

DOI: <https://doi.org/10.24297/jssr.v14i0.8263>**Measurement of Country Specific Internationalisation in China: India Study Centre Questionnaire**

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Orc Id: <https://orcid.org/0000-0003-2853-8200>**ABSTRACT**

The India Study Centre Questionnaire (ISCQ) has been developed to measure the level of internationalisation of higher education (IHE) with reference to India at the India Study centres in China. The concept of IHE has been constructed on the basis of the significantly correlated themes that emerged from the academic research literatures (N=36). The correlation among the emergent themes (N=52) comprising the components of the IHE was tested on the basis of a text analysis. The themes were itemised in accordance with the Ontological or Existentialist, Phenomenological or Instrumentalist, Propositional or Imagistic approaches of conceptualisation with an intent to satisfy the Evaluative or Normative need of the theoretical framework of this study. Five extensive interviews were conducted with the faculty members and administrators to validate the structure and content of the ISCQ. The ISCQ could be used to test the country specific internationalisation of higher education at academic institutions by substituting the name of the country in contexts.

**Keywords:** Internationalisation, Higher Education, India Study Centre, Country Study Centre, Questionnaire

Dedicated with respect to my supervisor Professor Late Yuan BenTao

Dedicated with love to my father Shri Prabhakar Jha

**I. INTRODUCTION**

The instrument ISCQ is non-psychological in nature. The Instrument of India Study Centre Questionnaire (ISCQ) is a self-reported instrument. The approaches of the ISCQ have been segregated as Ethos, Process, Activities, Competency, Employability, Evaluation, Funding, Link-Approaches, and the SWOT<sup>1</sup>. A quick literature survey indicates that these approaches have been widely used for measuring the Internationalization of Higher Education Institutions by the scholars from all parts of the world. The design and the strategy of framing the ISCQ have been kept in consistence with that of the widely used Motivation and Learning Strategies Questionnaire (Pintrich, Smith, Garcia, & McKeachie, 1991). For testing the robustness of the ISCQ of the India Study Centre, a set (MLSQ and ISCQ) of 28 questionnaires in English, for preliminary test, was distributed among the Peking University students on November 11<sup>th</sup> of 2018. The idea was to test whether the items of the ISCQ gets the similar trends of response for scoring as that of the MLSQ by the respondents.

In total, the ISCQ with MSLQ comprise of 231 items for measuring the 9 approaches as the components of Internationalisation of Higher Education, particularly with reference to India in this case at its inception. The number of items has been reduced to 100, among these 14 items has been loaned from MLSQ. Each response item of the ISCQ is segmented into three sections. However, originally, the ISCQ is a mixed instrument because the concept of a few items could not be surveyed easily. To satisfy the needs of the research framework a part of the components of the ISCQ should be designed on interviews for data collections. For measuring the Internationalisation of a higher education institution all the components should be used together on the

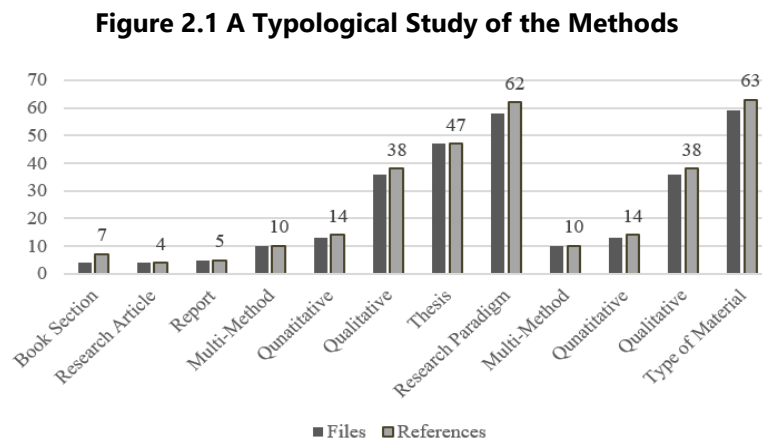
<sup>1</sup> Other is also a component in the code structure of the instrument. The themes of the ISCQ starts with block letter.

respondents. Devised on the 7-point Likert scale, this set of questionnaire takes 15 to 20 minutes to administer, if the segments are clearly explained to the respondents. Each set of the ISCQ questionnaires formerly contains 1. Cover Letter, 2. Consent Form, 3. MLSQ, 4. ISCQ, and 5. Demographic Sheet.

The cover letter describes the value of the response and the rights of the respondents in the milieu of the stipulated ethical guidelines of the academic research. The cover letter also explains the use of responded items. The Consent Form explains the nature of the research instrument including the survey and the interview follow-up. It requests the respondents to volunteer their participation. Unlike MLSQ, all the items of the ISCQ must be filled-in together. The MLSQ has also been segmented to serve the purpose of the instruments. It, however, does not include the Ontological or Existentialist segment of the items in the questionnaire. Lastly, each set of questionnaires also contains a Demographic sheet, though not mandatory, is desired to be filled by the respondents e.g. name, email, gender and grade, etc. This paper reports the developmental stages of the ISCQ.

## II. LITERATURE REVIEW

The emergent Themes of the Internationalisation<sup>2</sup> of Higher Education comes from all genres of academic research including qualitative, quantitative, mixed, and multi-method studies which have been conducted by the authors of prominence of this field. The figure below (Figure 2.1) indicates this distribution on the basis of the 36 pieces of the selected research.



*Note:* List of representative authors and their select work on internationalization of higher education 16<sup>th</sup> of September, 2018.

Most of the authors according to this literature survey have used qualitative research approach to address their research problem but even the studies under each approach vary in terms of research designs and research instruments. In a well-recognized dissertation on the '*Internationalization of Canadian universities*' Jane Knight (1994) has used a subjective survey design to collect the data instrumentalised on targeted sampling from Canadian higher education institutions based on eighteen items questionnaire administered on descriptive statistics; and frequency and ranking tables for the analysis of internationalization through the dimensions of Competency, Activities, Process, and Culture.

<sup>2</sup> Internationalization in this research is confined to the understanding of the institution (space) established to conduct country and area specific research and study centers.

**Table 1.1 Indicators Collected from Prominent Authors**

<i>Author</i>	<i>Activity</i>	<i>Competency</i>	<i>Employability</i>	<i>Ethos</i>	<i>Process</i>	<i>Infu_cur*</i>	<i>Strategy</i>	<i>Evaluation</i>	<i>Funding</i>	<i>LINK*</i>	<i>SWOT</i>
1 : (Carmen Bas, Boquera, & Miguel, 2017)	2	1	0	3	11	4	1	7	3	0	0
2 : (Damme, 2001)	4	0	0	1	11	1	2	2	0	1	2
3 : (Fang, 2012)	0	0	0	0	1	0	0	0	0	0	0
4 : (Fung, 2017)	0	5	0	0	0	0	0	0	0	0	0
5 : (Gao, 2015, 2017)	16	10	0	10	27	11	1	5	7	0	0
6 : (Green, 2012)	6	1	0	11	5	2	0	6	1	0	0
7 : (Hayward, 2000)	0	0	0	0	3	0	1	1	0	0	1
8 : (He, 2016)	0	1	0	1	2	0	2	2	0	0	0
9 : (HEA, 2014)	2	0	0	2	4	1	0	1	0	0	0
10 : (Hua & Qiquan, 2003)	0	1	0	1	1	1	0	0	0	0	0
11 : (Huang, 2006)	2	5	1	2	9	6	1	0	0	0	1
12 : (Hudzik & Stohl, 2009)	4	1	0	3	0	0	0	2	2	0	0
13 : (IAU, 2018)	8	7	1	8	11	2	5	5	3	0	7
14 : (IOC, 2014)	7	3	0	2	4	3	1	4	0	1	0
15 : (Jocelyne, 2005)	0	0	0	1	0	0	0	0	0	0	0
16 : (John L. Davies, 1992)	5	2	0	8	8	3	4	7	0	0	0
17 : (Jussi, 2004)	1	0	0	0	0	0	0	0	0	0	2
18 : (Kajberg, 2004)	7	9	0	3	4	1	0	0	0	0	1
19 : (Kehm & Teichler, 2007)	0	3	0	5	4	1	1	1	0	0	0
20 : (Kelly, 2012)	10	2	0	13	19	3	4	3	2	1	0
21 : (Klasek, Charles B., 1992)	20	16	0	38	44	14	6	8	16	1	5
22 : (Knight, 2007, 2015)	1	0	0	0	1	0	0	0	0	0	0
23 : (Leask & Bridge, 2013)	2	6	0	3	2	2	0	0	2	0	0
24 : (Liviu, Julia, & Daniela, 2015)	2	3	0	1	7	5	2	9	8	0	0
25 : (Matei, Iwvnska, & Daniela, 2015)	0	0	0	0	1	0	1	0	6	0	0
26 : (Nilsson, 2000)	0	4	0	0	5	5	0	0	0	0	0
27 : (NVAO 2011)	3	1	0	11	4	2	0	10	0	0	0
28 : (OECD, 2010)	6	9	0	3	2	1	0	0	0	0	0
29 : (Qiang, 2003)	28	8	0	11	19	10	2	3	5	1	2
30 : (Ramachandran, 2011)	0	1	0	0	0	0	0	0	0	0	2
31 : (Sawir, 2013)	2	0	0	2	2	2	0	0	0	0	1
32 : (Teichler, 1999)	1	4	1	0	10	5	2	1	0	0	0
33 : (Tran & Simon, 2018)	9	0	0	5	11	3	1	1	0	0	0
34 : (Van Der Wen, 1996,2017)	4	4	1	7	15	1	2	7	4	1	0
35 : (Yang,2003,2008)	0	1	0	3	4	0	0	0	0	0	0
36 : Chris et al., 2015)	3	2	1	7	5	2	2	2	1	0	0

Note: Adapted from literature survey

Internationalization of higher education due to its loosely defined meaning drives all researchers to define the meaning of internationalization of higher education in their context of interest. Most of the research conducted on the higher education internationalization are mainly inclined to qualitative study designs. Analysis of these meanings is indispensable for this study. None of these studies measure the internationalisation of higher education at country and area specific centres.

## 2.1 THEMES IN PROXIMITY OF THE THEORETICAL FRAMEWORK

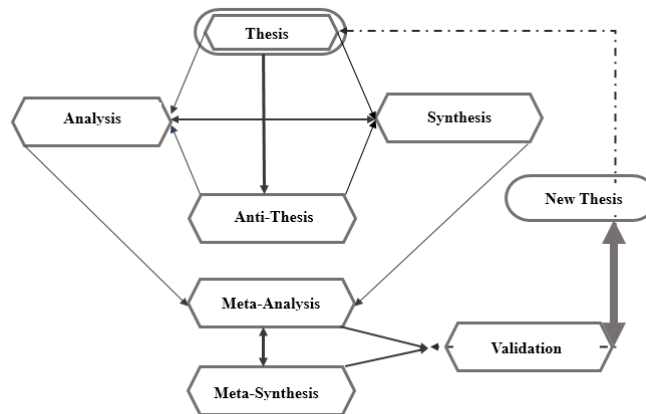
The purpose of bringing the themes in close proximity of the Theoretical Framework is to convert the themes into the item statement of a survey questionnaire that could necessarily fulfil the theoretical demand of the conceptual framework (Rea & Parker, 2014). This research framework is intended to illustrate, investigate, and evaluate the approaches<sup>3</sup> to study India in terms of conceptualized themes of the Internationalization of Higher Education i.e., Ethos, Process, Activity, Competency, Evaluation, and Employability.

The research framework for measuring the India specific Internationalisation at India Study Centres is founded on the Hegelian dialectics which mandates the simultaneous existence of the Thesis and the Anti-Thesis. The Hegelian dialectic process is not a mere addition to the conception of one casually selected moment after another but is a method of connecting them through a definite law (John & Ellis, 1999, p.13-15) where an anti-thesis by nature is a reminiscent of a thesis. This logical connection is necessarily associated with the two contradictory attributes categorized of the same concept which get resolved into a single unit called synthesis.

<sup>3</sup> Internationalization as a concept is still in its infancy. As a concept it could be approached by the constituting components but can not be defined.

Hegelian dialectics supports the ground of the synthesis as a different unit of independent identity from that of the thesis and anti-thesis because the contradictory categories are not considered to be identical in magnitudes. Thus the contradiction lastly facilitates the existence of a gap that leads to the continuation of another thesis (John & Ellis, 1999; Machery, 2009; Rosen, 1992a) in a new shape.

**Figure 2.2 Strategy of Thesis Making**



Source: Framed on the basis of (John & Ellis, 1999; Machery, 2009; Rosen, 1992b)

## 2.2 THEORETICAL UPHOLDING FOR TEXT ANALYSIS

The Heterogeneity Hypothesis typically proposes that concepts are characterized by the following five properties: a concept is divided into several parts; each part stores a distinct type of knowledge; these parts are necessarily linked to each other (i.e., when one of the parts is used to categorize, it can have a variety of usage on the other parts of the concept); these parts are coordinated; and the parts of a given concept do not produce inconsistent categorization (Armstrong, Gleitman, & Gleitman, 1983; Gelman, 1978; Keil, 1989; Machery, 2009). The theory paradigm of concept later got divided into two approaches to the concept (Murphy & Medin, 1985; Carey, 1985). According to the first approach, the concepts were accepted as theories (Rehder, 2003b, 2003a) while some others supported the idea that concepts are elements of theories (Gopnik & Meltzoff, 1997). The ideal approach to concepts was first introduced by Barsalou in contrast to prototypes (Barsalou, 1985). It is determined by the extent to which a concept really possesses the properties that members of this ad-hoc category should possess. The other one is the paradigm of concepts that negates the existence of the concept at all (Machery, 2009, p. 219-246; Smith & Samuelson, 1997, p.190). The inconsistency in conceptualizing is also supported by other cognitive theories of psychology<sup>4</sup>, therefore, the concepts could not be considered as a stagnant idea. However, this research adheres to the first idea of the theoretical approach to the conceptualization because it has the scientific upholding of existence that could be tested empirically.

## 2.3 THE RESEARCH QUESTION

RQ1. To what extent the nine approaches of Internationalisation of Higher Education in terms of their themes of this study are significantly correlated to the Internationalisation?

According to the theories of concept making (explained in Section 2.2 and Section 2.4) if the concepts so gleaned for Internationalisation are the true constituting themes of the Internationalisation of Higher Education then, these themes must be inter-correlated and having correlation with the concept of Internationalisation of

<sup>4</sup> For example: The implicit-self theory as proposed by Carol Dweck assumes that psychological attributes (that concepts are supposed to be built of) are either fixed essential qualities that are impossible to control, called entity, or are more controllable therefore could be developed gradually in increments (Dweck, 2000; Machery, 2009).

Higher Education, or otherwise. These themes literally are mentioned and coordinated with reference to the Internationalisation of Higher Education because the selected literatures for analysis are the PhD (mostly) theses of the previous authors submitted in this context only. This explanation also echoes the assumptions of the Classical Test Theory. Hypothetically speaking:

$$H_0 : \mu C_{j_{xyz}} = \mu I$$

where  $I$  indicates Internationalisation;  $C$  is the Component of Internationalisation denoted with item  $j_{1-77}$ ; and  $x, y, and z$  represents the three segments of the items.

RQ2. To what level the instrument ISCQ is valid?

This question is a part of the explanation and not statistical but human oriented in nature. This would need research rigour and a very careful onsite observation.

### III. METHODOLOGY

This research uses both qualitative and quantitative methods to verify the reliability and the validity of the Instrument ISCQ. The gleaned themes from the previous pieces of literature were tested on the basis of text analysis and later administered empirically on the students of India Study Centre of Peking University. Five faculties from Peking university and Tsinghua university participated in post-survey interview.

**Table 2.1 Hierarchy of the Themes in the Code Structure of the Instrument**

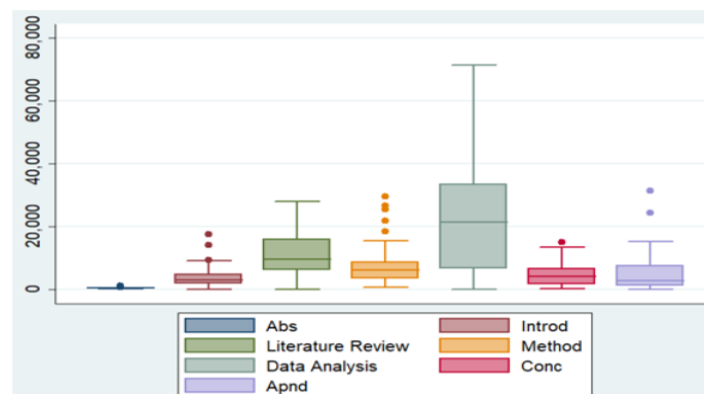
<i>Name</i>	<i>Files</i>	<i>References</i>	<i>Created On</i>	<i>Created By</i>
<b>APPROACH</b>	36	826	2018/9/14 10:22	CHN
<b>EMPLOYEABILITY</b>	5	5	2018/9/15 18:11	CHN
<b>4_COMPETENCY</b>	26	157	2018/9/14 10:23	CHN
Skills	21	64	2018/9/14 10:27	CHN
Research Skills	14	26	2018/9/15 13:35	CHN
Language Skills	16	28	2018/9/14 10:50	CHN
Knowledge	18	55	2018/9/14 10:27	CHN
Cultural Awareness	15	33	2018/9/14 10:49	CHN
Capabilities	9	15	2018/9/14 10:28	CHN
Attitudes	5	12	2018/9/14 10:28	CHN
<b>3_ACTIVITY</b>	25	180	2018/9/14 10:22	CHN
Extra_Curricular Activities	5	13	2018/9/14 10:52	CHN
Curricular Activities	5	11	2018/9/14 10:24	CHN
Pure curricular activities	0	0	2018/9/14 11:23	CHN
Co_Curricular Activities	2	3	2018/9/14 10:52	CHN
Alumini Activities	5	7	2018/9/14 11:02	CHN
Academic Activity	24	133	2018/9/14 10:24	CHN
Training	10	22	2018/9/14 11:59	CHN
Publications	10	15	2018/9/14 11:43	CHN
Language Vacations	4	5	2018/9/14 12:00	CHN
International Experience	20	66	2018/9/15 13:59	CHN
Conference	3	8	2018/9/14 11:42	CHN
Academic Assessment	0	0	2018/9/14 11:51	CHN
<b>2_PROCESS</b>	31	298	2018/9/14 10:23	CHN
Strategy	19	44	2018/9/14 10:31	CHN
Policy as Priority	7	11	2018/9/14 11:01	CHN
Geographical Priority	5	6	2018/9/14 11:04	CHN
Student	2	2	2018/9/14 11:06	CHN
Staff	2	2	2018/9/14 11:06	CHN
Institution	0	0	2018/9/14 11:07	CHN
Recruitment of Student_Faculty	15	39	2018/9/14 10:30	CHN
Partnership and Collaboration	21	80	2018/9/14 10:47	CHN
Double and Joint Degrees	8	9	2018/9/14 11:48	CHN
Infusion in curriculum	25	118	2018/9/14 10:31	CHN
International Research and Studies	14	40	2018/9/14 11:14	CHN
Area wise research studies	9	30	2018/9/14 11:18	CHN
Political	3	3	2018/9/15 13:40	CHN
Economic	4	4	2018/9/15 13:39	CHN
Culture	5	9	2018/9/15 19:08	CHN
Cultural infusion in curriculum	10	15	2018/9/14 11:10	CHN
E_Virtual Program	5	10	2018/9/14 11:11	CHN
Award	4	5	2018/9/15 19:01	CHN
<b>1_ETHOS</b>	27	185	2018/9/14 10:23	CHN
Reward	5	7	2018/9/14 10:33	CHN
Reputation	3	4	2018/9/14 10:57	CHN
Purpose Mission Goals	22	122	2018/9/14 10:29	CHN
Mission Statement	12	23	2018/9/14 11:37	CHN
Dedicated Institution for Internationalisation	18	67	2018/9/14 11:37	CHN
Dedicated Financial Support	2	2	2018/9/14 11:39	CHN
Policy_Norms	12	21	2018/9/14 10:29	CHN
Culture_Climate	15	26	2018/9/14 10:29	CHN
Cultural Disparity	3	5	2018/9/14 10:35	CHN
<b>8_SWOT</b>	10	30	2018/9/14 10:58	CHN
Weakness	5	7	2018/9/14 10:59	CHN
Threat	4	10	2018/9/14 11:00	CHN
Strength	2	3	2018/9/14 10:58	CHN
Opportunities	5	7	2018/9/14 11:00	CHN
<b>7_LINK Approaches</b>	6	6	2018/9/15 20:33	CHN
<b>6_FUNDING</b>	13	70	2018/9/14 10:55	CHN
Other Financial Support	4	8	2018/9/14 10:56	CHN
International Projects	7	9	2018/9/15 13:51	CHN
Dedicated resource materials	7	12	2018/9/15 18:07	CHN
Dedicated Financial Support	5	7	2018/9/14 11:39	CHN
<b>5_EVALUATION</b>	21	107	2018/9/14 10:38	CHN
Quality	20	81	2018/9/14 10:38	CHN
Feedback	4	4	2018/9/14 10:53	CHN

Note: Adapted from the literature survey

### 3.1 TESTING THE CONSTITUTING THEMES OF INTERNATIONALISATION

The sample for this section comprises the (N= 52) thesis submitted by the authors for investigating the Internationalisation of Higher Education, precisely in the realm of educational studies, collected from Tsinghua University Library (Appendix 3). For the analysis, the portable document format (PDF) files were converted into the word document files. Each academic paper so collected for data analysis was divided into abstract, introduction, literature review, methodology, data analysis, conclusion, and appendix sections. All the words, for each section, were counted to determine the fluctuation due to the use of words among the sections of the academic theses (Figure 3.1). It also points to the idea that the coefficients of weighted values of the occurrences of the themes should be used for the analysis.

**Figure 3.1 Fluctuation of use of words in the academic thesis of Internationalisation**



However, the text analysis suggested that the Abstract, Methodology and Appendixes sections of these theses are having outliers. The abstract by definition is the written summary of the paper but not the part of it. Abstract has been used as weight for determining the correlation among the other sections of the academic papers. Moreover, to verify whether the themes of the internationalisation so collected are appropriate for measuring the internationalisation of higher education, a correlation among the variables, has been derived to indicate the coherences among the themes. According to the theory of concepts the significant themes could be accommodated as the items for measuring the Internationalisation of Higher Education in China.

**Table 3.1 The correlation among sections for spread of words**

	Introd	LitRev	Method	Dysis	Conc	Apnd
Introd	1.0000					
LitRev	0.3013*	1.0000				
Method	0.3090*	0.3901*	1.0000			
Dysis				1.0000		
Conc				0.2995*	1.0000	
Apnd						1.0000

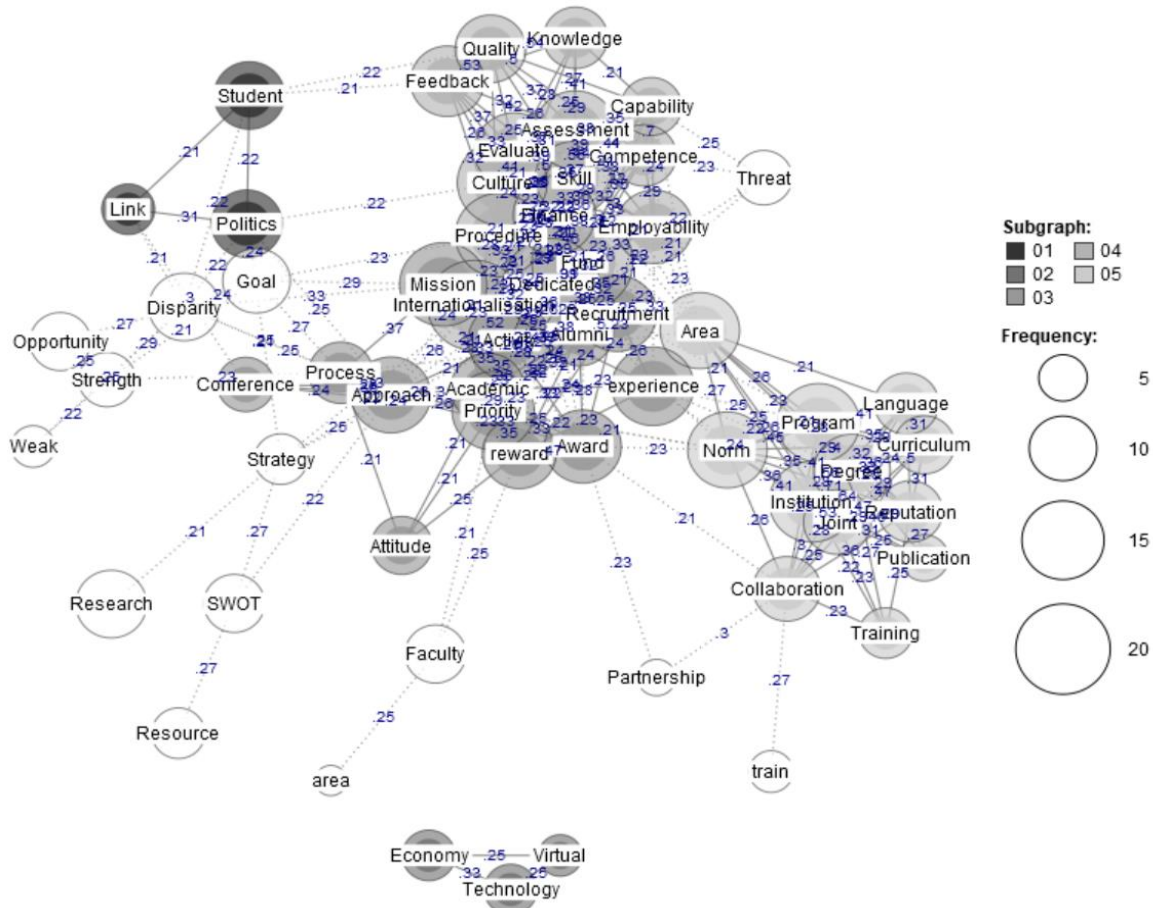
Note: \* Shows significance at 0.05 level

For conducting a textual analysis on the occurrence of themes all the files were cleaned and collected in word documents separately. Only Introduction, Literature Review, Methodology, Analysis, and Conclusion sections were included for analysing the themes of the Internationalisation of Higher Education. Among the fifty-two files, the two files (Kristy, 1993 and Schurino, 2003) were not convertible to document files and hence were not included for analysis of the themes in this research<sup>5</sup>. For testing the correlation among the themes of the instrument, a correlation test at significance level of  $p \geq 0.95$  was conducted. Most of the themes were

<sup>5</sup> For analyzing the coherence in use of words, the number of words were manually calculated from these two files.

correlated with each other. However, the Economy, Technology and E-Virtual, though significantly correlated with each other, were not found to be correlated with other themes of the instrument. A pictorial representation of this set of correlations has been attached in Figure 3.2 below. It could be stated that most of the component themes collected for the instrument internationalization of higher education have been reported by the previous researchers (precisely in their academic thesis) as the constituent themes of internationalization (in this case India) of higher education. These themes therefore must be itemized in order to measure the themes of Internationalization of Higher Education empirically.

**Figure 3.2 Jaccard Coefficient Similarity of Themes**



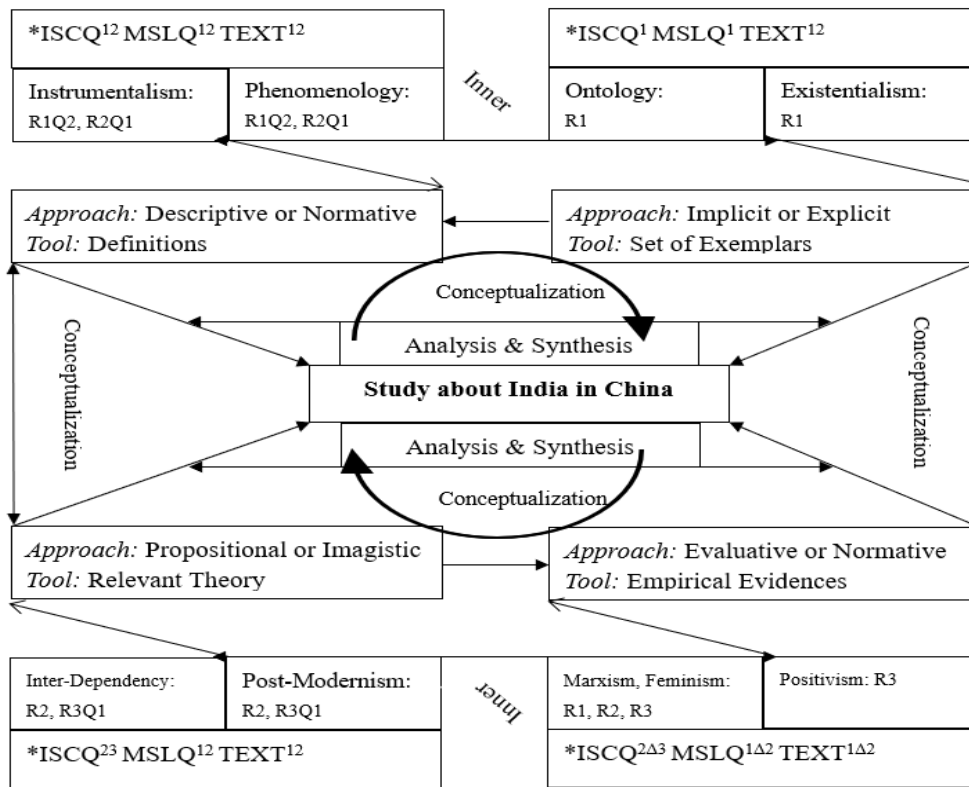
Note: Correlation is significant at  $p \leq 0.05$

**3.2 STATING THEMES IN TERMS OF THEORETICAL FRAMEWORK**

For the empirical test of the themes, the data were intended to be collected in a sequence, starting with a survey which would serve the need of approaching the concept of India study at these centres as conceptualized in the framework. The explicit and implicit needs of the concept addressed by the exemplars would be measured with the questions that could confirm the existence of the approaches described in the code structure of the instrument. The descriptive and normative aspects of the concept for understanding the phenomenon would be instrumentalized on a rating scale on present basis. In theory, it could be proposed that the satisfaction of students in terms of the themes of the Internationalisation would increase with the due course of time. This part of the framework would be addressed by the gap analysis of each item framed to measure the perception of the respondents rating on present, and future basis. It has been illustrated in the Figure 3.3 and Table 3.1 below. The population of this study presently is found to be extremely sparse.



**Figure 3.3 Theoretical Framework Measuring Concept of India Study at ISC**



\* The Superscript shows the segments of the items in the Questionnaire and the Textual Data Themes

Table 3.1 Segments of the Items of the ISCQ

Item	Scoring	Scale
1 Ontological or Existentialist Items	Yes No	
2 Instrumentalist or Phenomenological Items	How wold you rate it presently	1 2 3 4 5 6 7
3 Propositional or Imagistic Items	How you rate it after one year	1 2 3 4 5 6 7
4 Evaluative or Normative Items	The Gap of Segment 2 and 3	Δ Scales

### 3.3 THE PRELIMINARY EMPIRICAL TESTING OF THE INSTRUMENT

A total of 30 sets of questionnaires was distributed among them. However, two questionnaires were missing (N=28). As reported on the collected questionnaires, respondents included from 1<sup>st</sup> year to 4<sup>th</sup> year students at the centre which comprised of 14 males (male=0) and 14 females (female=1). The head of the department helped coordinate the distribution of the questionnaires so that students could sincerely fill it up after the class. The total number of items in the questionnaire was too huge to be accomplished in the class as it contained 184 items of the MLSQ, and 231 items of the ISCQ and 2 mandatory demographic questions (i.e., Gender as male or female, Year denoting the grade they study in). The students were allowed to take the questionnaires back home and return it through their representative classmates as deputed by the head of the department of the ISC, Peking University.

**Table 3.2 Sample Characteristics**

			Year			
			1	2	3	4
Gender	1	Count	3	5	3	3
	2	Count	4	4	1	5
Age	Mean		19	20	21	22

A logistic analysis of the Ontological or Existentialist items comprising Yes or No questions revealed that out of 77 items of the original ISCQ, there were 53 items responded as confirmatory in nature. It was therefore, important to analyse the non-confirmatory responses of the ISCQ for understanding their characteristics, and hence the variance of these responses on the ISCQ. The correlations of these 23 items distributed in terms of the variable Gender and Year indicate that item number 55 was significantly correlated to the Year. Item 55 together with 54 are devised to measure the E-virtual and Multi-media use for teaching India in the class at the ISC under the Process component of the ISCQ. These two items read as:

Proc54. My ISC provides E-Virtual classes about India

Proc55. My ISC provides Multi-media based virtual classes from India

**Table 3.3, 3.4, 3.5 Correlation of Non-confirmatory items with Gender and Year<sup>6</sup>**

	Gender	Year	Act8	Act9	Comp15	Comp19	Empl20
Gender	1.0000						
Year		1.0000					
Act8			1.0000				
Act9	0.2041	0.1650	0.2652	1.0000			
Comp15	0.1925		0.2222		1.0000		
Comp19	0.1741	0.2110		-0.2132		1.0000	
Empl20		0.3051	0.1667			0.9045*	1.0000
Empl21		0.3051	0.1667			0.9045*	1.0000*
Ethos28				-0.1667		0.2843	0.2357
Ethos30		-0.2500	0.3203			0.1931	0.1601
Fund37		0.2478	0.2533		0.1548	0.4201*	0.4644*
Fund38			0.4038*	0.1903		0.2435	0.2692
Fund39	0.1429		0.1443	-0.2041	0.1925	0.3482	0.2474
Fund40			0.4583*		0.1667	0.2764	0.3333
Proc43		-0.3051	0.5000*	0.2357			0.1429
Proc50	0.1429	-0.2798	0.2887	0.2041	-0.1925	0.3482	0.4124*
Proc51	0.1443		0.1667	0.1473	-0.2222	0.4523*	0.5000*
Proc52	0.2148	-0.1848		0.4385*	0.2067	-0.1371	
Proc53	0.1491			0.5477*	0.2582	-0.2076	
Proc54	0.2294	-0.2116	-0.1766		-0.2796	0.3594	0.2208
Proc55		-0.3762*	0.2274	0.3801*	-0.2067		
Proc56			0.6408*	0.2339	0.2067	-0.1371	
Proc63		-0.3707				-0.1448	-0.1601
Proc65						0.1515	
Proc69	-0.1443	-0.2154	0.2708	-0.1473	-0.1667	0.2513	0.1667

<sup>6</sup> According to the distribution of items in terms of year it could be envisaged that the audio-visual classes are mostly provided in second year. However, the purpose is to test the instrument and its items and hence the analysis of the significant correlations amongst the items is beyond the scope of discussion for now.

Year	Proc54			Year	Proc55		
	0	1	Total		0	1	Total
1	5	2	7	1	3	4	7
2	4	5	9	2	3	6	9
3	3	1	4	3	2	2	4
4	7	1	8	4	7	1	8
Total	19	9	28	Total	15	13	28

The non-confirmatory items as responded by the student would need to be confirmed from the leaders of the institution through Interview or Delphi. The measurement of the themes would be first devised on the interview questions for the leaders and then restated in close proximity of the theoretical framework. The non-confirmatory items have been listed in Table 3.6 below. Most of the non-confirmatory themes belong to the Process component however Employability (2 out of 2 items) and Funding (4 out of 5 items) tops the non-confirmatory item-list.

### 3.4 RESPONDENT DEBRIEFING AND FEEDBACK ON ITEMS

Feedback is one of the most important evaluative and corrective measure for a course of action or plan. Feedback has also been used as a means of compensation for the sincerity of the comments by the respondents so offered with an intention to improve the instrument (Pintrich et al., 1991). Respondents were requested to write their comments and criticism on the questionnaire they have responded to.

**Table 3.6 Post Feedback Item-Rectification**

No.	Approach	Item Statement	Remarks
30	Ethos	My ISC is consulted for research-projects on India by non-government organization	Don't Know
37	Funding	My ISC is regularly funded by private organizations	Don't Know
38	Funding	My ISC mainly runs on the students' fee	Don't Know
39	Funding	My ISC is funded for its research projects by other organization	Don't Know
40	Funding	My ISC is funded by international projects for research	Don't Know
43	Process	My ISC provides one to two years certificate courses for India studies	Don't Know
63	Process	My ISC research projects on India are used for consultation by other organization	Don't Know
65	Process	My ISC collaborates with institutions of India for conducting research on India	Don't Know
69	Process	Students of my ISC visit for internship to India	Don't Know
8	Activity	Students of My ISC go to India due to academic reasons	No Change
9	Activity	My ISC has language vacations on India languages	No Change
15	Competence	Students of my ISC know about India as deeply as any other country of the world	No Change
19	Competence	Students of my ISC can communicate with Indian scholars academically	No Change
20	Employability	Students can get a job with the degree provided by my ISC	No Change
21	Employability	Courses offered at my ISC help students get good job	No Change
28	Ethos	My ISC mission has a clear goal to achieve for studying about India	No Change
52	Process	My ISC has dedicated curriculum on Indian economy	No Change
53	Process	My ISC has dedicated curriculum on Indian politics	No Change
54	Process	My ISC provides E-Virtual Program about India	No Change
55	Process	My ISC provides Multi-media based virtual classes from India	No Change
56	Process	My ISC preferably studies a specific region of India	No Change
50	Process	My ISC provides double degrees with Academic institution from India	Vague
51	Process	My ISC provides joint degrees with Academic institution from India	Vague

## IV. STATISTICAL ANALYSIS OF THE ISCQ INSTRUMENT ITEMS

The Classical Test Theory (CTT) and the Standard Error Measurement (SEM) are used to assess how precisely a test measures the true score of the responses. The Classical Test Theory assumes that the items of an instrument devised on scaling for measurement would be strongly correlated with the total score of the dependent variable item, which is supposed to be the sum of the responded items in the questionnaire (Pintrich et al., 1991;

Willimack, Lyberg, Martin, Japac, & Whitridge, 2004). The innate equation for the classical test theory is:

$$X_i = T_i + \varepsilon_i$$

which denotes that the respondent's observed score  $x$  on an item  $i$  contains a true score  $T$  and the error term associated with it. The most commonly used coefficient for reliability under this theory is Cronbach's  $\alpha$ . The Standard Error Measurement helps analyse the degree of variance in the error term of each item scoring. Item Response Theory (IRT) is one of the ways to understand the characteristics of scoring on the items by the respondents in a questionnaire. The Rasch Model of the Item Response Theory for the binary items could be determined by the function of the difficulty of an item and the ability of the respondent to address it, which could be formulated as (Willimack, Lyberg, Martin, Japac, & Whitridge, 2004):

$$P(X_{i-j} = 1) = \frac{e^{\eta_i - \alpha_j}}{1 + e^{\eta_i - \alpha_j}}$$

where,  $J$  is the number of binary items spread from  $X_i$  to  $X_j$

$\eta_i$  is the latent ability of a student to respond correctly to an item  $i$

$\alpha_j$  is the difficulty parameter of an item  $i$ ; and 1 indicates correct response, and 0 otherwise. The probability of a correct response is 0.5 for any respondent in this case whose latent ability to respond the question item is equal to the difficulty parameter of the item. The steep curve would show a higher level of discrimination and the flatter curve would show less discrimination. The flatter curve would show the probability of the correct response only for the respondents with higher levels of abilities. The coefficient of item response function would vary to both ends of the integer 3. The last but not the least, the Item Response theory could not be used to test the validity of the items, but reliability only.

#### 4.1 DIFFICULTY VS DISCREMINATION OF THE NON-CONFIRMATORY ITEMS

The items reported as 'vague' and 'do not know' have been listed as non-confirmatory items in this section. The cumulative logistic function of the items Proc50, Proc51, Act8, Act9, Comp15, Comp19, Empl20, Empl21, Ethos28, Proc52, Proc53, Proc54, Proc55, Proc56, Ethos30, Fund37, Fund38, Fund39, Fund40, Proc43, Proc63, Proc65, and Proc69 have been illustrated in Figure 3.4. None of these items show negative trend i.e., the probability of correct response increases as the ability level increases in the data set. The Item Response Coefficient varies from -2.62 to +1.54 which entails the item Fund38 and item Process43 have been the two most difficult questions when plotted on discrimination by the items. This also holds the assumption that these items are the part of the higher level of Components in the code-book and hence should be confirmed from the leaders and administrators of the India Study Centres. The scaling on these items would not be included in the component analysis of the ISCQ.

#### 4.2 EMPIRICAL RESULTS OF ISCQ COMPONENTS

According to the literature survey and the text analysis, the concept of Internationalisation in the domain of the Higher Education could be defined as the aggregated values of the items associated with Ethos, Process, Activity, Competency, Funding, and Assessment that are reflected for the internationalization of a higher education institution. In this section the reliability of the items pertaining to the appraisal of Internationalisation with reference to the Employability regarding Instrumentalist and Phenomenological Items are denoted as  $IOC_N$  and Propositional or Imagistic Items denoted as  $IIC_N$ . Where  $C_N$  denotes the number of the item in the questionnaire and  $C$  is the name of the component that the item belongs to. The concept of alpha  $\alpha$ , as a reliability coefficient is defined as the square of the correlation between the measured scale and the underlying factor (Cronbach, 1951). This is formulated in two ways.

If standard deviation is specified, alpha could be denoted as

$$\alpha = \frac{J\bar{r}}{1 + (J - 1)\bar{r}}$$

If standard deviation is not specified then alpha could be denoted as

$$\alpha = \frac{J\bar{c}}{1 + (J - 1)\bar{c}}$$

Where,  $J$  is the number of items

$\bar{r}$  is the average interim correlation among the items, if standard deviation is specified

$\bar{c}$  is the average interim covariance among the items, if standard deviation is not specified

### **ETHOS COMPONENT: Ethos22-Ethos32**

The component Ethos mainly comprises of Mission of the Higher Education Institution constituting the statement of India study as a priority; Reputation and Reward of the institution regarding India studies; Dedicated Institutions for Internationalisation with reference to India study; Policy and Norms for achieving the mentioned goals related to India study; and the Environment of the Institution measured through the Cultural Disparity and Cultural Climate for India study.

There are all together 11 items devised to measure the extent of the concept of Ethos for approaching Internationalisation at the institutions in context. The correlation coefficients of the items for satisfaction and expectation both show a very high level of consistency among them. The alpha of satisfaction ranges from 0.9754 to 0.9759, with the total test scale consistency 0.9757 for the satisfaction. It ranges from 0.9759 to 0.9767 with the total test scale consistency 0.9763 for the expectations (Table 4.1-4.2).

### **PROCESS COMPONENT: Proc41-Proc73**

Unlike the 'Process Evaluation' as practiced in psychology, the concept of Process in this research is purely gleaned in the realm of the Internationalisation of Higher Education. The process is a documented procedure that describes how the intent of Ethos could formally be practiced through the aspects of Funding, Strategies, Activities, and Priorities. However, the concept of Process in this research, unlike the Concept of Activity, is devoid of the concept of interactions among the actors of education practices i.e., students, faculty, and the leaders. It is, therefore, infusion in the curriculum is a Process whereas the curricular activities are Activities.

Figure 3.4. Item Response Functions of the Non-Confirmed Items.

One-parameter logistic model Log Likelihood = -308.92403		Number of obs = 28			
	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
Discrim	1.542326	.2868279	5.38	0.000	.9801538 2.104499
Fund38					
Diff	1.380087	.4871632	2.83	0.005	.4252646 2.334909
Proc43					
Diff	.9598279	.4290902	2.24	0.025	.1188266 1.800829
Proc54					
Diff	.6152548	.3907116	1.57	0.115	-.1505259 1.381035
Fund37					
Diff	.3150549	.3655447	0.86	0.389	-.4013995 1.031509
Proc51					
Diff	.1757305	.3570667	0.49	0.623	-.5241075 .8755685
Fund40					
Diff	.1757305	.3570667	0.49	0.623	-.5241075 .8755685
Proc55					
Diff	.041307	.3511107	0.12	0.906	-.6468501 .7294641
Fund39					
Diff	-.089648	.3475879	-0.26	0.796	-.7709077 .5916117
Proc50					
Diff	-.089648	.3475879	-0.26	0.796	-.7709077 .5916117
Proc52					
Diff	-.2184513	.3464856	-0.63	0.528	-.8975506 .460648
Proc56					
Diff	-.2184513	.3464856	-0.63	0.528	-.8975506 .460648
Proc69					
Diff	-.3463759	.3478284	-1.00	0.319	-1.028107 .3353552
Act8					
Diff	-.3463759	.3478284	-1.00	0.319	-1.028107 .3353552
Proc53					
Diff	-.6048921	.358267	-1.69	0.091	-1.307083 .0972983
Empl20					
Diff	-1.024453	.3975452	-2.58	0.010	-1.803627 -.2452786
Empl21					
Diff	-1.024453	.3975452	-2.58	0.010	-1.803627 -.2452786
Proc65					
Diff	-1.182868	.4194855	-2.82	0.005	-2.005044 -.3606914
Compl9					
Diff	-1.182868	.4194855	-2.82	0.005	-2.005044 -.3606914
Act9					
Diff	-1.558429	.4871235	-3.20	0.001	-2.513173 -.603684
Ethos28					
Diff	-1.558429	.4871235	-3.20	0.001	-2.513173 -.603684
Ethos30					
Diff	-2.117515	.6329495	-3.35	0.001	-3.358073 -.8769565
Proc63					
Diff	-2.117515	.6329495	-3.35	0.001	-3.358073 -.8769565
Compl5					
Diff	-2.622032	.8260804	-3.17	0.002	-4.241119 -1.002944

Table 4.1 Instrumentalist and Phenomenological Ethos22-Ethos32 Item Consistency Table

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
I0Ethos22	28	+	0.7017	0.6763	1.807394	0.9754
I1Ethos22	28	+	0.7404	0.7173	1.797407	0.9752
I0Ethos23	28	+	0.8003	0.7790	1.76557	0.9747
I1Ethos23	28	+	0.8114	0.7912	1.763302	0.9746
I0Ethos24	28	+	0.8300	0.8063	1.716507	0.9747
I1Ethos24	28	+	0.8531	0.8363	1.747429	0.9742
I0Ethos25	28	+	0.8079	0.7874	1.764218	0.9746
I1Ethos25	28	+	0.9087	0.8994	1.759248	0.9738
I0Ethos26	28	+	0.8674	0.8536	1.76053	0.9741
I1Ethos26	28	+	0.8755	0.8628	1.762924	0.9741
I0Ethos27	28	+	0.7815	0.7602	1.780858	0.9748
I0Ethos28	28	+	0.6903	0.6673	1.823587	0.9755
I0Ethos29	28	+	0.7771	0.7586	1.802022	0.9749
I0Ethos31	28	+	0.8495	0.8304	1.730537	0.9743
I1Ethos31	28	+	0.9143	0.9045	1.739676	0.9737
I0Ethos32	28	+	0.7307	0.7057	1.793239	0.9752
I1Ethos32	28	+	0.8239	0.8087	1.792483	0.9746
I0Asse33	28	+	0.8142	0.7926	1.750475	0.9746
I1Asse33	28	+	0.7804	0.7580	1.774479	0.9749
I0Asse34	28	+	0.9302	0.9220	1.733846	0.9735
I1Asse34	28	+	0.8694	0.8561	1.763302	0.9741
I0Asse35	28	+	0.8001	0.7799	1.773208	0.9747
I0Empl20	28	+	0.6998	0.6647	1.76731	0.9759
Test scale					1.768241	0.9757

**Table 4.2 Propositional or Imagistic Ethos22-Ethos32 Item Consistency Table**

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
I1Ethos22	28	+	0.7275	0.7030	1.746433	0.9759
I0Ethos23	28	+	0.7776	0.7539	1.717687	0.9755
I1Ethos23	28	+	0.8036	0.7824	1.712075	0.9753
I0Ethos24	28	+	0.8060	0.7789	1.67119	0.9757
I1Ethos24	28	+	0.8822	0.8683	1.687865	0.9746
I0Ethos25	28	+	0.7975	0.7757	1.713564	0.9754
I1Ethos25	28	+	0.9194	0.9110	1.704105	0.9744
I0Ethos26	28	+	0.8807	0.8679	1.704746	0.9746
I1Ethos26	28	+	0.9005	0.8901	1.704712	0.9745
I0Ethos27	28	+	0.8112	0.7922	1.72134	0.9752
I1Ethos27	28	+	0.7326	0.7084	1.744829	0.9758
I1Ethos28	28	+	0.7199	0.6983	1.764069	0.9759
I1Ethos29	28	+	0.8609	0.8473	1.71984	0.9748
I1Ethos31	28	+	0.9288	0.9204	1.683777	0.9742
I0Ethos32	28	+	0.6740	0.6444	1.751563	0.9763
I1Ethos32	28	+	0.8156	0.7996	1.7405	0.9752
I0Asse33	28	+	0.7569	0.7293	1.71164	0.9758
I1Asse33	28	+	0.7872	0.7650	1.719817	0.9754
I0Asse34	28	+	0.9355	0.9278	1.680077	0.9741
I1Asse34	28	+	0.8967	0.8858	1.704586	0.9745
I0Asse35	28	+	0.8216	0.8030	1.715431	0.9751
I1Asse35	28	+	0.8460	0.8306	1.717687	0.9749
I1Emp120	28	+	0.6262	0.5933	1.761504	0.9767
Test scale					1.717349	0.9763

The concept of Process in this research is constructed by the Strategies, Policy and Research based Priorities, Curricular Infusion, Recruitment of Students and Faculties, Partnerships and Collaboration among Institutions of the countries in context, Award, and E-Virtual and Multi-media use for satisfying the intent of India studies in the Ethos. The curriculum infusion is a kind of strategy, not a generic term here, in which the related content is purposefully used to cultivate the intended competence among the students. For example, Infusion in Curriculum in terms of India study in the subject of Economics would be learning about Indian Economy to cultivate the intended competence of research and language ability among the students. There are altogether 33 items devised to measure the 11 themes for the Process Component. The items of this component have been divided into two sub-groups i.e., Curriculum Infusion and Provision<sup>7</sup> Components. The curriculum Infusion Component comprises of items I0Proc41 I0Proc46 I0Proc47 I0Proc49 I1Proc49 I0Proc52 I0Proc53 I0Proc56 I0Proc57 I1Proc58 I0Proc67 I0Proc41 I0Proc46 I0Proc47 I0Proc49 I1Proc49 I0Proc52 I0Proc53 I0Proc56 I0Proc57 I1Proc58 and I0Proc67. The alpha for both satisfaction and expectation of the items indicate high consistency (Table 4.3-4.6).

**Table 4.3 Instrumentalist and Phenomenological Process (Curriculum Infusion) Items Consistency Table**

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
I0Proc41	28	+	0.6780	0.6089	.912001	0.8243
I0Proc46	28	+	0.6854	0.5938	.8685185	0.8230
I0Proc47	28	+	0.7788	0.7197	.8571188	0.8148
I0Proc48	28	+	0.7612	0.6945	.8539442	0.8158
I0Proc49	28	+	0.5528	0.4513	.9369168	0.8339
I0Proc52	28	+	0.4978	0.3593	.9387927	0.8436
I0Proc53	28	+	0.5029	0.3986	.9584175	0.8375
I0Proc56	28	+	0.3293	0.1898	1.017917	0.8542
I0Proc57	28	+	0.7938	0.7352	.8426888	0.8128
I0Proc58	28	+	0.7010	0.6217	.8773208	0.8214
I0Proc67	28	+	0.4306	0.3226	.9866041	0.8422
I0Emp120	28	+	0.6145	0.4998	.8884319	0.8311
Test scale					.911556	0.8420

**Table 4.4 Propositional and Imagistic Process (Curriculum Infusion) Items Consistency Table**

<sup>7</sup> The documented ways of providing services to meet the intents of Ethos other than related to class curriculum. This has been categorized in the components of Process. Provision is necessarily other than Curriculum Infusion.

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
I1Proc41	28	+	0.7543	0.6916	.7323713	0.8614
I1Proc46	28	+	0.6491	0.5439	.7368446	0.8715
I1Proc47	28	+	0.9205	0.8912	.6451659	0.8455
I1Proc48	28	+	0.8859	0.8489	.6734488	0.8498
I1Proc49	28	+	0.7023	0.6214	.7350649	0.8654
I1Proc52	28	+	0.6462	0.5690	.7697451	0.8687
I1Proc53	28	+	0.5411	0.4717	.8180856	0.8742
I1Proc56	28	-	0.1939	0.0785	.8906205	0.8939
I1Proc57	28	+	0.7694	0.7359	.7929774	0.8659
I1Proc58	28	+	0.8431	0.8145	.7604137	0.8602
I1Proc67	28	+	0.3858	0.2444	.8303511	0.8916
I1Empl20	28	+	0.7236	0.6449	.7250601	0.8639
Test scale					.7591791	0.8782

**Table 4.5 Instrumentalist and Phenomenological Process (Provisional) Items Consistency Table**

I0Proc42	28	+	0.6243	0.5786	1.083359	0.8816
I0Proc44	28	+	0.6075	0.5441	1.058772	0.8817
I0Proc45	28	+	0.6441	0.5708	1.024225	0.8809
I0Proc54	28	+	0.3100	0.2283	1.138578	0.8913
I0Proc55	28	+	0.4068	0.3252	1.111163	0.8888
I0Proc58	28	+	0.4892	0.4240	1.099984	0.8854
I0Proc59	28	+	0.7185	0.6663	1.022763	0.8775
I0Proc60	28	+	0.8280	0.7962	1.00523	0.8735
I0Proc61	28	+	0.6891	0.6482	1.067443	0.8797
I0Proc62	28	+	0.6752	0.6280	1.058599	0.8796
I0Proc64	28	+	0.7006	0.6510	1.039778	0.8784
I0Proc66	28	+	0.5442	0.4602	1.058841	0.8851
I0Proc67	28	+	0.3235	0.2553	1.141422	0.8897
I0Proc68	28	+	0.3067	0.2119	1.134912	0.8932
I0Proc70	28	+	0.6868	0.6346	1.041265	0.8788
I0Proc71	28	+	0.3389	0.2523	1.128549	0.8912
I0Proc72	28	+	0.6668	0.6072	1.036458	0.8795
I0Proc73	28	+	0.7380	0.6875	1.014153	0.8766
I0Empl20	28	+	0.7113	0.6590	1.026982	0.8778
Test scale					1.068025	0.8883

**Table 4.6 Propositional and Imagistic Process (Provisional) Items Consistency Table**

Item	Obs	Sign	item-test correlation	item-rest correlation	interitem covariance	alpha
I1Proc42	28	+	0.7385	0.7076	1.265026	0.9269
I1Proc44	28	+	0.6222	0.5706	1.265588	0.9291
I1Proc45	28	+	0.5930	0.5213	1.242266	0.9313
I1Proc54	28	+	0.4736	0.4020	1.293971	0.9330
I1Proc55	28	+	0.5221	0.4513	1.276369	0.9322
I1Proc58	28	+	0.6792	0.6540	1.310682	0.9289
I1Proc59	28	+	0.7779	0.7474	1.24151	0.9257
I1Proc60	28	+	0.8122	0.7855	1.231516	0.9250
I1Proc61	28	+	0.7996	0.7708	1.23194	0.9252
I1Proc62	28	+	0.8389	0.8169	1.233738	0.9246
I1Proc64	28	+	0.7887	0.7558	1.222326	0.9252
I1Proc66	28	+	0.7024	0.6484	1.215781	0.9277
I1Proc67	28	+	0.3803	0.3110	1.326002	0.9342
I1Proc68	28	+	0.4547	0.3744	1.291974	0.9344
I1Proc70	28	+	0.8290	0.8049	1.231075	0.9247
I1Proc71	28	+	0.7308	0.6938	1.247916	0.9267
I1Proc72	28	+	0.7829	0.7486	1.221176	0.9253
I1Proc73	28	+	0.8043	0.7721	1.211908	0.9248
I1Empl20	28	+	0.7435	0.7089	1.248219	0.9264
Test scale					1.253125	0.9315



**ACTIVITY COMPONENT: Act1-Act12**

Activities are the practice of procedure in the context of Internationalisation of the Higher Education Institution. In this research the Activities are mainly oriented to the cultivation of students' competence. The component of Activity has been constructed by Academic Assessment, Alumni Activities, Curricular and Extra-Curricular Activities, Training of the Faculties related to India Study, Research Publications, Academic Activities, Language Vacations, International Experiences, and Conferences regarding India Study. There are altogether 12 items devised to measure the Activity Component of this research. The consistency among these themes are also considerably high,  $\alpha = 0.8786$  to  $0.8853$ , and the consistency of the test scale is  $0.8946$  (Table 4.7-4.8).

**Table 4.7 Instrumentalist and Phenomenological Activity Items Consistency Table**

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
I0Act1	28	+	0.8072	0.7605	1.286476	0.8786
I0Act2	28	+	0.8477	0.8009	1.217172	0.8752
I0Act3	28	+	0.7867	0.7424	1.324435	0.8805
I0Act4	28	+	0.7791	0.7340	1.330367	0.8810
I0Act5	28	+	0.7817	0.7397	1.34119	0.8813
I0Act6	28	+	0.7238	0.6615	1.324996	0.8834
I0Act7	28	+	0.5182	0.4190	1.407688	0.8954
I0Act8	28	+	0.4033	0.2717	1.451299	0.9060
I0Act9	28	+	0.3676	0.2446	1.475429	0.9052
I0Act10	28	+	0.7452	0.6979	1.356421	0.8831
I0Act11	28	+	0.7044	0.6479	1.361231	0.8847
I0Act12	28	+	0.7218	0.6690	1.358105	0.8840
I0Empl20	28	+	0.6949	0.6215	1.321629	0.8853
Test scale					1.350495	0.8946

**Table 4.8 Propositional and Imagistic Activity Items Consistency Table**

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
I1Act1	28	+	0.7361	0.6703	.7453904	0.8385
I1Act2	28	+	0.7926	0.7166	.6804153	0.8333
I1Act3	28	+	0.8675	0.8335	.7183742	0.8293
I1Act4	28	+	0.7815	0.7270	.7370932	0.8353
I1Act5	28	+	0.6775	0.6199	.7925285	0.8441
I1Act6	28	+	0.7919	0.7290	.7085939	0.8332
I1Act7	28	+	0.7292	0.6532	.7321228	0.8388
I1Act8	28	-	0.1710	0.0338	.9125381	0.8786
I1Act9	28	+	0.4010	0.2519	.8328924	0.8697
I1Act10	28	+	0.6122	0.5292	.7862755	0.8473
I1Act11	28	+	0.5061	0.4376	.8387446	0.8530
I1Act12	28	+	0.4353	0.3764	.8639169	0.8561
I1Empl20	28	+	0.5207	0.4189	.8067581	0.8540
Test scale					.7812034	0.8579

**COMPETENCY COMPONENT: Comp13-Comp19**

According to the collected themes through the literature review, the component of Competency mainly comprises cultivating Skills, Knowledge, Capabilities, and Attitude towards India Study. The component of Skills is constituted with the Research and Language Skills; and Knowledge, attributed to Cultural Awareness and Attitude. Although found to be significantly related to the Internationalisation of Higher Education, Capabilities could not be measured directly and hence has not been considered for itemisation in detail. There are altogether 7 items devised to measure the three themes comprising the Competency of this research (Table 4.9-4.10).

**Table 4.9 Instrumentalist and Phenomenological Competency Items Consistency Table**

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
I0Comp13	28	+	0.7844	0.7141	1.380008	0.8358
I0Comp14	28	+	0.6405	0.5239	1.461388	0.8547
I0Comp15	28	+	0.7420	0.6460	1.365016	0.8413
I0Comp16	28	+	0.6493	0.5306	1.446649	0.8542
I0Comp17	28	+	0.7171	0.5980	1.348262	0.8476
I0Comp18	28	+	0.8020	0.7323	1.347758	0.8328
I0Comp19	28	+	0.7231	0.6205	1.37774	0.8442
I0Emp120	28	+	0.6853	0.5578	1.380889	0.8526
Test scale					1.388464	0.8621

**Table 4.10 Propositional and Imagistic Competency Items Consistency Table**

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
I1Comp13	28	+	0.8178	0.7682	1.313555	0.8776
I1Comp14	28	+	0.7326	0.6223	1.245654	0.8894
I1Comp15	28	+	0.7953	0.7136	1.219073	0.8788
I1Comp16	28	+	0.8442	0.7754	1.164525	0.8724
I1Comp17	28	+	0.7010	0.6061	1.323381	0.8887
I1Comp18	28	+	0.7746	0.7030	1.289746	0.8804
I1Comp19	28	+	0.7768	0.7047	1.284455	0.8802
I1Emp120	28	+	0.6875	0.5839	1.32061	0.8910
Test scale					1.270125	0.8956

**EMPLOYABILITY COMPONENT: Empl20-Empl21**

The component of Employability is related to the components of Competency. Employability is measured through the perception of using the competency for earning by the students. There are two items devised to measure the Employability Component of this research. The coefficient of consistency of the components has been devised on the Employability Component of this research.

**Table 4.11 Instrumentalist and Phenomenological Employability Items Consistency Table**

Average interitem covariance:	1.883598
Number of items in the scale:	2
Scale reliability coefficient:	0.8896

**Table 4.12 Propositional Imagistic Employability Items Consistency Table**

Average interitem covariance:	2.079365
Number of items in the scale:	2
Scale reliability coefficient:	0.8117

**EVALUATION COMPONENT: App33-App35**

The component of Evaluation is comprised of Quality and the Feedback about the India Study at the Centres in context. Evaluation is a comprehensive practice, used for decision making and is comprised of Assessment and Appraisals. In this research the concept of evaluation is subjugated to the students. However, in terms of leaders and administers the component is strictly internal, for is a kind of appraisal. The component of Evaluation has

been devised on the concept of appraisals given on the themes of the Quality and the overall feedback about the India study. There are altogether three items devised to measure this component. The feedback has been devised on the interview for detailed investigation.

**Table 4.13 Instrumentalist and Phenomenological Evaluation Items Consistency Table**

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
I0App33	28	+	0.8896	0.7902	1.863316	0.8067
I0App34	28	+	0.9035	0.8229	1.882716	0.7957
I0App35	28	+	0.7970	0.6598	2.308642	0.8592
I0Empl20	28	+	0.8137	0.6436	2.091711	0.8718
Test scale					2.036596	0.8705

**Table 4.14 Propositional and Imagistic Evaluation Items Consistency Table**

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
I1App33	28	+	0.8654	0.7455	1.57672	0.8421
I1App34	28	+	0.9222	0.8533	1.455026	0.7987
I1App35	28	+	0.8519	0.7348	1.670194	0.8460
I1Empl20	28	+	0.7864	0.6278	1.848325	0.8859
Test scale					1.637566	0.8788

#### **FUNDING COMPONENT: Fund36-Fund40**

The intent of Ethos could only be fulfilled if there is funding associated with it. This component is mainly comprised of Funding through Dedicated Financial Support, International Projects, and Dedicated Resource Material. Altogether 5 items have been devised to measure this e.g. Fund36-Fund40. However, only one item 'Fund36' was found to be confirmatory in this data set. This section therefore could only be analysed after the Institutional Review Board's Confirmation on this component.

#### **LINK-APPROACHES COMPONENT**

The Link Approaches Component is related to the interlinking of Approaches for India Study. However, this could statistically be identified and hence should not be comprised as the items of the Instrument. However, it is one of the most important components for the analysis of the India Study in reporting the research.

#### **SWOT APPROACH: SWOT74-SWOT77**

The Strength, Weakness, Opportunity and Threat are the main components for understanding the Institution that could help in making recommendations for the benefit of the India Study Centres. There are altogether 4 items devised to measure this. The Instrumentalist and Phenomenological values of SWOT items related to threat (I0SWOT76) and weakness (I0SWOT77) are seemingly inconsistent.

**Table 4.15 Propositional and Imagistic SWOT Items Consistency Table**

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
I1SWOT74	28	-	0.6764	0.4335	.9391534	0.5873
I1SWOT75	28	-	0.5056	0.3408	1.282628	0.6362
I1SWOT76	28	+	0.7403	0.5019	.7954145	0.5501
I1SWOT77	28	+	0.7577	0.4945	.7517637	0.5571
I1Emp120	28	-	0.5216	0.2990	1.233686	0.6447
Test scale					1.000529	0.6531

**Table 4.16 Instrumentalist and Phenomenological SWOT Items Consistency Table**

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
I0SWOT74	28	-	0.2777	-0.1526	1.829365	0.6945
I0SWOT75	28	+	0.1401	-0.1866	1.817019	0.6417
I0SWOT76	28	+	0.9228	0.7966	-.4616402	.
I0SWOT77	28	+	0.9493	0.8324	-.5833333	.
Test scale					.6503527	0.4147

## V. ANALYSIS AND DISCUSSION

In most of the cases the components comprised of themes had no latent variables. The curriculum infusion, and the capability were considered to be the main latent variables in this research. The curriculum infusion was elaborated into the themes that can conceptualise the meaning of curriculum infusion in this context. The capability concept and other latent variables have not been considered for measurement because the Internationalisation is not a psychological concept. The study, analysis and synthesis of the concepts of Internationalisation from the academic paper and the empirical analysis of the Instrument based on the targeted sample support the validity measures of the ISCQ instrument.

The statistical calculations cannot support the validity of an instrument. The validity of constructed concepts can only be supported by the extensive study of relevant theories and the operational use of the concept in the domain of interest. Although limited due to politico-academic and procedural reasons, the interactions with the respondents have facilitated in giving a robust face validity. The Criterion validity of an instrument comprises of Concurrent Validity and Predictive Validity of the instrument items. However, the main idea in the criteria is to mirror the test items with reference to other criteria. Considering this in mind the questionnaire was distributed in two formats. The questionnaire-set in which the ISCQ preceded the MLSQ is denoted as 0, and 1 otherwise. A comparison of means also indicated that the scorings of the items do not vary due to this placement. This test also supports the criterion validity of the Instrument ISCQ. Besides, the correlation coefficients of all the corresponding items of the ISCQ with that of the Time and Study Environment (Item 73) of the MLSQ pertaining to Instrumentalist and Phenomenological segments (TSE1), and Propositional and Imagistic Component (1TSE) determined at the  $p \geq .05$  indicated that all the items are significantly correlated with this item. The item reads: I attend class about India regularly.

The predictive validity of the items has also been tested through the contingencies of items meant for Internationalisation i.e., I0Int78 and I1Int78 with that of the Items of other components of the ISCQ separately. Lambda and Cramer's-V for Ontological and Existentialist items, and Gamma and Kendall's C for scaling (ordinal) items were derived for determining the contingency of the association and correlation. In all cases they were found to be complying with the correlation results.

### 5.3 THE CONSTRUCT VALIDITY OF THE ISCQ

The concept of Internationalization in the domain of Higher Education, narrowed down to the study of India, has been constructed with a careful and rigorous study of the literatures in the field. The code-book of emergent themes implies to the Construct Validity of the ISCQ.

A sensitivity test of the themes has also been conducted to figure out if the themes are neutral in their sentiment. Moreover, instrument is still in its developmental stage therefore the post-estimation validity tests would not be meaningful. The statistical analysis of the entire set of ISCQ questionnaire indicates that altogether 10 items i.e., I1Process56, I0Porcess68, I0SWOT76, I1SWOT76, I0SWOT77, I1SWOT77, Comp15, Ethos28, Fund38, Proc43 have to be reversed; only Items of SWOT76 and SWOT77 could be considered for reverse scaling.

**Table 5.1 Sentiment Analysis of the Themes**

Codes	Number of coding references	Number of items coded
Nodes\\APPROACH	168	1
Nodes\\APPROACH - Mixed	0	0
Nodes\\APPROACH - Negative	0	0
Nodes\\APPROACH - Neutral	167	1
Nodes\\APPROACH - Positive	1	1

**Table 5.2 ISCQ Items for Reversed Scoring**

Test scale = mean(unstandardized items)

Reversed items: I1Proc56 I0Proc68 I0SWOT76 I1SWOT76 I0SWOT77 I1SWOT77 Comp15 Ethos28 Fund38 Proc43

Average interitem covariance: .6811775

Number of items in the scale: 156

Scale reliability coefficient: 0.9827

## VI. THINK ALOUD: FACULTY INTERVIEW

Altogether five faculties participated in post-survey interviews which ranged from 15 minutes to 35 minutes. Among these 4 were females and two held leadership positions at their respective centers of country study. Each interview strictly comprised of the following structured interview questions:

1. Could you mention some items that are not clearly stated in the ISCQ?
2. Is there any item inappropriately stated in the ISCQ?
3. Any item in the ISCQ that you think your students can not respond to?
4. Is there any item that you think is repeated in the ISCQ?
5. Any theme related to your center that has not been mentioned in the ISCQ?
6. Please share your remarks on the ISCQ?

As mentioned, (Table 5.3) the measurement of Internationalization has been instrumentalized on one item only. One of the respondents has suggested to increase the number of items instrumentalized to measure internationalization. Adding one item each at the end of all 8 components was considered to be one of the viable solutions for this. On another occasion two respondents have suggested to use the word 'curricular' differently because it was used thrice in the ISCQ. All these remarks have helped to improve the construct of the ISCQ.

**CONCLUSION**

Studying the Internationalization of Higher Education has emerged as a major focus of education research during the last few years. The concept of internationalization of higher education has been defined variously. However, the approaches to understanding the internationalization of higher education with some distinctions do not vary too much among the pieces of academic research. Country specific internationalization has grown impetus due to the political intent in China. In this case India study is a sub-case of internationalization. The making of ISCQ also revealed that the Internationalization of higher education needs political correctness for devising the themes into items and the level of political correctness of a theme might vary from the academic studies to the empirical studies on the real-world population. For example, in spite of the fact that the Funding is one of the most important components of Internationalization of Higher Education, it could be easily devised in items for collecting the data, but it could not be measured easily. With reference to the research questions of this study, the concept of Internationalization of Higher Education is strongly correlated to the nine constituting components. However, the items related to curriculum infusion in terms of Economy, Technology and E-Virtual use were not found to be significantly correlated with the themes of Internationalization of Higher Education in the text analysis of this study. It means these themes have not yet been extensively used for approaching the Internationalization regarding other countries. This was in coherence with the Classical Test Theory analysis of the empirical data. However, according to the item responses of this study the multi-media and E-Virtual classrooms are mostly availed to the second-year students.

**Table 5.3 Interview Results**

Name of the University	PkU	Role in the Center	Faculty	Gender	Female	1	Case Number	Item that is inappropriate	Item that is repeated	Item that students can't answer	Items that are not clear	Name of the Center	Themes more than the ISCQ	Remarks
							5	No	Item 4 & 7	YES	Yes	Middle East	Yes	Each component should measure internationalisation
					Total	N			1	1	1	1	1	1
					Total	N			1	1	1	1	1	1
					Total	N			1	1	1	1	1	1
PKU							2	No	No	YES	Yes	India	Yes	No
							4	No	Item 4 & 6	YES	Yes	Russia	Yes	Each component should measure internationalisation
					Total	N			2	2	2	2	2	2
					Total	N			2	2	2	2	2	2
			Leader	Gender	Male	1	1	No	No	YES	Yes	India	Yes	No
					Total	N			1	1	1	1	1	1
					Total	N			1	1	1	1	1	1
					Total	N			3	3	3	3	3	3
THU			Leader	Gender	Female	1	3	No	No	YES	Yes	Australia	Yes	Item78 should be forced Yes
					Total	N			1	1	1	1	1	1
					Total	N			1	1	1	1	1	1
					Total	N			1	1	1	1	1	1
					Total	N			5	5	5	5	5	5

The analysis of the items in section 3.4 and 4.1 indicates that some of the themes related to the non-confirmatory items should be devised on the separate version of the ISCQ for the leadership of the India study centers. This would save time and improve the validity construct of the ISCQ. At this stage of analysis, I have avoided using Cohen's Kappa since the data set needs to meet some particular assumptions before calculating the Cohen's Kappa. However, after getting the valuable pieces of suggestions of the judges and the experts of the Institutional Review Board this would be a prime means of analysis in the later courses of data collections.

This research has not used cognitive interviewing methods to test and re-test the validity of the constructs and the contents that comprise the concept of Internationalisation. However, this has been mitigated by the extensive use of academic literature for textual analysis and extensive interviews conducted on the faculties of the institutions of resemblance. The findings of this study as a whole would help the newly established institutions of India Study centres and ilk to ameliorate the Internationalisation of Higher Education in a more competitive yet collaborative manner. The intent of internationalisation of higher education in China would be better understood by those countries which are deterministic in considering the international scholars of competence as spy (Chandrakar & Bentao, 2018).

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Appendix 4. The India study centre questionnaire is available at:

1. Lin: <https://www.wjx.cn/jq/34960399.aspx>
2. Email: [cheng\\_le@outlook.com](mailto:cheng_le@outlook.com)