LOGICAL REASONING AND FALLACIES IN POST GRADUATE RESEARCH IN PAKISTAN

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Abstract
This research is carried out to analyze M-Phil theses in order to build grounds for the assumption regarding fallacies and critical thinking. Furthermore, the research focused on evaluating research work and the reasons of using those fallacies as well as reasons for not taking up logical reasoning. A mixed method (qualitative and quantitative) was used to analyze the data in six steps (i.e. organize information, structure reasoning, consider evidence, identify assumptions, evaluate arguments, and communicate conclusion) proposed in Cohen. Mostly researchers were observed to commit heuristic type of fallacy which is considered fast and frugal shortcuts to a solution to a problem. Though they are reasonable to use but sometimes jump to a conclusion is not justified. In that hurry, the researchers often commit it. In the light of these findings, it can be seen that how much fallacious a research is conducted by a researcher.
Keywords: critical thinking; fallacies; logical reasoning; post graduate research

Introduction

Siegel (1988) defines Critical thinker as "A critical thinker has both the skills and proficiencies necessary for the proper assessing of statements (and actions), and also the tendency to exercise those proficiencies in their ordinary statement- (and action-) assessing activities (p.6)".Critical thinker not only provides logical arguments with the evidence but also offers rebuttal of those arguments. Arguments are the claims presented with solid reasons that are supported by strong and valid evidence. When it comes to the social process of argumentation, a critical thinker defends his claims making arguments, having reasons to the claims, and evidences to prove it. On the other hand, fallacies are different from lies; they seem like logic (Tamarkin, 2017). Fallacious work represents unclear and doubtful mind of the researcher. For the study to be free of fallacies must follow the critical steps of logical reasoning.

It is observed that the research work conducted in Pakistan at M-Phil level is considered to be of surface level and require in-depth studies. The researchers at this level write superficially and fallaciously and it does not reflect the critical steps of logical reasoning. The supportive arguments and rebuttals are also thought out to be unconvincing. In this

regard analysis of M-Phil theses has been carried out. This analysis is based on the six steps of critical thinking and will focus on the twelve major fallacies. This research is carried out to analyze M-Phil thesis in order to build grounds for the assumption regarding fallacies and critical thinking. Furthermore, the research focused on evaluating research work and the reasons of using those fallacies as well as reasons for not taking up logical reasoning.

Research Questions

1. Do the theses of the scholars reflect the critical thinking and logical reasoning?
2. Which steps of critical thinking are not full filled in the theses of the research scholars?
3. To what extent academic writing of Pakistani researchers is fallacious?
4. Which fallacies are found in the theses of research scholars?
5. Which frequent fallacies are found in the theses of the research scholars?

Literature Review

The notion of critical thinking is growing popular among the educationists. Researchers have suggested that critical thinking is extremely important for learners in any domain of education. The dictionary defines critical thinking as "the objective analysis and evaluation of an issue in order to form a judgement."Traditionally, *critical thinking* has been variously *defined* as follows: "The process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and evaluating information to reach an answer or conclusion". Norris and Ennis (1989) believe that "critical thinking is reasonable reflective thinking focused on what to believe or do". Seigel (1988) also defines critical thinking as Ennis has said but he lay down the emphasis on "critical thinking is appropriately moved by reasons". Halanon (1995) states that ―critical thinking scholarship is in a mystified state. No single definition of critical thinking is widely accepted (p.75). According to Minnich (1990) 'it is a mystified concept'. Seigel (1998) agrees with the differences and he believes that critical thinking relies on two different concepts, 'pure skills' and 'skills plus tendencies. Davidson (1998) identified various overlaps in all the previous definitions. He stated that all have one thing in common and that is 'rational judgment'. Brookfield (1987) believes that critical thinking encompasses two interconnected processes, namely, "identifying and challenging assumptions, and imagining and exploring others". Benesch (1993) is of a view that critical thinking is not only thinking high instead it incorporates social, historical and political purpose for the transformation of learning and the society as well. On the contrary Davidson (1998) has doubts on the social dimension of critical thinking. All the above-mentioned definitions show the discrepancy among the researchers regarding what actually critical thinking is. However, it is noticeable that the objective of critical thinking is to make learners able to judge the statements correctly on the basis of some strong evidences.

Critical Thinking Movement

The critical thinking movement started in 1980's. The movement led to the several reforms in the educational system. The movement encompasses three major blocks of the education system (curriculum, pedagogy and assessment). They claimed that critical thinking is extremely important for the learners particularly and society in general. After the struggle for a decade, it gained momentum. With the growing trend of incorporating CT in education, there come some frequent questions from the learners and teachers' side. The teachers were much concerned on the question that how they should teach CT skills effectively? What are the key CT features that should be taught necessarily? What targets should be set for the learners and teachers? What will be the ways of leading the learners towards correct critical answer? Individual attempts of the teachers were good enough but the problem arises when it

was discussed on campus, institutional and national level. Facione (1990) did a research on the development of valid CT assessment tools and effective CT instructional programs in University of California. The research report suggested to improve the pedagogical ways in which CT could be incorporated and teachers nurture students open mindedness. These were the reason why and how the Cambridge system produces critical thinkers and independent learners.

CT Features

Various researchers have suggested different characteristics of critical thinking depending on what they think critical thinking is. No person in the world is a born critical thinker and you can never guess by looking at the face of someone that he is a 'critical thinker' (Buskist &Irons, 2008). Critical thinking is the development of one's mind and learners can achieve it by training their minds to think critically. Several researchers have worked on the defining of features of critical thinking (see Bensley, 1998; Birjandi & Bagherkazemi, 2010; Diestler, 2001; Fisher, 2001; Halpern, 2002; Levy, 1997). Holistic summary of the features is given in Rezaei et al (2011).

Critical Reasoning

Critical thinking is reflected through the ability to give good reasons and logic to the arguments. Claims are useless until it is not backed up with strong reasoning. Often argument and reasoning are considered same. However, they are different. Trudy Govier has provided the basic difference among the two terms.

> "An argument is a publicly expressed tool of persuasion. Typically, it takes thinking to construct an argument. Reasoning is different from arguing along these lines: reasoning is what you may do before you argue, and your argument expresses some of your (best) reasoning. But much reasoning is done before and outside the context of an argument" (p. 117).

Reasoning is a skill and a human activity. We all do reasoning at times. Sometimes we are unaware of the fact that we are doing reasoning. So, what actually reasoning is? It is very well defined by Thomson (2009) as

> "Critical reasoning is centrally concerned with giving reasons for one's beliefs and actions, analyzing and evaluating one's own and other people's reasoning, devising and constructing better reasoning" (p.2).

Argumentation and reasoning are the basics of philosophy. However, the first recognized model for argumentation and reasoning was introduced by Aristotle. The goal of the Aristotelian argument, also known as the classical argument, was to persuade the audience with your point of view. He suggests that writer should use logic to state the claim, and then appeal the reader's rationale with factual evidence. Afterwards the writer should provide the counter argument (rebuttal) and at last he should provide a conclusion effectively so the reader can adopt writer's point of view. This kind of argumentation seems the easiest among all. Hairston (1976) writes that often we encounter a situation in which we feel helpless to convince other person of our point of view. He suggests that Rogerian argument is a better alternative to Aristotelian argument. Rogerian argument is a strategy in which common goals are identified to reach an agreement. It was well put by Roger et al. (1970)

> "the goal of Rogerian argument is to create a situation conducive to cooperation; this may well involve changes in both your opponent's image and your own".

The second famous model was suggested by Stephen Toulmin (1958). Traditional models consist of topic, reasons, support, objection and rebuttal. But Toulmin assumes that the audience is not going to be easily convinced. So, he noticed that good, realistic arguments typically will consist of six parts. He used different terms (data, claim, warrants, qualifiers, rebuttals, and backing) to describe the items. The current study adopts the Toulmin's model of argumentation to analyze whether Pakistani writers follow logical argumentation pattern in their writing of thesis or not.

Fallacy

The word 'fallacy' is derived from two Latin words, fallax ("deceptive") and fallere ("to deceive"). This is a significant concept in a person's life, because human thinking deceives itself while deceiving others. According to Tamarkin (2017), "fallacies are different from lies; they seem like logic and take after it". A standard definition of fallacy that is accepted until now was given by Hamblin (1970) as "an argument that seems to be valid but that is not." The study of fallacies is central to argumentation studies. According to the *Handbook of Argumentation Theory* (2014), fallacies contaminate an argumentative exchange, thereby averting a reasonable resolution of a difference of opinion if they are left undetected (Visser, Budzynska & Reed, 2017).

Theoretical Background

Till now the most developed theories about fallacies (Tindale, 1997) are the pragmatic theory (Walton, 1995) and the pragma-dialectical theory (van Eemeren & Grootendorst, 1992).According to the earlier version of their theory, a fallacy is a violation of a rule of a critical discussion where the goal is to resolve a difference of opinion by rational argumentation (van Eemeren & Grootendorst, 1992). They see fallacies as potentially convincing, but irrational discussion moves that go against the rules of the ideal model of a critical discussion. On the other hand, pragmatic theory (Walton 1995, 237-238) illustrates that a fallacy is a failure, lapse, or error that occurs in an instance of an underlying, systematic kind of wrongly applied argumentation scheme or is a departure from acceptable procedures in a dialogue.

Naming Fallacies

The philosopher Schopenhauer, in commenting on tricks of persuasion (fallacies), once remarked:"It would be a very good thing if every trick could receive some short and obviously appropriate name, so that when a man used this or that particular trick, he could at once be reproved for it."

In the informal logic tradition, fallacies are commonly used sophisms or errors in reasoning like hasty generalization, *argumentumad hominem* (argument against the person), *argumentumad verecundiam* (appeal to authority, especially inappropriate argument from expert opinion), *post hoc ergo propter hoc* (false cause), straw man argument, *peititio principii* (begging the question) and so forth. Some common forms of argument associated with major fallacies, like argument from expert opinion, *ad hominem* argument, argument from analogy and argument from correlation to cause, have now been analyzed using a device of acceptable reasoning schemes (Walton, Reed & Macagno, 2008).

The reality is that fallacies are foul ways to attempt to win an argument unjustly. To protect one, we must be able to recognize when people are trying to manipulate us with false calls.

The researchers must try to sustain their integrity by avoiding such fallacious appeals. It can be done by learning to control our own thinking and the thinking of others, using the tools of critical thinking and critical reasoning. As Critical thinking means to be good evaluator, investigator who does not accept or present any argument without evidence and reason, the study in hand is trying to assess this process in Pakistani M-Phil scholars keeping in mind that definition of CT in the following words of Siegel (1988). In the social process of argumentation, a critical thinker defends his claims and positions by making arguments having reasons to the claims and evidences to prove it. Argumentative model of reasoning by Toulmin (1958, 1978, 1984, 2003) summarized this logical relation in following elements:

CLAIM	• The argument being made
GROUNDS	• The ideas and facts offered to support the claim
WARRANT	• Logically connects the grounds to claim
BACKING	• Support the warrant
QUALIFIERS	• Made a statement about the strength of the claim
REBUTTALS	• Exception to the claim

Methodology

There are two parts of the analysis. In the first part the application of the steps of CT is investigated in Pakistani students and in the second part the fallacies are explored. Both parts are separately presented.

The model adopted for the analysis of the Data is about 6 steps of better CT which have been designed to provide a path for critical thinking by Cohen. From gathering research, to weighing up evidence to formulating a judgment, this rationale assists researchers. The analysis is mixed in nature-- a combination of both quantitative (statistical) and qualitative (interpretations) ways to analyze the data to observe in 6 steps of critical thinking in reasoning.

Data Collection

The data is collected from 10 research theses of M-Phil students of Applied Linguistics, GC University, Faisalabad. These theses, research on different areas of linguistics, are randomly selected. Only the discussion parts of all the theses are taken to work on. Data is coded for convenience as:

T 1: Adverbials In Pakistani English A Corpus Based Study- Comparative Analysis

T2: The Effects Of Teaching English Through Code-Switching; An Experimental Study Of Intermediate Students In Pakistan.

T3: "A Need For An Integrated English Language Course For The Students Of Home Economics"

T4: Media Discourse As Representative of Socio-Cultural Milieu Of Law And Order In Pakistan: A Critical Discourse Analysis of Newspapers' Headline About Model Town Tragedy, Lahore

T5: "Attitudes of Parents And Children Towards Multilingualism: A Case Study Of Faisalabad"
T6: Gender Based Differences In Writings Of Pakistani English Writers
T7: Attitude of Muslim Religious Scholars Towards English In Pakistan
T8: A Comparative Study Of Academic Achievements Of Students Taught Through English And Urdu Medium Of Instructions
T9: A Gender Based Comparative Investigation Of Attitudes Towards Linguistics Taboos In Pakistan.
T10: Evaluation of Business Letters In English In Pakistan

Analysis

All the theses were analyzed separately to explore whether the 6 steps of critical thinking are being followed or not. The discussion is based on the elements of all these steps. Step by step analysis is given in tabulated form.

Organize information

It deals with the logical organization of information following this order: 1. powerful assertion, 2. welcome and introduction, definitions, 3. case and evidences, 4. Conclusion
Consider the following table summarizing the first step occurrences.

	Assertion	**Introduction**	**Cases, reason and evidences**	**Conclusion**
T1	Yes	Yes	Weak	Weak
T2	Yes	Yes	Yes	No
T3	Yes	Yes	Yes	Weak
T4	Yes	Yes	Yes	Yes
T5	Yes	Yes	Yes	Weak
T6	Yes	Yes	Weak	Weak
T7	Yes	Yes	Yes	No
T8	Yes	Weak	Yes	Yes
T9	Yes	Yes	Yes	No
T10	Yes	Yes	Yes	No

Table 1. Organization of Information in all theses

'Yes' shows occurrence: 'No' shows no occurrence at all: 'Weak' shows not properly concluded

As the table shows that all theses are good at starting their stance but they do not follow organizational order further to the end. Conclusion is missing in 4 theses T2, T7, T9 and T10. Four theses present weak conclusion. Only 2 of 10 end with proper conclusion. As the introduction column shows 'yes' to all except T6 having weak in introduction part, the introductory part is there having definition, background or welcoming note. In the third column of case – T1, T2, and T6 are weak in the organization of their claim, reason and evidence. Though here is 'yes' to most of the theses but the usual order of the claim reason and evidence is not proper in all these except T4. The presentation of discussion gets irregular in order just after the introduction.

Example T8: The researcher presented analysis and discussion of all results with in **order** through tables, graphs and diagrams e.g. "exhibited class room setup", "60 students were taken", "given detail of pretest chapters", and "discussed pretest marks".

Example from T3: claim is given and supporting ground are made through reasons but **no evidences** are provided to back up

Claim 1

- ***There is great inconsistency in student's responses of the two universities (agriculture and GC)***
- ***Students of agriculture university are not satisfied with course***

  Reason*: They are not satisfied because (a) English is taught in only one semester; (b) there is no focus on language skills; and (c) no activity carried out.*

2. **Structure reasoning**
   It deals with the reasoning structure: (reason (because), objection (but), rebuttal (however),
3. **Consider evidence**
   It deals with the source of evidence: (Web, expert opinions, public opinions, statistics etc.)

4. **Evaluate arguments**
   It deals with the evaluation of argument.

5. **Consider assumptions**

According to the Toulmin model, six steps for argumentation make it strong but in all Pakistani theses taken for investigation do not consider all the 6 stages of argumentation. They give **claims** and present reasons as **supporting ground** (reasons). T2 and T6 give no **objection and counter argument**. **Rebuttaling** is not found in any of these except in one T4. **Warrant and backing** are discussed later. **No qualifiers** are used in the theses to strengthen the claims.

The different types of evidences are given, mostly based on **self opinion:**

Example fromT1:

- *Majority of speakers are bilingual or multilingual and they apply the patterns of one language on the other. Thus this is the marked feature of Pakistani English. And it also confirms the previously done researches on the deviant features like variations in noun phrases and verb phrases.*

Researcher has not provided any extensive details to elaborate his point of view. On the basis of his limited experiences or observation of facts, he has tried to generalize the idea.

Example from T3: claim is given and supporting ground are made through reasons but **no evidences** are provided to back up

Claim 1: ***There is great inconsistency in student's responses of the two universities (agriculture and GC)***

- ***Students of agriculture university are not satisfied with course***

***Reason**: They are not satisfied because: (a) English is taught in only one semester; (b) there is no focus on language skills; and (c) no activity carried out.*

T8 is replete with self-opinion based reasoning no statistical, expert evidences are given:

- *Primary schooling and its medium of instruction is also a factor that contributes on level of academic at secondary level. Students who learn English of a good standard perform better.*

- *The role of teachers is no, less important in level of academic achievements of the students Unfortunately, it is a fact that in case of Pakistan, there are many who don't deserve to be teacher.*

- *There is another factor that affects the level of achievement of the students and that is the standard of school.*

Some examples are also seen from theses having expert opinion and statistical figures:

From T9: (Statistical Evidences)

- *(claim) Abusing dead people is a linguistic taboo in the society. (statistical evidences) 85% females and 80% males agreed that they feel it awkward to abuse a dead person.*

From T6: (Expert Opinion)

- *Lakoff (1975) claims that hedges are used by females more than males.*

In the evaluation of arguments, the researcher explored most of the argumentation weak on the bases of weak evidences. T1, T3, T5, T6, T10 (acceptable though weak) are weak. T2 and T7 are reject for giving just self-opinion based arguments. T8 and T9 are acceptable if not very strong. Only one thesis T4 is marked as strong in argumentation as it presents claim its supporting and counter reasoning and then rebuttal.

Warrant and backup are two important steps and qualities of any argumentation. Warrant logically connects the grounds to the claim and evidence provides backup to this reason. This logical connection is rarely found in Pakistani theses. Consider the example **from T9:**

- ***(Claim)Both the genders have almost same attitudes towards this question, (very weak)(reason)because it is a sensitive issue**. For the question related with the Holy Prophet (PBUH) consider it blasphemy if someone does not recite salutation for Holy Prophet (PBUH).*

There is no logical warrant and backup to the claim. Being a sensitive issue, it does not cause same attitude in both the gender. The next line is not backing up the reasoning. Consider another example **from T6** less relevant premises**:**

- ***(Co premises)**People have great love and respect for them. They are respected everywhere. **There are lessons included in the educational curriculum. There are roads, towns and hails named after them**.*

	2 .Structure reasoning				1. Consider evidence	2.Evaluate argument
	Reason / supporting ground	**Objection / Counter argument**	**Evidence**	**Rebuttal**	**Nature of reasoning**	
T1	1 reason for 1claim	1	1 Expert Opinion	0	Self Opinion based (Except 1 expert opinion)	Weak
T2	4 reason for 1claim	0	1 Expert Opinion	0	Self Opinion based (Except 1 expert opinion)	Rejected
T3	3 reason for 4 claims each	3	Expert, self opinion and statistical evidence	0	Self Opinion expert opinion statistical	Weak (not much convincing)
T4	1 reason for 1claim	10	Expert, self opinion and statistical evidence	2	Self Opinion expert opinion statistical	Strong
T5	6 reason for 3 claims each	3	Self Opinion	0	Self Opinion based	Weak
T6	1 reason for 1claim	0	Self Opinion	0	Self Opinion based	Weak
T7	4 reason for 4 claim	4	Self Opinion 1 expert opinion	0	Self opinion based	Rejected
T8	11 reason for 1claim	3	Self opinion based on research	0	Opinion based on personal research	Acceptable
T9	10 reason for 10 claim	10	Public opinion Statistical evidence	0	Based on researched Public opinion, Statistical evidence	Acceptable
T10	2 reason for 1claim	2	Self opinion, observation	0	Based on Self opinion, observation	Acceptable but weak

Consider the following table for evaluation of these steps:

Table 2: summary of evaluation of argumentation in all theses

The students are not well aware of the use of connective words ('because' for reason, 'but' for objection, and 'however' for rebuttal) in argumentation they put them anywhere they want. From T6 because here is giving no reason supporting the claim:

- *In 1975 Lakoff conducted a research and she found that women use modal construction i.e. ought, can, would, should'. Now I applied these modal construction to this research but only 'would' and 'can' are the modal construction that are used more in females written language. While 'should' and 'ought' are not* ***because they didn't use more in female documents.***

6. Comunicative conclusion:

In the last but not least important step is to communicate conclusion properly. As shown in table 1, Conclusion is missing in 4 theses T2, T7, T9 and T10. Four theses present weak conclusion. It means conclusion is not properly organized and communicative. Only 2 of 10 end with proper conclusion. Example from T2:

- *Instead of concluding bilingual code switching, the writer began to discuss grammar teaching and the methods to teach grammar.*

Analysis of Fallacies

This part deals with the analyses of different types of fallacies in twelve different research theses of M. Phil scholars collected from GC University Faisalabad. The names of these theses are codified which will be used in the tables below. The codes of these theses are as follows:

COD 1: ATTITUDES OF TEACHERS TOWARDS ENGLISH AS MEDIUM OF INSTRUCTIONS IN PAKISTAN A CASE STUDY OF OKARA DISTRICT.

COD 2: ADVERBIALS IN PAKISTANI ENGLISH A CORPUS BASED STUDY-COMPARATIVE ANALYSIS.

COD 3: THE EFFECTS OF TEACHING ENGLISH THROUGH CODE-SWITCHING; AN EXPERIMENTIAL STUDY OF INTERMEDIATE STUDENTS IN PAKISTAN.

COD 4: "A NEED FOR AN INTEGRATED ENGLISH LANGUAGE COURSE DOR THE STUDENTS OF HOME ECONOMICS".

COD 5: MEDIA DISCOURSE AS REPRESENTATIVE OF SOCIO-CULTUREAL MILIEU OF LAW AND ORDER IN PAKISTAN: A CRITICAL DISCOURSE ANALYSIS OF NEWSPAPERS' HEADLINE ABOUT MODEL TOWN TRAGEDY, LAHORE.

COD 6: "ATTITUDES OF PARENTS AND CHILDREN TOWARDS MULTILINGUALISM: A CASE STUDY OF FAISALABAD".

COD 7: CONSTRUCTION OF IDEOLOGY AND POWER RELATIONS IN PAKISTAN STUDIES TEXTBOOKS A CRITICAL DISCOURSE ANALYTICAL PERSPECTIVE.

COD 8: GENDER BASED DIFFERENCES IN WRITINGS OF PAKISTANI ENGLISH WRITERS.

COD 9: ATTITUDE OF MUSLIMS RELIGIOUS SCHOLARS TOWARDS ENGLISH IN PAKISTAN.

COD 10:A COMPARATIVE STUDY ACADEMIC ACHIEVEMENTS OF STUDENTSVTAUGHT THROUGH ENGLISH AND URDU MEDIUM OF INSTRUCTONS.

COD 11: A GENDER BASED COMPARATIVE INVESTIGATION OF ATTITUDES TOWARDS LINGUISTICS TABOOS IN PAKISTAN.

COD 12: EVALUATION OF BUSINESS LETTERS IN ENGLISH IN PAKISTAN

FALLACIES

1. **Hasty Generalization**

CODES	**FREQUENCEY**
COD1	2
COD2	1
COD3	0
COD4	1
COD5	1
COD6	2
COD7	1
COD8	1
COD9	1
COD10	1
COD11	1
COD12	1

According to above results, this fallacy is among the most frequently committed fallacy by researchers. Most of the researchers generalize the results own their own though it is not actually so as in COD1: 1) *From the statistical results plus other review methods, the overall perceptions of the teachers regarding the use of English at school level were ideal and They*

are satisfied with new education system of schools in which most of the syllabus up To middle classes is converted to English medium."

2. Appeal to tradition

CODES	**FREQUENCEY**
COD1	1
COD2	0
COD3	1
COD4	0
COD5	0
COD6	0
COD7	0
COD8	0
COD9	0
COD10	1
COD11	0
COD12	1

The results of this fallacy also shows the frequency with which researchers use commit it commonly in their research works. As in COD1 *There were so many works done in the past on this topic. Different researches used Different attributes in their studies In this research work, three attributes of teachers are Employed: teacher's education their age and subject of teaching.*

3. Irrelevant conclusion

CODES	**FREQUENCEY**
COD1	2
COD2	0
COD3	0
COD4	1
COD5	0
COD6	0
COD7	1
COD8	0
COD9	0
COD10	0
COD11	1
COD12	1

The fallacay of irrelevant conclusions is also the frequently done fallacy in research works. Some of the researchers forget about their topics while writing a conclusion owing to which they commit this fallacy. As in COD1, *In this research to know the behavior of science teacher and science students towards learning English was also a main objective and the interpretation of the collected data results it is find that our research study results are in agreement with that of Abidin-2012 where higher levels of attitudes towards English were observes in science students compared to the students of arts subjects*. Here, he has discusses only the result about student but not about the teachers though in a first line his objective involves the behaviour of the teacher.

4. Begging to Questions

CODES	**FREQUENCEY**
COD1	0
COD2	1
COD3	0
COD4	0
COD5	1
COD6	0
COD7	0
COD8	0
COD9	1
COD10	0
COD11	0
COD12	1

This fallacy is not commited frequently but some of the researcher uses it. As COD2, *Majority of speakers are bilingual or multilingual and they apply the patterns of one language on the other*.

5. Appeal to Popular Opinion

CODES	**FREQUENCEY**
COD1	0
COD2	1
COD3	0
COD4	0
COD5	1
COD6	0
COD7	0
COD8	0
COD9	0
COD10	1
COD11	0
COD12	0

This fallacy is done when researcher wants to do opiniated research. As in COD2, *Traditional grammarians say that stance adverbials have the scope over the entire clause therefore they should come at the initial position.*

6. Insufficient Evidence

CODES	**FREQUENCEY**
COD1	0
COD2	1
COD3	0
COD4	0
COD5	0
COD6	0
COD7	0
COD8	0
COD9	0
COD10	0
COD11	1
COD12	0

As the frequency of this fallacy shows that researcher make it very rarely. As in COD2,*Pakistani English has got its own syntactic patterns where the choice of word at variant position in a sentence is different from native varieties.*

7. Relevance

CODES	FREQUENCEY
COD1	0
COD2	1
COD3	0
COD4	0
COD5	0
COD6	0
COD7	0
COD8	0
COD9	0
COD10	0
COD11	1
COD12	0

In a same manner, like the above results, this fallacy is also a rarely committed fallacy as compare to the initial ones. As in COD2, *Pakistani English has got its own syntactic patterns where the choice of word at variant position in a sentence is different from native varieties* .

8. Correlation is not Causation

CODES	FREQUENCEY
COD1	2
COD2	1
COD3	0
COD4	0
COD5	0
COD6	0
COD7	0
COD8	0
COD9	0
COD10	1
COD11	0
COD12	0

Some of the researchers commit it also because they are not clear in their vision between the two. As in COD1, *The situation goes on worsening. with regard to the topic "Difficulties in teaching English at primary level in rural areas, first research question shows that the students are very lazy towards learning English and ln this way teachers face many difficulties in teaching English in rural areas.* Here, he is relating teaching with the laziness of the students and considering it as a cause, though the basic talk is about teaching.

9. Slippery Slope

CODES	**FREQUENCEY**
COD1	0
COD2	1
COD3	0
COD4	0
COD5	1
COD6	0
COD7	0
COD8	0
COD9	1
COD10	0
COD11	0
COD12	0

A very rarely occurred fallacy in research work. As in COD5, *Daily newspapers are considered as a solid mean of exhibiting social and national issues regarding their own ideological points of view.They likewise give a brisk way of information to the ones who can't spare extra time for reading the points of interest of news items.*

10. Equivocation

CODES	**FREQUENCEY**
COD1	0
COD2	0
COD3	0
COD4	0
COD5	0
COD6	0
COD7	3
COD8	0
COD9	0
COD10	0
COD11	0
COD12	0

This fallacy is committed only in one thesis as in COD7, *The concept of EAST INDIA COMPANY as powerful organized managed and skilled entity with the idea that East India Company not only but had an affiliation but also had a great supporter of British government and also established the concept of East India Company with prejudice and biasness by using the word like foreign trading company and British East India company.*

11. Appeal to respect

CODES	**FREQUENCEY**
COD1	0
COD2	0
COD3	0
COD4	0
COD5	0
COD6	0
COD7	0
COD8	0
COD9	0
COD10	0
COD11	1
COD12	0

A very rarely committed fallacy in research. As in COD11, *They told the reason to recite salutations for religious figures necessary because of Islamic teachings and they are told to recite it.*

12. Inconsistency

CODES	FREQUENCEY
COD1	0
COD2	0
COD3	0
COD4	0
COD5	0
COD6	0
COD7	0
COD8	0
COD9	0
COD10	0
COD11	2
COD12	0

It is again a rarely committed fallacy that is occurred only in one thesis for two time. As in COD11, Sometime people criticize army *but mostly not, they are of the opinion that the decisions made by judiciary should be implemented and respected.*

CONCLUSION AND RECOMMENDATIONS

To conclude the analysis in the light of above discussion from theses, the argumentation style of most of the studies is not convincing. They present the level of weak or rather average critical thinker because they mostly focus on common beliefs to support the arguments. Fallacious argument can be deceptive by appearing to be a better argument of its kind than it really is. Mostly researcher commits heuristic type of fallacy which is considered fast and frugal shortcuts to a solution to a problem. Though they are reasonable to use but sometimes jump to a conclusion is not justified. In that hurry, researcher often commits it. In the light of above analysis, we can see that how much fallacious a research is conducted by a researcher.

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