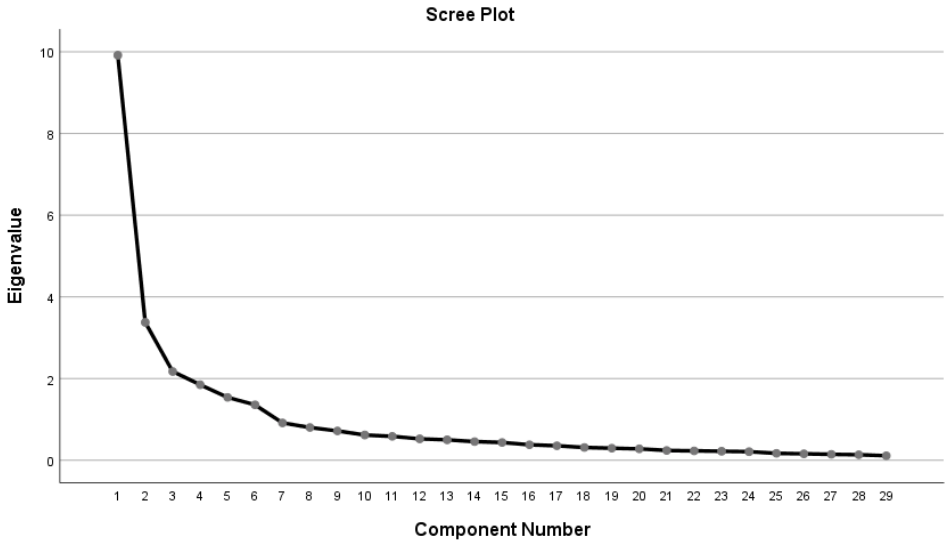


Figure 5.1: Scree Plot for Transformative Quality

5.2.3 Rotated Component Matrix for Transformative Quality

Factor rotation is carried out to arrive at the best "simple structure", wherein each factor consists of a cluster of items having larger loadings relative to other items (Thurstone, 1947). To do so, factors are rotated through Varimax rotation. This orthogonal method of rotation minimizes the number of variables which have high loadings on a factor, thus enhancing the

interpretability of factors (Malhotra, 2007). The factor loadings below 0.4 were suppressed. Also, items which exhibited cross-loadings more than 0.4 were removed, such as items related to Emotional Stability, abbreviated as ES (ES5, ES8, ES1, ES7, ES11), and from Confidence abbreviated as C (C15) were removed. Single items from components (that is, ES8 and ES10) were also removed. ES2 (*The coursework, teaching and learning processes and other extracurricular activities at our university does not make my students change their mood a lot*), from Emotional Stability dimension, was removed to improve the Cronbach's alpha from 0.682 to 0.713. Items with low Item-to-Correlation, that is, below 0.30, are recommended for removal. For the dimension Emotional Stability, ES4, ES12, ES1, ES7, ES8 were removed because their Corrected Item-to-Total Correlation was -.073, 0.053, 0.155, 0.176, 0.220 respectively.

The rotated six-factor solution had a KMO of 0.870, with a total variance explained of 69.68% as shown in Table 5.2. The Scree plot also shows a bend at 6 (refer Figure 5.1). The Cronbach's alpha for all 29 items was reported to be 0.874 (refer Table 5.2).

Total Variance Explained

	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.917	34.195	34.195	9.560	32.966	32.966
2	3.376	11.640	45.835	2.597	8.955	41.920
3	2.172	7.489	53.324	2.435	8.398	50.318
4	1.849	6.375	59.699	2.260	7.794	58.112
5	1.539	5.308	65.008	1.706	5.883	63.995
6	1.357	4.681	69.689	1.651	5.693	69.689

Extraction Method: Principal Component Analysis.

Table 5.2: Total Variance Explained for Transformative Quality

5.2.4 Emergence of New Factors for Transformative Quality

The factor loadings of each statement are also indicative of their validity. Generally factor loadings ≥ 0.40 are acceptable (Hair et al., 2006). Tables 5.3 and 5.4 indicate the reliabilities (Cronbach's alpha) and validities (factor loadings) of items of Transformative Quality. The items of dimensions of Transformative Quality, such as confidence, critical thinking, problem-solving, self-awareness, transcending prejudices, emotional stability and knowledge, skills and

abilities have been abbreviated as TRFC, TRFCT, TRFPS, TRFSA, TRFTP, TRFES and TRFKSA respectively. The abbreviations are followed by numerals which indicate the specific items of the instrument.

Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's alpha
TRFC16	.653	.866	.874
TRFC17	.605	.867	
TRFC18	.569	.867	
TRFCT19	.662	.864	
TRFCT20	.666	.864	
TRFCT21	.640	.865	
TRFCT22	.699	.862	
TRFCT23	.655	.864	
TRFCT24	.638	.865	
TRFCT25	.575	.866	
TRFPS34	.679	.864	
TRFPS35	.685	.863	
TRFPS37	.603	.866	
TRFPS38	.720	.862	
TRFPS39	.764	.861	
TRFSA27	.267	.875	
TRFSA28	.220	.876	
TRFSA29	.278	.875	
TRFPS30	.386	.871	
TRFPS31	.264	.875	
TRFPS32	.281	.874	
TRFPS33	.274	.874	
TRFTP40	-.158	.881	
TRFTP41	-.041	.880	
TRFTP42	-.168	.882	
TRFKSA43	.139	.875	
TRFKSA44	.007	.877	
TRFES3	.118	.877	
TRFES9	.237	.874	

Table 5.3: Reliabilities of New Items of Transformative Quality

Items	Component 1	Component 2	Component 3	Component 4	Component 5	Component 6
TRFC16	.744					
TRFC17	.748					
TRFC18	.760					
TRFCT19	.852					
TRFCT20	.772					
TRFCT21	.781					
TRFCT22	.838					
TRFCT23	.836					
TRFCT24	.801					
TRFCT25	.797					
TRFPS34	.705					
TRFPS35	.768					
TRFPS37	.782					
TRFPS38	.823					
TRFPS39	.847					
TRFSA27		.827				
TRFSA28		.839				
TRFSA29		.864				
TRFPS30			.758			
TRFPS31			.741			
TRFPS32			.702			
TRFPS33			.773			
TRFTP40				.748		
TRFTP41				.888		
TRFTP42				.841		
TRFKSA43					.840	
TRFKSA44					.808	
TRFES3						.872
TRFES9						.804

Table 5.4: Rotated Component Matrix of Transformative Quality

Naming was done on the basis of groups evolved from the rotated component matrix. Component 1 was named as Critical confidence (TRFC16, TRFC17, TRFC18, TRFCT19, TRFCT20, TRFCT21, TRFCT22, TRFCT23, TRFCT24, TRFCT25, TRFPS34, TRFPS35, TRFPS37, TRFPS38, TRFPS39). Component 2 was named as Overall Awareness (TRFSA27, TRFSA28, TRFSA29). Component 3 was named as Approach-avoidance Problem-Solving Skills (TRFPS30, TRFPS31, TRFPS32, TRFPS33). Component 4 was named as Overcoming Prejudices (TRFTP40, TRFTP41, TRFTP42). Component 5 was named as Skilfulness (TRFKSA43, TRFKSA44). Component 6 was named as Emotionality (TRFES3, TRFES9).

These new factors, obtained from EFA, were confirmed for their underlying factor structure by applying CFA. Before proceeding to CFA, these new factors were named as discussed in the following section:

Critical Confidence

The first dimension of Transformative Quality was named Critical Confidence, and it explained the highest variance of 34.19% (refer Table 5.2). The Eigen value of this dimension is 9.917. The statements loaded on this dimension are related to confidence in academic abilities of students, confidence in problem-solving and disposition towards critical thinking and reflection. Academic self-confidence and critical thinking are quite closely related to each other, since developing competence enhances critical thinking abilities, and hence gives confidence as well (Laird, 2005). As a combined component, it also indicates the confidence placed in one's own reasoning and thinking abilities (Facione, Facione, & Sanchez, 1994). The findings of other studies have also shown similar results, wherein problem-based learning can enhance critical thinking skills and help develop confidence among students (Qing, Nia, & Hong, 2010). Thus, this emerging factor has collectively been named as Critical Confidence.

Approach-avoidance Problem-Solving Skills

The second dimension of Transformative Quality was named Approach-avoidance Problem Solving Skills, and it explained the second highest variance of 11.64% (refer Table 5.2). The Eigen value of this dimension is 3.376. The statements loaded on this dimension are related to whether an individual, when faced with a problem, approaches it and engages with it, or avoids it all together. The results of previous studies have been extremely encouraging, wherein approach-avoidance problem solving has been considered as a critical attribute in the current education system (Wismath, Orr, & MacKay, 2015), and eventually help attaining Transformative Quality.

Overall Awareness

The third dimension of Transformative Quality was named Overall Awareness, and it explained variance of 7.48% (refer Table 5.2). The Eigen value of this dimension is 2.172. The statements loaded on this dimension are related to general awareness of the self, others and the surroundings. The findings of other studies have also shown that self-awareness is an important concept for lifelong learning and development (Steiner, 2014), which further contributes towards Transformative Quality in higher education.

Overcoming Prejudices

The fourth dimension of Transformative Quality was named Overcoming Prejudices, and it explained variance of 6.37% (refer Table 5.2). The Eigen value of this dimension is 1.849. The three statements loaded on this dimension are related to biases against age, skin-tone and gender-career. Other studies have used varying terminologies for describing prejudices in higher education, such as psychological climate, diversity in higher education, overcoming racial profiling, minimizing racial conflict, and ethnic diversity in higher education. The findings have a common denominator. The studies point towards the importance of overcoming prejudices in higher education, since they can have tangible effects on educational outcomes (Hurtado, Milem, Clayton-Pedersen, & Allen, 1999), and thus impact Transformative Quality in higher education.

Skillfulness

The fifth dimension of Transformative Quality was named Skillfulness, and it explained variance of 5.30% (refer Table 5.2). The Eigen value of this dimension is 1.539. The statements loaded on this dimension are related to acquisition of skills, knowledge and abilities needed for pursuing a career. The findings of other studies have also shown that the importance attached to knowledge and skills acquisition. However, mere knowledge and skills acquisition in the landscape of higher education become questionable if it remains decontextualized, and does not lead to transformation of the learner (Dall'Alba & Barnacle, 2007), which impedes the pursuit of Transformative Quality in higher education.

Emotionality

The final dimension of Transformative Quality was named Emotionality, and it explained the variance of 4.70% (refer Table 5.2). The Eigen value of this dimension is 1.357. The statements loaded on this dimension are related to the emotional state of the students. The findings of other studies have also shown that emotionally-skilled students are able to regulate their emotions better, which further reflects on their overall performance in an HEI. Thus, emotionality has a relevant impact on their academic performance (Sanchez-Ruiz, Mavroveli, & Poullis, 2013), and contributes towards Transformative Quality in higher education.

5.3.5 Correlation Matrix of Dimensions of Transformative Quality

The significant correlations between the dimensions of Transformation Quality along with the level of significance are depicted in Table 5.5.

		Critical confidence	Approach avoidance PSS	Overall Awareness	Overcoming prejudice	Skilfulness	Emotionality	Total Transformative Quality
Critical confidence	Pearson Correlation	1	-.140*	-.104*	-.203**	-.190**	-.140	.147*
	Sig. (2-tailed)		.000	.011	.000	.001	.000	.011
	N	350	350	350	350	350	350	350
Approach avoidance PSS	Pearson Correlation	-.140*	1	.195*	.117*	.148*	.153	.529**
	Sig. (2-tailed)	.000		.100	.043	.010	.453	.000
	N	350	350	350	350	350	350	350
Overall Awareness	Pearson Correlation	-.104*	.195*	1	.116*	.197**	.053*	.423**
	Sig. (2-tailed)	.011	.100		.000	.001	.000	.000
	N	350	350	350	350	350	350	350
Overcoming prejudice	Pearson Correlation	-.203**	.117*	.116*	1	.198**	.118*	.476**
	Sig. (2-tailed)	.000	.043	.000		.001	.001	.000
	N	350	350	350	350	350	350	350
Skilfulness	Pearson Correlation	-.190**	.148*	.197**	.198**	1	.063	.590**
	Sig. (2-tailed)	.001	.010	.001	.001		.001	.000
	N	350	350	350	350	350	350	350
Emotionality	Pearson Correlation	-.140	.153	.053*	.118*	.063	1	.113
	Sig. (2-tailed)	.011	.000	.000	.000	.000		
	N	350	350	350	350	350	350	350
Total Transformative Quality	Pearson Correlation	.147*	.529**	.423**	.476**	.590**	.120*	1
	Sig. (2-tailed)	.011	.000	.000	.000	.000	.000	
	N	350	350	350	350	350	350	350
	*. Correlation is significant at the 0.05 level (2-tailed); **. Correlation is significant at the 0.01 level (2-tailed).							

Table 5.5: Correlation Matrix of the Dimensions of Transformative Quality

5.4 Exploratory Factor Analysis for Teacher Efficacy

The factors of Teacher Efficacy are identified through EFA. Faculty members were asked to give responses to various statements pertaining to the different items of Teacher Efficacy on a nine-point Likert scale. The Phase I data collection intends to purify the Teacher Efficacy scale in higher education, and provide a more parsimonious conceptual understanding of the

underlying latent constructs (Fabrigar, Wegener, MacCallum, & Strahan, 1999). Phase II data collection is done with the purpose of confirming the underlying factor structure of Teacher Efficacy.

5.4.1 KMO and Bartlett's Test of Sphericity for Teacher Efficacy

The Kaiser-Meyer-Olkin's Measure of Sampling Adequacy (Tabachnick & Fidell, 1996) is indicative of the adequacy of the sample for conducting factor analysis. Kaiser (1974) has recommended values above 0.9 as superb, values between 0.7 – 0.8 as acceptable and 0.5 as barely accepted. For this research, KMO value was 0.774, which is acceptable (refer Table 5.6). This implies that a sample of 320 respondents for the purpose of factor analysis is adequate.

The Bartlett's test of sphericity is also an indication of the strength of the relationship among variables. It tests the null hypothesis, that the correlation matrix is an identity matrix. In this research, the Bartlett's Test is significant as well (.000) since it is less than 0.05, implying that the correlation matrix is not an identity matrix.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.774
Bartlett's Test of Sphericity	Approx. Chi-Square	387.022
	df	15
	Sig.	.000

Table 5.6: KMO and Bartlett's Test of Sphericity for Teacher Efficacy

5.4.2 Total Variance for Teacher Efficacy

Principal Component Analysis with Varimax rotation method is used for extracting factors. Statements having factor loadings greater than 0.40 were considered only. Factors with Eigen values greater to one are selected (Gorsuch, 1983). In addition to that, the scree plot indicates a bend after the 2nd component number (refer Figure 5.2). According to Cattell's scree test, the point beyond which the plot between eigen values and corresponding factors levels off, indicating the maximum number of factors to be considered (Cattell, 1978). A two-factor solution was presented with eigen values over 1.0. The final total variance explained after obtaining the rotated component matrix has been shown in Table 5.7. The scree plot bends at 2 (refer Figure 5.2). The communality values are indicative of the proportion of each item's variance explained by the factors. A low communality suggests that the particular item has

little in common with other items (Fullagar, 1986). However, in this research, all the communalities were well above 0.6. The Cronbach's alpha for all six items was 0.785 (refer Table 5.8).

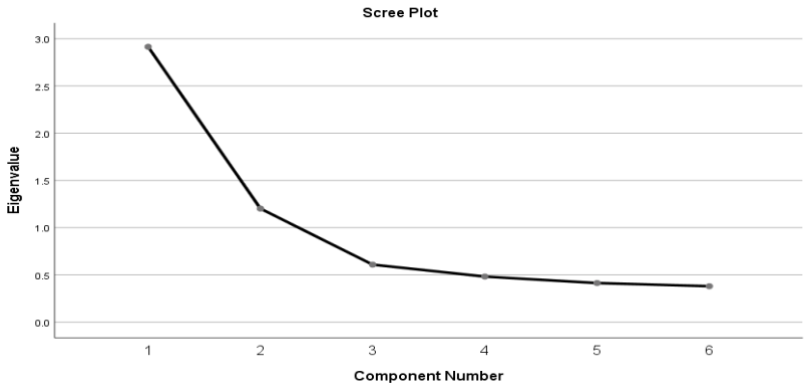


Figure 5.2: Scree Plot for Teacher Efficacy

5.4.3 Rotated Component Matrix for Teacher Efficacy

Factor rotation is carried out to arrive at the best "simple structure", wherein each factor consists of a cluster of items having larger loadings relative to other items (Thurstone, 1947). To do so, factors are rotated through Varimax rotation. This orthogonal method of rotation minimizes the number of variables which have high loadings on a factor, thus enhancing the interpretability of factors (Malhotra, 2007). Here, TE followed by a numeral signifies the specific items of Teacher Efficacy. The factor loadings below 0.4 were suppressed. Also, items exhibiting cross-loadings more than 0.4, across items were removed, such as TE6, TE8, TE9, and TE10. Factor rotation was carried out to arrive at the most parsimonious solution (Thurstone, 1947). A KMO value of 0.819 was achieved, with three components explaining a variance of 68.26%. Furthermore, items exhibiting cross-loadings were removed, such as TE3, TE4, TE5, TE14. Thereafter, a final rotated two-factor solution (refer Table 5.9) with a Kaiser-Meyer-Olkin's Measure of Sampling Adequacy (Tabachnick & Fidell, 1996) of 0.774 was reported (refer Table 5.5). Table 5.8 represents various statements and Cronbach's alpha values for all dimensions.

Total Variance Explained

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.914	48.573	48.573	2.126	35.430	35.430
2	1.202	20.029	68.603	1.990	33.173	68.603

Extraction Method: Principal Component Analysis.

Table 5.7: Total Variance Explained of Teacher Efficacy

5.4.4 Emergence of New Factors for Teacher Efficacy

The factor loadings of each statement are also indicative of their validity. It is generally accepted that factor loadings ≥ 0.40 are acceptable (Hair et al., 2006). Table 5.8 and Table 5.9 indicate the reliabilities (Cronbach's alpha) and validities (factor loadings) of items of Transformative Quality and Teacher Efficacy. These new factors, obtained from EFA, were confirmed by applying CFA.

Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
TE1	.524	.756	.785
TE2	.565	.746	
TE7	.453	.773	
TE11	.542	.752	
TE12	.609	.735	
TE13	.524	.756	

Table 5.8: Reliabilities of new factors of Teacher Efficacy

Items	Component 1	Component 2
TE2	.802	
TE7	.793	
TE1	.771	
TE13		.849
TE12		.844
TE11		.770

Table 5.9: Rotated Component Matrix of Teacher Efficacy

After the rotated component matrix is obtained, naming was done on the basis of groups evolved from the rotated component matrix. Component 1 was named as Instructional Engagement (consisting of items TE7, TE2, TE1). Component 2 was named as Within-class

Management (consisting of items TE13, TE12, TE11). These new factors, obtained from EFA, were confirmed for their underlying factor structure by applying CFA. Before proceeding to CFA, these new factors were named as discussed in the following section:

Instructional Engagement

The first dimension of Teacher Efficacy was named Instructional Engagement, and it explained the highest variance of 48.45% (refer Table 5.7). The eigen value of this dimension is 2.914. The statements loaded on this dimension are related to gauging student comprehension and reaching out to students. According to Harvey & Knight (1996), teachers are not powerless; teaching maybe better or worse even in the most hostile environments. Teacher Efficacy is characterized by their ability to 'engage' students in knowledge as a process (Harvey & Knight, 1996). Previous studies have also shown efficacy to engage students to contribute towards deep learning leads to better student achievement outcomes and transformation (Cinches, Russell, Chavez, & Ortiz, 2017; Dunleavy & Milton, 2008).

Within-class Management

This second dimension of Teacher Efficacy was named Within-class Management, and it explained the variance of 20.15% (refer Table 5.7). The Eigen value of this dimension is 1.202. The statements loaded on this dimension are related to managing disruptive classroom behaviour and establishing classroom management strategies. The findings of other studies have also shown that efficacy to manage classrooms is a critical component of traditional educational cultures (Apple, Jain, Beyerlein, & Ellis, 2018). The idea of exercising control over the classroom is to provide students with a safe and rule-based environment (Apple et al., 2018). Previous studies have also shown that a well-managed classroom is one of the greatest concerns of teachers, since it contributes significantly towards student learning, development and transformation (Reupert & Woodcock, 2010).

5.4.5 Correlation Matrix of Dimensions of Teacher Efficacy

The significant correlations between the dimensions of Teacher Efficacy along with the level of significance are depicted in Table 5.10. The significant correlations show that all the dimensions of Transformative Quality considered in this research are significant.

Correlations				
		Instructional efficiency	Classroom management	Total TE
Instructional efficiency	Pearson Correlation	1	.456**	.824**
	Sig. (2-tailed)		.000	.000
	N	350	350	350
Classroom management	Pearson Correlation	.456**	1	.880**
	Sig. (2-tailed)	.000		.000
	N	350	350	350
Total TE	Pearson Correlation	.824**	.880**	1
	Sig. (2-tailed)	.000	.000	
	N	350	350	350
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 5.10: Correlation Matrix of Dimensions of Teacher Efficacy

5.5 Phase II of Data Collection

The outcome of the (Phase I) data collection is emergence of new factors which are obtained after conducting Exploratory Factor Analysis (EFA) for both constructs, Transformative Quality and Teacher Efficacy. To confirm the underlying factor structure, confirmatory factor analysis (CFA) is conducted. For this purpose, Phase II of data collection is carried out. The revised questionnaire of 35 items (29 items of Transformative Quality and 6 items of Teacher Efficacy) was administered to 345 faculty members, from the same sampling frame of private-unaided higher education institutions across North-Western India. A total of 320 questionnaires were found eligible for data analysis (Refer Appendix 3 for questionnaire). The demographic profile of the respondents in Phase II of data collection is shown in Appendix 5.

5.5.1 Descriptive Statistics

The descriptive statistics are vital tools that help to organise and summarise data (Holcomb, 2016), reported as mean and standard deviation for TRFQ and TE (refer Table 5.11).

Constructs	Items	Mean	Standard Deviation
Instructional Engagement	TE1	7.127	1.8942
	TE2	7.258	1.7772
	TE7	7.171	1.6015
	TE11	7.151	1.8137
	TE12	7.405	1.7513

Within-class Management	TE13	7.084	1.8886
Emotionality	TRFES3	3.585	1.3543
	TRFES9	3.204	1.3012
	TRFC16	2.535	.9700
Critical Confidence	TRFC17	2.495	.9354
	TRFC18	2.528	1.0042
	TRFCT19	1.896	1.1897
	TRFCT20	2.154	1.1628
	TRFCT21	2.023	1.1511
	TRFCT22	1.910	1.2725
	TRFCT23	2.137	1.1253
	TRFCT24	2.047	1.1692
	TRFCT25	2.107	1.1738
	TRFPS34	2.729	1.0444
	TRFPS35	2.719	1.1088
	TRFPS36	2.595	1.0587
	TRFPS38	2.351	1.1958
	TRFPS39	2.548	1.1470
Approach-avoidance Problem-Solving skills	TRFPS30	3.920	1.2371
	TRFPS31	3.405	1.4448
	TRFPS32	3.726	1.2418
	TRFPS33	3.769	1.2055
Overall Awareness	TRFSA27	4.181	1.0170
	TRFSA28	4.211	.8742
	TRFSA29	4.184	1.0505
Overall Prejudices	TRFTP40	2.880	1.0894
	TRFTP41	2.997	1.2275
	TRFTP42	3.181	1.2319
Skilfulness	TRFKSA43	3.870	1.0231
	TRFKSA44	3.849	1.0559

Table 5.11: Mean and Standard Deviation Values

5.5.1 Normality Assumptions

For the purpose of structural equation modelling (SEM), it is assumed that there is no missing data. It is also important to observe the data normality before building the model and checking its fit indices (Kline, 2012). To ensure the normality of the data, it is vital to establish univariate normality and multivariate normality.

Concepts of kurtosis and skewness indicate the univariate normality of data. Skewness values above 3 indicate extremely skewed data, and kurtosis values above 10 is also problematic. In this research, for all items, the ranges of skewness and kurtosis were between -1.303 and 1.144, and between -1.220 and 2.041 respectively (refer Table 5.12). Since the values in Table 5.12 are below 3 and 10 for skewness and kurtosis respectively, univariate normality of data is indicated (Kline, 1998).

SEM also requires normality to be established at multivariate levels. However, in SEM, it is difficult and impractical to examine multivariate normality. Thus, multivariate non-normality can be established through an examination of univariate normality (Kline, 2012). Incorporating a large sample size and the deletion of outliers helps in improving the multivariate normality of the data (Hair et al., 2006). In addition, it is observed that SEM estimation with the maximum likelihood method, is a more robust technique for assessing multivariate normality (Floyd & Widaman, 1995). Therefore, to ensure multivariate normality in the study, the maximum likelihood method and the large sample size is incorporated.

Constructs	Items	Skewness	Kurtosis
Instructional Engagement	TE1	-1.139	.812
	TE2	-1.062	.460
	TE7	-1.100	1.200
Within-class Management	TE11	-1.048	.516
	TE12	-1.329	1.571
	TE13	-.916	.050
Emotionality	TRFES3	-.553	-1.004
	TRFES9	-.062	-1.220
Critical confidence	TRFC16	.644	.138
	TRFC17	.423	.215
	TRFC18	.412	-.309
	TRFCT19	1.165	.276
	TRFCT20	.922	.125
	TRFCT21	.991	.137
	TRFCT22	1.282	.495
	TRFCT23	1.022	.394
	TRFCT24	1.101	.431
	TRFCT25	.994	.155
	TRFPS34	.684	.241
	TRFPS35	.737	.088
	TRFPS36	.764	.308
	TRFPS38	.836	.032

	TRFPS39	.827	.373
Approach-avoidance problem-solving skills	TRFPS30	-.617	-.374
	TRFPS31	-.336	-1.146
	TRFPS32	-.557	-769
	TRFPS33	-.497	-.968
Overall awareness	TRFSA27	-1.274	1.590
	TRFSA28	-1.303	2.041
	TRFSA29	-1.178	1.674
Overall prejudices	TRFTP40	.053	-.519
	TRFTP41	.006	-.978
	TRFTP42	-.197	-1.039
Skilfulness	TRFKSA43	-1.080	.940
	TRFKSA44	-1.022	.659

Table 5.12: Skewness and Kurtosis Values for Transformative Quality and Teacher Efficacy

5.6 Confirmatory Factor Analysis of Transformative Quality

Confirmatory Factor Analysis (CFA) serves the confirmation purpose of the psychometric properties of newly developed scales and their underlying factor structure (Chu and Murrmann, 2006). It is a statistical technique that evaluates data set by confirming the underlying structure on the basis of theoretical background. This indicates simplification, modification or refinement in the measurement for theory testing and examining the model fit. The construct, Transformative Quality, consists of six dimensions, namely, *critical confidence*, *approach-avoidance problem solving skills*, *overall awareness*, *overcoming prejudices*, *skillfulness* and *emotionality* after EFA.

For the purpose of analysis, instrument was administered (refer Appendix 3). The instrument items were allocated as observed variables while the unobserved variables were named in line with the constructs in the study. Covariance arrows were drawn between unobserved variables and items were loaded onto the observed variables from the data file selected for analysis. The initial measurement model constructed from the data collected is depicted in Figure 5.3. The model-fit indices such as CMIN/DF, GFI, AGFI, CFI, NNFI (TLI), RMSEA, and SRMR generated from the initial measurement model are tabulated in Table 5.13 which can be observed to be average as per the acceptable limits set for the mentioned good-fit indices.

Goodness-of-fit indices	Reported values	Recommended values
CMIN/DF	2.292	Less than 2 indicates very good fit; less than 3 or 4 also acceptable
GFI	.833	Above 0.90
AGFI	.799	Above 0.85
CFI	.908	Above 0.90
TLI	.897	Above 0.90
RMSEA	.066	Less than 0.08 to 0.1; less than 0.05 very good fit
RMR	.074	Less than 0.1; less than 0.05 very good fit
SRMR	.055	Less than 0.05; less than 0.08 acceptable

Table 5.13: Initial Goodness-of-fit indices for Transformative Quality

As observed in Table 5.13, the initial goodness of fit indices for the measurement model were found to be an average fit. To improve the measurement model, the standardized regression weights of each item in the measurement model were first analyzed. Standardized regression weights for the initial measurement model are presented in Table 5.14.

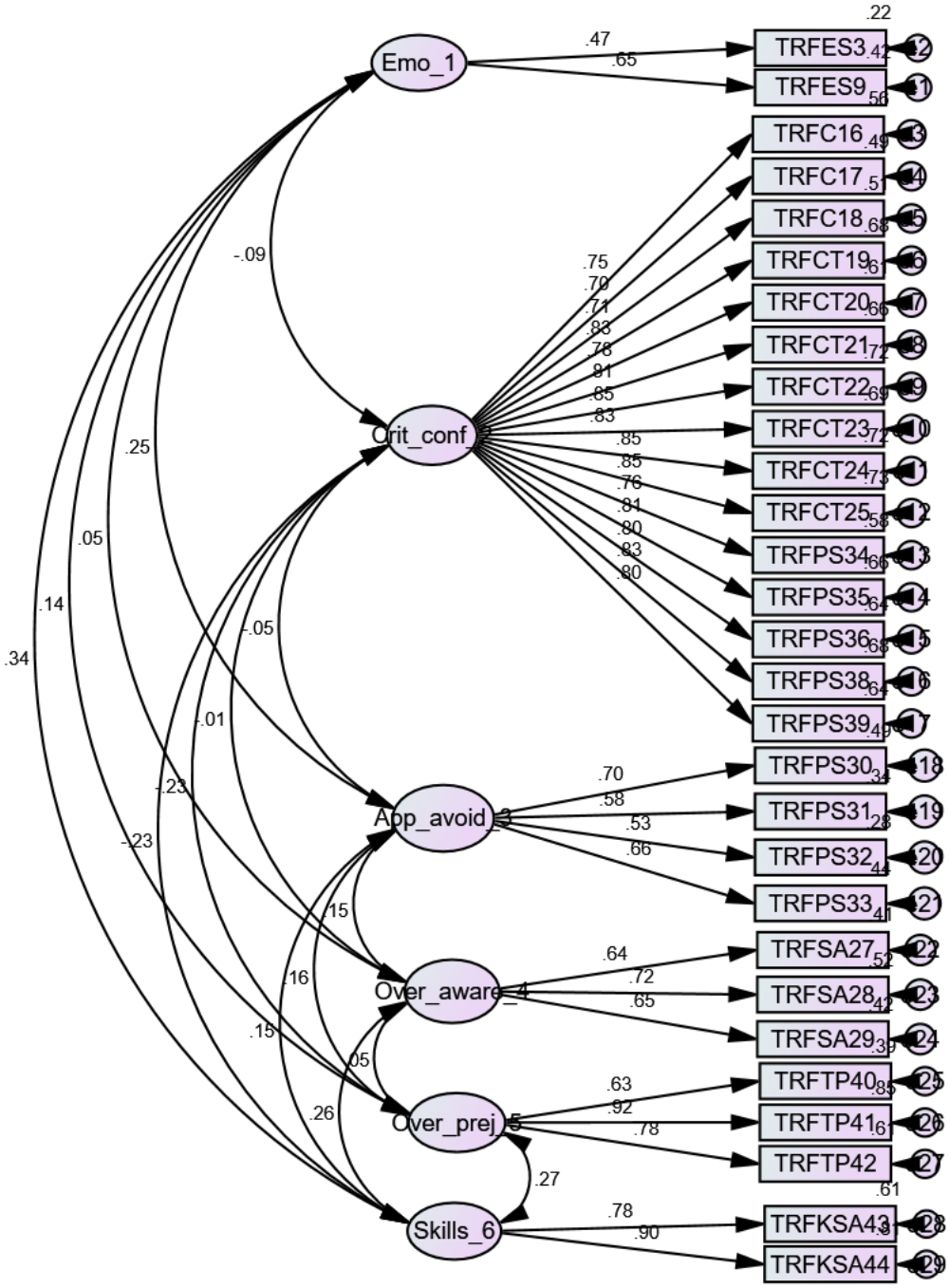


Figure 5.3: Initial Measurement Model for Transformative Quality

			Estimate
TRFES9	<---	Emo_1	.650
TRFES3	<---	Emo_1	.469
TRFC16	<---	Crit_conf_2	.749
TRFC17	<---	Crit_conf_2	.697
TRFC18	<---	Crit_conf_2	.715
TRFCT19	<---	Crit_conf_2	.826
TRFCT20	<---	Crit_conf_2	.782
TRFCT21	<---	Crit_conf_2	.811
TRFCT22	<---	Crit_conf_2	.847
TRFCT23	<---	Crit_conf_2	.830
TRFCT24	<---	Crit_conf_2	.851
TRFCT25	<---	Crit_conf_2	.853
TRFPS34	<---	Crit_conf_2	.759
TRFPS35	<---	Crit_conf_2	.814
TRFPS36	<---	Crit_conf_2	.801
TRFPS38	<---	Crit_conf_2	.827
TRFPS39	<---	Crit_conf_2	.800
TRFPS30	<---	App_avoid_3	.703
TRFPS31	<---	App_avoid_3	.580
TRFPS32	<---	App_avoid_3	.529
TRFPS33	<---	App_avoid_3	.665
TRFSA27	<---	Over_aware_4	.639
TRFSA28	<---	Over_aware_4	.724
TRFSA29	<---	Over_aware_4	.646
TRFTP40	<---	Over_prej_5	.627
TRFTP41	<---	Over_prej_5	.923
TRFTP42	<---	Over_prej_5	.779
TRFKSA43	<---	Skills_6	.782
TRFKSA44	<---	Skills_6	.902

Table 5.14: Standardized regression weights of initial measurement model

Since items TRFES3 and TRFPS32 had a low regression weight, they were removed. This left only one item for Emotionality, hence this dimension was discarded as well. To further improve the model fit, the modification indices were analyzed. Co-variances were created between pairs of error terms belonging to the same latent variable and having very high covariance values (values > 20) in the covariance matrix through a sequence of iterations. The co-variances were created between the error terms e4<-->e5 and e14<-->e15. This resulted in the final measurement model for Transformative Quality as shown in Figure 5.4.

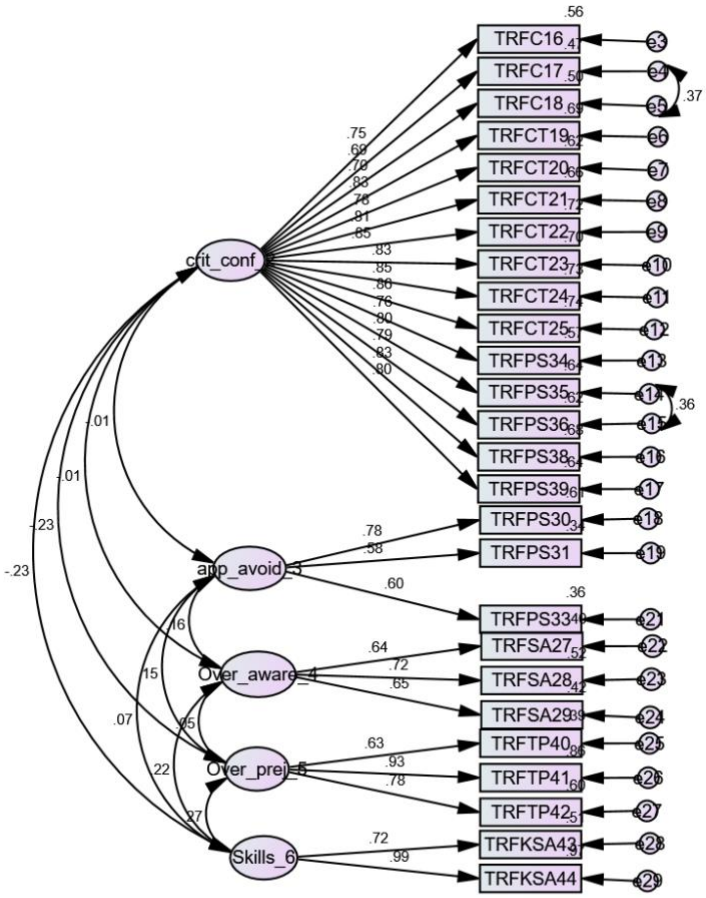


Figure 5.4: Final Measurement Model for Transformative Quality

After adding co-variances among error terms, the resultant measurement model has found to be a good fit which is depicted in Table 5.15. A CMIN/DF of 2.018 (acceptable: 1 to 5), a CFI of 0.940 (acceptable>0.90), RMR of 0.069 (acceptable<0.08), RMSEA of 0.058 (acceptable<0.05), NNFI (TLI) of 0.932 (acceptable>0.90) were achieved which represents a good model fit (Jackson, Gillaspy Jr, & Purc-Stephenson, 2009). The set of model fit values obtained are summarized in Table 5.15 while the standardized regression weights between the latent variables and observed variables are listed in Table 5.16. All the fitness indices required to achieve a good model fit were above the threshold value, thereby indicating the overall acceptability of the measurement model depicted in Figure 5.4. An overall acceptability of the model has also been indicated according to Hu & Bentler's (1999) two-index presentation strategy, wherein RMSEA values are 0.06 or lower, and SRMR values are 0.09 or lower.

Goodness-of-fit indices	Reported values	Recommended values
CMIN/DF	2.018	Less than 2 indicates very good fit; less than 3 or 4 also acceptable
GFI	.866	Above 0.90
AGFI	.836	Above 0.85
CFI	.940	Above 0.90
TLI	.932	Above 0.90
RMSEA	.058	Less than 0.08 to 0.1; less than 0.05 very good fit
RMR	.069	Less than 0.1; less than 0.05 very good fit
SRMR	0.05	Less than 0.05; less than 0.08 acceptable

Table 5.15: Goodness-of-fit indices for Transformative Quality

			Estimate
TRFC16	<---	Crit_conf_2	.745
TRFC17	<---	Crit_conf_2	.687
TRFC18	<---	Crit_conf_2	.704
TRFCT19	<---	Crit_conf_2	.830
TRFCT20	<---	Crit_conf_2	.784
TRFCT21	<---	Crit_conf_2	.811
TRFCT22	<---	Crit_conf_2	.851
TRFCT23	<---	Crit_conf_2	.834
TRFCT24	<---	Crit_conf_2	.853
TRFCT25	<---	Crit_conf_2	.859
TRFPS34	<---	Crit_conf_2	.755
TRFPS35	<---	Crit_conf_2	.802
TRFPS36	<---	Crit_conf_2	.788
TRFPS38	<---	Crit_conf_2	.825
TRFPS39	<---	Crit_conf_2	.799
TRFPS30	<---	App_avoid_3	.778
TRFPS31	<---	App_avoid_3	.681
TRFPS33	<---	App_avoid_3	.760
TRFSA27	<---	Over_aware_4	.685
TRFSA28	<---	Over_aware_4	.725
TRFSA29	<---	Over_aware_4	.755
TRFTP40	<---	Over_prej_5	.626
TRFTP41	<---	Over_prej_5	.925
TRFTP42	<---	Over_prej_5	.777
TRFKSA43	<---	Skills_6	.716
TRFKSA44	<---	Skills_6	.985

Table 5.16: Standardized regression weights for final measurement model

5.6.1 Evaluating Unidimensionality, Reliability and Validity of Model

After establishing the overall acceptability of the measurement model indicating a good model fit, reliability and validity of the measurement model were examined. Firstly, the unidimensionality was determined by examining whether all the items have acceptable factor

loadings for their respective latent construct (Awang, 2015). According to Awang (2015), the acceptable factor loadings for newly developed items should be greater than 0.5. The model meets the criteria needed to assess the unidimensionality, as the loading of all the items on their respective latent construct is well above the threshold value of 0.5. Table 5.16 represents the factor loading of all the items.

Thereafter, composite reliability as a measure of internal consistent reliability is calculated. Composite reliability (CR) does not assume that each item of a latent variable contributes equally and is a less biased estimate of reliability than Cronbach's Alpha (Hair et al., 2006). In the case of CR, values ≥ 0.70 are considered satisfactory (Hair et al., 2006). In the research, all CR values are observed to be above 0.70 (refer Table 5.17), thereby proving the measurement model to be reliable.

Next, the convergent validity for the constructs was measured. Convergent validity is "the extent to which an indicator correlates positively with alternative indicators of the same construct" (Hair *et al.*, 2013, p. 119). It is assessed by an average variance extracted (AVE). AVE is the "grand mean value of the squared loadings of the indicators associated with the construct" (Hair *et al.*, 2013, p. 120). AVE for all the constructs should be ≥ 0.5 (Hair et al., 2006). Table 5.17 represents the AVE values for all the constructs, which are above the threshold limit of 0.5, thereby indicating that all observed variables are converging to their respective latent construct within the measurement model.

Further, the discriminant validity for the constructs was assessed. Discriminant validity implies to "the extent to which a construct is truly distinct from other constructs by empirical standards" (Hair *et al.*, 2013, p. 121). Discriminant validity is assessed by using the Fornell-Larcker criterion which "compares the square root of the AVE values with the latent variable correlations. Specifically, the square root of each construct's AVE should be greater than its highest correlation with any other construct" (Hair *et al.*, 2013, p. 122). Since the square root of each construct's AVE is greater than the correlation coefficient with the other constructs, therefore the model meets the criteria needed to assess discriminant validity. Discriminant validity values are presented in Table 5.18.

Latent Variables	Average Variance Extracted (AVE)	Composite Reliability (CR)
Critical confidence	0.635	0.962
Approach-avoidance problem-solving skills	0.549	0.784
Overall Awareness	0.521	0.765
Overcoming prejudices	0.617	0.825
Skillfulness	0.742	0.849

Table 5.17: Average Variance Extracted and Composite Reliability Values for Transformative Quality Dimensions

Discriminant validity indicates that the "measure is indeed novel and not simply a reflection of some other variable" (Churchill, 1979, p. 70). It reflects the extent to which a construct is truly distinct from other constructs. It is checked using the multitrait-multimethod diagonal, wherein the entries in validity diagonal are higher than the correlations in the remaining rows and columns (Churchill, 1979). The diagonal values are the square root values of AVE. Since these are greater than the correlation coefficient of a particular dimension with other dimensions, discriminant validity is supported. All dimensions of Transformative Quality exhibit discriminant validity (refer Table 5.18).

	Critical confidence	Approach-avoidance problem-solving	Overall Awareness	Transcending prejudices	Skills
Critical confidence	**0.797**				
Approach-avoidance problem-solving skills	-0.014	**0.741**			
Overall Awareness	-0.014	0.163	**0.722**		
Overcoming prejudices	-0.232	0.152	0.049	**0.785**	
Skillfulness	-0.231	0.073	0.219	0.272	**0.862**

Table 5.18: Discriminant Validity of Transformative Quality Dimensions

5.7 Confirmatory Factor Analysis of Teacher Efficacy

The revised questionnaire was administered to 345 faculty members, from the same sampling frame of private-unaided higher education institutions across North-Western India (refer Appendix 3 for questionnaire). A total of 320 questionnaires were found eligible for data analysis. (Please refer Appendix 5 for demographic data).

CFA is a statistical technique that evaluates data set by confirming the underlying structure on the basis of theoretical background. This indicates simplification, modification or refinement in the measurement for theory testing and examining the model fit. The construct, Teacher Efficacy, consists of two dimensions, namely, within-class management and instructional engagement. The fit indices have suggested a moderate fit as shown in Table 5.19.

The valid and reliable constructs given by EFA have been tested and assessed in the default model. The measurement model has been evaluated using CFA. The model-fit indices such as CMIN/DF, GFI, AGFI, CFI, NNFI (TLI), RMSEA, and SRMR generated from the initial measurement model are tabulated in Table 5.19 which can be observed to be as per the acceptable limits set for the mentioned good-fit indices. A CMIN/DF of 2.709 (acceptable: 1 to 5), a CFI of 0.979 (acceptable>0.90), SRMR of 0.0327 (acceptable<0.05), RMSEA of 0.076 (acceptable<0.05), NNFI (TLI) of 0.961 (acceptable>0.90) were achieved which represents a good model fit (Jackson et al., 2009). The set of model fit values obtained are summarized in Table 5.19 while the standardized regression weights between the latent variables and observed variables are listed in Table 5.20. All the fitness indices required to achieve a good model fit are above the threshold value, thereby indicating the overall acceptability of the measurement model depicted in Figure 5.5.

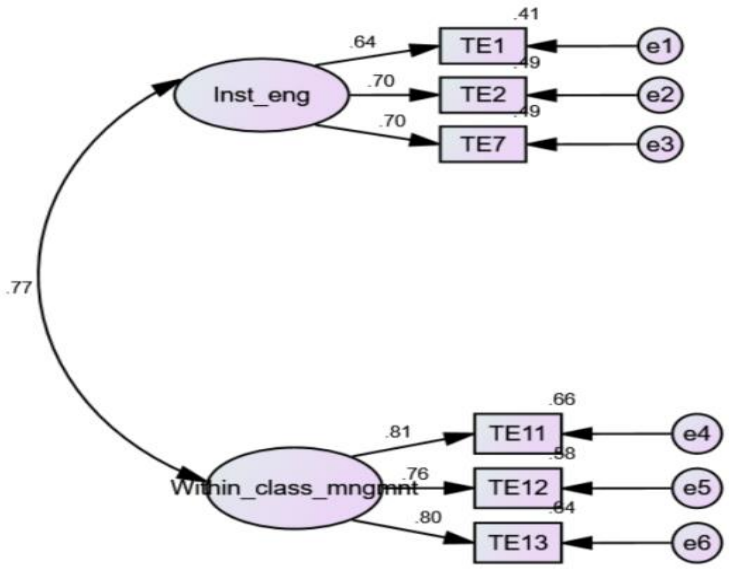


Figure 5.5: Measurement Model of Teacher Efficacy

Goodness-of-fit indices	Reported values	Recommended values
CMIN/DF	2.709	Less than 2 indicates very good fit; less than 3 or 4 also acceptable
GFI	.976	Above 0.90
AGFI	.937	Above 0.85
CFI	.979	Above 0.90
TLI	.961	Above 0.90
RMSEA	.070	Less than 0.08 to 0.1; less than 0.05 very good fit
RMR	.108	Less than 0.1; less than 0.05 very good fit
SRMR	.0327	Less than 0.05; less than 0.08 acceptable

Table 5.19: Goodness-of-fit indices for Teacher Efficacy

			Estimate
TE1	<---	Inst_eng	.745
TE2	<---	Inst_eng	.834
TE7	<---	Inst_eng	.776
TE11	<---	Within_class_mngmnt	.810
TE12	<---	Within_class_mngmnt	.761
TE13	<---	Within_class_mngmnt	.800

Table 5.20: Standardized regression weights for Teacher Efficacy

An overall acceptability of the model has also been indicated according to Hu & Bentler's (1999) two-index presentation strategy, wherein CFI values are 0.96 or higher, and SRMR values are 0.09 or lower.

Items which are indicators of a construct should converge, or share a high proportion of variance in common. This quality exhibited by items is referred to as convergent validity. For acceptable convergent validity, the Average Variance Extracted (AVE) should have values above 0.5 (Fornell & Larcker, 1981). The concept of AVE is comparable to the concept of variance explained in exploratory factor analysis. Composite reliability (CR) measures the overall reliability of a set of items loaded on a latent construct. Values of CR above 0.7 reflect good reliability, thus indicating internal consistency (Hair, Black, Babin, Anderson, & Tatham, 2006). For all dimensions of Teacher Efficacy, the AVE and CR values are acceptable (refer Table 5.21).

	Average Variance Extracted	Composite Reliability
Instructional engagement	.617	.828
Within-class management	.625	.833

Table 5.21: Average Variance Extracted and Composite Reliability for Teacher Efficacy

Discriminant validity indicates that the "measure is indeed novel and not simply a reflection of some other variable" (Churchill, 1979, p. 70). It reflects the extent to which a construct is truly distinct from other constructs. It is checked using the multitrait-multimethod diagonal, wherein the entries in validity diagonal are higher than the correlations in the remaining rows and columns (Churchill, 1979). The diagonal values are the square root values of AVE. Since these are greater than the correlation coefficient of a particular dimension with other dimensions, discriminant validity is supported (refer Table 5.22). All dimensions of Transformative Quality exhibit discriminant validity.

	Instructional engagement	Within-class management
Instructional engagement	**0.785**	
Within-class management	.772	**0.791**

Table 5.22: Discriminant Validity for Teacher Efficacy

5.8 Formulating Research Hypotheses

As mentioned in Chapter 2, the primary objective of the research is to address issues afflicting private-unaided higher education institutions (HEIs) in a dichotomous higher education (HE) system. For this purpose, first quality in the context of private-unaided HEIs was redefined and developed through front-line faculty perspectives, thereby addressing Research Objective 1. Further, the impact of Teacher Efficacy on the redefined measure of quality, Transformative Quality, was investigated, thus addressing Research Objective 2. Thereafter, taking into account the new emerged factors, hypotheses are generated to address Research Objective 2, that is, propose a policy framework to enable improvement in the quality of private-unaided higher education institutions. These are listed as follows:

H1: Teachers' instructional engagement positively influences students' critical confidence, thereby contributing to an improved transformative quality in higher education.

H2: Teachers' instructional engagement positively influences students' awareness, thereby contributing to an improved transformative quality in higher education.

H3: Teachers' instructional engagement positively influences students' ability to overcome prejudices, thereby contributing to an improved transformative quality in higher education.

H4: Teachers' instructional engagement positively influences students' skillfulness, thereby contributing to an improved transformative quality in higher education.

H5: Teachers' instructional engagement positively influences students' approach-avoidance problem-solving skills, thereby contributing to an improved transformative quality in higher education.

H6: Teacher's within-class management positively influences students' critical confidence, thereby contributing to an improved transformative quality in higher education.

H7: Teacher's within-class management positively influences students' awareness, thereby contributing to an improved transformative quality in higher education.

H8: Teacher's within-class management positively influences students' ability to overcome prejudices, thereby contributing to an improved transformative quality in higher education.

H9: Teacher's within-class management positively influences students' skillfulness, thereby contributing to an improved transformative quality in higher education.

H10: Teachers' within-class management positively influences students' approach-avoidance problem-solving skills, thereby contributing to an improved transformative quality in higher education.

The aforementioned hypotheses are based upon the new emerged factors of Teacher Efficacy and Transformative Quality. These hypotheses upon investigation can provide an understanding of the impact of Teacher Efficacy in the form of faculty's within-class management and instruction engagement, upon the students' *transformative* dimensions, namely critical confidence, approach-avoidance problem-solving skills, overall awareness, overcoming prejudices and skillfulness. The results of Research Objectives 1 and 2 can provide a policy framework for addressing issues afflicting private-unaided HEIs, and thus address access-quality and inclusiveness-excellence dichotomies.

5.9 Investigating Research Hypotheses Through Structural Equation Modeling

Structural Equation Modeling (SEM) is a technique which helps in establishing a structural model, in order to explain the causality between multiple constructs in a multivariate analysis (Hair, Black, Babin, & Anderson, 2010). SEM technique enables the researcher to visualize hypothesized set of relationships between variables through the use of path diagrams. This technique is particularly used when the phenomena of interest are complex and multidimensional (Ullman & Bentler, 2013).

After EFA, CFA and subsequent validation of the measurement model, an initial structural model was created using the given dimensions. The five dimensions of Transformative Quality, that is, *critical confidence*, *approach-avoidance problem-solving skills*, *overall awareness*, *overcoming prejudices* and *skillfulness* were used as dependent variables while Teacher Efficacy construct, comprising of two sub-constructs, that is, *within-class management* and *instructional engagement* were used as independent variables. The direct effects between each independent variable and the dependent variable were evaluated. SEM makes this endeavour possible, by testing construct-level hypotheses at construct level itself (Ullman & Bentler, 2013).

5.9.1 Analyzing Direct Effects Using Path Analysis

The path analysis has been conducted using AMOS (version 24) software for SEM, to find path coefficients for the variables. For the purpose of hypothesis testing, the path coefficients along with their p-value and t-statistics were examined. The results showed that the R^2 value of the model was 42.6%.

A CMIN/DF of 1.887 (acceptable: 1 to 5), a CFI of 0.937 (acceptable>0.90), RMSEA of 0.055 (acceptable<0.05), GFI of 0.844 (acceptable>0.90) were achieved which represents a good model fit (Jackson et al., 2009). The set of model fit values obtained are summarized in Table 5.23.

Goodness-of-fit indices	**Reported values**	**Recommended values**
CMIN/DF	1.887	Less than 2 indicates very good fit; less than 3 or 4 also acceptable
CFI	.937	Above 0.90
GFI	.844	Above 0.90
RMSEA	.055	Less than 0.08 to 0.1; less than 0.05 very good fit

Table 5.23: Goodness-of-fit indices for TE-TRF Model

The standardized regression weights for the TE-TRF Model are listed in Table 5.24. The structural model showing the path values for direct effects is represented in Figure 5.6. The results of hypotheses testing for direct effects are summarized in Table 5.25. The results from the empirical analysis indicate that faculty's within-class management and instructional engagement have an impact on the critical confidence, approach-avoidance problem-solving

skills, overall awareness, overcoming prejudices and skillfulness among students, and thus impact Transformative Quality of private-unaided HEIs.

			Estimate	S.E.	C.R.	P	Label
Crit_conf_2	<---	Inst_engage	-.194	.082	-2.374	.018	par_26
App_avoid_3	<---	Inst_engage	.442	.137	3.234	.001	par_27
Awareness_4	<---	Inst_engage	.299	.096	3.097	.002	par_28
Trans_prej_5	<---	Inst_engage	.277	.092	3.011	.003	par_29
Skills_6	<---	Inst_engage	.572	.136	4.219	***	par_30
Skills_6	<---	W_class_man	-.301	.096	-3.124	.002	par_31
Over_prej_5	<---	W_class_man	-.188	.072	-2.631	.009	par_32
Awareness_4	<---	W_class_man	-.123	.073	-1.679	.093	par_33
App_avoid_3	<---	W_class_man	-.272	.106	-2.570	.010	par_34
Crit_conf_2	<---	W_class_man	-.003	.064	-.039	.969	par_35
TRFC16	<---	Crit_conf_2	1.000				
TRFC17	<---	Crit_conf_2	.912	.073	12.488	***	par_1
TRFC18	<---	Crit_conf_2	.978	.076	12.806	***	par_2
TRFCT19	<---	Crit_conf_2	1.410	.093	15.129	***	par_3
TRFCT20	<---	Crit_conf_2	1.258	.089	14.182	***	par_4
TRFCT21	<---	Crit_conf_2	1.289	.087	14.769	***	par_5
TRFCT22	<---	Crit_conf_2	1.447	.093	15.587	***	par_6
TRFCT23	<---	Crit_conf_2	1.251	.082	15.304	***	par_7
TRFCT24	<---	Crit_conf_2	1.401	.089	15.676	***	par_8
TRFCT25	<---	Crit_conf_2	1.384	.088	15.786	***	par_9
TRFPS34	<---	Crit_conf_2	1.031	.076	13.485	***	par_10
TRFPS35	<---	Crit_conf_2	.611	.097	6.298	***	par_11
TRFPS36	<---	Crit_conf_2	1.163	.081	14.299	***	par_12
TRFPS38	<---	Crit_conf_2	1.345	.089	15.052	***	par_13
TRFPS39	<---	Crit_conf_2	1.207	.083	14.455	***	par_14
TRFPS30	<---	App_avoid_3	1.000				
TRFPS31	<---	App_avoid_3	.951	.138	6.897	***	par_15
TRFPS33	<---	App_avoid_3	.828	.119	6.947	***	par_16
TRFSA27	<---	Awareness_4	1.000				
TRFSA28	<---	Awareness_4	.955	.126	7.569	***	par_17
TRFSA29	<---	Awareness_4	1.029	.136	7.569	***	par_18
TRFTP40	<---	Over_prej _5	1.000				
TRFTP41	<---	Over_prej _5	1.656	.159	10.428	***	par_19
TRFTP42	<---	Over_prej _5	1.383	.128	10.823	***	par_20
TRFKSA43	<---	Skills_6	1.000				
TRFKSA44	<---	Skills_6	1.205	.167	7.205	***	par_21
TE1	<---	Inst_engage	1.000				
TE2	<---	Inst_engage	.981	.110	8.918	***	par_22
TE7	<---	Inst_engage	.940	.101	9.303	***	par_23
TE11	<---	W_class_man	1.000				
TE12	<---	W_class_man	.926	.070	13.207	***	par_24
TE13	<---	W_class_man	1.030	.076	13.588	***	par_25

Table 5.24: Regression Weights for TE-TRF Model

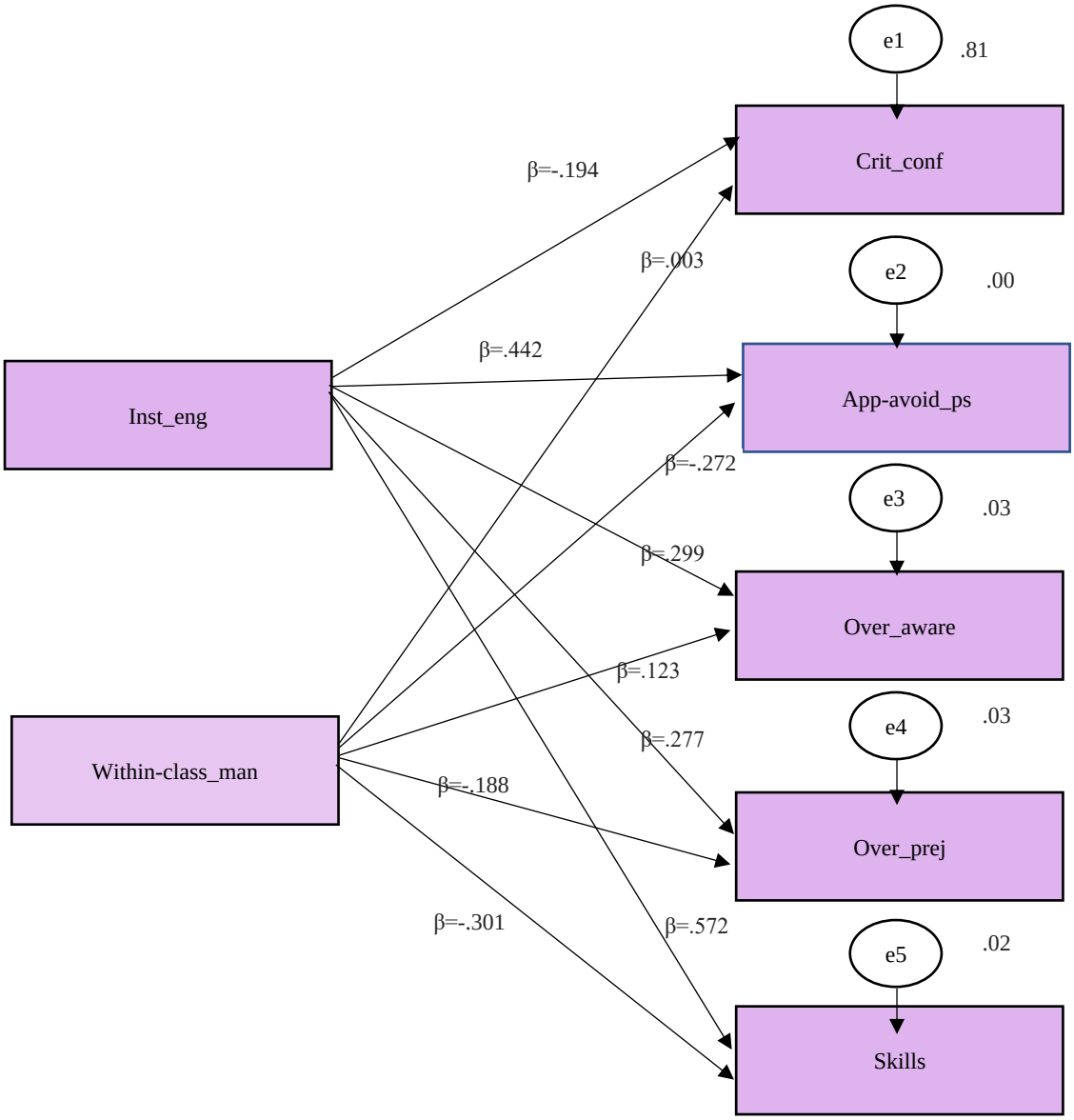


Figure 5.6: Structural Model showing Path Values for Factors of Teacher Efficacy and Transformative Quality

Hypotheses	Path estimates (β)	S.E.	C.R.	P-value	Hypothesis Test Results	Hypothesis Decision
Teachers' instructional engagement positively influences students' critical confidence.	-.194	.082	-2.374	0.018	Significant and negative	Not Supported
Teachers' instructional engagement positively influences students' awareness.	.299	.096	3.097	0.002	Significant and positive	Supported
Teachers' instructional engagement positively influences students' ability to transcend prejudices.	.277	.092	3.011	0.003	Significant and positive	Supported
Teachers' instructional engagement positively influences students' skills.	.572	.136	4.219	***	Significant and positive	Supported
Teachers' instructional engagement positively influences students' approach-avoidance problem-solving skills.	.442	.137	3.234	.001	Significant and positive	Supported
Teacher's within-class management positively influences students' critical confidence.	.003	.064	-.039	0.969	Not significant	Not supported
Teacher's within-class management positively influences students' awareness.	.123	.073	-1.679	0. 093	Not significant	Not supported
Teacher's within-class management positively influences students' ability to transcend prejudices.	-.188	.072	-2.631	0.009	Significant and negative	Not Supported
Teacher's within-class management positively influences students' skills.	-.301	.096	-3.124	0.002	Significant and negative	Not Supported
Teachers' within-class management positively influences students' approach-avoidance problem-solving skills.	-.272	.106	-2.570	0.010	Significant and negative	Not Supported

***p < .01, S.E. = Standard Error, C.R. = Critical Ratio

Table 5.25: Hypotheses Substantiation

Based on the findings in Table 31, the results of the hypotheses have been briefly summarized in Table 5.25. It can be concluded that eight of the ten postulated hypotheses are significant, out of which four have a positive relationship. The results confirm the proposed TE-TRF model, indicating that, the teachers' instructional engagement and within-class management have significant effects on dimensions of Transformative Quality in higher education. The within-class management does not have an impact on student's critical confidence and their awareness. Chapter 6 is dedicated towards detailed discussion of the results.

5.10 Concluding Remarks

This chapter comprised the results to the Research Objectives and hypotheses of this research. Firstly, the data was prepared using SPSS software (version 25). Data were explored to check possible errors, and for basic comprehension. It was also checked for normal distribution. After finding it normally distributed, various statistical techniques were applied to the data set. The internal consistency was checked through *Cronbach's alpha*, and construct validity was established through *exploratory factor analysis*, and further through *composite reliability* and checked for *discriminant validity* and *average variance extracted*. Multivariate tools were used for hypotheses testing such as *confirmatory factor analysis* and *structural equation modeling*. The proposed Teacher Efficacy-Transformative Quality (TE-TRF) model was investigated through SEM. Eight hypotheses were significant, out of which four are supported, based on Beta and p-values. These statistical findings in this chapter form the basis for drawing insights and conclusions as given in Chapters 6 and 7.

Chapter 6

Findings and Discussions

"The findings in contemporary social sciences are helping us understand that we can find other ways to educate people and act against injustice and corruption in our society."
-Tariq Ramadan

6.1 Introduction

This chapter presents the results of this research in context of the Research Objectives. This research has been conducted to redefine and develop a quality measure which can transcend the access-quality and inclusiveness-excellence gaps, by investigating front-line faculty perspectives, thus addressing Research Objective 1. The impact of Teacher Efficacy on the redefined quality measure, Transformative Quality in higher education, has been analyzed, thus fulfilling Research Objective 2. The results of the generated hypotheses can provide a policy framework for addressing issues plaguing private-unaided higher education institutions, shown in Figure 1.2. This analysis is based on a survey administered to front-line faculty members, across thirteen private-unaided higher education institutions. The data has been analyzed using SPSS (version 25) and AMOS (version 24), wherein statistical tools such as Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) have been employed to test hypotheses. The following sections provide a detailed discussion of the findings of this research.

6.2 Scale Formation for Teacher Efficacy and Transformative Quality in Higher Education

This section briefly discusses the methodology followed for fulfilling the Research Objectives. As discussed in Chapter 5, Teacher Efficacy and Transformative Quality were designed by preparing research instruments, consisting of 59 statements in all (refer Appendix 1). A survey method was used to collect the responses of front-line faculty of thirteen private-unaided higher education institutions (HEIs) in North-Western India (Punjab). The principles of reliability, validity and sensitivity were applied for enhancing the scale rigour (refer Chapter 4). Post-content validity, a preliminary research instrument, TRFQ_V1 was obtained, comprising of 53 items in all (refer Appendix 2). The calculated reliabilities were above 0.7 (refer Tables 5 &

6). The research methodology followed the following steps for addressing the Research Objectives:

- EFA was applied to both constructs to check if factor reduction was required.
- Nomenclature of resulting factors was carried out.
- This resulted in a questionnaire consisting of two sub-constructs for TE, namely, *Instructional Engagement* and *Within-class Management*, consisting of 6 statements; and six sub-constructs for TRF, namely, *Critical Confidence*, *Approach-avoidance Problem Solving Skills*, *Overall Awareness*, *Overcoming Prejudice*, *Skillfulness*, and *Emotionality* consisting of 29 statements (refer Appendix 3).
- This was followed by CFA to confirm the underlying factor structure of the constructs of interest using AMOS (version 24) software.
- Both factors of Teacher Efficacy were confirmed as the underlying factor structure of the construct. In case of Transformative Quality, with *Emotionality* factor getting removed, five out of the erstwhile six factors were confirmed to achieve a good model fit (refer Table 5.23).
- To study the impact of Teacher Efficacy on Transformative Quality in HE, a research framework (refer Figure 3.1) and a structural model (refer Figure 5.6) were proposed, and resulting hypotheses were generated.

Results of the data established a decent model fit (CMIN/df=1.887, GFI=0.844, CFI=.937, RMSEA=.0055) (refer Table 5.23). These results indicate that Teacher Efficacy has an effect on Transformative Quality in higher education. The findings of the generated hypotheses have been discussed in the next section:

Instructional Engagement – Critical Confidence

It has been found that *Instructional Engagement* has a significant influence on *Critical Confidence* dimension of Transformative Quality (β = -.194, p = .018), however negative β coefficients suggest that the two constructs share an inverse relationship. This implies that teacher's instructional engagement in the classroom has a statistically significant influence on the critical thinking and confidence among students, however in the context of this research, instructional engagement and critical confidence have a significant, albeit negative relationship.

Previous research into this construct has revealed that Teacher Efficacy in the form of engaging students through effective instructional teaching strategies, enables *confidence* building among students (Cinches, Russell, Chavez, & Ortiz, 2017). For instance, cooperative learning techniques such as think-pair-share, problem-based approach and student-centered approach have been evidenced to bring transformation among students by enhancing their confidence (Sampsel, 2013) and further aiding *critical thinking* abilities among them (Cortright, Collins, & DiCarlo, 2005).

Furthermore, if teachers have confidence in their ability to engage students and exhibit effective instructional strategies, then they experience greater job satisfaction (Collie, Shapka, & Perry, 2012). On the other hand, overall job dissatisfaction greatly weakens the dedication of faculty to teach. A comparative study on job satisfaction levels among faculty members teaching in private HEIs and government HEIs in a Northern state in India has revealed that 79% faculty members in private HEIs lack job satisfaction, against 8% faculty members in government varsities who are not satisfied with their job (Williams, 2018; Quazi, 2017). Moreover, faculty members lacking job satisfaction, exhibit lower dedication to teach, and thus evade efforts to enhance the critical thinking skills of students (Tsui, 2001). Since our research sample comprises predominantly private HEIs, it can be inferred that faculty members in our sample mostly lack job satisfaction, thus leading to lowered teaching efficacy, and evasion of efforts to enhance critical confidence among students.

Another differentiating factor is whether the HEIs wherein faculty is employed, consist of high-achieving students or not. Research has shown that teachers' perceived sense of efficacy is especially high in institutions having high-achieving and well-behaved students (Caprara, Barbaranelli, Steca, & Malone, 2006; Ross, 1998). This research sample consists of least selective HEIs (and thus, students with the weakest academic background), which influences the teachers' perceived sense of efficacy. In the present research, the negative β value indicates that students enrolled at non-selective institutions such as the private-unaided HEIs (sample in the research), are less likely to experience growth in critical thinking and confidence (Tsui, 2001). Teachers believe that students at these institutions are academically underprepared, and thus, faculty evades efforts to enhance students' critical confidence abilities by interjecting challenge strategically into the curriculum (Sax, 1996). Faculty also feel that their efforts of enhancing such higher-order skills among students are not particularly rewarded, hence the main focus shifts on getting results (Tsui, 2001).

Another probable reason for observing negative β value could be the questionable faculty capabilities at most of the demand-absorbing HEIs, which mostly hire lesser qualified teachers, largely on a contractual basis due to resource constraints (Schendel & McCowan, 2016). This further negatively influences the critical confidence among students, and thus lowers the Transformative Quality of a HEI.

Instructional Engagement – Approach-Avoidance Problem Solving

The *Instructional Engagement* has a positive and significant influence on *Approach-Avoidance Problem Solving Skills* (β = .442, p = .001). The positive β coefficients suggest that the teacher's instructional engagement enhances students' ability to solve problems. This means that teachers' efficacy positively influences students' problem-solving skills, wherein they begin to engage with the problem, and approach it, rather than find ways to avoid it (Wismath, Orr, & MacKay, 2015). Previous studies also indicate the importance of teacher efficacy in honing approach-avoidance problem solving skills in current education, which further contributes towards Transformative Quality.

The concept of bricolage, expounded by Leví-Strauss (1967) refers to making do with resources at hand, particularly in a resource-constrained environment. In such a resource-constrained environment (such as the present research sample), faculty members more or less adopt pro-active strategies, wherein they identify resources and assemble them (Louve, 2013). Such a scenario transforms teachers into bricoleurs (Louve, 2013), wherein along with students, front-line faculty members "thrive on low functional fixedness of resources" (Duymedjian & Rüling, 2010, p. 143). Previous studies have also revealed the importance of teacher-led bricolage activities in building students' problem-solving skills (Witell, et al., 2017). The resource-constrained private-unaided HEIs in the research sample are typically characterised by bricolage (Bhutiani, Nair, & Hicks, 2014). Some instances of bricolage in private-unaided HEIs are, sharing of infrastructure and resources by different departments, holding annual functions and course-related workshops with participation of students and staff, pooling resources and harnessing and encouraging frugal innovation. Such bricolage activities which are usually helmed by the front-line faculty of an institution, involve students, and inadvertently trigger development of problem-solving capabilities among students (Witell, et al., 2017), which further contribute towards Transformative Quality in HEIs.

Instructional Engagement – Overall Awareness

It has been found that *Instructional Engagement* has a positive and significant influence on *Overall Awareness* (β = .299, p = .002). This implies that the teacher's instructional engagement positively influences the overall awareness of students.

The importance of developing self-awareness is well-established, since it enables students to be better informed and more intentional in general. Partnership between faculty and students facilitates this process of developing awareness through teaching and learning processes, engagement in class and dialogue (Cook-Sather, Bovill, & Felten, 2014). Moreover, dimensions of Teacher Efficacy such as engaging students, extending dialogue between faculty and students, enables them to develop perspectives about the big picture (Cook-Sather, Bovill, & Felten, 2014). This implies that students begin to become more conscious of their own learning process in general classroom environment and beyond. This process of becoming 'self-aware' is dependent on effective student engagement and instructional strategies, thus making the impact of Teacher Efficacy on Transformative Quality in higher education a significant study.

Faculty interaction with students results in gains in general cognitive abilities among students (Terenzini, Springer, Pascarella, & Nora, 1995; Pace, 1990). It also enables students to develop awareness of themselves and their environment (Flavian, 2016). Since most of the faculty is relatively younger (which translates to less experienced, less qualified, working on less salary) in private-unaided HEIs as compared to other institutions, (Schendel & McCowan, 2016) the power distance between them and students is lesser, and students are able to engage with faculty more freely (Sadri & Flammia, 2011). This facilitates greater classroom interaction, and gives students an opportunity to become more aware about themselves and their surroundings in general.

Another reason for this result to be statistically significant could be, the diversity of students in the classroom. Since the central government incentivises student enrolment from lesser privileged strata of the society, private-unaided HEIs mostly admit such students under the Centre-State sponsored financial schemes. More than 1.99 lakh students availed these schemes in 2019-20 (Arora, 2020). These students belong to different states from all over India, most popular being Bihar, Uttar Pradesh, Jammu & Kashmir, and from Punjab itself as well (in research sample). This diversity too, plays an important role in enhancing self-awareness among students.

Instructional Engagement – Overcoming Prejudices

Instructional Engagement has a positive and significant influence on *Overcoming Prejudices* (β = .277, p = .003), and further contributes towards Transformative Quality in higher education. This means that the instructional engagement positively influences the students' ability to overcome prejudices. This is consistent with prior studies, that is, when faculty engages a diverse group of students in a common task, such as group presentations, discussion of problems and brainstorming to find collective solutions, it enables them to overcome prejudices, such as discrimination based on caste, creed and social status (Barnett, 2011).

Prior research has shown that Teacher Efficacy, particularly through engaging students presents outcomes such as better racial understanding among students, greater participation in community programs and lesser prejudice among students (Chang, 2002; Gurin, Dey, Hurtado, & Gurin, 2002; Milem, 1994). Teacher Efficacy is also characterised by its impact to teach students to appreciate critical features of presented cases or problems, and enable them to abandon previous assumptions and solve them, thus cultivating problem-solving skills among students (Dolmans, Wolfhagen, Scherpbier, & Vleuten, 2003). Therefore, not having merely diverse classrooms but also active engagement in class, such as working together in classrooms/group projects, activities, simulations, case studies or videos among a diverse student population in private-unaided HEIs, can directly influence students to overcome their prejudices (Nagda, Gurin, & Lopez, 2003). This further contributes towards Transformative Quality.

Instructional Engagement – Skillfulness

The *Instructional Engagement* has a positive and significant influence on *Skillfulness* (β = .572, p = .000) of students. This means that instructional engagement positively influences the skillfulness among students.

Previous studies have shown that skills and abilities for graduate employability are fostered by teaching approaches and Teacher Efficacy (Goodyear, 2002). The acquisition of skills and knowledge are a result of sustained efforts of faculty to engage students and manage the classrooms effectively (Knight & Yorke, 2003). Rich literature evidences the impact of effective instructional strategies and engagement on student outcomes, such as acquisition and

enhancement of skills, abilities and knowledge (Martin & Bolliger, 2018; Pianta, Hamre, & Allen, 2012; Mayer, 2002).

It is important to understand these results in the context of this research. Most of these private-unaided HEIs in the research sample overly emphasise instrumental learning, which may be based on positive or negative reinforcement (Harvey, 2000). Therefore, there has been an extremely narrow focus for job placements only. This has been understood through the lens of the cultural-cognitive pillar of institutional isomorphism, which ultimately led to several affiliated colleges promoting and falsely advertising their placement numbers, rather than emphasizing on equipping students with necessary skills, such as strengthening domain knowledge, soft skills and generic competencies to find gainful engagement on their own (Tilak & Mathew, 2016). The primary goal in mass learning is to attain a job (Harvey, 2000). This typical characteristic of mass-learning HEIs, emphasises the efficacy of teachers to overly focus on positive or negative reinforcement in order to gain skills for employability. In the book, 'How College Works', the authors believe that "…far more than disciplinary knowledge or technical skills are at stake; in fact, an overemphasis on them may even limit what students can gain" (Chambliss & Takacs, 2014, p. 157). This inadvertently leads to the inclusiveness-excellence gap, as detailed in Table 2.1.

Moreover, the skillfulness is *condensed* into a six-week crash course in most of the HEIs in our research sample, wherein tailor-made placement modules are designed and administered to students, before the placements begin in the final year of their graduate studies (Clement & Murugavel, 2015). Some HEIs outsource these courses, and others employ their own front-line faculty to fill this colossal gap. Therefore, these results need to be viewed cautiously, through the lens of demand-absorbing HEIs, wherein skillfulness remains a stop-gap arrangement, thus adhering to the cultural cognitive pillar.

Within-class Management – Overcoming Prejudices

It has been found that the *Within-class Management* has a significant influence on *Overcoming Prejudices* (β = -.301, p = .002). This implies that the impact of teachers' within-class management on overcoming prejudices among students is statistically significant, however, negative β value indicates several potential reasons, which may influence the relationship of the aforementioned dimensions.

Previous results have shown that instructional engagement, which is an entrenched endeavour (Groccia, 2018), positively influences students' ability to overcome prejudices. However, prior literature presents an interesting take on the underlying processes of managing classrooms and diversity. On the surface, front-line faculty values intercultural/inter-racial cooperation, however, "the degree of teachers' tolerance to otherness and different styles can dwindle quickly when teaching and learning demand more time, energy, and patience" (Otten, 2003, p. 14). Therefore, "vague interculturalism" (Otten, 2003, p. 14) becomes an undesirable goal as opposed to maintaining a decent academic result or devoting towards a narrow focus on skillfulness. In the context of this research, it can be understood that within-class management takes a backseat, since greater time, energy and patience is devoted towards teaching and learning processes. It is vital to remember that these demand-absorbing HEIs shoulder the responsibility of educating the burgeoning demographic dividend, and the students with the weakest academic backgrounds (Tilak & Mathew, 2016; Tsui, 2001).

Other potential reasons for observing the negative β value could also be contextual reasons. For instance, in our research sample, the private-unaided HEIs do not offer either good infrastructure for sports or appropriate hostel facilities. Some HEIs completely lack hostel facilities, others segregate students based on the States they belong to. These instances lead to reduced interaction of students beyond the classroom. It is seen that the private-unaided HEIs in the research sample, deliberately have separate hostels for students from different States, thus reducing their interaction only to college/classroom hours. This is done to avoid conflicts related to food, or frayed tempers which were witnessed during sports season (particularly, cricket) (Singh & Dhillon, 2014). Therefore, the aforementioned reasons might provide rationale as to why the lack of within-class management may not enable students to transcend their prejudices, and contribute towards Transformative Quality of an institution. However, this rationale is relevant to the context of this research. It requires future research for generalization.

Within-class Management – Skillfulness & Approach-Avoidance Problem-Solving

Teachers' *within-class management* is statistically significant for *Skillfulness* (β = -.188, p = .009) and *Approach-Avoidance Problem Solving Skills* (β = -.272, p = .010). This implies that the impact of Within-class Management is significant for skillfulness and approach-avoidance problem solving skills among students, however negative β values suggest potential reasons

which could influence the relationship of the aforementioned dimensions in this research context. Prior literature has shown that within-class management has positive impact of students' learning outcomes, including academic skills and cognitive skills such as emotionality and problem-solving competencies (Korpershoek, Harms, Boer, Kuijk, & Doolaard, 2016; Tartwijk & Hammerness, 2011).

Moreover, it is important to understand that being a front-line faculty member, onus of creating conditions conducive to execute their professional duties lie largely on the teacher himself/herself (Samuelsson & Colnerud, 2015). Regrettably, the lack of autonomy and academic freedom in Indian HE, particularly in affiliated colleges (our research sample) has been a bane, and adversely impacts the within-class management of the teachers (Dash, 2016). The lack of within-class management could one probable reason for negative β values in this research context.

The probable argument for observing the negative β values could also be the lack of investment in training and placement department and institutional-industry linkages, in our research sample of private-unaided HEIs, thus divesting students and HEIs off skillfulness and lowered Transformative Quality (Gambhir & Wadhwa, 2013). Previous results indicate a positive influence of teachers' instructional engagement on skillfulness among students, which shows the role of skills modules and delivery of skills training (Harvey, 2000). Most of these HEIs invest in short-term courses in order to cater to job placement related tests and interviews, but, they lack dedicated training and placement departments, due to resource constraints (Clement & Murugavel, 2015). However, teacher's within-class management alone may not help in skills enhancement and acquisition.

Similarly, for higher-order skills such as approach-avoidance problem-solving, other probable reasons such as lack of an evolving competitive curriculum, effective teaching and learning strategies, good quality faculty, encouraging team work, emphasising team projects and so on, could be potential reasons for observing negative β values. Again, these results require further research for generalisation, and should be viewed in the context of the research.

Within-class Management – Critical Confidence & Overall Awareness

Since well-managed classrooms provide better opportunities to reflect during the course of the program, the critical thinking skills among students are more likely to get developed (Campbell, 2009). Students become inquisitive, analytical, thoughtful, reasonable, and open to

new ideas in well-managed classrooms (Kocoska, 2009). Interestingly, the results of this research showed no statistical significant influence of *within-class management* on *critical confidence* among students. One potential reasoning for this could be that within-class management has mostly been neglected in teacher education, resurfacing sporadically in the form of occasional seminars or as embedded in other courses (Tartwijk & Hammerness, 2011). The sheer neglect of this dimension in teacher education, could translate into the lack of it within the confines of a classroom among front-line faculty members, and hence, lead to no impact on cognitive skills such as critical confidence and overall awareness.

Another logical reasoning could be because the faculty evades efforts to strategically interject challenges into the curriculum, which fails to trigger the development of critical confidence among students (Tsui, 2001). This means that faculty efforts beyond classroom management may also become essential for development of higher-order cognitive skills such as critical thinking and confidence among students (Deccan Herald, 2019; Lien, 2005). Likewise, within-class management has no impact on *overall awareness* among students. This may be because instilling awareness is based on sustained efforts of faculty to engage students; and classroom management may only be a miniscule aspect of it. Since these results are scant in literature, it is important to research them further to be able to generalize in the larger context.

6.3 Findings and Discussions

Extensive literature review and the findings from the present research have given several insights concerning quality measures in dichotomous higher education (HE) systems. The present research attempts to offer quality measure as Transformative Quality, which is further defined by specific dimensions. This quality has been studied by investigating the perspectives of the front-line faculty, and has been diagrammatically depicted in Figure 6.2. Before proceeding further, it is imperative to first discuss the research objectives of the research.

6.3.1 Research Objective 1

The first objective of the research was to define and develop ‘quality’ in the context of private-unaided higher education institutions (HEIs) in a dichotomous higher education (HE) system from front-line faculty perspective. As shown in Figure 4.1 and Figure 6.2, this objective was partially fulfilled through a thorough literature review in Chapters 2 and 3, which further led to the conceptualization of Transformative Quality. This redefined notion of quality comprising

higher order cognitive, teachable dimensions which can transcend access-quality and inclusiveness-excellence divides in a dichotomous HE system. The resulting instrument was administered to front-line faculty in Phase I of data collection (Refer Appendix 2). Phase I of data collection was followed by an exploratory factor analysis (EFA), which provided clarity on the dimensions of Transformative Quality. This was followed by nomenclature of the resulting factors, based on literature review. The identified factors of Transformative Quality post-EFA were namely,

- Critical Confidence;
- Approach-Avoidance Problem Solving Skills;
- Overall Awareness;
- Overcoming Prejudice;
- Skillfulness;
- Emotionality.

These factors constituted 69.68%. variability of overall Transformative Quality. This means that Transformative Quality is significantly explained by the aforementioned factors. Thereafter, phase II of data collection was carried out to confirm the underlying factor structure using confirmatory factor analysis (CFA). This led to a final five-factor solution for Transformative Quality, wherein Emotionality dimension was removed owing to low factor loadings. This endeavour completely addressed Research Objective 1, that is, to define and develop a quality measure that transcends a dichotomous HE system by investigating it from front-line faculty perspectives. In other words, to attain greater Transformative Quality, it is important for policymakers, institutional management and educators to focus on the aforementioned specific dimensions, for enabling enhancement and empowerment of students, and for contributing towards Transformative Quality in HE.

6.3.2 Research Objective 2

The second objective of the research was to investigate the relationship between Teacher Efficacy and the redefined measure of quality, that is, Transformative Quality in private-unaided higher education institutions from front-line faculty perspectives. The second objective was achieved through analyzing Teacher Efficacy-Transformative Quality (TE-TRF) model using structural equation modelling (SEM) (refer Figures 3.1 and 6.2). Before SEM, a similar statistical procedure of doing EFA, followed by CFA was done for understanding the

underlying factor structure of Teacher Efficacy construct. Thereafter, SEM was carried out, which revealed the impact of Teacher Efficacy on Transformative Quality in higher education. It showed that teachers' *instructional engagement* and *within-class management* had a significant impact on students' critical confidence, approach-avoidance problem solving skills, overall awareness, overcoming prejudices and skillfulness. This implies, that faculty must keep in mind, that their efficacy in terms of instructionally engaging students and managing classrooms can effectively contribute towards greater Transformative Quality in HE. The R-squared value indicates that the impact of Teacher Efficacy on Transformative Quality is 42.8% (refer Tables 33 & 34). Since Teacher Efficacy can have far-reaching consequences for students and institutional quality, teacher-training programs can be devised to particularly cater to the honing of teachers' efficacy to instruct, engage students and manage classrooms.

Figure 6.1 depicts the impact of Teacher Efficacy on Transformative Quality in higher education. It can be seen that the R-squared value in Table 6.2 indicates the impact of Teacher Efficacy on Transformative Quality as 42.8%, thus reiterating the importance of front-line faculty in quality processes.

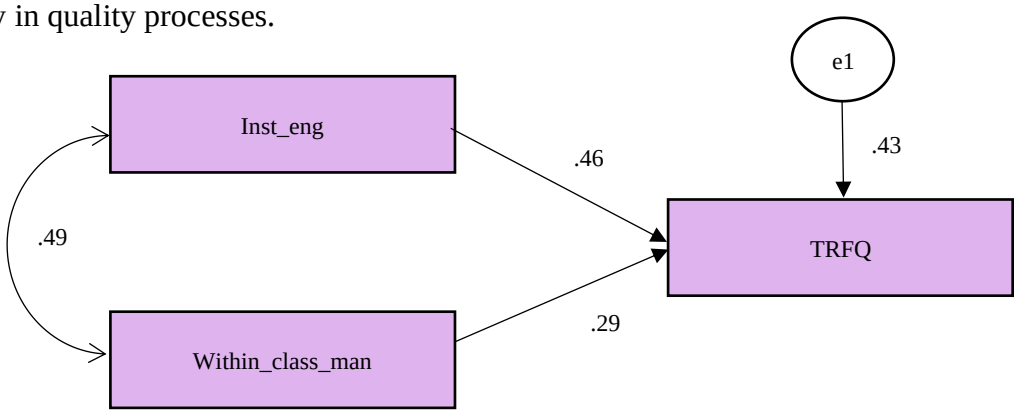


Figure 6.1: Role of Teacher Efficacy in Transformative Quality

			Estimate	S.E.	C.R.	P	Label
TRFQ	<---	TE1	.188	.021	9.117	***	par_2
TRFQ	<---	TE2	.121	.021	5.775	***	par_3

Table 6.1: Regression Weights

	Estimate
TRFQ	.428

Table 6.2: Squared Multiple Correlations

6.3.3 Research Objective 3

The third objective of the research was to propose a policy framework to address quality issues and enable improvement in private-unaided higher education institutions. This has been achieved by using outcomes of Research Objectives 1 and 2, as depicted in Figure 6.2. The acceptance or rejection of the generated hypotheses provides insights on how the TE impacts TRFQ. The structural model (refer Figure 5.6) thus established depicts the role of teachers' on contributing towards Transformative Quality of private-unaided HEIs. The framework shows which specific factor impacts which particular dimensions of Transformative Quality the most, and which factor has least impact. By situating the results in the wider body of knowledge, this research provides a parsimonious model for gaining insight into the current quality issues that plague private-unaided HEIs and; the policies and strategies which can be framed to counter them, through a key stakeholder – the front-line faculty. These policies have been discussed in Table 6.3.

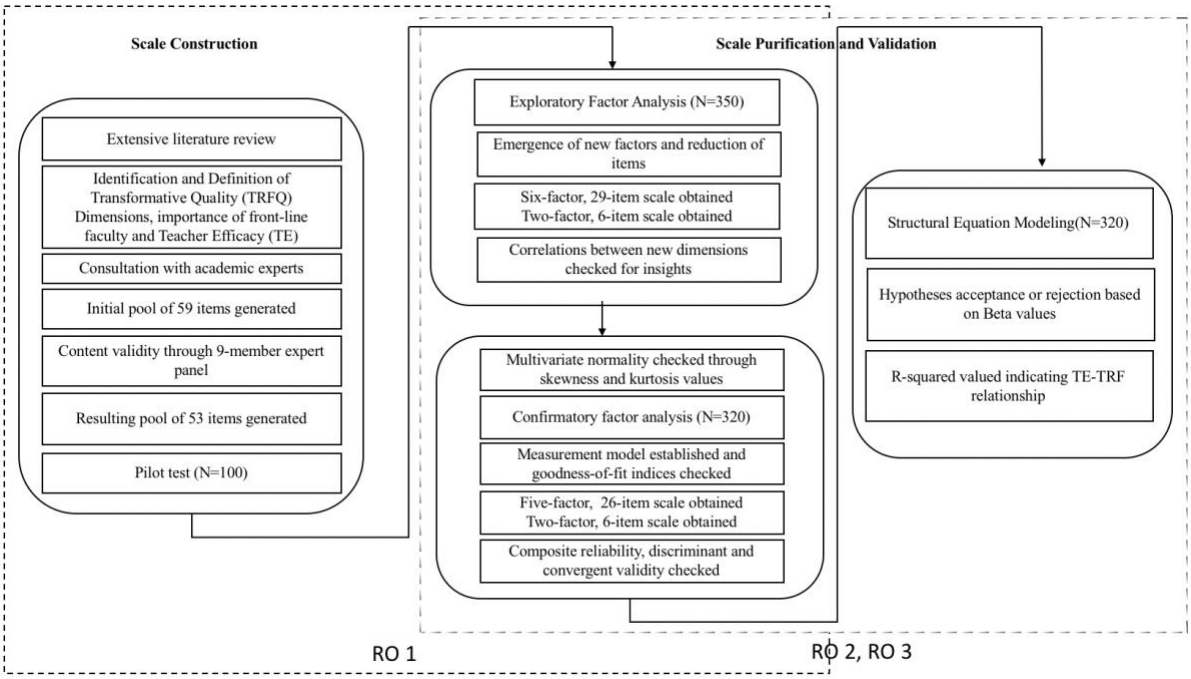


Figure 6.2 Diagrammatical Representation of the Research

Outcomes of the Research Hypotheses	Key Policy Recommendations
Teacher's Instructional Engagement has a significant, but negative influence on the Critical Confidence of students.	Faculty members teaching in access-providing HEIs may evade efforts to enhance the critical thinking and confidence among students, because of their belief that students at these institutions are academically underprepared. Therefore, it is important for the institutional management to be wary about recruiting faculty members who are firm of their belief of student potential (Tsui, 2001). Another reason to evade efforts to enhance students' critical confidence abilities could be the lack of appreciation and rewards for such endeavours. Hence, recognition and rewards by the management, particularly for critical confidence building endeavours of front-line faculty can provide motivation, and help in contributing towards the Transformative Quality of the institution. It is vital to recognise that hiring faculty with questionable capabilities in lieu of lower salaries can be harmful and counter-productive towards Transformative Quality contribution. Hence, it is important to prioritize the quality of faculty to be hired. It is crucial to take periodic evaluations of the job satisfaction levels among front-line faculty members, because it has a direct impact with the teachers' dedication to teach, and hence Teacher Efficacy (Collie, Shapka, & Perry, 2012).
Emotionality dimension of Transformative Quality gets removed after CFA.	It is crucial to include aspects of Social and Emotional Learning (SEL) in the continuous professional development of teachers. SEL training for teachers should be made mandatory so that they can further support and enhance the emotional stability among their students. NEP-2020 has taken cognizance of the issue and has included SEL as a vital component in higher education. Embedding effective classroom management enhances emotional stability among students, improves problem-solving skills among them, and enhances their social skills (Kennedy, 2020; Leblanc & Skaruppa, 1997). Implementing such interventions within the confines of the classroom will have a profound positive impact on the emotionality of students.
Within-class Management has a significant, but negative	For students to overcome prejudices, it is important to not segregate them into separate hostels and classrooms (as is done in the research sample HEIs). Celebrating diverse festivals on campus, leadership holding inclusive speeches,

influence on Overcoming Prejudices.	encouraging team projects are some of the ways in which students may overcome prejudices, and help contribute towards Transformative Quality.
Within-class Management has a significant, but negative influence on Skillfulness.	For skillfulness and subsequent Transformative Quality, it is pertinent to establish a dedicated training and placement department and build institutional-industry linkages, rather than have skills modules as a stop-gap arrangement, before placement drives. Alongside, it may be beneficial to build a strong alumni network, and provide students with networking opportunities.
Within-class Management has a significant, but negative influence on Approach-avoidance Problem-Solving Skills.	It is essential to devise an evolving, competitive curriculum. The role of front-line faculty becomes even more significant because building approach-avoidance problem-solving skills among students, can be achieved through effective teaching and learning strategies, team projects, and so on. It also necessitates periodic professional teacher training in tandem with curriculum update, in order to contribute towards Transformative Quality of an institution.
Teachers' Within-class Management has no influence on students' Critical Confidence and Overall Awareness.	Within-class management is a neglected part in teacher education. It needs to be emphasized, and included in key policies pertaining to teacher education. It is also important to recognise that higher-order skills among students are a result of sustained efforts of faculty to engage students instructionally, wherein within-class management plays a vital role as well.
Recognise the gap between the "rhetoric of quality" and "reality of quality".	To recognise and address the gap between rhetoric and reality of quality, it is essential to hold regular seminars, meetings, establish feedback mechanisms, between the institutional management and the front-line faculty. Such meetings can help in bridging the implementation gap, and help in translating the espoused emphasis on improvement to an actual emphasis on accountability.

Table 6.3: Key Policy Recommendations Based on Research Outcomes

6.4 Significance of Findings

This section summarizes important implications for policymakers, educators and institutional management. This present research calls for attention towards realistic understanding and provides redressal of quality issues in the burgeoning access provider HE sector. This sector has both Indian and global implications. In fact, this research is relevant for any global HE system which is grappling with post-massification consequences such as access-quality and inclusiveness-excellence divide. It is increasingly being recognized world over, that universities are responsible for engaging with societal needs, and working towards social, cultural and economic development. This sentiment is echoed by many organizations such as The Program for Research on Higher Education (PROPHE), the European Higher Education Society (EAIR), the Society for Research into Higher Education (SRHE), Principles for

Responsible Management Education (PRME) forum, and the Association for Institutional Research (AIR). These organizations have brought issues related to quality in HE, inclusion and excellence in HE, and access versus quality issues in HE to the forefront of dialogue and collaborative research. This very undertaking is testimony to the fact that there is increasing amount of dedication and immediate attention being paid to access, quality and inclusion issues in HE.

This present research addresses quality measures, particularly in a dichotomous HE system. The proposed concept, that is Transformative Quality, is based on seminal concepts of Harvey & Green (1993). Despite being considered as the most appropriate definition in higher education, both quality and transformation have been considered elusive since long (Cheng, 2014), and subject to diverse interpretations. Transformative Quality has been empirically studied by Teeroovengadum et al. (2015). The present research establishes Transformative Quality through the perspective of the often under-researched and ignored, but supremely important stakeholders, that is, the front-line faculty (Hall, 2015). Their perspectives give the institutional management an insight about the perceptions of front-line faculty, and their efficacy in terms of instructionally engaging students and managing classrooms. This further impacts Transformative Quality in private-unaided HEIs. Interestingly, it has a direct impact on its dimensions, namely, *critical confidence, approach-avoidance problem-solving skills, overall awareness, overcoming prejudice* and *skillfulness*. The research's findings reveal that Teacher Efficacy can negatively impact critical confidence of students because of faculty perception. Thus, it draws attention of institutional management to recruit faculty members who are firm of their belief of student potential (Tsui, 2001).

Although prior literature reports that Teachers' Efficacy in classroom promotes social-emotional learning (SEL) in classrooms, and is positively associated with emotional stability among students (Collie, Shapka, & Perry, 2012; Jennings & Greenberg, 2009). Previous literature has reported that effective classroom management enhances emotional stability among students, enables students to handle different problems and helps to improvise on their social skills (Leblanc & Skaruppa, 1997). These interventions can be implemented within the confines of the classroom by teachers, and have a far-reaching impact on the emotional quotient of the student. However, in this research, Emotionality dimension gets removed after CFA.

The removal of *Emotionality* dimension post-CFA despite being supported in various academic publications (Sanchez-Ruiz, Mavroveli, & Poullis, 2013; Hay & Ashman, 2003) has important

implications as well. One reason for non-inclusion of emotionality from faculty's perspective could be the glaring exclusion of aspects of Social and Emotional learning (SEL) in the continuous professional development of teachers (Deccan Herald, 2019). This lack of SEL building for educators reflects in the poor loadings of emotionality dimension of Transformative Quality. Prior research has endorsed SEL, because these skills are teachable, and they can benefit students from all backgrounds (Cohen, 2006). The exclusion of Emotionality in the context of private-unaided HEIs is a crucial finding for policymakers to lay stress on the importance of SEL training for teachers, who can further support and enhance emotional stability among their students, and thus contribute towards Transformative Quality of an institution. By embedding effective intervention strategies in their teaching, faculty can play a vital role in enhancing emotional stability among students (Kennedy, 2020).

Looking from the economic perspective, it is imperative to understand that the global top ten share of private HEIs is 69.2%, wherein China, India and USA comprise the top three (Levy, 2015). Therefore, the robustness of this sector is exceedingly important, because its collapse would entail large, irreversible fiscal implications.

The significance of the findings of this research can help not only existing HEIs, but also those intending to enter the private-unaided HE sector. The erstwhile access providers cannot be pushed into poverty at the cost of providing inclusiveness and access. To break free from the rigmarole of self-fulfilling ranking systems, the private-unaided HEIs must work towards enhancement and empowerment of their key stakeholder – the student. Since the front-line faculty has direct access to students, and closely interacts with them, their perspectives on quality become vital. Therefore, it is important for policymakers to take into account, the previously ignored class of stakeholders of HE sector, that is, the front-line faculty, and work towards Transformative Quality. Since the dimensions of Transformative Quality consist of teachable traits, the front-line faculty can play a crucial role in inculcating them among students, and thus, contributing to Transformative Quality of the institution. Such an approach can help in transcendence across access-quality and inclusiveness-excellence divide currently afflicting the private-unaided HE sector.

6.5 Research Contribution

This section presents the contribution of this research to the wider body of knowledge. To enhance the understanding of the particular research problem, it is first analyzed with the

theoretical lens of classical management theories, that is, institutional theory, resource dependency theory and agency theory. It gives an insight into the institutional isomorphism faced by the private-unaided HEIs. Moreover, it gives an overview of how resource dependencies has impacted the power, leverage and institutional quality among private-unaided HEIs. Understanding quality from front-line faculty's perspective is a significant attempt to reduce the prevalent information asymmetry between the management and the front-line faculty, and address the moral hazard. The significant contribution of this research is a quality measure which can transcend a dichotomous HE system. For this purpose, it proposes Transformative Quality, comprising the following dimensions, *critical confidence*, *approach-avoidance problem-solving skills*, *overall awareness*, *overcoming prejudice*, *skillfulness* and *emotionality*. This fulfills the Research Objective 1. These specific dimensions of Transformative Quality are impacted by the two factors of Teacher Efficacy, namely, *instructional engagement* and *within-class management*. The outcome is the Teacher Efficacy-Transformative Quality (TE-TRF) Model (refer Figure 3.1), which is tested through Structural Equation Modeling, thus addressing the Research Objective 2. The outcomes of Research Objectives 1 and 2 provide a policy framework for addressing issues plaguing private-unaided HEIs, thus fulfilling Research Objective 3.

As a result, the primary theoretical contribution is the identification of dimensions of Transformative Quality, which were derived through an extensive literature review and further explored through EFA and confirmed for their underlying factor structure through CFA (refer Figure 5.4). This present research also advances theory building in the field of Transformative Quality in HE, by offering a psychometrically sound measurement to measure the erstwhile elusive transformative quality in HE (Zhang, Choudhury, & He, 2019). Thus, this thesis bridges this gap by developing a rigourous Transformative Quality scale for measuring the contextualised and transformative definition of quality in HEIs, through the perspective of front-line faculty.

It is important to note, that by investigating the front-line faculty of private-unaided HEIs, this research endeavours to fill the gap between the "rhetoric of quality" and "reality of quality", and enables the espoused emphasis on improvement to translate to actual emphasis on accountability. Hall (2015) reiterates the dearth of including front-line faculty members, wherein most of the research literature does not distinguish between the views of front-line faculty, and administrators and faculty members whose work includes significant management

responsibilities. The existing studies simply refer to participants as “faculty,” “academics,” or “lecturers”, thus leaving the scholar bereft of information regarding their important characteristics and responsibilities. This lack of specific information on characteristics of faculty members, such as rank, discipline, degree of involvement in quality management activities, can be an impediment to transferability of these empirical studies (Hall, 2015). Thus, this research specifies the sample of the research as ‘front-line faculty’ members employed in AICTE-affiliated private-unaided HEIs. Academicians and researchers may gain from this research while undertaking similar studies in future.

6.6 Concluding Remarks

This chapter provides a discussion on the results of this research. This research fulfills its Research Objectives and its results indicate a significant impact of Teacher Efficacy on all dimensions of Transformative Quality in higher education. Teacher’s instructional engagement bore greater significance than within-class management. The latter had no impact on skills acquisition and overall awareness among students. The former had a direct impact on all dimensions of Transformative Quality, namely, critical confidence, approach-avoidance problem-solving, overall awareness, overcoming prejudices and skillfulness. This chapter comprised the findings and discussions, theoretical and practical implications of the research and its contribution. The conclusions, limitations and recommendations for future research are presented in Chapter 7.

Chapter 7

Conclusion and Future Scope

"I came to the conclusion that we should aspire to increase the scope and scale of human consciousness in order to better understand what questions to ask. Really, the only thing that makes sense is to strive for greater collective enlightenment."
-Elon Musk

The previous chapter entailed a discussion of the results of this research. Based upon the significance of the findings, theoretical and practical implications of the results, this chapter presents the conclusion and limitations of the present research, while also highlighting future research directions.

7.1 Conclusions

The results of the research contribute to the body of knowledge on Transformative Quality in higher education (HE) literature. The important dimensions of Transformative Quality in the context of private-unaided higher education institutions (HEIs) that emerged from exploratory factor analysis (EFA) and literature review are emotional stability, critical thinking, confidence, problem-solving abilities, self-awareness, overcoming prejudices, and skillfulness. These specific dimensions contribute towards the Transformative Quality in HEIs. The research has developed a scale for measuring Transformative Quality from front-line faculty perspective, in private-unaided HEIs. The CFA results, interestingly, removed emotionality as a dimension from Transformative Quality, indicating the lack of Social-Emotional Learning (SEL) component from teacher's training. Teacher training bereft of SEL can have a profound effect on students' learning and achievement outcomes, and thus their *transformation*.

The Structural Equation Modeling (SEM) results demonstrate the impact of Teacher Efficacy, more specifically, teacher's instructional engagement and within-class management, on Transformative Quality in HE. It implies that teachers should emphasize on engaging students, focusing on their instructional strategies and effectively managing classrooms to contribute towards the aforementioned dimensions of Transformative Quality.

The results indicate that instructional engagement of faculty can be low because of their perceptions of students' in these private-unaided HEIs being academically under-prepared. In such a scenario, faculty might not put in efforts to cultivate and enhance critical thinking skills and confidence amongst their students, thus lowering the Transformative Quality of the HEI.

In a rigidly hierarchical Indian HE system, the least selective institutions bear the responsibility of educating the students with the weakest academic backgrounds. Therefore, the enhancement of their higher-order cognitive skills is even more challenging, because the faculty, mostly, feel that the students lack competency (Tsui, 2001). Moreover, their efforts to enhance their critical thinking and confidence will not be recognized or rewarded. Such faculty attitudes can be rather harmful, and impede the ultimate objective of attaining Transformative Quality.

The results also draw attention towards the impact of instructional engagement on approach-avoidance problem-solving skills of students in the context of private-unaided HEIs. These resource-constrained institutions, which mostly incorporate bricolage and frugal innovation, unknowingly enable their students to imbibe these skills. Furthermore, effective instructional engagement and group activities enable students to become more aware, intentional and overcome prejudices. These factors contribute towards Transformative Quality in HE as well. Lastly, the narrow focus on instrumental learning and skills acquisition (in private-unaided HEIs) is greatly impacted by teacher's instructional engagement, whereas within-class management may have no impact on it. Teacher's within-class management, along with instructional engagement has significant impact on Transformative Quality in HEIs (refer Tables 6.1 and 6.2). Hence, front-line faculty perspectives are vital for quality endeavours in a HEI. Furthermore, these results provide ground for key policy recommendations as detailed in Table 6.3.

7.2 Limitations and Future Scope

Though this research attempts to cover aspects of quality, and draws support from sound literature and methodological foundations, still there remains a vast scope for further research. Firstly, although the TE-TRF model (refer Figure 3.1) addresses dimensions which are central to the Research Objectives, however, there could also be a possibility of other dimensions or factors which influence Transformative Quality in higher education. Therefore, there is scope for further improvement of rigour of the TE-TRF model, by investigating other mediating and moderating factors, such as institutional leadership, regulatory framework, teacher's sense of self-efficacy, diversity, role of governing bodies and organizational culture.

Secondly, there remains limitation on the scope of the research in terms of data collection. Since the data collection is restricted to private-unaided HEIs across North-Western India (Punjab), future research could include other parts of India and the world as well.

Methodologically, case comparisons, such as inter-State comparisons would also make for interesting research studies, because of the difference in affiliating State universities and State policies within India (refer Figure 1.1).

Thirdly, a comparison of private-unaided HEIs and public HEIs would give a more nuanced picture of Transformative Quality, and enable better visualization of the access-quality and inclusiveness-excellence divides plaguing the dichotomous HE system.

Fourthly, this research takes into account, only perspectives of front-line faculty. The Transformative Quality measure can be validated from the perspectives of other stakeholder in HE, such as policy makers, top management, students, and parents. Such an endeavour can contribute towards addressing the stakeholder-perspectives divide as well (refer Figure 1.2). Faculty perspectives with a clear focus on "classroom characteristics" have been taken in this research. Future research can explore wider aspects of the construct, by taking into consideration the "non-classroom characteristics" of teachers as well. This research includes the demographic information of the front-line faculty, comprising information on educational level, years of experience, designation and computer training. It does give a preliminary idea about a conspicuously low number of faculty with a doctoral degree, and age above 50 years is employed in the sample HEIs. This certainly gives interesting future avenue for research to include demographics-based effects on the results. This scale can be used at K12 school-level, training level, vocational education-level as well. To theoretically enrich the TE-TRF model, adding mediating and moderating factors will enable gaining more insight into this particular area of research. Cross-country comparisons, and single case research studies will also boost the global body of literature on private higher education.

Finally, the scope and value of Transformative Quality in higher education is tremendous. It aims to enhance and empower its participants by producing well-rounded, critical and confident thinkers, problem-solvers, self-aware, unprejudiced and skilled students. For this purpose, front-line faculty engagement is paramount. The COVID-19 pandemic has reiterated the importance of faculty who are at the forefront, and continuously recalibrating their courses and teaching methods. This could well be an opportunity for private-unaided higher education sector to reinvent and address the issues long afflicting this sector.

In fact, India has announced its 65-page National Education Policy (NEP) on July 30, 2020, wherein, besides radical changes in the higher educational landscape, the importance of teachers in implementing the proposed changes has been recognized. A new age of the

professor can usher in through creative, critical individual and collective work in higher education (Roberts, 2019). While acknowledging the quality issues in teacher training and the glaring exclusion of Social and Emotional Learning aspects till now, NEP-2020 emphasizes on the need for using transformational pedagogical interventions and promoting SEL. However, the revolutionary document does not provide a detailed roadmap for achieving this. The policy expects the access-providing HEIs (sample in this research) to vanish into oblivion through institutional mergers. However, extreme caution should be exercised especially in policy-making for demand-absorbing HEIs in India. This is because these institutions, being major providers of higher education in the country, have long fulfilled the provincial aspirations in an-elite dominated HE system in India (Guru, 2020). Simply vanishing them into a novel futuristic landscape cannot be a viable solution. This thesis attempts to contribute in this area by addressing quality issues in the burgeoning demand-absorber HEIs and working in the direction of the proposed changes in NEP-2020 through Transformative Quality.

Works Cited

[1] Abdullah, F. (2006). Measuring service quality in higher education: HEdPERF versus SERVPERF. *Marketing Intelligence & Planning, 24*(1), 31-47.

[2] Adeyemo, A. (2012). The Relationship Between Effective Classroom Management and Students' Academic Achievement. *European Journal of Educational Studies, 4*(3), 367-381.

[3] Agarwal, P. (2006). *Higher Education in India: The Need for Change, Working Paper No. 180.* New Delhi: Indian Council for Research on International Economic Relations.

[4] AISHE. (2018). *All India Survey on Higher Education 2017-18.* New Delhi: Ministry of Human Resource Development.

[5] AISHE. (2019). *All India Survey on Higher Education 2018-19.* New Delhi: Ministry of Human Resource Development.

[6] Akkerman, S. F., & Bakker, A. (2011). Boundary crossing and boundary objects. *Review of Educational Research, 81*(2), 132–169.

[7] Altbach, P. (2006). The dilemmas of ranking. *International higher education, 42*.

[8] Altbach, P. (2013). Access Means Inequality. In P. G. Altbach, *The International Imperative in Higher Education. Global Perspectives on Higher Education* (pp. 21-24). Rotterdam: Sense Publishers.

[9] Altbach, P. (2014). India's higher education challenges. *Asia Pacific Education Review, 15*(4), 503-510.

[10] Altbach, P. G., & Hazelkorn, E. (2017). Pursuing rankings in the age of massification: For most—forget about it. *International Higher Education, 89*, 8-10.

[11] Aly, N., & Akpovi, J. (2001). Total Quality Management in California Public Higher Education. *Quality Assurance in Education, 9*(3), 127-131.

[12] Amaral, A., & Rosa, M. (2010). Recent trends in quality assurance. *Quality in Higher Education, 16*, 59-61.

[13] Anderson, G. (2006). Assuring quality/resisting quality assurance: Academics' responses to 'quality' in some Australian universities. *Quality in Higher Education, 12*(2), 161-173.

[14] Anderson, R., Greene, M., & Loewen, P. (1988). Relationships among teachers' and students' thinking skills, sense of efficacy, and student achievement. *Alberta Journal of Educational Research, 34*(2), 148–165.

[15] Angell, R., Heffernan, T., & Megicks. (2008). Service quality in postgraduate education. *Quality Assurance in Education, 16*(3), 236-254.

[16] Apple, D., Jain, C., Beyerlein, S., & Ellis, W. (2018). Impact of Higher Education Culture on Student Mindset and Success. *International Journal of Process Education, 9*(1), 59-98.

[17] Araya, D., & Marber, P. (2014). *Higher Education in the Global Age- Policy, practice and promise in emerging societies.* New York: Routledge.

[18] Arora, K. (2020, September 10). *The Wire*. Retrieved from The Wire Website: https://thewire.in/rights/punjab-post-matric-scholarship-scam-dalit-students-lose

[19] Astin, A. W. (1984). Student Involvement: A Development Theory for Higher Education. *Journal of College Student Development, 40*(5), 518-529.

[20] Atchoarena, D., & Esquieu, P. (2002, November). *Private technical and vocational education in Sub-Saharan Africa: provision, patterns and policy issues.* Paris: International Institute for Educational Planning/UNESCO. Retrieved July 10, 2017.

[21] Awang, Z. (2015). *SEM made simple: A gentle approach to learning Structural Equation Modeling.* MPWS Rich Publication.
[22] Azzopardi, E., & Nash, R. (2013). A critical evaluation of importance–performance analysis. *Tourism Management, 35*, 222-233.
[23] Ball, C. (1985). What the hell is quality? In C. Ball, & C. Urwin, *Fitness for purpose: Essays in higher education* (pp. 96-102). Guildford: Society for research into Higher Education & NFER-Nelson.
[24] Banister, S. (2001, April). A Question of Quality: The Malcolm Baldrige Criteria as Applied to Education. 1-28. Seattle, WA, USA: Education Resources Information Center.
[25] Barandiaran-Galdós, M., Ayesta, M. B., Cardona-Rodríguez, A., Mijangos del Campo, J. J., & Olaskoaga-Larrauri, J. (2012). What do teachers think about quality in the Spanish university? *Quality Assurance in Education, 20*(2), 91-109.
[26] Barnett, P. E. (2011). Discussions across difference: addressing the affective dimensions of teaching diverse students about diversity. *Teaching in Higher Education, 16*(6), 669-679.
[27] Barnett, R. (1994). *The limits of competence: knowledge, higher education and society.* Bristol: Open University Press.
[28] Baum, J. A., & Powell, W. W. (1995). Cultivating an Institutional Ecology of Organizations: Comment on Hannan, Carroll, Dundon, and Torres. *American Sociological Review, 60*, 529–538.
[29] Becket, N., & Brookes, M. (2008). Quality management practice in higher education-What quality are we actually enhancing? *Journal of Hospitality, Leisure, Sports and Tourism Education, 7*(1), 40-54.
[30] Benería, L. (1999). Structural Adjustment Policies. In J. Peterson, & M. Lewis, *The Elgar Companion to Feminist Economics* (pp. 687-695). Cheltenham, UK: Edward Elgar.
[31] Bernstein, E. M., & Putnam, F. W. (1986). Development, reliability, and validity of a dissociation scale. *The Journal of Nervous and Mental Disease, 174*(12), 727-735.
[32] Bhutiani, D., Nair, P., & Hicks, J. N. (2014). Regulation-to-innovation: Reframing the business education quality debate in India. *Academy of Management Proceedings* (p. 17516). Atlanta: Academy of Management.
[33] Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: principles, policy & practice, 5*(1), 7-74.
[34] Bollen, K. A. (1989). *Structural Equation with Latent Variables.* New York: John Wiley and Sons.
[35] Brennan, J., & Shah, T. (2000). Quality assessment and institutional change: Experiences from 14 countries. *Higher education, 40*(3), 331-349.
[36] Brusoni, M., Damian, R., Sauri, J. G., Jackson, S., Kömürcügil, H., Malmedy, M., . . . Zobel, L. (2014). *The Concept of Excellence in Higher Education.* Brussels: European Association for Quality Assurance in Higher Education.
[37] Buss, A. (1980). *Self-consciousness and social anxiety.* San Francisco, USA: Freeman.
[38] Byrne, B. (1999). *Structural Equation Modeling with LISREL, PRELIS and SIMPLIS: Basic concepts, applications and programming.* Mahwah, New Jersey: Lawrence Earlbaum Associates.
[39] Byrne, B. (2001). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming.* New Jersey: Mahwah, Lawrence Erlbaum Associates, Inc.

[40] Cabrera, A. F., Colbeck, C. L., & Terenzini, P. T. (2001). Developing performance indicators for assessing classroom teaching practices and student learning: The case for engineering. *Research in Higher Education, 42*(3), 327–352.
[41] Campbell, D. E. (2009). *Choosing democracy: A practical guide to multicultural education (4th Edition).* Cambridge: Pearson.
[42] Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology, 44*, 473-490.
[43] Carnoy, M., & Dossani, R. (2013). Goals and governance of higher education in India. *Higher Education, 65*, 595-612.
[44] Carter, S. M., & Little, M. (2007). Justifying knowledge, justifying method, taking action: epistemologies, methodologies, and methods in qualitative research. *Qualitative Health Research, 17*(10), 1316-1328.
[45] Cartwright, M. J. (2007). The rhetoric and reality of "quality" in higher education: An investigation of staff perceptions of quality in post-1992 universities. *Quality Assurance in Education, 15*(3), 287-301.
[46] Cattell, R. B. (1978). *The scientific use of factor analysis in behavioral and life sciences.* New York: Plenum.
[47] Cavana, R., Delahaye, B., & Sekaran, U. (2001). *Applied Business Research: Qualitative and Quantitative Methods, (3rd ed.).* John Wiley and Sons: Australia.: John Wiley and Sons.
[48] Chambliss, D. F., & Takacs, C. G. (2014). *How College Works.* London: Harvard University Press.
[49] Chamorro-Premuzic, T., B. E., & Furnham, A. (2007). The happy personality: Mediational role of trait emotional intelligence. *Personality and individual differences, 42*(8), 1633-1639.
[50] Chan, D. W. (2008). Teacher self-efficacy and successful intelligence among Chinese secondary school teachers in Hong Kong. *Educational Psychology, 28*(7), 735-746.
[51] Chang, M. (2002). The impact of an undergraduate diversity course requirement on students' racial views and attitudes. *The Journal of General Education, 51*(1), 21–42.
[52] Cheng, M. (2011). 'Transforming the learner' versus 'passing the exam': Understanding the gap between academic and student definitions of quality. *Quality in Higher Education, 17*(1), 3-17.
[53] Cheng, M. (2014). Quality as Transformation: Educational Metamorphosis. *Quality in Higher Education, 20*(3), 272-289.
[54] Cheng, M. (2016). *Quality in Higher Education: Developing a Virtue of Professional Practice.* Rotterdam/Boston/Taipei: Sense Publishers .
[55] Cheng, M. (2017). Reclaiming quality in higher education: a human factor approach. *Quality in Higher Education, 23*(2), 153-167.
[56] Cheng, Y., & Tam, W. (1997). Multi-models of quality in education. *Quality Assurance in Education, 5*(1), 22-31.
[57] Churchill, G. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research, 16*(1), 64-73.
[58] Cinches, M. F., Russell, R. L., Chavez, J. C., & Ortiz, R. O. (2017). Student Engagement: Defining Teacher Effectiveness and Teacher Engagement. *Journal of Institutional Research South East Asia, 15*(1), 5-19.
[59] Clayson, D., & Haley, D. (2005). Marketing models in education: students as customers, products, or partners. *Marketing Education Review, 15*(1), 1-10.

[60] Clement, A., & Murugavel, T. (2015). English for Employability: A Case Study of the English Language Training Need Analysis for Engineering Students in India. *English Language Teaching, 8*(2), 116-125.
[61] Clemes, M., Ozanne, L., & Tram, L. (2001). An examination of students' perceptions of service quality in higher education. *Journal of Marketing for Higher Education, 10*(3), 1-19.
[62] Clinebell, S., & Clinebell, J. (2008). The tension in Business Education between academic rigor and real-world relevance: The role of Executive Professors. *Academy of Management & Learning, 7*(1), 99-107.
[63] Coates, H., & Seifert, T. (2011). Linking assessment for learning, improvement and accountability. *Quality in Higher Education, 17*(2), 179-194.
[64] Cohen, J. (2006). Social, emotional, ethical, and academic education: Creating a climate for learning, participation in democracy, and well-being. *Harvard educational review, 76*(2), 201-237.
[65] Collie, R. J., Shapka, J. D., & Perry, N. E. (2012). School Climate and Social–Emotional Learning: Predicting Teacher Stress, Job Satisfaction, and Teaching Efficacy. *Journal of Educational Psychology, 104*(4), 1189-1204.
[66] Cook-Sather, A., Bovill, C., & Felten, P. (2014). *Engaging Students as Partners in Learning and Teaching: A Guide for Faculty.* John Wiley & Sons.
[67] Cording, M., Christmann, P., & Weigelt, C. (2010). Measuring theoretically complex constructs: the case of acquisition performance. *Strategic Organization, 8*(1), 11-41.
[68] Cortright, R. N., Collins, H. L., & DiCarlo, S. E. (2005). Peer instruction enhanced meaningful learning: Ability to solve novel problems. *Advances in Physiology Education, 29*(2), 107- 111.
[69] Crawford, J., Butler-Henderson, K., Rudolph, J., & Glowatz, M. (2020). COVID-19: 20 Countries' Higher Education Intra-Period Digital Pedagogy Responses. *Journal of Applied Teaching and Learning, 3*(1), 1-20.
[70] Cronin Jr, J. J., & Taylor, S. A. (1994). SERVPERF versus SERVQUAL: reconciling performance-based and perceptions-minus-expectations measurement of service quality. *Journal of marketing, 58*(1), 125-131. Delucchi, M., & Korgen, K. (2002). "We're the Customer- We Pay the Tuition": Student Consumerism among Undergraduate Sociology Majors. *Teaching Sociology*, 100-107.
[71] Cullen, Joyce, J., Hassall, T., & Broadbent, M. (2003). Quality in Higher Education: From monitoring to management. *Quality Assurance in Education, 11*(1), 5-14.
[72] Dall'Alba, G., & Barnacle, R. (2007). An ontological turn for higher education. *Studies in higher education, 32*(6), 679-691.
[73] Dash, S. (2016, September). *Daily O* . Retrieved from Daily O : https://www.dailyo.in/politics/higher-education-india-autonomy-universities-mhrd/story/1/12727.html
[74] Dassin, J. (2012). Social inclusion and excellence in international higher education: Necessary, achievable and compatible goals. *Trying it All Together. Excellence, Mobility, Funding and the Social Dimension in Higher Education*, 128-148. Bonn, North Rhine-Westphalia, Germany: Lemmens Medien GmbH.
[75] Daviet, B. (2016, July 17). Revisiting the Principle of Education as a Public Good. *Education Research and Foresight: Working Papers*, pp. 1-11. Retrieved July 2, 2017
[76] Deccan Herald. (2019, July 30). *Deccan Herald*. Retrieved from Deccan Herald Website: https://www.deccanherald.com/opinion/in-perspective/there-is-a-missing-piece-in-the-nep-750885.html

[77] DeHaan, R. (2008). National cultural influences on higher education. In R. L. DeHaan, & K. M. Narayan, *Education for Innovation: Implications for India, China and America* (pp. 131-164). Rotterdam: Sense Publishers.
[78] Devers, K. J., & Frankel, R. M. (2000). Study Design in Qualitative Research—2: Sampling and Data Collection Strategies. *Education for Health, 13*(2), 263–271.
[79] DeVellis, R. F. (2017). *Scale development - Theory and applications.* Los Angeles: Sage Publications.
[80] DiMaggio, P. J., & Powell, W. W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, 147-160.
[81] Dolmans, D., Wolfhagen, H., Scherpbier, A., & Vleuten, C. V. (2003). Development of an instrument to evaluate the effectiveness of teachers in guiding small groups. *Higher Education, 46*, 431-446.
[82] Dörnyei, Z., & Ushioda, E. (2013). *Teaching and researching: Motivation.* New York: Routledge.
[83] Dubey, A., Mehndiratta, A., Sagar, M., & Kashiramka, S. (2019). Reforms in technical education sector: evidence from World Bank-assisted Technical Education Quality Improvement Programme in India. *Higher Education, 78*, 273-299.
[84] Dublin, R. (1978). *Theory development.* New York: Free Press.
[85] Duderstadt, J., & Womack, F. (2003). *The Future of the Public University in America: Beyond the Crossroads.* Baltimore, MD: The Johns Hopkins University Press.
[86] Duerr, M., Zajonc, A., & Dana, D. (2003). Survey of Transformative and Spiritual Dimensions of Higher Education. *Journal of Transformative Education, 1*(3), 177-211.
[87] Dunleavy, J., & Milton, P. (2008). Student engagement for effective teaching and deep learning. *Education Canada, 48*(5), 4-8.
[88] Dunne, D., & Martin, R. (2006). Design Thinking and How It Will Change Management Education: An Interview and Discussion. *Academy of Management Learning & Education, 5*(4), 512-523.
[89] Duymedjian, R., & Rüling, C. (2010). Towards a Foundation of Bricolage in Organization and Management Theory. *Organization Studies, 31*(2), 133-151.
[90] Eagle, L., & Brennan, R. (2007). Are students customers? TQM and marketing perspectives. *Quality Assurance in Education, 15*(1), 44-60.
[91] Eisenhardt, K. M. (1989). Agency Theory: An assessment and review. *Academy of Management Review, 14*(1), 57-74.
[92] Elbeck, M., & Vander Schee, B. A. (2015). MBA students as customers: the Kano method and collegiate website excitement factors. In J. Leroy Robinson, *Marketing Dynamism & Sustainability: Things Change, Things Stay the Same…* (p. 299). Cham: Springer.
[93] Elliott, K. M., & Shin, D. (2002). Student Satisfaction: An alternative approach to assessing this important concept. *Journal of Higher Education Policy and Management*, 197-209.
[94] Emmer, E. T., & Stough, L. M. (2001). Classroom management: a critical part of educational psychology, with implications for teacher education. *Educational Psychologist, 36*(2), 103-112.
[95] Erlandson, D., Harris, E., Skipper, B., & Allen, S. (1993). *Doing Naturalistic Inquiry: A Guide to Methods.* Newbury Park, CA: Sage Publications.
[96] Ernst & Young. (2013). *Higher Education in India: Vision 2030.* Kolkata: Ernst & Young LLP.

[97] Etikan, I., Musa, S. A., & Alkassim, R. S. (2015). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics, 5*(1), 1-4.
[98] Ezer, H., & Horin, A. (2013). Quality enhancement: A case of internal evaluation at a teacher education college. *Quality Assurance in Education, 21*(3), 247-259.
[99] FICCI Higher Education Summit. (2014). *Higher Education in India: Moving towards global relevence and competitiveness.* New Delhi: EY FICCI.
[100] Fabrigar, L., Wegener, D., MacCallum, R., & Strahan, E. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods, 4*, 272-299.
[101] Facione, N. C., Facione, P. A., & Sanchez, C. A. (1994). Critical thinking disposition as a measure of competent clinical judgment: The development of the California Critical Thinking Disposition Inventory. *Journal of Nursing Education, 33*(8), 345-350.
[102] Fisher, D., & Frey, N. (2013). *Better learning through structured teaching: A framework for the gradual release of responsibility.* Alexandria: ASCD.
[103] Flavian, H. (2016). Towards teaching and beyond: Strengthening education by understanding students' self-awareness development. *Power and Education, 8*(1), 88-100.
[104] Floyd, F., & Widaman, K. (1995). Factor analysis in the development and refinement of clinical assessment instruments. *Psychological Assessment, 7*(3), 286-299.
[105] Fornell, C. (1994). A Customer Satisfaction Research Prospectus. In R. T. Rust, & R. L. Oliver, *Service quality: New Directions in Theory and Practice* (pp. 241-268).
[106] Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research, 18*(1), 39-50.
[107] Fourie, M. (1999). Institutional transformation at South African universities: Implications for academic staff. *Higher Education*, 275-290.
[108] Fowles, J., Frederickson, H. G., & Koppell, J. G. (2016). University Rankings: Evidence and a Conceptual Framework. *Public Administration Reveiw, 76*(5), 790-803.
[109] Fullagar, C. (1986). A factor analytic study of the validity of a union commitment scale. *Journal of Applied Psychology*, 129-136.
[110] Gambhir, V., & Wadhwa, N. (2013). Interpretive structural modelling of enablers of quality technical education: an Indian perspective . *International Journal of Productivity and Quality Management , 12*(4), 393-409.
[111] Gereffi, G., Wadhwa, V., Rissing, B., & Ong, R. (2008). Getting the Numbers Right: International Engineering Education in the United States, China, and India. *Journal of Engineering Education*, 13-25.
[112] Gill, S., & Singh, G. (2018). Achieving Quality in Higher Education Through Transformation: The Perfect Mélange of Inclusiveness and Excellence. *40th Annual European Association for Institutional Research (EAIR) Forum.* Budapest, Hungary: EAIR Forum.
[113] Giroux, H. A. (2005). *Border Crossings: Cultural Workers and the Politics of Education.* New York, London: Routledge.
[114] Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales. *Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education.*
[115] Goel, V. (2011). *Technical and vocational education and training (TVET) system in India for sustainable development.* UNESCO. Bonne: UNEVOC.

[116] Goodyear, P. (2002). Psychological foundations for networked learning. In C. Steeples, & C. Jones, *Networked Learning: perspectives and issues* (pp. pp. 49–76). London: Springer-Verlag.
[117] Gorsuch, R. (1983). *Factor analysis.* Lawrence Erlbaum Associates: Hillsdale, NJ.
[118] Gosling, S. D., Rentfrow, P. J., & Swann Jr., W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality, 37*, 504–528.
[119] Govern, J. M., & Marsch, L. A. (2001). Development and Validation of the Situational Self-Awareness Scale. *Consciousness and Cognition*, 366–378.
[120] Greenwald, T., Banaji, M., Nosek, B., Teachman, B., & Nock, M. (2011). Project implicit. USA.
[121] Groccia, J. E. (2018). What is student engagement? *New Directions for Teaching and Learning*, 11-20.
[122] Grossnickle, J., & Raskin, O. (2001). *Online Marketing Research.* USA: Mc.Graw-Hill, Inc.
[123] Gupta, D., & Gupta, N. (2012). Higher Education in India: Structure, Statistics and Challenges. *Journal of Education and Practice, 3*(2), 17-24.
[124] Gurin, P., Dey, E. L., Hurtado, S., & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard Educational Review, 72*(3), 330-365.
[125] Guru, G. (2020). In the Wilderness. *Economic and Political Weekly, 55*(32-33), 7-8.
[126] Guzmán-Valenzuela, C. (2015). Unfolding the meaning of public(s) in universities: Toward the transformative university. *Higher Education*, 1-13.
[127] Hair, J., Anderson, R., Tatham, R. L., & Black, W. C. (1998). *Multivariate Data Analysis, (5th Edition).* Upper Saddle River, New Jersey: Prentice Hall.
[128] Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis (Vol. 6).* Upper Saddle River, NJ: Pearson Prentice Hall.
[129] Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: International version.* New Jersey: Pearson.
[130] Hair, J. F., Ringle, C.M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning, 46* (1-2), 1-12.
[131] Hall, B., Burley, W., Villeme, M., & Brockmeier, L. (1992). An attempt to explicate teacher efficacy beliefs among first year teachers. *American Educational Research Association.* San Francisco.
[132] Hall, M. R. (2015). Quality in Higher Education: Perspectives from Front-Line Faculty in the United States. Blacksburg, Virginia, US.
[133] Hansen, E. J. (1998). Creating teachable moments... and making them last. *Innovative Higher Education, 23*(1), 7-26.
[134] Harvey, L. (1999). Quality in Higher Education. *Swedish Quality Conference.* Göteborg: University of Central England.
[135] Harvey, L. (2000). New Realities: The relationship between higher education and employability. *Tertiary Education and Management, 6*, 3-17.
[136] Harvey, L. (2001). Defining and measuring employability. *Quality in higher education, 7*(2), 97-109.
[137] Harvey, L. (2002). The end of quality? *Quality in higher education, 8*(1), 5-22.
[138] Harvey, L. (2005). A history and critique of quality evaluation in the UK. *Quality Assurance in Education., 13*(4), 263-276.

[139] Harvey, L. (2009). A critical analysis of quality culture. *International Network for Quality Assurance Agencies in Higher Education (INQAAHE) Conference.* Abu Dhabi: New Approaches to Quality Assurance in the Changing World of Higher Education.
[140] Harvey, L., Burrows, A., & Green, D. (1992). *Criteria of Quality: Summary.* Birmingham, The University of Central England: Centre for Research into Quality.
[141] Harvey, L., & Green, D. (1993). Defining Quality. *Assessment & Evaluation in Higher Education , 18*(1), 9-34.
[142] Harvey, L., & Knight, P. (1996). *Transforming Higher Education.* Buckingham: Society for Research into Higher Education (SRHE) and Open University Press.
[143] Harrison, M. J. (1990). Access - the Problem and Potential. *Higher Education Quarterly, 44*(3), 193-214.
[144] Hassad, R. A. (2007). Development and Validation of a Scale for Measuring Instructors' Attitudes toward Concept-Based or Reform-Oriented Teaching of Introductory Statistics in the Health and Behavioral Sciences. Cypress, California, United States of America.
[145] Hay, I., & Ashman, A. F. (2003). The development of adolescents' emotional stability and general self-concept: The interplay of parents, peers, and gender. *International Journal of Disability, Development and Education, 50*(1), 77-91.
[146] Hayes, D. (2017). *Beyond McDonaldization: Visions of Higher Education.* London and New York: Routledge.
[147] Hazelkorn, E. (2012). "Everyone Wants to Be Like Harvard" – Or Do They? Cherishing All Missions Equally. In A. C. al, *European Higher Education at the Crossroads:Between the Bologna Process and National Reforms, Part 1.* Paris: Springer.
[148] Henard, F., & Roseveare, D. (2012). *Fostering Quality Teaching in Higher Education: Policies and Practices: An IMHE Guide for Higher Education Institutions.* Paris: OECD Publishing.
[149] Henseler, J., Ringle, C., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43*, 115–135.
[150] Heppner, P. P., & Petersen, C. H. (1982). The Development and Implications of a Personal Problem-Solving Inventory. *Journal of Counseling Psychology, 29*(1), 66-75.
[151] Hermmasi, M., Strong, K., & Taylor, S. (1994). Measuring service quality for planning and analysis in service firms. *Journal of Applied Business Research, 10*(4), 24-34.
[152] Hesse, F., Care, E., Buder, J., Sassenberg, K., & Griffin, P. (2015). A framework for teachable collaborative problem solving skills. In P. Griffin, & E. Care, *Assessment and Teaching of 21st Century Skills* (pp. 37-56). Dordrecht: Springer.
[153] Hoecht, A. (2006). Quality assurance in UK higher education: Issues of trust, control, professional autonomy and accountability. *Higher Education, 51*(4), 541-563.
[154] Holcomb, Z. (2016). *Fundamentals of descriptive statistics.* New York: Routledge.
[155] Holmes-Smith. (2001). Introduction to Structural Equation Modeling Using LISREL. *ACSPRI-Winter Training Program.* Perth.
[156] Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural Equation Modelling: Guidelines for Determining Model Fit. *The Electronic Journal of Business Research Methods, 6*(1), 53-60.
[157] Hornsby, D. J., & Osman, R. (2014). Massification in higher education: large classes and student learning. *Higher Education, 67*, 711-719.

[158] Houston, D. (2008). Rethinking quality and improvement in higher education. *Quality Assurance in Education, 16*(1), 61-79.
[159] Hu, L., & Bentler, P. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling, 6*(1), 1-55.
[160] Hurtado, S., Milem, J., Clayton-Pedersen, A., & Allen, W. (1999). *Enacting Diverse Learning Environments: Improving the Climate for Racial/Ethnic Diversity in Higher Education* (Vol. 26). Washington, DC: The George Washington University.
[161] Iacovidou, M., Gibbs, P., & Zopiatis, A. (2009). An Exploratory Use of the Stakeholder Approach to Defining and Measuring Quality: The Case of a Cypriot Higher Education Institution. *Quality in Higher Education, 15*(2), 147-165.
[162] Icli, G., & Anil, N. (2014). The HEDQUAL scale: A new measurement scale of service quality for MBA programs in higher education. *South African Journal of Business Management, 45*(3), 31-43.
[163] Jackson, D. L., Gillaspy Jr, J. A., & Purc-Stephenson, R. (2009). Reporting practices in confirmatory factor analysis: an overview and some recommendations. *Psychological methods, 14*(1), 6-23.
[164] Jamshidi, L., Arasteh, H., NavehEbrahim, A., Zeinabadi, H., & Rasmussen, P. D. (2012). Developmental patterns of privatization in higher education: a comparative study. *Higher Education, 64*(6), 789-803.
[165] Jena, P. K. (2020). Impact of Covid-19 on higher education in India. *International Journal of Advanced Education and Research, 5*(3), 77-81.
[166] Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research, 79,* 491–525.
[167] Jepperson, R. (1991). Institutions, institutional effects, and institutionalism. In W. W. Powell, & P. J. DiMaggio, *The new institutionalism in organizational analysis* (pp. 143-163). Chicago: University of Chicago Press.
[168] Joseph, M., Yakhou, M., & Stone, G. (2005). An educational institution's quest for service quality: customers' perspective. *Quality Assurance in Education, 13*(1), 66-82.
[169] Judge, T. A., & Erez, A. (2007). Interaction and intersection: The constellation of emotional stability and extraversion in predicting performance. *Personnel Psychology, 60*(3), 573-596.
[170] Jungblut, J., Vukasovic, M., & Stensaker, B. (2015). Student perspectives on quality in higher education. *European Journal of Higher Education, 5*(2), 157-180.
[171] Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika, 39*(1), 31-36.
[172] Kang, G. (2006). The hierarchical structure of service quality: integration of technical and functional quality. *Managing Service Quality: An International Journal, 16*(1), 37-50.
[173] Kapur, D. (2011). Addressing the trilemma of higher education. *Seminar, 617*, 87-92.
[174] Kaur, D. (2019, June 21). *The Tribune*. Retrieved from The Tribune Website: https://www.tribuneindia.com/news/archive/punjab/in-dire-straits-engg-colleges-offering-non-tech-courses-790629
[175] Kember, D., Leung, D. Y., Jones, A., Loke, A. Y., McKay, J., Sinclair, K., . . . Yeung, E. (2000). Development of a Questionnaire to Measure the Level of Reflective Thinking. *Assessment & Evaluation in Higher Education, 25*(4), 381-395.
[176] Kennedy, E. A. (2020). The Perceptions of Educators and Students Towards a Program in Social Emotional Learning. Danbury, Connecticut, US.

[177] Kern, L., & Clemens, N. H. (2007). Antecedent strategies to promote appropriate classroom behavior. *Psychology in the Schools, 44*(1), 65-75.
[178] Kis, V. (2005). *Quality Assurance in Tertiary Education: Current Practices in OECD Countries and a Literature Review on Potential Effects.* OECD Thematic Review of Tertiary Education. Tertiary Review.
[179] Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of educational Psychology, 102*(3), 741-756.
[180] Kline, R. (1998). *Principles and Practice of Structural Equation Modeling.* New York: The Guildford Press.
[181] Kline, R. (2005). *Principles and Practice of Structural Equation Modeling (2nd edition).* New York: The Guildford Press.
[182] Kline, R. B. (2012). Assumptions in structural equation modeling. In R. H. Hoyle, *Handbook of structural equation modeling* (pp. 111-125). The Guilford Press.
[183] Kocoska, J. (2009). The student's position in the democratic classroom. *Procedia Social and Behavioral Sciences, 1*(1), 2429–2431.
[184] Kolb, A. Y., & Kolb, D. (2005). Learning Styles and Learning Spaces: Enhancing Experential Learning in Higher Education. *Academy of Management Learning & Education, 4*(2), 193-212.
[185] Korpershoek, H., Harms, T., Boer, H. d., Kuijk, M. v., & Doolaard, S. (2016). A Meta-Analysis of the Effects of Classroom Management Strategies and Classroom Management Programs on Students' Academic, Behavioral, Emotional, and Motivational Outcomes. *Review of Educational Research*, 1-38.
[186] Kivistö, J. (2005). The government-higher education Institution relationship: Theoretical considerations from the perspective of agency theory. *Tertiary Education and Management, 11*(1), 1-17.
[187] Knight, P. T., & Yorke, M. (2003). Employability and Good Learning in Higher Education. *Teaching in Higher Education, 8*(1), 3-16.
[188] Kocoska, J. (2009). The student's position in the democratic classroom. *Procedia Social and Behavioral Sciences, 1*(1), 2429–2431.
[189] Krumboltz, J. (1965). Behavioral counseling: Rationale and research. *Personnel and Guidance Journal*, 383-387.
[190] Kumar, S. (2018). Understanding Different Issues of Unit of Analysis in a Business Research. *Journal of General Management Research, 5*(2), 70-82.
[191] Kwan, P., & Ng, P. (1999). Quality indicators in higher education - comparing Hong Kong and China's students. *Managerial Auditing Journal, 14*(1/2), 20-27.
[192] Kwiek, M. (2017). De-privatization in higher education: a conceptual approach. *Higher Education, 74*, 259-281.
[193] Lagrosen, S., Seyyed-Hashemi, R., & Leitner, M. (2004). Examination of the dimensions of quality in higher education. *Quality assurance in education, 12*(2), 61-69.
[194] Laird, T. F. (2005). College Students' Experiences With Diversity and Their Effects on Academic Self-Confidence, Social Agency, and Disposition Toward Critical Thinking. *Research in Higher Education, 46*(4), 365-387.
[195] Lansu, A., Boon, J., Sloep, P. B., & Van Dam-Mieras, R. (2013). Changing professional demands in sustainable regional development: A curriculum design process to meet transboundary competence. *Journal of Cleaner Production, 49*, 123-133.

[196] Lau, M. A., Bishop, S. R., Segal, Z. V., Buis, T., Anderson, N. D., Carlson, L., . . . Devins, G. (2006). The Toronto mindfulness scale: Development and validation. *Journal of clinical psychology, 62*(12), 1445-1467.
[197] Lawal, V., & Akintunde, S. (2014). E-learning and information literacy at the University of Jos. *Library Management*, 607–628.
[198] LeBlanc, G., & Nguyen, N. (1997). Searching for excellence in business education: an exploratory study of customer impressions of service quality. *International Journal of Educational Management, 11*(2), 72-79.
[199] Leblanc, P. R., & Skaruppa, C. (1997). Support for democratic schooling: classroom level change via cooperative learning. *Action in Teacher Education, 19*(1), 28-38.
[200] Lévi-Strauss, C. (1967). The structural study of myth and totemism. In E. Leach, *The story of Asdiwal* (pp. 1-47). Oxfordshire: Routledge.
[201] Levy, D. C. (2013). The Decline of Private Higher Education. *Higher Education Policy*, 25–42.
[202] Levy, D. (2015). Private higher education: patterns and trends. *International Higher Education, 54*(50), 12-13.
[203] Levy, D. C. (2018). Global private higher education: an empirical profile of its size and geographical shape. *Higher Education, 76*(4), 701-715.
[204] Lien, B. Y.-H. (2005). Career Development and the Needs of Young College-Educated Females in Taiwan. *Journal of Career Development, 31*(3), 209-223.
[205] Lin, L., & Cranton, P. (2005). From scholarship student to responsible scholar: a transformative process. *Teaching in Higher Education, 10*(4), 447-459.
[206] Lin, Y.-f. (2018). Challenges to a post-mass system of higher education in Taiwan. In D. E. Neubauer, K. H. Mok, & J. Jiang, *The Sustainability of Higher Education in an Era of Post-massification.* Abingdon: Routledge.
[207] Liu, X. (2020). Institutional governance in the development of private universities in China. *Higher Education, 79*(2), 275-290.
[208] Loes, C. N., An, B. P., & Pascarella, E. T. (2019). Does Effective Classroom Instruction Enhance Bachelor's Degree Completion? Some Initial Evidence. *The Review of Higher Education, 42*(3), 903-931.
[209] Lomas, L. (2002). Does the development of mass education necessarily mean the end of quality? . *Quality in Higher Education, 8*, 71-79.
[210] Lomas, L. (2004). Embedding quality: the challenges for higher education. *Quality Assurance in Education, 12*(4), 157-165.
[211] Lomas, L., & Ursin, J. (2009). Collegial or managerial? Academics' conceptions of quality in English and Finnish universities. *European Educational Research Journal, 8*(3), 447-460.
[212] Louve, S. (2013). Understanding change in higher education as bricolage: how academics engage in curriculum change . *Higher Education, 66*(6), 669-691.
[213] Lozano, J. M., Bofarull, I., Waddock, S., & Prat-i-Pubill, Q. (2018). Avoiding the iron cage of business school rankings. *Higher Education Policy*, 1-23.
[214] Mahapatra, S., & Khan, M. (2007). A neural network approach for assessing quality in technical education: an empirical study. *International Journal of Productivity and Quality Management, 2*(3), 287-306.
[215] Malhotra, N. K. (2007). *Marketing Research: An applied orientation.* New Delhi: Pearson Prentice Hall.

[216] Mann, K., Gordon, J., & MacLeod, A. (2009). Reflection and reflective practice in health professions education: a systematic review. *Advances in health sciences education, 14*(4), 595-621.
[217] Marginson, S. (2006). Dynamics of national and global competition in higher education. *Higher Education, 52*, 1-39.
[218] Mark, E. (2013). Students Are Not Products. They Are Customers. *College Student Journal, 47*(3), 489-493.
[219] Martin, F., & Bolliger, D. U. (2018). Engagement matters: Student perceptions on the importance of engagement strategies in the online learning environment. *Online Learning, 22*(1), 205-222.
[220] Massy, W. F. (2003). *Honoring the trust: Quality and cost containment in higher education.* Bolton, MA: Anker.
[221] Mastaglia, B., Toye, C., & Kristjanson, L. (2003). Ensuring content validity in instrument development: Challenges and innovative approaches. *Contemporary Nurse, 14*, 281-291.
[222] Mathew, E. (1990). Financing college education in the Private sector in Kerala. *Economic and Political Weekly, 25*(17), 943-954.
[223] Mayer, R. E. (2002). Rote versus meaningful learning. *Theory into Practice, 41*, 226–233.
[224] McCowan, T. (2016). Universities and the post-2015 development agenda: an analytical framework. *Higher Education, 72*(4), 505-523.
[225] McCulloch, A. (2009). The student as co-producer: learning from public administration about the student–university relationship. *Studies in Higher Education*, 171-183.
[226] McDonald, R., & Ho, M.H. (2002). Principles and Practice in Reporting in Statistical Equation Analyses. *Psychological Methods, 7*(1), 64-82.
[227] McKenzie, L. (2020, February 20). *Inside Higher Ed*. Retrieved from Inside Higher Ed Website: https://www.insidehighered.com/news/2020/02/17/indian-government-opens-market-online-higher-education
[228] Mezirow, J. (1991). *Transformative Dimensions of Adult Learning.* San Francisco, CA: Jossey-Bass.
[229] MHRD. (2017). *All India Survey on Higher Education 2016-2017.* Department of Higher Education. New Delhi: Government of India, MHRD.
[230] MHRD. (2018). *All India Survey on Higher Education 2017-2018.* New Delhi: Government of India, Department of Higher Education.
[231] Midgley, C., Feldlaufer, H., & Eccles, J. (1989). Change in teacher efficacy and student self- and task-related beliefs in mathematics during the transition to junior high school. *Journal of Educational Psychology, 81*, 247–258.
[232] Milem, J. (1994). College, students, and racial understanding. *Thought & Action, 9*(2), 51-92.
[233] Ming-Tak, H., & Wai-Shing, L. (2008). *Classroom management: Creating a positive learning environment.* Hong Kong: Hong Kong University Press.
[234] Mok, K., & Jiang, J. (2017). Massification of higher education: Challenges for admissions and graduate employment in China. In K. Mok, *Managing International Connectivity, Diversity of Learning and Changing Labour Markets. Higher Education in Asia: Quality, Excellence and Governance* (pp. 219-243). Singapore: Springer.
[235] Moon, J. A. (2004). *A handbook of reflective and experiential learning: Theory and practice.* Oxon: Routledge Falmer.

[236] Moore, W., & Esselman, M. (1992). Teacher efficacy, power, school climate and achievement: A desegregating district's experience. *American Educational Research Association.* San Francisco: American Educational Research Association.
[237] Moutsios, S., & Kotthoff, H.-G. (2007). *Education Policies in Europe: Economy, citizenship, diversity.* Germany: Waxmann.
[238] Mukwambo, P. (2019). Policy and practice disjunctures: quality teaching and learning in Zimbabwean higher education. *Studies in Higher Education*, 1-12.
[239] Nagda, B. A., Gurin, P., & Lopez, G. E. (2003). Transformative Pedagogy for Democracy and Social Justice. *Race Ethnicity and Education, 6*(2), 165-191.
[240] Nair, P., & Ajit, D. (1984). Parallel colleges in Kerala: enrolment, costs and employment. *Economic and Political Weekly, 19*, 42-43.
[241] Newton, J. (2002). Views from below: Academics coping with quality. *Quality in Higher Education, 8*(1), 39-61.
[242] Newton, J. (2010). A Tale of Two 'Qualitys': Reflections on the Quality Revolution in Higher Education . *Quality in Higher Education, 16*(1), 51-53.
[243] Nkomo, S. (2015). Challenges for Management and Business Education in a 'Developmental' State: The Case of South Africa. *Academy of Management Learning & Education, 14*(2), 242-258.
[244] Nunnally, J. (1978). *Psychometric Theory.* New York, NY: McGraw-Hill.
[245] Nunnally, J., & Bernstein, I. (1994). *Psychometric Theory, 3rd Edn.* New York: McGraw-Hill.
[246] Oldfield, B. M., & Baron, S. (2000). Student perceptions of service quality in a UK university business and management faculty. *Quality Assurance in education, 8*(2), 85-95.
[247] Oonk, C., Gulikers, J. T., Brok, P. J., Wesselink, R., Beers, P.-J., & Mulder, M. (2020). Teachers as brokers: adding a university-society perspective to higher education teacher competence profiles. *Higher Education*.
[248] Otten, M. (2003). Intercultural Learning and Diversity in Higher Education. *Journal of Studies in International Education, 7*(1), 12-26.
[249] Owlia, M., & Aspinwall, E. (1996). A framework for the dimensions of quality in higher education. *Quality Assurance in Education, 4*(2), 12-20.
[250] Pace, C. (1990). *The undergraduates: A report of their activities and progress in colleges in the 1980s.* Los Angeles: University of California: Center for the Study of Evaluation.
[251] Palumbo, G. (1987). "Egalitarian" or "Stratified" Society? Some Notes on Mortuary Practices and Social Structure at Jericho in EB IV. *Bulletin of the American Schools of Oriental Research*, 43-59.
[252] Parasuraman, A., Zeithaml, V., & Berry, L. (1988). SERVQUAL: a Multiple Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing, 6*(1), 12-40.
[253] Parsons, T. (1956). Suggestions for a sociological approach to the theory of organizations. *Administrative Science Quarterly*, 63-85.
[254] Pascarella, E., Salisbury, M., & Blaich, C. (2011). Exposure to effective instruction and college student persistence: A multi-institutional replication and extension. *Journal of College Student Development, 52*(1), 4–19.
[255] Pathak, A. (2019, June 28). *The Tribune.* Retrieved from The Tribune Website: https://www.tribuneindia.com/news/comment/youth-in-the-age-of-violence/793999.html

[256] Perry, R. P., & Smart, J. C. (2007). Introduction to the scholarship of teaching and learning in higher education: An evidence-based perspective. In R. P. Perry, & J. C. Smart, *The scholarship of teaching and learning in higher education: An evidence-based perspective* (pp. 1-8). Dordrecht: Springer.

[257] Peters, C., Geursen, J., & Lunenberg, M. (2018). Unfolding unplanned teachable moments. *Pushing boundaries and crossing borders*, 457-464.

[258] Pfeffer, J., & Salancik, G. (2003). *The External Control of Organizations: A Resource Dependence Perspective.* Stanford, CA: Stanford Business Books.

[259] Pfeifer, N., & Mukatayeva, K. (2019). Perceptions of education quality in the context of the Bologna process in a regional university. Karagandy, Kazakhstan.

[260] Phillips, N., & Tracey, P. (2007). Opportunity recognition, entrepreneurial capabilities and bricolage: connecting institutional theory and entrepreneurship in strategic organization. *Strategic Organization, 5*(3), 313-320.

[261] Pianta, R. C., Hamre, B. K., & Allen, J. P. (2012). Teacher-Student Relationships and Engagement: Conceptualizing, Measuring, and Improving the Capacity of Classroom Interactions. In S. C. al., *Handbook of research on student engagement.* Boston, MA: Springer.

[262] Pilkington, M. (2014). Converging Higher Education Systems in a Global Setting: the example of France and India. *European Journal of Education, 49*(1), 113-126.

[263] Pitman, T. (2014). Reinterpreting higher education quality in response to policies of mass education: the Australian experience. *Quality in Higher Education*.

[264] Polit, D., & Beck, C. (2004). *Nursing research: Principles and methods (7th ed.).* Philadelphia: Lippincott, Williams & Wilkins.

[265] Polit, D. F., & Beck, C. T. (2006). The Content Validity Index: Are You Sure Know What's Being Reported? Critique and Recommendations. *Research in Nursing & Health, 29*, 489-497.

[266] Powell, K. K., & Rey, M. P. (2015). Exploring a resource dependency perspective as an organizational strategy for building resource capacity: Implications for public higher education universities. *Management in Education*, 94-99.

[267] Prodan, A., Maxim, E., Manolescu, I., Arustei, C. C., & Guta, A. L. (2015). Access to Higher Education: Influences and Possible Implications. *Procedia Economics and Finance*, 535-543.

[268] Qing, Z., Nia, S., & Hong, T. (2010). Developing critical thinking disposition by task-based learning in chemistry experiment teaching. *Procedia Social and Behavioral Sciences*, 4561-4570.

[269] Quazi, A. H. (2017, November 20). *Hindustan Times*. Retrieved from Hindustan Times Website: https://www.hindustantimes.com/jaipur/research-shows-79-lecturers-of-private-varsities-lack-job-satisfaction/story-Wjcl9LKUx5rK5yLrM4VDaN.html

[270] Quinn, A., Lemay, G., Larsen, P., & Johnson, D. M. (2009). Service quality in higher education. *Total Quality Management, 20*(2), 139-152.

[271] Reupert, A., & Woodcock, S. (2010). Success and near misses: Pre-service teachers' use, confidence and success in various classroom management strategies. *Teaching and Teacher Education*, 1261-1268.

[272] Roberts, P. (2019). Performativity, Big Data and Higher Education: The Death of the Professor? *Beijing International Review of Education, 1*(1), 73-91.

[273] Rosa, M. J., Tavares, D., & Amaral, A. (2006). Institutional consequences of quality assessment. *Quality in Higher Education, 12*(2), 145-159.

[274] Ross, J. (1998). The antecedents and consequences of teacher efficacy. In J. Brophy, *Advances in research on teaching* (pp. 49-74). Greenwich, CT: JAI Press.
[275] Rothwell, A., & Arnold, J. (2007). Self-perceived employability: development and validation of a scale. *Personnel review, 36*(1), 23-41.
[276] Rowley, J., & Slack, F. (2004). Conducting a literature review. *Management research news, 27*(6), 31-39.
[277] Sadiq, Sohail, M., & Shaikh, Nassar. M. (2004). Quest for excellence in business education: a study of student impressions of service quality. *International Journal of Educational Management, 18*(1), 58-65.
[278] Sadri, H. A., & Flammia, M. (2011). *Intercultural communication: A new approach to international relations and global challenges.* New York: Bloomsbury Publishing.
[279] Sahney, S., Banwet, D. K., & Karunes, S. (2004). Conceptualizing total quality management in higher education. *The TQM magazine, 16*(2), 145-159.
[280] Sahney, S., Banwet, D. K., & Karunes, S. (2006). An Integrated Framework for Quality in Education: Application of Quality Function Deployment, Interpretive Structural Modeling and Path Analysis. *Total Quality Management, 17*(2), 265-285.
[281] Sampsel, A. (2013, April 29). Finding the effects of think-pair-share on student confidence and participation. Bowling Green, Ohio, US.
[282] Samuelsson, M., & Colnerud, G. (2015). Student teachers' perceptions regarding the challenges of leadership. In D. Garbett, & A. Ovens, *Teaching for tomorrow today* (pp. 312-320).
[283] Sanchez-Ruiz, M. J., Mavroveli, S., & Poullis, J. (2013). Trait emotional intelligence and its links to university performance: An examination. *Personality and individual differences, 54*(5), 658-662.
[284] Sanders, W. L., & Horn, S. P. (1998). Research findings from the Tennessee Value-Added Assessment System (TVAAS) database: Implications for educational evaluation and research. *Journal of Personnel Evaluation in Education, 12*(3), 247-256.
[285] Sander, P., & Sanders, L. (2003). Measuring confidence in academic study: A summary report. *Electronic Journal of Research in Educational Psychology and Psychopedagogy, 1*(1), 1-17.
[286] Sanyal, B., & Johnstone, D. (2011). International trends in the public and Private financing of higher education. *Prospects, 41*, 157-175.
[287] Sarkar, S. (2020, April 04). The Idea of a University in India. *Economic and Political Weekly, 55*(14).
[288] Saunders, D. (2011). Students as Customers: The Influence of Neoliberal Ideology and Free-Market Logic on Entering First-Year College Students. *Open Access Dissertations*.
[289] Sax, L. J. (1996). *The American college teacher: National norms for the 1995–96 HERI faculty study.* Los Angeles: Higher Education Research Institute, Graduate School of Education & Information Studies, University of California.
[290] Sayeda, B., Rajendran, C., & Lokachari, P. S. (2010). An empirical study of total quality management in engineering educational institutions of India: Perspective of management . *Benchmarking: An International Journal, 17*(5), 728-767.
[291] Schendel, R., & McCowan, T. (2015). Higher education and development: Critical issues and debates. In T. McCowan, & E. Unterhalter, *Education and international development: An introduction* . London: Bloomsbury.

[292] Schendel, R., & McCowan, T. (2016). Expanding higher education systems in low- and middle- income countries: the challenges of equity and quality . *Higher Education, 72*, 407-411.
[293] Schindler, L., Puls-Elvidge, S., Welzant, H., & Crawford, L. (2015). Definitions of quality in higher education: A synthesis of the literature . *Higher Learning Research Communications, 5*(3), 3-13.
[294] Schuetze, H., & Slowey, M. (2002). Participation and exclusion: a comparative analysis of non-traditional students and lifelong learners in higher education. *Higher Education, 44*(3-4), 309-327.
[295] Scott, W. R. (2001). *Institutions and organizations.* Thousand Oaks, CA: Sage.
[296] Selznick, P. (1957). *Leadership in administration.* New York: Harper & Row.
[297] Shah, M. (2012). Ten years of external quality audit in Australia: Evaluating its effectiveness and success. *Assessment & Evaluation in Higher Education, 37*(6), 761-772.
[298] Sharma, S., Mukherjee, S., Kumar, A., & Dillon, W. (2005). A simulation study to investigate the use of cutoff values for assessing model fit in covariance structure models. *Journal of Business Research*, 935-943.
[299] Sharma, M. K., & Singh, K. (2015, April). Impact of Changing Socio-Economic Environment on Business in India. *International Journal of Research in Business Studies and Management, 2*(4), 21-28.
[300] Sharma, T. (2008). Exploring linkages between employees' perception of performance management practices, service climate and their customers' perceptions of service quality. *Journal of Applied Management and Entrepreneurship, 13*(3), 47-65.
[301] Shin, J. C., & Harman, G. (2009). New challenges for higher education: global and Asia-Pacific perspectives. *Asia Pacific Educational Review, 10*, 1-13.
[302] Silva, F. d., & Fernandes, P. O. (2011). Importance-Performance Analysis As A Tool In Evaluating Higher Education Service Quality: The Empirical Results Of Estig (IPB). *Creating Global Competitive Economies: A 360-Degree Approach*, 306-315.
[303] Sin, C. (2015). Teaching and Learning: A Journey from the Margins to the Core in European Higher Education Policy. In C. A., M. L., P. R., S. J., & S. P., *The European Higher Education Area* (pp. 325-341). Cham: Springer.
[304] Singh, H., & Dhillon, G. S. (2014, August 28). *The Indian Express*. Retrieved from The Indian Express Website: https://indianexpress.com/article/india/india-others/five-jk-students-quit-punjab-college-after-clash-over-cheering-pak-cricket-team/
[305] Skaalvik, E. M., & Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relations with strain factors, perceived collective teacher efficacy, and teacher burnout. *Journal of educational psychology, 99*(3), 611-625.
[306] Snyder, C. R., Shorey, H. S., Cheavens, J., Pulvers, K. M., Adams III, V. H., & Wiklund, C. (2002). Hope and academic success in college. *Journal of educational psychology, 94*(4), 820.
[307] Sony, M., Karingada, K. T., & Baporikar, N. (2020). *Quality Management Implementation in Higher Education: Practices, Models, and Case Studies.* Hershey, PA: IGI Global.
[308] Soutar, G., & McNeil, M. (1996). Measuring Service Quality in a Tertiary Institution. *Journal of Educational Administration, 34*, 72-82.
[309] Srikanthan, G., & Dalrymple, J. (2003). Developing alternative perspectives for quality in higher education. *The International Journal of Educational Management, 17*(3), 126-136.

[310] Srikanthan, G., & Dalrymple, J. (2004). A synthesis of a quality management model for education in universities. *International Journal of Educational Management, 18*(4), 266-279.
[311] Sreeramamurty, K., Sailaja, K., & Appalanaid, D. (2012). Inclusive Growth and Higher Education in India. *International Journal of Multidisciplinary Educational Research, 1*(2), 21-29.
[312] Stankov, L., Kleitman, S., & Jackson, S. A. (2015). Measures of the Trait of Confidence. In G. Boyle, D. Saklofske, & G. Matthews, *Measures of Personality and Social Psychological Constructs* (pp. 158-189). Academic Press.
[313] Staub, D. F. (2017). University Education in Developing Economies: Access, Competition, and Neglect. In Papa R., & Saiti A., *Building for a Sustainable Future in Our Schools*. Cham: Springer.
[314] Steiger, J. (2007). Understanding the limitations of global fit assessment in structural equation modeling. *Personality and Individual Differences, 42*(5), 893-898.
[315] Steiner, P. (2014). The Impact of the Self-Awareness Process on Learning and Leading. *New England Journal of Higher Education*.
[316] Stensaker, B., Langfeldt, L., Harvey, L., Huisman, J., & Westerheijden, D. (2011). An in-depth study on the impact of external quality assurance. *Assessment & Evaluation in Higher Education, 36*(4), 465-478.
[317] Stinchcombe, A. (1968). *Constructing social theories.* Chicago: University of Chicago Press.
[318] Stronge, J. H. (2018). *Qualities of effective teachers.* Alexandria: ASCD.
[319] Subbarao, E. (2013). India's higher engineering education: opportunities and tough choices. *Current Science*, 55-66.
[320] Suhr, D. (2006). Exploratory or Confirmatory Factor Analysis? *SAS Users Group International Conference* (pp. 1-17). Cary: SAS Institute, Inc.
[321] Sunder, M., Ganesh, L., & Marathe, R. (2018). A morphological analysis of research literature on Lean Six Sigma for services. *International Journal of Operations & Production Management, 38*(1), 149-182.
[322] Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics (3rd ed.).* New York: Harper Collins.
[323] Tam, M. (2001). Measuring Quality and Performance in Higher Education . *Quality in Higher Education , 7*(1), 47-54.
[324] Tartwijk, J. v., & Hammerness, K. (2011). The neglected role of classroom management in teacher education. *Teaching Education, 22*(2), 109-112.
[325] Teeroovengadum, V., Kamalanabhan, T., & Seebaluck, A. K. (2016). Measuring service quality in higher education: Development of a hierarchical model (HESQUAL) . *Quality Assurance in Education, 24*(2), 244-258.
[326] Teixeira, P. (2009). *Mass Higher Education and Private Institutions.* Paris: Organisation for economic co-operation and development.
[327] Terenzini, P. T., Springer, L., Pascarella, E. T., & Nora, A. (1995). Influences affecting the development of students' critical thinking skills. *Research in Higher Education, 36*(1), 23–39.
[328] Thurstone, L. L. (1947). *Multiple factor analysis.* Chicago: University of Chicago Press.
[329] Tigelaar, D. E., Dolmans, D., Wolfhagen, I., & Van Der Vleuten, C. (2004). The development and validation of a framework for teaching competencies in higher education. *Higher Education, 48*, 253-268.

[330] Tilak, J. (1993). Financing Higher Education in India: Principles, Practice, and Policy Issues. *Higher Education, 26*(1), 43-67.
[331] Tilak, J. B. (2004). Absence of Policy and Perspective in Higher Education. *Economic and Political Weekly*, 2159-2164.
[332] Tilak, J. B., & Mathew, A. (2016). Promotion of academic profession in India: Upward mobility of teachers in higher education. *Asia Pacific Journal of Educators and Education, 31*, 85-113.
[333] Tilak, J. B. (2018). Private higher education in India. In J. B. Tilak, *Education and Development in India* (pp. 535-551). Singapore: Palgrave Macmillan.
[334] Trow, M. (1973). *Problems in the Transition from Elite to Mass higher education.* Berkeley, California: Carnegie Commission on Higher Education, ERIC.
[335] Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: capturing an elusive construct. *Teaching and Teacher Education*, 783-805.
[336] Tschannen-Moran, M., & Hoy, A. W. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and teacher Education, 23*(6), 944-956.
[337] Tsui, L. (2001). Faculty Attitudes and the Development of Students' Critical Thinking. *The Journal of General Education, 50*(1), 1-28.
[338] UGC. (2020, January). *University Grants Commission*. Retrieved from UGC Website: https://www.ugc.ac.in
[339] Ullman, J. B., & Bentler, P. M. (2013). Structural equation modeling. In I. B. Weiner, *Handbook of psychology* (pp. 661-690). John WIley & Sons, Inc.
[340] Umashankar, V., & Dutta, K. (2007). Balanced scorecards in managing higher education institutions: an Indian perspective. *International Journal of Educational Management, 21*(1), 54-67.
[341] Vaidhyasubramaniam, S. (2013, May 1). *New Indian Express*. Retrieved from Retrieved from New Indian Express Website: http://www.newindianexpress.com/opinions/2013/may/01/AICTE's-Newtonian--downfall-473178.html
[342] Vesely, A. K., Saklofske, D. H., & Leschied, A. D. (2013). Teachers—The Vital Resource: The Contribution of Emotional Intelligence to Teacher Efficacy and Well-Being. *Canadian Journal of School Psychology, 28*(1), 71-89.
[343] Vossensteyn, H., Kolster, R., Kaiser, F., File, J., Huisman, J., Seeber, M., . . . Gwosc, C. (2018). *Promoting the Relevance of Higher Education: Executive Summary.* Enschede: Center for Higher Education Policy Studies: European Commission.
[344] Waddock, S., & Lozano, J. (2013). Developing more holistic management education: Lessons learned from two programs. *Academy of Management Learning & Education, 12*, 265-284.
[345] Waghid, Y. (2002). Knowledge production and higher education transformation in South Africa: Towards reflexivity in university teaching, research and community service. *Higher Education*, 457-488.
[346] Wals, A. E., Van Der Hoeven, N., & Blanken, H. (2009). *The acoustics of social learning: Designing learning processes that contribute to a more sustainable world.* Wageningen: Wageningen Academic Publishers.
[347] Watty, K. (2003). When will academics learn about quality? *Quality in Higher Education, 9*(3).
[348] Watty, K. (2006). Want to know about quality in higher education? Ask an academic. *Quality in Higher Education, 12*(3), 291-301.

[349] Weert, E. (1990). A macro-analysis of quality assessment in higher education. *Higher Education, 19*, 57-72.
[350] West, S., Finch, J., & Curran, P. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. H. Hoyle, *Structural equation modeling: Concepts, issues and applications* (pp. 56-75). Newbury Park, CA: Sage.
[351] Whetten, D. A. (1989). What Constitutes a Theoretical Contribution? *Academy of Managemnt Review*, 490-495.
[352] Whitmer, A., Ogden, L., Lawton, J., Sturner, P., Groffman, P. M., S. L., . . . Killilea, M. (2010). The engaged university: Providing a platform for research that transforms society. *Frontiers in Ecology and the Environment, 8*(6), 314-321.
[353] Williams, A. (2018). Factors Affecting Employee Job Satisfaction and Organisational Commitment: A Comparative Study Between Lecturers Working in Private and Government Universities and Colleges in Rajasthan. *Abhinav National Monthly Refereed Journal of Research in Commerce & Management, 7*(4), 94-102.
[354] Williams, D. A., Berger, J. B., & McClendon, S. A. (2005). *2005. Toward a Model of Inclusive Excellence and Change in Postsecondary Institutions.* Washington D.C.: Association for American Colleges & Universities.
[355] Wismath, S., Orr, D., & MacKay, B. (2015). Threshold Concepts in the Development of Problem-solving Skills. *Teaching & Learning Inquiry: The ISSOTL Journal, 3*(1), 63-73.
[356] Witell, L., Gebauer, H., Jaakkola, E., Hammedi, W., Patricio, L., & Perks, H. (2017). A bricolage perspective on service innovation. *Journal of Business Research, 79*, 290-298.
[357] Woods, D. R., Hrymak, A. N., Marshall, R. R., Wood, P. E., Crowe, C. M., Hoffman, T. W., . . . Bouchard, C. K. (1997). Developing problem solving skills: The McMaster problem solving program. *Journal of Engineering Education, 86*(2), 75-91.
[358] World Bank. (2000). *Higher education in developing countries: Peril and promise.* Washington D.C.: World Bank.
[359] Wu, H. C., & Ko, Y. J. (2013). Assessment of service quality in the hotel industry. *Journal of Quality Assurance in Hospitality & Tourism, 14*(3), 218–244.
[360] Wynd, C., Schmidt, B., & Schaefer, M. (2003). Two quantitative approaches for estimating content validity. *Western Journal of Nursing Research, 25*, 508-518.
[361] Yi, J. (2017). Highly Stratified Societies Without Permanent Leadership: The Yi in Liangshan of Southwestern China. In C. R., & M. R., *Feast, Famine or Fighting? Studies in Human Ecology and Adaptation.* Cham: Springer.
[362] Zachariah, S. (2007, October). Managing quality in higher education: A stakeholder perspective. *Managing quality in higher education: A stakeholder perspective*. Leicester, United Kingdom: The University Of Leicester.
[363] Zhang, S., Choudhury, A., & He, F. L. (2019). Responsible Innovation: The Development and Validation of a Scale. *Academy of Management Global Proceedings* (p. 328). Boston: Academy of Management .
[364] Zucker, L. (1977). The role of institutionalization in cultural persistence. *American Sociological Review*, 726-743.

APPENDIX 1
Item Generation for Research Questionnaire

Serial No.	Items	Support from relevant literature
1.	Teacher's efficacy to be able to get through to the most difficult students	(Tschannen-Moran & Hoy, 2001)
2.	Teacher's efficacy to be able to provide an alternative explanation for addressing students confusion	(Skaalvik & Skaalvik, 2007)
3.	Making expectations clear about student behaviour	(Tschannen-Moran & Hoy, 2001)
4.	Responding to difficult questions from students	(Tschannen-Moran & Hoy, 2001)
5.	Using a variety of assessment strategies within classroom	(Tschannen-Moran & Hoy, 2001)
6.	Helping students value learning	(Tschannen-Moran & Hoy, 2001)
7.	Gauging understanding of students regarding taught courses	(Tschannen-Moran & Hoy, 2007)
8.	Devising good questions for students	(Dörnyei & Ushioda, 2013)
9.	Teacher's efficacy to foster student creativity	(Klassen & Chiu, 2010)
10.	Getting students to follow rules of the classroom	(Tschannen-Moran & Hoy, 2001)
11.	Calming a student who is disrupting the class	(Tschannen-Moran & Hoy, 2001)
12.	Establishing a classroom management system with students	(Tschannen-Moran & Hoy, 2001)
13.	Establishing routines to keep classroom activities running smoothly	(Stronge, 2018)
14.	Controlling disruptive behaviour in the classroom	(Tschannen-Moran & Hoy, 2001)
15.	Providing appropriate challenges for very capable students	(Tschannen-Moran & Hoy, 2001)
16.	Teacher's efficacy in keeping a few students from ruining an entire lesson	(Tschannen-Moran & Hoy, 2001)
17.	University's (college's) response to industry evaluations about the course and curriculum	(Lagrosen, Seyyed-Hashemi, & Leitner, 2004)
18.	Students taking offence easily due to the coursework, teaching and learning processes at university (college)	(Lawal & Akintunde, 2014; Judge & Erez, 2007)
19.	Students feeling blue due to the coursework, teaching and learning processes at university (college)	(Judge & Erez, 2007)

20.	Students get caught up in their own problems due to the coursework, and teaching and learning processes at university (college)	(Judge & Erez, 2007)
21.	Students get overwhelmed emotionally because of the coursework, teaching and learning processes at university (college)	(Gosling, Rentfrow, & Swann Jr., 2003)
22.	Students grumble about things due to the coursework, teaching and learning processes at university (college)	(Chamorro-Premuzic, T., & Furnham, 2007)
23.	Students feel threatened easily due to the coursework, teaching and learning processes at university (college)	(Gosling, Rentfrow, & Swann Jr., 2003)
23.	Students do not get upset easily because of the coursework, teaching and learning processes at university (college)	(Chamorro-Premuzic, T., & Furnham, 2007)
24.	Students will be able to engage in profitable academic debate with their peers	(Sander & Sanders, 2003)
25.	Students will be able to produce coursework at the required standard	(Sander & Sanders, 2003)
26.	Students will be able to pass assessments at the first step	(Stankov, Kleitman, & Jackson, 2015)
27.	Students will be able to remain adequately motivated throughout	(Sander & Sanders, 2003)
28.	Conducive ambience of the university (college) for research	(Sahney, Banwet, & Karunes, 2006)
29.	Course at the university (college) requires students to understand concepts taught by us (lecturers)	(Kember, et al., 2000)
30.	As long as the students can remember handout material for examinations, they do not have to think too much.	(Moon, 2004)
31.	Students sometimes question the way others do something and try to think of better ways	(Kember, et al., 2000)
32.	As a result of this course at the university (college), the students have changed the way they look at themselves	(Kember, et al., 2000)
33.	Understanding of content crucial for passing this course at the university (college)	(Fisher & Frey, 2013)
34.	Students often reflect on their actions to see whether they could have improved on what they did	(Kember, et al., 2000)
35.	Student changed normal way of doing as a result of this course at the university (college)	(Mann, Gordon, & MacLeod, 2009)
36.	Students' firmly held beliefs challenged at this university (college)	(Kember, et al., 2000)
37.	Students often re-apprise their experience to learn from it and improve in future	(Kember, et al., 2000)
38.	Students are self-conscious about the way they look	(Govern & Marsch, 2001)
39.	Students are self-conscious about their surroundings	(Lau, et al., 2006)
40.	Students are reflective about their life in general	(Govern & Marsch, 2001)
41.	Students are concerned about what other people think of them	(Govern & Marsch, 2001)
42.	Students are conscious of all objects around them	(Govern & Marsch, 2001)
43.	The students are given value for money in this university (college).	Financial times ranking (2010)

44.	When a solution to a problem was unsuccessful, my students did not examine why it didn't work.	(Heppner & Petersen, 1982)
45.	Students developing a strategy to collect information after being confronted with a complex issue	(Heppner & Petersen, 1982)
46.	Students thinking up as many possible ways to handle a problem as they can until they can't come up with anymore ideas	(Heppner & Petersen, 1982)
47.	Students not becoming uneasy about their ability to handle the situation when their first efforts fail	(Heppner & Petersen, 1982)
48.	Students analysing what went right or what went wrong after solving a problem	(Woods, et al., 1997)
49.	Students making decisions and being happy with them later	(Snyder, et al., 2002)
50.	Students generally going with the next good idea that comes to their minds	(Heppner & Petersen, 1982)
51.	Students being almost certain about solving problems and making them work	(Woods, et al., 1997)
52.	Students predicting the overall result of carrying out a particular course of action	(Heppner & Petersen, 1982)
53.	Students believing that given enough time and effort, they can solve most problems that confront them	(Heppner & Petersen, 1982)
54.	Students having confidence that they can handle problems that may arise, even in novel situations	(Snyder, et al., 2002)
55.	Students transcending their prejudices against age	(Greenwald, Banaji, Nosek, Teachman, & Nock, 2011)
56.	Students transcending their prejudices against skin-tone	(Greenwald, Banaji, Nosek, Teachman, & Nock, 2011)
57.	Students transcending their prejudices against gender-career	(Greenwald, Banaji, Nosek, Teachman, & Nock, 2011)
58.	Students acquiring adequate knowledge and skills for future job at university (college)	(Dall'Alba & Barnacle, 2007)
59.	Students increasing their knowledge, skills and abilities at university (college)	(Dall'Alba & Barnacle, 2007)

APPENDIX 2: TRFQ_V1
Research Questionnaire (Phase I of Data Collection)

Dear Respondent,

I am working on a research project, named "*Influence of Teacher Efficacy on Transformative Quality in Private Higher Education Institutions*". This is a survey of opinion for academic research only. The identity of all respondents would be kept anonymous through the use of pseudonyms and will not be disclosed under any circumstances. Your cooperation is greatly appreciated.

Section 1:

This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their college activities. Please indicate your opinion about each of the statements below. Your answers are confidential. There are no right or wrong answers. The success of this questionnaire lies in your candid and straightforward answers.

Key:

1	Nothing
2	More than nothing, less than very little
3	Very little
4	More than very little, less than some influence
5	Some influence
6	More than some influence, less than quite a bit
7	Quite a bit
8	More than quite a bit, less than a great deal
9	A great deal

	Items	1	2	3	4	5	6	7	8	9
1.	How much can you do to get through to the most difficult students?									
2.	To what extent can you provide an alternative explanation or example when students are confused?									
3.	To what extent can you make your expectations clear about student behaviour?									
4.	How well can you respond to difficult questions from your students?									
5.	How much can you use a variety of assessment strategies?									
6.	How much can you do to help your students value learning?									
7.	How much can you gauge student comprehension of what you have taught?									
8.	To what extent can you craft good questions for your students?									
9.	How much can you do to foster student creativity?									
10.	How much can you do to get students to follow classroom rules?									

11.	How much can you do to calm a student who is disruptive or noisy?									
12.	How well can you establish a classroom management system with each group of students?									
13.	How well can you establish routines to keep activities running smoothly?									
14.	How much can you do to control disruptive behaviour in the classroom?									
15.	How well can you provide appropriate challenges for very capable students?									

Section 2:

Institutions of higher education are capable of bringing in transformation among students at various levels. The purpose of the questions in this section is to gain insight into the kind of transcendence faculty at higher education institutions might offer or are offering to their students. There are no right or wrong answers. The success of this questionnaire lies in the candidness and honesty of your answers.

Key for Q 1-24:

1	Strongly disagree
2	Disagree
3	Neither disagree nor agree
4	Agree
5	Strongly agree

1.	Coursework and teaching and learning processes at our university (college) does not make my students take offence easily.	1	2	3	4	5
2.	Coursework and teaching and learning processes at our university (college) does not make my students my students often feel blue (sad).					
3.	Coursework and teaching and learning processes at our university (college) does not make my students my students get caught up in their own problems.					
4.	Coursework and teaching and learning processes at our university (college) does not make my students worry about things.					
5.	Coursework and teaching and learning processes at our university (college) does not make students get overwhelmed by emotions.					
6.	Coursework and teaching and learning processes at our university (college) does not make students grumble about things.					
7.	Coursework and teaching and learning processes at our university (college) does not make students feel threatened easily.					
8.	Coursework and teaching and learning processes at our university (college) does not make students get upset easily.					
9.	I am confident that my students will be able to engage in profitable academic debate with their peers.					

10.	I am confident that my students will be able to produce coursework at the required standard.					
11.	I am confident that my students will be able to pass assessments at the first step.					
12.	I am confident that my students will be able to remain adequately motivated throughout.					
13.	This course at the university (college) requires students to understand concepts taught by us (lecturers).					
14.	My students sometimes question the way others do something and try to think of a better way					
15.	As a result of this course at this university (college), the students have changed the way they look at themselves					
16.	To pass this course at the university (college), the students need to understand the content					
17.	My students often reflect on their actions to see whether they could have improved on what they did.					
18.	As a result of this course at this university (college), my students have changed their normal way of doing things.					
19.	My students often re-apprise their experience so that they can learn from it and improve for their next performance.					
20.	The university (college) has enabled my students to transcend their prejudices against age (having preferences for young over old).	1	2	3	4	5
21.	The university (college) has enabled my students to transcend their prejudices against skin-tone (preference of light skin over dark skin).					
22.	The university (college) has enabled my students to transcend their prejudices against gender-career (linking family with females; and career with males).					
23.	The university (college) has helped my students acquire adequate knowledge and skills for future job.					
24.	The university (college) has helped my students to increase their knowledge, skills and abilities.					

Key for Q25-28:

1	Strongly disagree
2	Moderately disagree
3	Slightly disagree
4	Neither disagree nor agree
5	Slightly agree
6	Moderately agree
7	Strongly agree

25.	Presently, my students are self-conscious about the way they look.	1	2	3	4	5	6	7
26.	Presently, my students are self-conscious about what is going on around them.							
27.	Presently, my students are reflective about their life.							
28.	Presently, my students are concerned about what other people think of them.							

Key for Q29-38:

1	Strongly agree
2	Agree
3	Slightly agree
4	Slightly disagree
5	Disagree
6	Strongly disagree

29.	When a solution to a problem didn't work, my students examine why it didn't work.	1	2	3	4	5	6
30.	When my students are confronted with a complex problem, they try to develop a strategy to collect information so that they can define exactly what the problem is.						
31.	When the first efforts of my students fail, they do not become uneasy about their ability to handle the situation.						
32.	After my students have solved a problem, they analyse what went right or what went wrong.						
33.	My students make decisions and are happy with them later.						
34.	My students generally do not go with the next good idea that comes to their mind.						
35.	When my students make plans to solve a problem, they are almost certain that they can make them work.						
36.	My students try to predict the overall result of carrying out a particular course of action.						
37.	Given enough time and effort, my students believe that they can solve most problems that confront them.						
38.	When faced with a novel situation, my students have confidence that they can handle problems that may arise.						

Section 3:

Please provide the requested information.

Name _____

1. Gender
   (a) Male
   (b) Female

2. Age
   (a) Less than 30 years old
   (b) Between 30 and 50 years old
   (c) More than 50 years old

3. Educational level
   (a) Bachelor's degree
   (b) Master's degree

(c) Doctoral degree
(d) Other (if other, please specify) _____

4. Experience
   (a) 1-5 years
   (b) More than 5 years but less than or equal to 10 years
   (c) More than 10 years but less than or equal to 15 years
   (d) More than 15 years but less than or equal to 20 years
   (e) More than 20 years

5. Designation
   (a) Lecturer
   (b) Assistant professor
   (c) Associate professor
   (d) Full professor
   (e) Other (if other, please specify) _____

6. Computer trained
   (a) Yes
   (b) No

Thank you for your time and cooperation.

APPENDIX 3
Research Questionnaire (Phase II of Data Collection)

Dear Respondent,

I am working on a research project, named "*Influence of Teacher Efficacy on Transformative Quality in Private Higher Education Institutions*". This is a survey of opinion for academic research only. The identity of all respondents would be kept anonymous through the use of pseudonyms and will not be disclosed under any circumstances. Your cooperation is greatly appreciated.

Section 1:

This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their college activities. Please indicate your opinion about each of the statements below. Your answers are confidential. There are no right or wrong answers. The success of this questionnaire lies in your candid and straightforward answers.

Key:

1	Nothing
2	More than nothing, less than very little
3	Very little
4	More than very little, less than some influence
5	Some influence
6	More than some influence, less than quite a bit
7	Quite a bit
8	More than quite a bit, less than a great deal
9	A great deal

1.	How much can you do to get through to the most difficult students?	1	2	3	4	5	6	7	8	9
2.	To what extent can you provide an alternative explanation or example when students are confused?									
3.	How much can you gauge student comprehension of what you have taught?									
4.	How much can you do to calm a student who is disruptive or noisy?									
5.	How well can you establish a classroom management system with each group of students?									
6.	How well can you establish routines to keep activities running smoothly?									

Section 2:

Institutions of higher education are capable of bringing in transformation among students at various levels. The purpose of the questions in this section is to gain insight into the kind of transcendence faculty at higher education institutions might offer or are offering to their students. There are no right or wrong answers. The success of this questionnaire lies in the candidness and honesty of your answers.

Key:

1	Strongly disagree
2	Disagree
3	Neither disagree nor agree
4	Agree
5	Strongly agree

1.	I am confident that my students will be able to produce coursework at the required standard.	1	2	3	4	5
2.	I am confident that my students will be able to pass assessments at the first step.					
3.	I am confident that my students will be able to remain adequately motivated throughout.					
4.	This course at the university (college) requires students to understand concepts taught by us (lecturers).					
5.	My students sometimes question the way others do something and try to think of a better way.					
6.	As a result of this course at the university (college), the students have changed the way they look at themselves.					
7.	To pass this course at the university (college), the students need to understand the content.					
8.	My students often reflect on their actions to see whether they could have improved on what they did.					
9.	As a result of this course at the university (college), my students have changed their normal way of doing things.					
10.	My students often re-apprise their experience so that they can learn from it and improve for their next performance.					
11.	After my students have solved a problem, they analyse what went right or what went wrong.					
12.	My students make decisions and are happy with them later.					
13.	When my students make plans to solve a problem, they are almost certain that they can make them work.					

14.	My students try to predict the overall result of carrying out a particular course of action.					
15.	Given enough time and effort, my students believe that they can solve most problems that confront them.					
16.	Presently, my students are self-conscious about what is going on around them.					
17.	Presently, my students are reflective about their life.					
18.	Presently, my students are concerned about what other people think of them.					
19.	When a solution to a problem isn't unsuccessful, my students examine why it didn't work.					
20.	When my students are confronted with a complex problem, they try to develop a strategy to collect information so that they can define exactly what the problem is.					
21.	When faced with a novel situation, my students have confidence that they can handle problems that may arise.					
22.	When the first efforts of my students fail, they don't become uneasy about their ability to handle the situation.					
23.	The university (college) has enabled my students to transcend their prejudices against age (having preferences for young over old).					
24.	The university (college) has enabled my students to transcend their prejudices against skin-tone (preference of light skin over dark skin).					
25.	The university (college) has enabled my students to transcend their prejudices against gender-career (linking family with females; and career with males).					
26.	The university (college) has helped my students to acquire adequate knowledge and skills for future job.					
27.	The university (college) has helped my students to increase their knowledge, skills and abilities.					
28.	The coursework, teaching and learning processes and other extra-curricular activities at our university (college) doesn't makes my students take offence easily.					
29.	The coursework, teaching and learning processes and other extra-curricular activities at our university (college) doesn't makes my students worry about things.					

Section 3:

Please provide the requested information.

Name _____

1. Gender
   (c) Male
   (d) Female

2. Age
   (d) Less than 30 years old
   (e) Between 30 and 50 years old
   (f) More than 50 years old

3. Educational level
   (e) Bachelor's degree
   (f) Master's degree
   (g) Doctoral degree
   (h) Other (if other, please specify) _____

4. Experience
   (f) 1-5 years
   (g) More than 5 years but less than or equal to 10 years
   (h) More than 10 years but less than or equal to 15 years
   (i) More than 15 years but less than or equal to 20 years
   (j) More than 20 years

5. Designation
   (f) Lecturer
   (g) Assistant professor
   (h) Associate professor
   (i) Full professor
   (j) Other (if other, please specify) _____

6. Computer trained
   (c) Yes
   (d) No

Thank you for your time and cooperation.

APPENDIX 4
Descriptive Statistics for Phase I of Data Collection

Descriptive statistics of the sample		Phase I
Gender	Males	47.5%
	Females	52.5%
Age	Less than 30 years	43.5%
	Between 30-50 years	53.4%
	Above 50 years	3.1%
Educational level	Bachelor's degree	13.5%
	Master's degree	73.5%
	Doctoral degree	11.7%
Work experience	Less than 5 years	42.6%
	5-10 years	31.4%
	10-15 years	15.2%
	15-20 years	6.7%
	More than 20 years	4%
Designation	Lecturers	24.7%
	Assistant professors	55.6%
	Associate professors	7.6%
	Full professors	4.9%
Computer-trained	Yes	90.1%
	No	9.9%

APPENDIX 5

Descriptive Statistics for Phase II of Data Collection

Descriptive statistics of the sample		Phase II
Gender	Males	51.2%
	Females	48.8%
Age	Less than 30 years	41.5%
	Between 30-50 years	53.2%
	Above 50 years	5.4%
Educational level	Bachelor's degree	12.2%
	Master's degree	77.1%
	Doctoral degree	9.3%
Work experience	Less than 5 years	43.9%
	5-10 years	30.2%
	10-15 years	17.1%
	15-20 years	3.4%
	More than 20 years	5.4%
Designation	Lecturers	21%
	Assistant professors	59.5%
	Associate professors	7.8%
	Full professors	5.4%
Computer-trained	Yes	86.8%
	No	13.2%