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Emotional Management in Spanish Institutions: when Institutional Trust Draws New Horizons

By Simone Belli

Abstract- This paper seeks to explain how and why people join social movements. In a study of the Occupy movement, the authors set out to demonstrate that participation is a function of emotional attachments between participants – attachment through shared emotions regarding the loss of trust in traditional institutions and belief in efficacy of alternative, open, institutions. Using the concept of second-order emotions, the authors argue that the movement through horizontal democracy helps to regulate emotions through recognition of those emotions. The researchers argue that, in addition to a distrust of traditional institutions, social rituals in the Occupy movement serve to fortify collective emotions and create strong bonds between participants.

Keywords: *institutional trust, second-order emotion, collective emotions, horizontal democracy, indignados movement.*

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Emotional Management in Spanish Institutions: when Institutional Trust Draws New Horizons

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Keywords: institutional trust, second-order emotion, collective emotions, horizontal democracy, indignados movement.

I. Introduction

Emotions are a perceptual construction of complex situations (Roberts, 2013). When emotions meet social movements, the situation is even more complex. We observe how people challenge the authority of "traditional" (political and economic) institutions, and where distrust in these institutions can evoke anger, anxiety, resentment, despair, depression and loss of self-esteem. A lack of trust in mainstream institutions often helps to explain the grievances and emotional dispositions that bring people to participate in movement-based communities and events, such as those affiliated with the *Indignados* movement in Spain.

The case-study is based in the Spain area between 2011 and 2014 on social institutions and emotional processes involved in what normally is referred to as social movement. We present narratives by activists from these institutions because they embody a type of innovation and creation in the Spanish scenario in the last years. They offer different examples of how trust is managed through narratives and actions in horizontal infrastructures (social institutions). This study allows us to introduce institutional trust as a second-order emotion in emotional management practices of the social movements. We show how trust funnels in other first-order emotions, which represents emotional ties between activists, allowing them to achieve other emotions, where emotions are perceptual constructions of complex situations, as Roberts (2013) explains. Along this paper, we will propose the conceptof a second-order emotion as a tool for social analysis in social movements.

II. On Trust and Emotion Management

Second-order emotional practices have an important role in emotion management in social movements, considering that emotion management is not a conclusion to a process, but a phase of a continuing cycle of activity (Barbalet, 2011). Second-order emotional practices represent a tool (Jakupcak, 2003), "an instrument of freedom rather than a tool of self-oppression" (De Sousa, 1990: 446), where we cease to think of our emotions as inevitable and to view them as open to modification. A person may 'regulate' anger against an institution, constructing trust, promoting rewarding actions, sharing knowledge and information, etc.

For Barbalet (2011), emotions can be regulated in an implicit social regulation and through processes of self-monitoring, in an explicit way. Emotions can only be regulated in teractionally with other subjects and so require cooperation among individuals in trust relations as a social movement, hundreds of persons fighting together for the same cause. The regulation of the person's activism draws on other emotions, such as anger or love, and is composed by other second-order emotions such as sincerity, trust or blame.

People rarely express fear, anger, jealousy, chagrin, joy, and so on, by using the corresponding words in a self-description (Harré, 2009). An angry person might verbally show anger by shouting "F##k the politicians!" but not "I am angry with them" without turning red in the face. First- and second-order emotions in our narratives emerge in multiples ways, rarely using the corresponding words. This matters for how we recognize our usage of these second-order emotions in our narratives. Spiraling out first-order emotion, there are all sorts of second-order emotions which depend on tacit knowledge of the first-order emotions. Harré (2009) suggests analyzing which words are common in the expression of emotions. What do the uses of the words "rage" and "anger" have in common? What about "anger" and "love"? Second-order emotions help us answer these questions, analyzing what words and expressions have in common in the context of these emotions. The latter is a prime ingredient in the grounds for describing one's emotional experience. The first-

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order emotion is always a kind of process where this emotional process is composed by second-order emotions.

III. Methods to Trust in Institutions Again

The case-study is based in the Spainarea between 2011 and 2014 on social in stitutions and affective processes involved in what normally is referred to as social movement. These are the institutions :Plataforma de Afect adospor la Hipoteca (PAH - Movement of Mortgage Victims); 15Mpedia/ Informa Sol/Padland/People witness (from *Indignados* movement); Candidatura d'Unitat Popular (CUP - Popular UnityCandidates); and Asamblea Vivienda Centro (AVC - Housing Center Assembly).The four cases represent different types of social institutions with a strong component of militancy and responsibility for the citizens. We present narratives by activists from these institutions because they embody a type of innovation and creation in the Spanish scenario in the last years. They offer different examples of how trust is managed through narratives and actions.

In narratives, epistemic trust constructs and "fabricates" these micro-institutions composed of subjects, because claims of the participants an explicit assent to the aim of sharing knowledge with a collaborative intentional attitude. Micro-institution stake the form of joint actions which require explicit collaborative intentions, such as fight together for the same cause. These social actions represent micro-institutions as testimonial acts which constitute reliable sources of knowledge, a form of trusting someone without the need to say so in an explicit way using the word "trust".

These types of institutions are communitarian and emotional ties between people, based on the second-order emotion of trust for the construction of the relationship. The second-order emotion of trust is a relation of epistemic dependence between agents and society through a communicative process, where every communicative process represents a narrative.

Daukas (2006) gives us a good example of how epistemic trusts in social interaction and in institutions work. In a multidisciplinary group of social scientists, their goal is to understand the social problems of a given community. This investigating group should be socially and socio-economically diverse, because their diversity represents different perspectives and are shaped through individual epistemic histories.

In the next section, we will present a modelfor observing this epistemic trust as a second-order emotion in institutions from the data collected.

IV. From Individual Negative Emotions to Collective Positive Emotions

In research on the social movement, second-order emotions play an important role in achieving the movement's intended purpose. In the African-American Civil Rights Movement between 1954 and 1968, black pride was one of the most important elements in constituting a collective action and in achieving equal rights in US society. Black pride was not the purpose of this movement, but it is the second-order emotion which allowed the creation of the community and a collective action to achieve their shared purpose. In Britt and Heise's (2000) essay on LGBT movement, they trace the emergence of pride and shame through emotional control processes involving fear and then anger. This social movement revolves around efforts to transform shame into pride. Pride and shame are second-order emotions in this context, and fear, anger, joy and empowerment represent the first-order emotions. Shame and pride in this context are elements of sharing other emotions in groups and achieving equal rights in society. The purpose of these actions is not to show pride, but pride is the second-order emotion which connects these subjects.

In the Spanish scenario of the last years (Author XXX1, 2013, 2014;Author XXX1&--, 2013; Author XXX1&--, 2014), we have observed how people challenge the authority of "traditional" (political and economic system) institutions. A multitude of subjects which shared the emotions in the same place (Puerta del Sol in *indignados* movement), caused face-to-face and interaction contact. They shared the same practices of occupying public space to fight against traditional institutions (Author XXX1&--, 2014).This represents a democratic mobilization in which people have challenged traditional institutions of neoliberal capitalist ideology and practices (Benski and Langman, 2013).

As we observed in the previous section, trust and institutions are highly interrelated. An activist says that is not possible to live in a democracy without trust in the institution of democracy. This is why democracy needs rules, and trust and confidence are two of them. Young adults in Spain have lost trust in traditional institutions for different and precarious reasons (economically, politically and socially). Being assembled in large crowds and subjected to contagious face-to-face processes promoted the emergence of a common collective identity (Melucci, 1989), in a We-mode way (Jarymowicz & Bar-Tal, 2006;Perrugoria &Tejerina, 2013; von Scheve & Ismer, 2013).

Following the description of the activist, survey of seven European countries in 2012 showed that citizens had no trust in government. In the same year, 62% of British voters responding to aYou Gov polla greed that "politicians tell lies all the time and you can't believe a word they say". When the credit crisisin Spain

in 2010–2011 began, people started to lose trust in banks, firstly, as physical space of the economic system, and later they lost trust in the political system. The banks were saved, the people were screwed (Langman, 2013). Trust was broken between people and these old institutions; bank offices had to physically change their position in Spain to try to reconstruct this trust with society, the same activist explains. When citizens feel threatened, their emotions lead them to seek additional information and process it more thoroughly. Distrust in these institutions caused by the crisis evoked negative emotions such as anger, anxiety, resentment, despair, depression and loss of self-esteem as emerged in narratives collected.

For Bennett (2013), the reasons for changing the terms of the relationship are prudential, reasons of a subject's self-protection from an institution. This is why subjects revise their expectations and intentions in a relation, so as to change or modify the relation with that subject or object. The relation between citizens and these institutions was now broken and it was impossible to repair. So these social movements in Spain have their origin in the loss of trust regarding traditional institutions and the political mismanagement of the socioeconomic crisis. This authority and institutional system are defined as 'unjust', and it is this frame of injustice which has generated this loss of trust. When this second-order emotion of trust between society and institutions is violated, it generates a lot of negative first-order emotions such as fear, anger, anxiety and resentment (Jasper, 2011; Marcus et al. 2000; Neuman, 2007). Given this distrust in economic and political authorities, persons managed this second-order emotion toward another object, a different way of understanding democracyas we activists describe in their narratives.

These institution swere born to manage this second-order emotion between citizens in Spain. In 2011, people's trust in other people allowed them tooccupy public spaces to gether and to express their individual negative emotions in a collective way. Negative emotions expressed in I-mode were shared in these public spaces and transformed into positive emotions expressed in We-mode.

People started to build alternative institutions together, in a public space, establishing emotional ties between themselves. Activists explain that protestswere led under the slogans: "We are not commodities in the hands of politicians and bankers", "They don't represent us", etc.. Collective emotions emerged with the use of "We" (citizens)against "They" (bankers and politicians). People trusted members of their in-group, and experienced resentment toward the out group (institutions, politicians, bankers, and so on).

For Melucci (1995), collective emotions, like collective identities, are constructed and negotiated in a dialectical interaction with historical events and networks of groups and individuals. Anger, fear and anxiety are a strong force in creating a sense of collectivity in the street and an attractive force in collective actions (Eyerman, 2005). Individual negative emotions force people to occupy a place together and share positive emotions. People recover institutional trust, as a relationship between an individual and an institution, and share happiness and empowerment. In these four institutions, trust was negotiated in a dialectical interaction between subjects in order to achieve different positive emotions collectively. Management of thisemotion is important for understanding how subjects have changed their negative emotions expressed in an I-mode to positive emotions expressed in a We-mode. Subjects have moved from their private spaces to a public space thanks to a change ofthe object which they direct their second-order emotion of trust toward.

Emotions and joint actions play together when sharing trust. Institutional trust connects positive commitments to people, ideas and places, forming a solid basis between subjects and more persistent emotional management with the action. 'We', bound by bonds of trust in persons, the heart of the process of emotion management – a change of language, of words, from people to person, indicating a change towardengaging in politics, a narrative of becoming persons and the trust between them asa collective identity (Polletta, 1998).

As we have seen in the cases of the LGBT and African-American Civil Rights movements, as in these four institutions too, people share and manage emotions to achieve a purpose. Emotions in the social environment crystallize in narrative experiences which structure individual emotions. When people interact with each other in specific situations, they construct narratives to generate a shared understanding of the situation through shared emotions. For Clark (1996), linguistic categories provide the common ground which allows for efficient communication and enables people to coordinate joint action, as in social movements. The four activists confirm that banners, slogans, manifestos and tweets constitute these narratives and allow the management and organization of their social actions. One of the deepest satisfactions of collective actions in this social movement is a sense of trust and confidence, an end that in turn becomes a means to further action. These four institutions have created a pre- and a post- in social movements in Spain, where these collective emotions and joint actions facilitate the development of participatory habits in democracy and trust in it again.

V. Trust Contagion Feedback Loop

"When the government is against the people, the people are against the government" An activist interviewed.

For Jasper (1998), trust is an example of basic affects which have important political implications. Lack

of institutional trust is shown many times in elections (Brady & Sniderman, 1985; Kam, 2005; Lupia, 1994; Lupia & Mc Cubbins, 1998; Popkin, 1991) and a lack of trust is a lack of information, in many cases, which produces a list of negative emotions such as aversion, anger, disgust, contempt and bitterness (Mac Kuen, Wolak, Keele, & Marcus, 2010). So citizens try to acquiring information and trust, but they must possess the resources necessary to obtain this information in a democratic system (Kymlicka, 1991; Wolfinger & Rosenstone, 1980). An activist explains that to participate in a meeting or in a demonstration, a citizen must know where to go, have time to engage in that activity and understand the language of this information (i.e. migrants who don't speak that language will not be able to engage). "[W]hen the expectations involved in trust and respect are not met, (…) emotions tend to appear in the form of disrespect, distrust, anger, and indignation" (Benski & Longman, 2013: 10).

The above epistemic (lack of) trust generated in a negative auto-mood was what Dakaus (2006) called an "untrustworthiness feedback loop". Institutional trust is associated with certain practices or objects in institutions, but when these practices are not followed, it generates institutional distrust and negative emotions. Traditional institutions collapse because they are not to be able to follow these practices and are no longer able to deliver positive political goods to their citizens, like human security, rule of law, civil and human rights, health care, education, physical infrastructures, and so on (Srbljinovic & Bozic, 2013). These effects cause loss of trust in institutions. Institutions fail since they lose their capacity to guarantee the social contract. When traditional institutions fail, people search these emotionally intensive rituals at different levels, in family or the neighborhood, as in the Spanish scenario. It is when they exit from this untrustworthiness feedback loop that they generate many negative emotions in an I-mode and they begin to manage this second-order emotion in a different way, such as placing their trust in an "alternative" institution that distributes knowledge and understanding among the members of the community. A social group involved in collective actions to generate collective positive emotions.

For Valentino, Gregorowicz, and Groenendyk (2009), anger in young people increases internal efficacy in successful participation, creating a feedback loop which promotes the development of such habits in the future. Emotion contagion is common in family life, social rituals, political rallies, and mass meetings (Hatfield, Cacioppo, & Rapson, 1994) and it is the heart of collective emotions for many social psychologists, it is a pre-requisite mechanism. This face-to-face contagion process in the last years in Spain is based on trust in others. An activist says: "Then I trust another person, I try to empathize with her, because I believe in what she says and I recognize that it is the correct way to begin social action with her".

Second-order emotions are contagious because they are embodied and internalized in our social practices. The chain reaction in different places in Spain has caused the facility to construct and manage these second-order emotions in an epistemic way: a trust reaction, where citizens have decided to place their institutional trust in this form of protest and to adopt the same strategies. Socially shared emotions are not just an aggregation of individual emotions, but represent unique holistic qualities of social collectives as an emergent phenomenon (Bar-Tal, 2001). Physical proximity may substantially amplify and reinforce convergence by way of facial mimicry and contagion; hand signals and verbal communication contributes to the symbolic transmission of appraisal outcomes and the descriptive labeling of emotion (von Scheve & Ismer, 2013).Trust in these social institutions represents the new social ritual of living together post-*indignados* movement. In the next section, we will describe how these social institutions and these new social rituals work thanks to the second-order emotional institutional trust management.

VI. Democracy and Institutional Trust

We have observed that new collective forms of understanding democracy allow us to recover institutional trust in it. The in frastructure in the *indignados* movement implies a flat plane upon which to communicate, which requires the use of direct tools against hierarchy. This is an anti-authoritarian creation rather than reaction, where the vertical methods of top-down organization and relation are broken, according to Sitrin (2006). Trust is the basis of this horizontal institution – a type of democracy where community being together and sharing collective emotions is based on trust in each other as citizens of this democracy. Town-meetings, working groups, and assemblies are the structures of horizontal decision-making and nonhierarchical social relationships as they promote civic involvement, innovation and transparency.

Horizontal democracy was based on social institutions of cooperation and knowledge, stabilized as a valuable good for society and individuals (Sennett, 2012). Cooperation and knowledge requires positive emotions in social interactions. Institutional trust,as we have observed before, represents an important source of sharing information and knowledge because it contributes to extending in an effective way the knowledge among the members of a community. People share emotions, common problems and being together in an inclusive, horizontal, non-violent, and participatory fashion (Perrugoria & Tejerina, 2013).

Horizontal democracy is a social contract to establish a new social order in society and it becomes a habit whereone abandons all hope of being represented. Representing second-order emotional ties between family, friends and one's neighborhood for surviving at the micro level and in micro institutions. So the most promising way to restore social order seems to be the 'bottom-up" way, according to Srbljinovic and Bozic (2013). Horizontal democracy is composed of these bonds, because trust is an essential part in everyday social relationships. When trust changes between people and institutions, often it changes their relationships with others and wider social structures. Micro-, open and social institutions represent a new beginning for recovering this trust, leading to an all-pervasive social change at the macro level too. These processes, Srbljinovai and Bozic (2014) argue, are inherently complex and frail, just as first-order emotions. Emotions may prove to be the missing piece in a variety of puzzles with which political scientists have struggled with for decades (Groenendyk, 2011). Horizontal democracy in the Spanish scenario poses collective actions which have resulted from old problems in traditional democracy. Because these new typesof institution are concernedwith the restoration of trust, theyfulfill social rituals, practices and infrastructures which can connote a sense of participation in social life.

The regulation ofsecond-order emotional ties is the first step to transforming society from distrust in the old democracy to trust in the new democracy. This is why democratic society cannot function without trust and loyalty of the people (Rawls, 1993). Democracy starts with citizens caring about one another and acting responsibly from that sense of care, taking responsibility both for themselves and for their community (Lakoff, 2011). As we have observed in the previous section, these second-order emotional ties work as a feedback loop between individual, society and the polity. Often these second-order emotional ties are social norms or social contracts between citizens and institutions – the basis of the democracy.

These second-order emotional ties happen for the same reasons that Daukas (2006) argues that trust is a second-order epistemic competency, where our ability to rightly judge and be judged as trustworthy is in the social interaction and expressed as epistemic trust. Trust is a second-order emotion in this sense, because it doesn't emerge in a direct way in our narratives. Examples include hand signals in *Indignados* movement for the negotiation of a consensus in a universal and open language[1]. Everybody can participate in horizontal democracy using these signals to agree, to oppose, etc., with other persons in the square. Epistemic trust is managed in this way too.

[1] More information: http://www.nycga.net/resources/general-assembly-guide/

The institution of democracy has adjusted to modes which can be designed by the citizens. A new space was opened up by a series of negotiations, interactions and actions between subjects and objects. Horizontal democracy is a traditional institution adjusted to the modes which can be designed, following Latour's concept (2013).Institutional trust is managed in these processes by occupying a public space in order to reestablish these institutions, a collective action to design new formsof sharing knowledge and authority between subjects.

VII. Discussion

In the 1960s, observers used the obvious emotions of protest to dismiss protestors as irrational or immature; later analysts denied any and all emotions in an effort to demonstrate that protestors are rational (Goodwin et al. 2000; Jasper, 2011). We have presented the casethat social movements are in large part emotionally conditioned and originate from interaction rituals. Democracy provides the infrastructure for these interactions and stimulates positive emotions in citizens; the failure of this institution leads to the collapse of these interactions and produces negative emotions in citizens.

We have observed how social order is socially constructed through interpersonal interactions in everyday life by cooperation and positive emotions. Citizens know this set of emotional beliefs, which are formed in every interpersonal encounter in their life in society. In the four institutions, often initially negative emotions are collectively expressed in an individual way, or I-mode. We may think like individuals, in I-mode, but our brains have evolved to allow us to feel as part of groups, in We-mode (Hermann et al., 2007). People have constructed networks where they elaborate and manage these emotions. These networks are constructed thanks to the second-order emotions of trust, asecond-order emotional tie between subjects for achieving a purpose or an emotion. These emotions prompted many to engage in protests and mobilizations as an expression of contentious politics which become mediated through interpersonal networks. We-mode represents the heart of the process of collective identity construction being conducted. Collective emotions, collective context and collective action represent a new area of study of emotion in the coming years, and the second-order emotion of institutional trust is the basic structure for studying these complex processes.

Second-order emotion account sallows an understanding of how emotion regulation and emotion management generates collateral emotions. In our view, the central aspects of institutional trust are emotional and epistemic. Trust as a second-order emotion constitutes an epistemic space for people to share knowledge. Trust is not just needed to gain access to knowledge goods, but it is essential to becoming a

socially situated self, to engaging in more public conversations with others. Institutional trust as a second-order emotion is internalized through social practices, in our discourses and in our practices. In the model explained, we have observed that trust is essential to becoming a socially situated self. Authority migrates to the subjective level of these horizontal and open institutions. People cannot feel strong emotional experiences without trust in the other people that participate in the same movement.

Although trust and distrust are the fundamental social ties, it is not yet quite understood how it works or how to figure out its nuances and distinctions. Trust becomes a second-order emotion which tames the future into horizons of the expected, of that which we count upon, of that which we feel more or less sure about. Institutional trust contributes to taming and narrowing the horizons of the expectable so that our social life becomes possible. The construction and maintenance of the emotion and bond of trust appears to be crucial in our daily relationships, and we suggest that it appears as a crucial question far beyond the system of democracy. In our analysis, thesecond-order emotion of institutional trust forges the bond between subjects, where an emotional constellation is produced by this emotional tie.

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The Moral High Road in the Undercity: An Examination of Ethics in a Mumbai Slum

By Mary L. Bauer
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Abstract- As of 2016, 1.6 billion people around the globe lacked proper shelter and of these, one billion lived in informal settlements, also called slums, according to data collected by the United Nations (UN-Habitat 2016). Investigative journalist Katherine Boo spent four years, between 2007 and 2011, interviewing and shadowing the residents of one such slum on the outskirts of Mumbai. Her goal was to draw attention to socio-economic inequality (Boo, 2014 pp. 247-248), but in the course of collecting data about the consequences of poverty and residents' attempts to rise out of it, she also recorded information about their moral choices, actions and motivations. This paper examines the evidence that Boo provided in her 2014 nonfiction book about this slum, Behind the Beautiful Forevers, and codifies the complex moral system of its inhabitants – a morality that puts to shame those from the higher echelons of society who interact with them.

Keywords: *slum, morality, india, poverty.*

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Keywords: slum, morality, india, poverty.

I. Introduction

Katherine Boo's lyrically written book *Beyond the Beautiful Forevers*(2014) reads like a novel, but it is, in fact, a compilation of data from her four years (November 2007 through March 2011) of talking to, gaining the trust of, and ultimately shadowing the residents of a Mumbai slum as they went about their daily business. Meticulously documented with notes, audiotapes, over 6,000 hours of film (Calkin, 2012), door-to-door surveys and more than three thousand public records (Boo, 2014), Boo's book conveys the essence of the daily lives of the inhabitants and provides a wealth of data about their attitudes, actions, choices and motivations. Though Boo's intent in investigating life in this slum was to examine the issues of wealth inequality and to identify opportunities that might help people to rise out of such abject poverty (Boo, 2014 pp. 247-248), her findings also reveal a complex and surprising moral system.

Situated with a sewage lake as its center, this slum, known as Annawadi and informally called the "undercity", is home to three thousand of Mumbai's poorest citizens, only six of whom hold permanent jobs. Too poor to pay rent, these people are squatting on land owned by the Mumbai Airport Authority, living in makeshift huts constructed from whatever scrap materials they could lay their hands on. Some are so poor that they live on frogs and rats they manage to capture, supplemented with scrub grass that grows at the edge of the sewage lake (Boo, 2014, pp. 5-6). One might think that in such dire circumstances, morality would be a luxury. It would be easy to justify engaging in criminal behavior to obtain basic necessities and with fierce competition for scarce resources, violence might be expected. Yet, despite their desperate fight for survival, the inhabitants of Annawadi have a clear moral code that is in many ways stronger than the morality of the police and politicians who interact with them; the children of Annawadi are the strongest adherents to this code.

II. Lying

While both adults and children acknowledge that lying is wrong, the children of Annawadi are much stricter in their adherence to the prohibition against it. In storytelling – an important element of socialization among the boys – exaggeration and fabrication are tolerated for their entertainment value (Boo, 2014, p. 163), yet the truth retains its value even as the rules are bent. One boy, Rahul, is respected by the others because he does not lie in his tales "…at least not more than one sentence out of twenty" (Boo, 2014, p. 9).

The adults, however, believe that lying is justifiable under certain circumstances. An example of this striking contrast between adult and child attitudes regarding lying can be found in the varying accounts of whether and why Annawadi resident Fatima set herself on fire. Fatima has a grudge against her neighbors, the Husains, whose prospering business in reselling recyclable garbage causes Fatima's husband to lose his own garbage-trading enterprise. Encouraged by her best friend, Cynthia Ali, to do something dramatic to incite a police case against the Husains, Fatima seizes the opportunity when a disagreement about construction on a shared wall between their huts culminates in a shoving match with the Husain matriarch, Zehrunisa. Fatima immediately heads to the police station to accuse Zerunisa, falsely, of "violent assault" (Boo, 2014, pp. 90-1, 100).

Back at home after Zerunisa's arrest, Fatima's thirst for revenge still is not sated. She ups the ante by setting herself on fire, then dousing the flames and quickly accusing Husain family members of having burned her (Boo, 2014, pp. 92-6). When this lie is undercut by her young daughter, Noori, who truthfully tells the police that she saw her mother light herself on fire (Boo, 2014, p. 101), Fatima, with the helpful

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prodding of a local government official sent to the hospital to take her statement, shifts to a new lie. This time she says that the Husains drove her to self-immolation, which is a violation of an archaic Indian law. She puts the bulk of the blame on the Husains' eldest son, Abdul, because he is the family's main bread winner. She falsely claims that he beat and throttled her. While she correctly reports that Abdul's sister, Kehkashan, and their father, Karam verbally threatened her, she puts a false spin on the altercation by claiming that these heat-of-the-moment, empty threats prompted her to suicide (101-2). After Fatima's death, these accusations lead to a criminal court case against members of the Husain family and Fatima's husband, Abdul, compounds his wife's lies by falsely testifying that the Husains beat Fatima with a stone and throttled her (Boo, 2014, p. 209). Other adults pile on with false accounts to support the husband's claim; some of them were not even present when the burning took place (203). The only child witness at the trial, Priya, an older girl who was very close to Fatima, contradicts Fatima's story (Boo, 2014, p. 204). Thus, while some of the adults make false claims for revenge or to support one faction against another, the two children involved in the case – Noori and Priya – faithfully tell the truth despite their close attachment to Fatima.

Annawadi adults also prove themselves willing to lie when it becomes a matter of survival. For example, a man named Raja Kamble, agrees to falsify time sheets of other workers in exchange for a permanent job cleaning toilets at the train station (Boo, 2014, p. 24).

Despite the willingness of some adults to lie for survival or for baser purposes, such as revenge, there are other adults who value the truth highly. When the police compel a man named Dinesh to testify against the Husains by filing a false witness report in his name, he defies their intent by telling the truth: He was not present when Fatima set herself on fire (Boo, 2014, p. 204-5). On a more philosophical level, in speaking of Cynthia's intention to commit perjury, Zehrunisa says, "After lying in court, what honor will she have? … If you lose your honor, how can you show your face in Annawadi?" (Boo, 2014, p. 210).

The difference between adult and child attitudes regarding the truth may be explained by a hard truth that Abdul learns. When he is arrested, he wants to stand trial to prove his innocence (Boo, 2014, p. xxii). As the process wears on, however, Abdul comes to understand that in the Indian legal system, innocence and guilt are not based on the truth; they are bought and sold. Once he realizes this, he wants his family to pay whatever money they have to secure his innocence and his father's (Boo, 2014, p. 107).

Along the same lines, Boo also offers her perspective on why the children are less inclined to alter the truth, "I found Annawadi children to be the most dependable witnesses. They were largely indifferent to the political, economic and religious contentions of their elders, and unconcerned about how their accounts might sound" (Boo, 2014, p. 252).

Though Annawadi adults sometimes fall to the temptation to lie, their motivation for engaging in falsehoods is quite different from that of the police and politicians who interact with them. This is seen in the police handling of the murder cases of two children of the slum.

When fifteen-year-old Kalu is found with his eyes gouged out and a sickle up his rectum, the police list the official cause of death as "irrecoverable illness", specifically tuberculosis. While Kalu did suffer from this disease, it clearly was not the cause of his death. The police fabricate this cause of death because they want to claim they have a one hundred percent success rate in solving murders (Boo, 2014, p. 167-8). There is no profit to be made (typically in the form of bribes) from investigating his murder, so they do not want to expend the effort. Instead, the police see to it that his body is quickly burned and the photos taken at the crime scene disappear from his file, neatly erasing any evidence that contradicts the official cause of his death (168-9).

In another case, one of the scavenger boys who has been beaten by police flees south to his mother's house and, despairing, kills himself by consuming rat poison. The police falsely document him as a heroin addict who killed himself because he couldn't afford his next fix (Boo, 2014, p. 171-2). They thus hide the connection between his suicide and their own actions.

Politicians are similarly inclined to alter the truth in their quest for power. The local Corporator, Subhash Sawant, is an excellent example. In an election where only low-caste candidates are allowed to stand, he manufactures a caste certificate, along with a fake birthplace and ancestors to be qualified and he wins the election (Boo, 2014, p. 50-1). Thus, the politicians, like the police, lie not for survival or revenge, but simply for status – the direct opposite of the Annawadi children's view that a truthful boy is to be admired.

III. Stealing

In the desperate fight for survival, stealing is a tempting option, but the thieves of Annawadi are small in number and limited to the demographic of adolescent males. The boys universally recognize stealing as wrong but, at the same time, those who steal for a living have a higher status because of the risky nature of their occupation. Despite the appeal of this "bad boy" status, those who do not steal try to turn their thief friends away from this line of work. This is not motivated by jealousy over the higher income or status, but rather by a genuine concern for their friends' moral well-being. Sunil, a twelve-year-old scavenger who was raised in an orphanage and tossed out onto the streets when he

reached the age of eleven, is an excellent example of how this complex dynamic functions. He is alarmingly undersized for his age and knows that he needs food to grow (the major concern that preoccupies his thoughts), but has difficulty making enough money at scavenging to obtain sufficient food. In addition, he suffers from competition from other scavengers around the airport who threaten him with knives or beat him up and take what he has gathered (Boo, 2014, p. 37). He sees that thieves make more money and thus get more food than scavengers and they also are less vulnerable to the medical ills associated with waste picking, including maggots, boils and "orange eyes" (Boo, 2014, p. 43, 48).

Not surprisingly, Sunil falls to the temptation of the more lucrative career of stealing when his friend, Kalu, offers him payment to help retrieve some iron he stole, but had to stash when he was being pursued by a security guard. Sunil agrees and for his help, receives one-third of the profit – the first disposable income of his life (Boo, 2014, p. 46-8).

Even with the positive outcome of this adventure, Sunil turns down a second offer by Kalu to help with another theft project. As he makes this decision, he contemplates the price – not only the loss of desperately-needed income, but also the risk of waste-picking health problems (48). He realizes that his stealing adventure with Kalu, "the most profitable day of his life", did not make him happy as the other thieves described it and he thinks that he likes himself as a thief even less than he likes himself as a waste-picker (Boo, 2014, p. 49). Abdul, who describes Sunil as an "almost friend" of whom he feels "vaguely protective," is relieved when Sunil turns away from stealing (Boo, 2014, p. 43, 48-9).

Sunil continues to vacillate back and forth between scavenging and stealing, according to the level of his desperation for food. At one point, when Sunil has resumed stealing, his friend, Sonu slaps him four times, hard. Recognizing that Sonu is right, Sunil does not return the blows, but internally excuses his choice of profession because, unlike Sonu, he has no other family members to help him earn money to survive (Boo, 2014, p. 194).

Sunil's struggle with his occupation demonstrates the harsh reality that the Annawadi residents face. He clearly recognizes stealing as wrong and hates himself for it. Though his non-thief friends do not abandon him when he turns to stealing, they try to dissuade him from this path. Even the boys who do steal on a regular basis seem to hate themselves because they sniff *Eraz-ex*, the Indian equivalent of *Wite Out*, to get high and forget how they feel about themselves (Boo, 2014, p. 43).

Police officers also have a hand in the enterprise of theft. Although they do not purloin goods themselves, they give the "road boys" tips about where they can find building materials to steal and then take a share of the profits (Boo, 2014, p. 45).

Moreover, police solicitation of bribes amounts to the same thing as stealing: illicitly taking what does not belong to them. Unlike the boys of Annawadi who turn to stealing to keep from starving, the police already have a valid income stream, but use bribery as a sideline. In addition, the Annawadi boy thieves do not resort to physical violence while the police use brute force, such as severe beatings, as leverage to get their victims to pay – very much like a street mugging. In the case of Abdul, the police specifically target his hands because they know these are critical to his livelihood (Boo, 2014, p. 111). As Boo (2014, p. 107) explains,

> The idea was to get terrified prisoners to pay everything they had, and everything they could secure from a moneylender, to stop a false criminal charge from being recorded. Beatings, though outlawed in the human rights code, were practical, as they increased the price that detainees would pay for their release.

IV. Violence

Violence is the issue where the adults of Annawadi have the weakest moral structure, though their use of it does not have lethal intent. The motives for violence are a complicated mixture of control, competition for territory and revenge. The children, with few exceptions, not only refrain from violence, but also try to protect others from it, sometimes heroically.

There is a general consensus in Annawadi that physical punishment is necessary to control children, sometimes for their own safety. This castigation, however, sometimes goes too far. For example, when Asha's daughter, Manju, steals money from her mother to buy chocolates, Asha shows her disapproval by striking her daughter with an axe, which leaves a permanent scar on her neck (62). Such violence is a recurring event in some families, such as that of fifteen-year-old Meena, whose parents and older brothers beat her almost daily for disobeying, being slow in her house chores or speaking out against family policies she considers unjust, like denying her access to education. Their justification is that her expressions of discontent are a threat to the marriage they are trying to arrange for her in their native village (Boo, 2014, p. 67). The beatings are so relentless that, when combined with the prospective of an arranged marriage, she commits suicide (Boo, 2014, p. 183-6).

At other times, parental violence seems wanton and/or vengeful. The disabled Fatima, for example, beats her children with her crutches for reasons that are not clear (Boo, 2014, pp. 75-76). Her husband regularly fights with her about the savagery with which she attacks her own offspring (Boo, 2014, p. 207).

Adult-on-adult violence stems from entirely different motives. Fatima's husband, Abdul – ironically, the same man who complains about Fatima beating their children too viciously – beats his wife when he is drunk (Boo, 2014, p. 207). The slumlord, Robert Pires also beats his wife, but his motives are unclear (Boo, 2014, p. 17). Zehrunisa's husband, Karam, who is too sickly to engage in violence himself, instructs his son, Abdul, to beat Fatima for getting his wife arrested. Fortunately, his oldest daughter, Kehkashan, intervenes to prevent this (94).

Profit is another motive for violence by a subset of adults and older children. Scavengers regularly beat up those who are weaker, either to drive them away from a lucrative territory or to steal what they have already collected. The slum lord's son (unnamed) takes this phenomenon to a new level by offering the undersized Sunil and Sonu protection from older boys who attack them on the road for 30-40 rupees a week (a day's wages). When they don't pay, he beats them up himself (Boo, 2014, p. 158).

The children, who are more frequently the victims of such savagery, are less likely to engage in violence and are remarkably courageous in protecting one another, even taking personal risk to do so. Abdul, for example narrowly escapes arrest when his father is taken by police, but later, he literally runs to the police station, thinking that perhaps he can offer himself to protect his sickly father from police abuse. As he endures a vicious beating, Abdul tells himself that maybe some of these blows would have landed on his father if they had not rained down on him. (Boo, 2014, p. 104).

Even more surprising, ninth grade Rahul courageously intervenes to protect an infant who was not even a relative. When a neighbour, frustrated that his infant son's infection cost the family a lot of money in medical bills, dumps a pot of boiling lentils on the baby, Rahul jumps into the middle of the fray and then runs to get the police. The baby survives (Boo, 2014, p. 76). In a similar intervention, Manju, one of the older girls in the slum, saves a boy, Devo, from a beating by his mother. Manju places herself directly in the line of fire between mother and son. She defuses the tension by capturing the mother in a hug, then gets the boy to promise he won't go out in the road again (Boo, 2014, p. 64-65).

Though violence is a part of everyday life in Annawadi, the justification for and limitations on the use of physical force stand in stark relief to the use of violence by police and the political establishment, which seems to have no moral underpinning. A young Shiv Sena politician, for example, instigates Maharashtrian scavengers to beat up immigrants from the north in Mumbai slums as part of Shiv Sena's campaign against migrants. The real goal of this campaign is to convince the northerners to leave to open up more jobs for the native locals (Boo, 2014, p. 31-2). In a similar vein, though police beatings are outlawed, the police use Kalu's murder as an excuse to round up scavengers and beat them. They threaten to charge the trash pickers with Kalu's murder (despite the fact that they falsely documented his death as resulting from tuberculosis) if they don't stop. The goal is a political one: the improvement of the airport's image (Boo, 2014, p. 169).

V. Tolerance

As Katherine Boo noted in an interview with National Public Radio (2012), the children of Annawadi are much less attuned to cultural and religious divisions than their parents. There are numerous examples of this.

- Though he is a Muslim, Abdul's only "sort of friend" is Kalu, a Hindu (Boo, 2014, p. 12, 44).
- Abdul also says he feels "vaguely protective" of another Hindu boy, Sunil (Boo, 2014, p. 43).
- Mirchi, Abdul's younger brother, also has a Hindu best friend, Rahul. Mirchi believes that prejudice based on class, ethnic or religion is wrong and is fading away (Boo, 2014, p. 14).
- Manju and Meena are best friends even though Meena belongs to the lowly Dalit caste and Manju is a member of the higher Kunbi caste. They meet clandestinely at the public toilet at night to share their secrets (Boo, 2014, p. 66).

At the same time, the adults are not completely intolerant. They have an obvious preference for their own religious and ethnic group when it comes to arranging the marriage of their children, but they do cross ethnic and religious lines in their interpersonal relations, especially in their dealings with children. Zerhunisa is an excellent example. She is fond of Abdul's homeless Hindu friend, Kalu, and thinks he needs mothering. In fact, Kalu calls her "Amma", which means "mother" (Boo, 2014, p. 164). She takes a similar attitude towards another Hindu boy, Sanjay, who is geographically separated from his family. Zerhunisa is the one he comes to when he has difficulties with the police and she, of whom it is said, "Ten men pulling couldn't get her purse out of her pocket (Boo, 2014, p. 41)" puts money in Sanjay's hand as they agree that he should flee (Boo, 2014, p. 170). On a broader level, Zehrunisa and her husband, Karam, raise their children to ignore previous Muslim-Hindu violence. They reinforce this message by teaching the children songs about what a tolerant, multicultural country India is (Boo, 2014, p. 32).

Some of the adults, however, exhibit tolerance for less than altruistic reasons. The manipulative Asha defies her political party's opposition to immigrants from other regions of the country when she decides to rent portions of her house to non-natives of the region (Boo, 2014, p. 22-3). This tolerance, however, swings the

other way when it is to her advantage to play up religious and social divisions. After Fatima's self-immolation, Asha, who was disappointed in her quest to obtain payment from Zehrunisa for brokering a stand-down in Fatima's false accusations, tells her husband, "What the One Leg [Fatima] should do is tell the police, 'I was born Hindu and these Muslims taunted me and set me on fire because I'm Hindu.' Then these guys would be inside the prison forever" (Boo, 2014, p. 97-8). She shows a similar disregard for children of low-class families who are attending the government-sponsored school in her hut. From her perspective, there is no point in providing education to them because she sees no networking benefit due to the fact that they are from poor families (Boo, 2014, p. 146).

Fatima herself is the living embodiment of tolerance for advantage. Born and raised a Hindu (her real name is Sita), she and her parents agreed she would marry an older Muslim man because no one else would have her due to her deformity (Boo, 2014, p. xvi).

At the opposite end of the spectrum, when the adults do show a preference for their own kind, it can be an extraordinary demonstration of unity in the face of disagreements. The best example of this is that despite Fatima's false accusations against the Husain family, Zerhunisa and her daughter, Kehkashan, wash Fatima's corpse. Zerhunisa says it is the duty of Muslims to join together for sufferings and festivals. Besides physical cleansing, the ritual is also a washing away of sins, so the women are removing Fatima's transgressions against them. In an extraordinary show of generosity, Zerhunisathen covers the casket with her family's best quilt (Boo, 2014, p. 115). Mirchi, one of the younger Husain boys, goes with Fatima's husband to the burial. Even Fatima's daughter, young Noori, demonstrates her lack of malice when she clings to the eldest Husain daughter, Kehkashan, for comfort after her mother dies (Boo, 2014, p. 113). Sometime later, when the holy feast of Eid comes, the Husain family celebrates Eid with Fatima's husband, Abdul Shaikh, and his daughters. He works "shoulder to shoulder" with young Abdul in preparing the slaughtered goat for roasting (Boo, 2014, p. 206).

By contrast, the politicians are proudly intolerant. As mentioned above, the Shiv Sena party is openly opposed to migrants from regions outside Mumbai. Moreover, the nephew of Shiv Sena's founder establishes a new political party that takes this intolerance to a physical level that includes vicious beatings resulting in broken bones, head injuries and people set on fire (Boo, 2014, p. 31-2).

Police intolerance is based on socio-economic factors rather than regional or ethnic considerations. Their beatings encompass victims of all religious and ethnic groups, but specifically target the poor. The motivation is two-fold: The scavengers are an unsightly blemish on the grounds of the beautifully renovated airport and the poor are far more likely to pay the demanded bribes rather than resort to costly lawyers.

VI. Conclusion

As in any society, the people of Annawadi struggle with the temptation to steal, lie or resort to violence to acquire the basic necessities of life and to reach for something a little more. Some fall to the temptation; some choose a life of crime or repeatedly use violence as a tool; some lie to achieve a desired result. Yet, the majority of the community consistently recognizes these behaviors as wrong and condemns them. The children, whose morals and priorities are shaped by their upbringing, somehow manage to outshine their parents in their adherence to a more virtuous life.

The community as a whole exhibits a much deeper moral grounding than the "overcity" officials – police and politicians – who have the power to control their fate. These officials use lies and violence to achieve their aims and show no sign of remorse when they do so.

Annawadi is just one small slum on the outskirts of a big city in India. A study of other slums to determine if the moral code that operates here resembles that of slums in other parts of the world is beyond the scope of this paper Nonetheless, Boo, an investigative journalist who specializes in the plight of the poor, offers this insight:

> In every community, the details differ, and matter. Still, in Annawadi, I was struck by the commonalities with other poor communities in which I've spent time (Boo, 2014, p. 253).

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Differences in Mathematics and Science Achievement by Grade 5 and Grade 8 Student Economic Status: A Multiyear, Statewide Study

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Differences in Mathematics and Science Achievement by Grade 5 and Grade 8 Student Economic Status: A Multiyear, Statewide Study

Pamela Bennett Anderson [α], George W. Moore [σ] & John R. Slate [ρ]

Abstract- **Differences present in average raw scores of Grade 5 and Grade 8 students on the State of Texas Assessment of Academic Readiness (STAAR) Mathematics and Science exams were analyzed with regard to student economic status. Test results were examined for four school years (i.e., 2011-2012 through 2014-2015). Statistically significant results were present for all STAAR Mathematics and Science exams for each year and each grade analyzed. Represented in the analysis were moderate effect sizes (Cohen's d) each year of the study for the Grade 5 STAAR Mathematics scores, Grade 5 STAAR Science scores, Grade 8 STAAR Science scores, and the 2014-2015 Grade 8 exams STAAR Mathematics scores. However, the differences in the Grade 8 STAAR Mathematics scores represented a small effect size for the 2011-2012 through the 2013-2014 years.**

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I. Introduction

The economic future of the United States is dependent on advances in science, technology, engineering, and mathematics (STEM). According to My College Options and STEM Connector (2013), jobs in science and engineering are predicted to increase at more than twice the rate of the overall U.S. labor force by 2018. However, few U.S. workers have backgrounds in STEM (President's Council of Advisors on Science and Technology [PCAST], 2010; Tank, 2014). Therefore, the pursuit of STEM education and careers is encouraged for the United States to remain competitive in a global economy (National Research Council [NRC], 2011).

Numerous research investigations exist (e.g., NRC, 2011; National Science Board, 2014; PCAST, 2010; Tank, 2011) related to the need for a greater emphasis on students mastering complex skills required for the 21st century workforce. Of critical importance is for students to graduate from high school prepared for college-level work so one day they will be able to compete in a global community (Gigliotti, 2012). However, as revealed in the National Assessment of Educational Progress (NAEP) report, many high school graduates lack proficiency in subject-matter knowledge and analytical skills necessary for college-level work (Venezia & Jaeger, 2013). Many students lack proficiency in reading and mathematics, and one half of first-time college students in the United States enrolled in some type of remedial course. More specifically, 42% of all college students needed at least one remedial mathematics course (National Science Board, 2014).

In Texas, the State of Texas Assessment of Academic Readiness (STAAR) tests are administered to students in public schools under state and federal accountability requirements. The STAAR tests replaced the former Texas Assessment of Knowledge and Skills (TAKS) test and were implemented during the 2011-2012 school year. Included in state tests requirements are STAAR Reading and Mathematics tests administered yearly in Grades 3–8, STAAR Science tests administered in Grades 5 and 8, and STAAR Social Studies test administered in Grade 8. The STAAR tests are more rigorous than the TAKS tests and are intended to measure students' college and career readiness, starting as early as Grade 3.

However, aside from accountability measures, a thorough examination of efforts made in K-12 school settings is needed to ensure students have the knowledge and skills necessary to enroll and persist in postsecondary education. For example, STEM instructional techniques should include authentic, real-world connections experienced by learners (Vasquez, 2014). Even though multidisciplinary teaching is recommended by advocates of STEM education, this approach is not widely used in classrooms (Tank, 2014). Moreover, according to Nikischer (2013) and PCAST (2010), interest and achievement gaps in STEM exist among underrepresented students (i.e., Black, Hispanic, girls, students in poverty).

II. The Role of Poverty

The percentage of Americans living in poverty increased from 18% to 22% in the 5-year span from 2008 through 2013 (Potter, 2015). Researchers at the

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Annie E. Casey Foundation (2015) estimated 22% of America children live in poverty. Further, children from states in the south and southwest live in poverty at a higher rate. An estimated 25% of Texas children live in poverty, and 11% in extreme poverty. Twenty-four percent of Hispanic children and 34% of Black children live in poverty in Texas, compared with 11% of White children. Nationally, the percentages of children living in poverty are the same or very close for two groups of children (i.e., Hispanic and White children); however, the percentages of poverty for Black children have increased to 38% (The Annie E. Casey Foundation, 2015).

A noteworthy gap in achievement scores exists based on student socioeconomic status. Students in the highest socioeconomic status entered kindergarten with cognitive scores that were 60% higher than their peers from the lowest socioeconomic groups (Beatty, 2013). These gaps in achievement continued throughout the students' K-12 education.

Gottfried and Williams (2013) performed a long-term study in which they compared students' math club and science club participation to their mathematics and science GPA. The researchers discovered almost all subgroups that participated in after school math or science clubs had higher GPAs, but students who participated in after school clubs and who were categorized as living in poverty did not show any GPA gains. This lack of progress was documented for students living in poverty, regardless of gender or ethnicity/race (Gottfried & Williams, 2013).

Students from economically disadvantaged homes start school with several disadvantages including (a) access to fewer educational resources at home; (b) lack of healthcare and proper nutrition; (c) slower development of language skills, letter recognition, and phonological awareness; and (d) tendency toward more absences (Farmbry, 2014). Further, existing barriers for students who are economically disadvantaged include (a) enrollment in underfunded schools, (b) an absence of educational models, (c) a culture that lacks emphasis on schooling, and (d) an inability to pay for higher education (Gaughan & Bozeman, 2015). Moreover, students who are economically disadvantaged, regardless of gender or ethnicity/race, often lack the same opportunities to enroll in advanced middle school and high school mathematics and science courses than their more affluent peers (Gaughan & Bozeman, 2015; Hill, Corbet, & St. Rose, 2010).

Beyond the obstacles students in poverty experience in school, future employment opportunities in STEM careers for individuals who are economically disadvantaged are inadequate. Gaughan and Bozeman (2015) described the hiring practices of people of poverty into fields of science and engineering as "pitiable," and for "underrepresented minorities who are also poor, working poor, or working class–the picture is bleaker still" (p. 27). In contrast, people who can enter careers as mathematics and science specialists enjoy higher salaries and have better job stability than employees in other fields (Hill et al., 2010).

III. Implications of Early Interest In Stem Careers

Maltese and Tai (2010) interviewed over 100 scientists and graduate students in science and discovered that 65% of those participants indicated that their interest in science began prior to middle school. In a different study, Tai, Liu, Maltese, and Fan (2006) suggested students who indicated an interest in a career in science in Grade 8 were three times more likely to pursue a degree in a science field than students who did not express an interest in science. In another study, Archer et al. (2010) recognized the importance of students aspiring to careers in STEM long before age 14. Indeed, in one study of over 1,000 STEM professionals, 28% of participants responded that they started considering a career in STEM before the age of 11, and 35% of participants started thinking of a STEM career between the ages of 12 and 14 (Archer, et al., 2010; Office for Public Management for the Royal Society, 2006).

IV. Purpose of the Study

The purpose of this study was to ascertain the extent to which differences, if any, were present in the STAAR Mathematics and Science test scores by student economic status. The STAAR Mathematics and Science test scores of Grade 5 students were analyzed to determine the extent to which differences were present between students who were economically disadvantaged and students who were not economically disadvantaged. Additionally, the STAAR Mathematics and Science test scores of Grade 8 students were examined to determine the extent to which differences were present based on student economic status.

V. Significance of this Study

Results from this investigation may be used to add to the existing literature, as no studies have been conducted in this area using the new STAAR assessments. Additionally, considerations regarding when STEM curriculum, instruction, and assessment are introduced to students might be influenced by the results of this study. Finally, school administrators, teachers, legislators, and organizations that contribute funds to expand STEM opportunities for students could use the findings of this study when they are envisioning policies and making decisions with respect to STEM education.

VI. Research Questions

The following research questions were addressed in this investigation: (a) What is the difference in Grade 5 STAAR Mathematics test performance as a function of student economic status (i.e., economically disadvantaged, not economically disadvantaged)?; (b) What is the difference in Grade 5 STAAR Science test performance as a function of student economic status (i.e., economically disadvantaged, not economically disadvantaged)?; (c) What is the difference in Grade 8 STAAR Mathematics test performance as a function of student economic status (i.e., economically disadvantaged, not economically disadvantaged)?; (d) What is the difference in Grade 8 STAAR Science test as a function of student economic status (i.e., economically disadvantaged, not economically disadvantaged)?; (e) What trend, if any, is present for Grade 5 the STAAR Mathematics test performance as a function of student economic status (i.e., economically disadvantaged, not economically disadvantaged) for the 2011-2012 through the 2014-2015 school years?; (f) What trend, if any, is present for Grade 5 STAAR Science test performance as a function of student economic status(i.e., economically disadvantaged, not economically disadvantaged) for the 2011-2012 through the 2014-2015 school years?; (g) What trend, if any, is present for Grade 8 STAAR Mathematics test performance as a function of student economic status (i.e., economically disadvantaged, not economically disadvantaged) for the 2011-2012 through the 2014-2015 school years?; and (h) What trend, if any, is present for Grade 8 STAAR Science test performance as a function of student economic status (i.e., economically disadvantaged, not economically disadvantaged) for the 2011-2012 through the 2014-2015 school years? The first four research questions were examined for four school years of data (i.e., 2011-2012, 2012-2013, 2013-2014, and 2014-2015), whereas the last four questions constituted trend questions across the four school years of data. Thus, 20 research questions are present in this research study.

VII. Method

a) Research Design

For this study an ex-post facto, non-experimental, causal-comparative research design was used (Creswell, 2009). No manipulation of the independent variable can occur due to the ex-post facto nature of the study. Archived datasets for the spring STAAR Mathematics and Sciences tests from the Texas Education Agency for the 2011-2012 through the 2014-2015 school years were obtained and examined. The independent variable in this study was student economic status. Economic disadvantaged refers to student status based on eligibility for free or reduced-price lunches as outlined in the National School Lunch program (Texas Department of Agriculture, n.d.). The dependent variables for this research study were the STAAR Mathematics and Science test scores for Grade 5 students and Grade 8 students for each of the 2011-2012 through the 2014-2015 school years.

b) Participants and Instrumentation

Grade 5 students and Grade 8 students enrolled in Texas public school were the participants in this study. Datasets were obtained from the Texas Education Agency Public Education Information Management System for the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 school years. A Public Information Request form was sent to the Texas Education Agency to obtain these data. Specifically requested were data on (a) student economic status, (b) STAAR Mathematics test scores, and (d) STAAR Science test scores. Specifically, datasets were used to examine the degree to which differences were present on the STAAR Mathematics and Science tests by student economic status.

Raw scores on the Grade 5 and Grade 8 STAAR Mathematics and Science exams were analyzed in this investigation. Field (2009) reiterated that the measurement error be kept as low as possible via analysis of reliability and validity. Score reliability is the degree that a measurement tool yields stable and consistent results, and is therefore a fundamental in an assessment tool. Score validity refers to how well a test measures what it is professed to measure. According to the Texas Education Agency (2015), "reliability for the STAAR test score was estimated using statistical measures such as internal consistency, classical standard error of measurement, conditional standard error of measurement, and classification accuracy" (p. 113). The Texas Education Agency adheres to national standards of best practice and collects validity confirmation each year of the STAAR test scores.

VIII. Results

Prior to conducting inferential statistics to determine whether differences were present in the STAAR Mathematics and STAAR Science test scores between students who were economically disadvantaged and students who were not economically disadvantaged, checks were conducted to determine the extent to which these data were normally distributed (Onwuegbuzie & Daniel, 2002). Although some of the data were not normally distributed, a decision was made to use parametric independent samples *t*-tests to answer the research questions. Field (2009) contends that a parametric independent samples *t*-test is sufficiently robust that it can withstand this particular violation of its underlying assumptions. Statistical results will now be presented by academic subject area.

Research Question 1

For the 2011-2012 school year for Grade 5 students, the parametric independent samples *t*-test revealed a statistically significant difference in the STAAR Mathematics test scores by student economic status, $t(299126.40) = 177.76$, $p < .001$. This difference represented a moderate effect size (Cohen's *d*) of 0.60 (Cohen, 1988). Grade 5 students in poverty had an average STAAR Mathematics test score that was more than 6 points lower than their peers who were not economically disadvantaged. Readers are directed to Table 1 for the descriptive statistics for this analysis.

Table 1: Descriptive Statistics on the Grade 5 STAAR Mathematics Scores by Student Economic Status for the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Economic Status	*n*	*M*	*SD*
2011-2012			
Economically Disadvantaged	232,896	30.43	10.10
Not Economically Disadvantaged	141,085	36.47	10.04
2012-2013			
Economically Disadvantaged	230,798	30.59	10.60
Not Economically Disadvantaged	141,925	36.85	10.32
2013-2014			
Economically Disadvantaged	234,146	31.57	10.40
Not Economically Disadvantaged	145,212	37.45	9.96
2014-2015			
Economically Disadvantaged	230,800	28.36	10.55
Not Economically Disadvantaged	150,602	35.04	10.22

Regarding the 2012-2013 school year for Grade 5 students, the parametric independent samples *t*-test revealed a statistically significant difference in the STAAR Mathematics test scores by student economic status, $t(306441.87) = 177.98$, $p < .001$. This difference represented a moderate Cohen's *d* effect size of 0.60 (Cohen, 1988). Grade 5 students in poverty had an average STAAR Mathematics test score that was more than 6 points lower than their peers who were not economically disadvantaged. Included in Table 1 are the descriptive statistics for this analysis.

Concerning the 2013-2014 school year for Grade 5 students, the parametric independent samples *t*-test revealed a statistically significant difference in the STAAR Mathematics test scores by student economic status, $t(317881.83) = 173.66$, $p < .001$. This difference represented a moderate Cohen's *d* effect size of 0.58 (Cohen, 1988). Grade 5 students in poverty had an average STAAR Mathematics test score that was almost 6 points lower than their peers who were not economically disadvantaged. The descriptive statistics for this analysis are provided in Table 1.

For the 2014-2015 school year for Grade 5 students, a statistically significant difference was revealed in the STAAR Mathematics test scores by student economic status, $t(329043.68) = 195.02$, $p < .001$. This difference represented a moderate effect size (Cohen's *d*) of 0.64 (Cohen, 1988). Grade 5 students in poverty had an average STAAR Mathematics test score that was almost 7 points lower than their peers who were not economically disadvantaged. Descriptive statistics for this analysis are presented in Table 1.

Research Question 2

With respect to the 2011-2012 school year for Grade 5 students, the parametric independent samples *t*-test revealed a statistically significant difference in the STAAR Science test scores by student economic status, $t(320251.25) = 200.40$, $p < .001$. This difference represented a moderate effect size (Cohen's *d*) of 0.67 (Cohen, 1988). Grade 5 students in poverty had an average STAAR Science test score that was almost 5 points lower than their peers who were not economically disadvantaged. Included in Table 2 are the descriptive statistics for this analysis.

Table 2: Descriptive Statistics on the Grade 5 STAAR Science Scores by Student Economic Status for the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Economic Status	*n*	*M*	*SD*
2011-2012			
Economically Disadvantaged	233,096	30.09	7.53
Not Economically Disadvantaged	140,745	34.88	6.80
2012-2013			
Economically Disadvantaged	230,868	27.54	7.67
Not Economically Disadvantaged	141,550	33.29	7.22

2013-2014			
Economically Disadvantaged	233,821	27.88	7.91
Not Economically Disadvantaged	145,371	33.03	7.15
2014-2015			
Economically Disadvantaged	235,318	27.21	8.19
Not Economically Disadvantaged	153,918	32.60	7.66

Concerning the 2012-2013 school year for Grade 5 students, a statistically significant difference was revealed in the STAAR Science test scores by student economic status, $t(313342.45) = 204.35$, $p < .001$. This difference represented a moderate Cohen's d effect size of 0.68 (Cohen, 1988). Grade 5 students in poverty had an average STAAR Science test score that was more than 5 points lower than their peers who were not economically disadvantaged. The descriptive statistics for this analysis are provided in Table 2.

For the 2013-2014 school year for Grade 5 students, a statistically significant difference was yielded in the STAAR Science test scores by student economic status, $t(331415.55) = 206.92$, $p < .001$. This difference represented a Cohen's d of 0.68, a moderate effect size (Cohen, 1988). Grade 5 students in poverty had an average STAAR Science test score that was more than 5 points lower than their peers who were not economically disadvantaged. Readers are directed to Table 2 for the descriptive statistics related to this analysis.

Regarding the 2014-2015 school year for Grade 5 students, a statistically significant difference was revealed in the STAAR Science test scores by student economic status, $t(344412.34) = 208.86$, $p < .001$. This difference represented a moderate effect size (Cohen's d) of 0.68 (Cohen, 1988). Grade 5 students in poverty had an average STAAR Science test score that was more than 5 points lower than their peers who were not economically disadvantaged. Descriptive statistics related to this analysis are provided in Table 2.

Research Question 3

Concerning the 2011-2012 school year for Grade 8 students, the parametric independent samples t-test revealed a statistically significant difference in the STAAR Mathematics test scores by student economic status, $t(271480.68) = 186.95$, $p < .001$. This difference represented a moderate Cohen's d effect size of 0.67 (Cohen, 1988). Grade 8 students in poverty had an average STAAR Mathematics test score that was more than 7 points lower than their peers who were not economically disadvantaged. Revealed in Table 3 are the descriptive statistics for this analysis.

Table 3: Descriptive Statistics on the Grade 8 STAAR Mathematics Scores by Student Economic Status for the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Economic Status	*n*	*M*	*SD*
2011-2012			
Economically Disadvantaged	194,864	27.02	10.24
Not Economically Disadvantaged	133,783	34.18	11.13
2012-2013			
Economically Disadvantaged	186,578	27.54	9.92
Not Economically Disadvantaged	116,307	33.29	10.71
2013-2014			
Economically Disadvantaged	190,056	28.56	10.55
Not Economically Disadvantaged	127,749	35.21	11.12
2014-2015			
Economically Disadvantaged	197,900	28.20	9.97
Not Economically Disadvantaged	128,658	33.97	10.56

For the 2012-2013 school year for Grade 8 students, a statistically significant difference was yielded in the STAAR Mathematics test scores by student economic status, $t(232486.03) = 147.88$, $p < .001$. This difference represented a moderate effect size (Cohen's d) of 0.56 (Cohen, 1988). Grade 8 students in poverty had an average STAAR Mathematics test score that was over 5 points lower than their peers who were not economically disadvantaged. The descriptive statistics for this analysis are provided in Table 3.

Regarding the 2013-2014 school year for Grade 8 students, a statistically significant difference was present in the STAAR Mathematics test scores by student economic status, $t(262627.24) = 169.70$, $p < .001$. This difference represented a Cohen's d of 0.61, a moderate effect size (Cohen, 1988). Grade 8 students in poverty had an average STAAR Mathematics test score that was over 6 points lower than their peers who were not economically disadvantaged. Presented in Table 3 are the descriptive statistics for this analysis.

Concerning the 2014-2015 school year for Grade 8 students, a statistically significant difference was yielded in the STAAR Mathematics test scores by student economic status, $t(263455.66) = 156.04$, $p <$

.001. This difference represented a moderate effect size (Cohen's *d*) of 0.56 (Cohen, 1988). Grade 8 students in poverty had an average STAAR Mathematics test score that was almost 6 points lower than their peers who were not economically disadvantaged. The descriptive statistics for this analysis are provided in Table 3.

Research Question 4

For the 2011-2012 school year for Grade 8 students, the parametric independent samples *t*-test revealed a statistically significant difference in the STAAR Science test scores by student economic status, $t(321213.02) = 201.47$, $p < .001$. This difference represented a moderate Cohen's *d* effect size of 0.68 (Cohen, 1988). Grade 8 students in poverty had an average STAAR Science test score that was almost 7 points lower than their peers who were not economically disadvantaged. Readers are directed to Table 4 for the descriptive statistics for this analysis.

Table 4: Descriptive Statistics on the Grade 8 STAAR Science Scores by Student Economic Status for the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and Economic Status	*n*	*M*	*SD*
2011-2012			
Economically Disadvantaged	206,532	30.18	9.60
Not Economically Disadvantaged	149,950	36.78	9.69
2012-2013			
Economically Disadvantaged	210,494	30.94	9.73
Not Economically Disadvantaged	152,301	37.49	9.82
2013-2014			
Economically Disadvantaged	217,768	31.78	10.53
Not Economically Disadvantaged	157,641	38.72	10.33
2014-2015			
Economically Disadvantaged	225,242	31.92	10.64
Not Economically Disadvantaged	166,501	38.11	10.80

Regarding the 2012-2013 school year for Grade 8 students, a statistically significant difference was yielded in the STAAR Science test scores by student economic status, $t(326231.18) = 199.29$, $p < .001$. This difference represented a moderate effect size (Cohen's *d*) of 0.67 (Cohen, 1988). Grade 8 students in poverty had an average STAAR Science test score that was almost 7 points lower than their peers who were not economically disadvantaged. Revealed in Table 4 are the descriptive statistics for this analysis.

Concerning the 2013-2014 school year for Grade 8 students, a statistically significant difference was present in the STAAR Science test scores by student economic status, $t(343406.26) = 201.67$, $p < .001$. This difference represented a moderate effect size (Cohen's *d*) of 0.67 (Cohen, 1988). Grade 8 students in poverty had an average STAAR Science test score that was almost 7 points lower than their peers who were not economically disadvantaged. Readers are directed to Table 4 for the descriptive statistics for this analysis.

For the 2014-2015 school year for Grade 8 students, the parametric independent samples *t*-test revealed a statistically significant difference in the STAAR Science test scores by student economic status, $t(355685.02) = 178.60$, $p < .001$. This difference represented a Cohen's *d* of 0.58, a moderate effect size (Cohen, 1988). Grade 8 students in poverty had an average STAAR Science test score that was over 6 points lower than their peers who were not economically disadvantaged. The descriptive statistics for this analysis are provided in Table 4.

Research Question 5

For the 2011-2012 through the 2014-2015 school years, the STAAR Mathematics scores of Grade 5 students by economic status (i.e., economically disadvantaged and not economically disadvantaged) were analyzed. Statistically significant differences by student economic status were present in all four school years. Figure 1 is a representation of student performance by economic status for the 2011-2012 through the 2014-2015 school years. Students who were economically disadvantaged as well as students who were not poor had improved test performance from the 2011-2012 through the 2013-2014 school years. Of note was that the average test scores for both groups of students were the lowest in the 2014-2015 school year. Students who were not poor had higher average test scores than did students who were poor in all four school years.

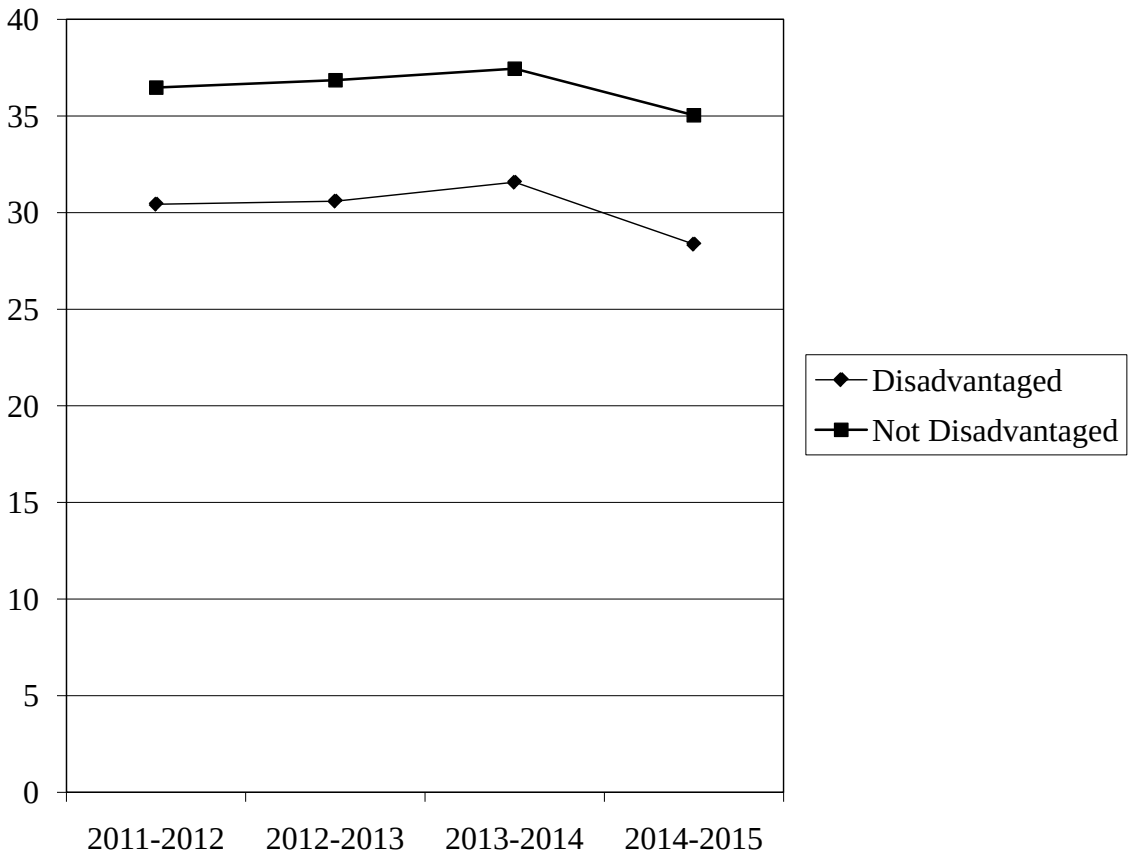

Figure 1: Average raw scores by student economic status for the Grade 5 State of Texas Assessment of Academic Readiness Mathematics test for the 2011-2012 through the 2014-2015 school years.

Research Question 6

For the 2011-2012 through the 2014-2015 school years, the STAAR Science scores of Grade 5 students by economic status (i.e., economically disadvantaged and not economically disadvantaged) were analyzed. Statistically significant results were revealed for all four school years. Represented in Figure 2 are the average test scores by economic status for these four school years. Students who were poor as well as students who were not poor had lower test performance from the 2011-2012 through the 2014-2015 school years, with the exception of the 2013-2014 school year. In that school year, students who were not economically disadvantaged had an average test score that was only 0.03 points higher than the previous school year. Students who were not poor had better performance in all four school years than did their peers who were economically disadvantaged.

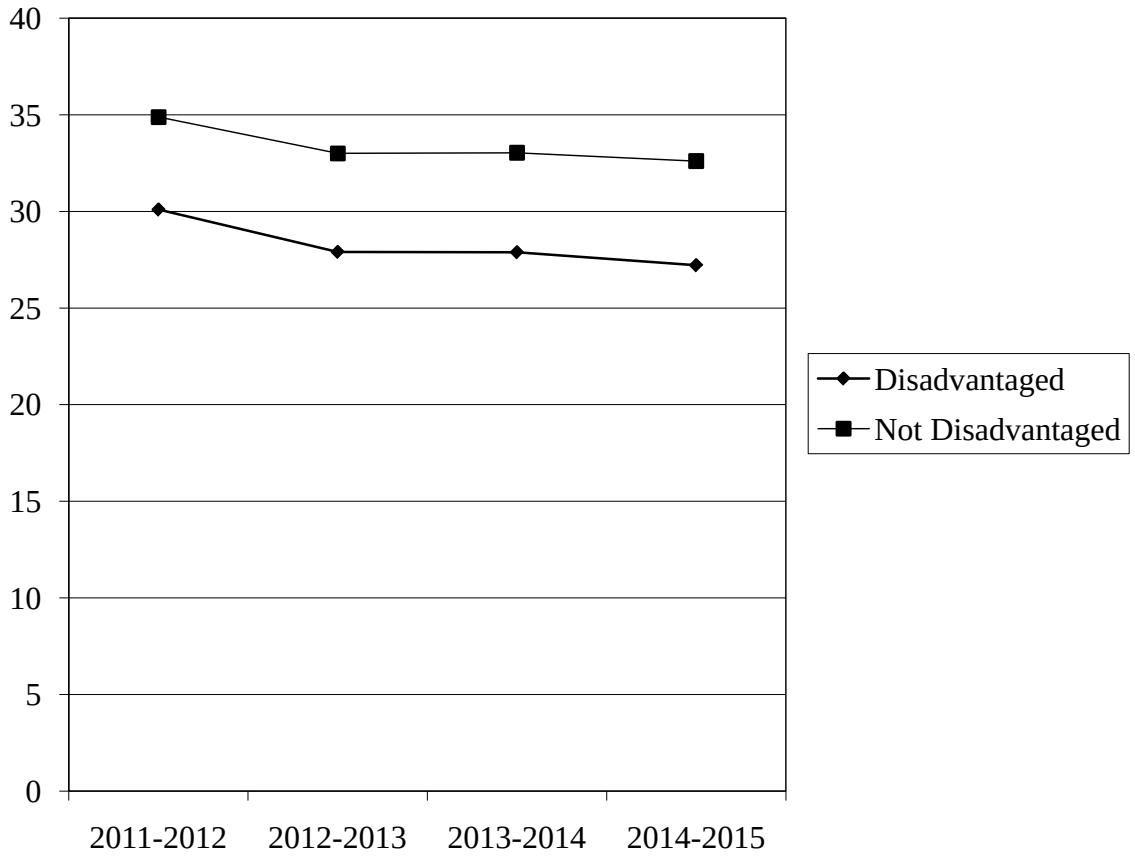

Figure 2: Average raw scores by student economic status for the Grade 5 State of Texas Assessment of Academic Readiness Science test for the 2011-2012 through the 2014-2015 school years

Research Question 7

For the 2011-2012 through the 2014-2015 school years, the STAAR Mathematics scores of Grade 8 students by economic status (i.e., economically disadvantaged and not economically disadvantaged) were analyzed. Statistically significant differences were yielded in each of the four school years. Figure 3 is a representation of student achievement by economic status. Average test scores during the 2012-2013 school year were lower than the scores in the 2011-2012 school year for students of economic advantage; however, test scores were slightly higher for students of economic disadvantage. An increase in the average test scores was present for both groups in the 2013-2014 school year, and a decrease for both groups was present in the 2014-2015 school year. The average test score difference between the two student groups varied each year, with students who were economically disadvantaged scoring lower than students who were not economically disadvantaged in the 2011-2012 through 2014-2015 school years.

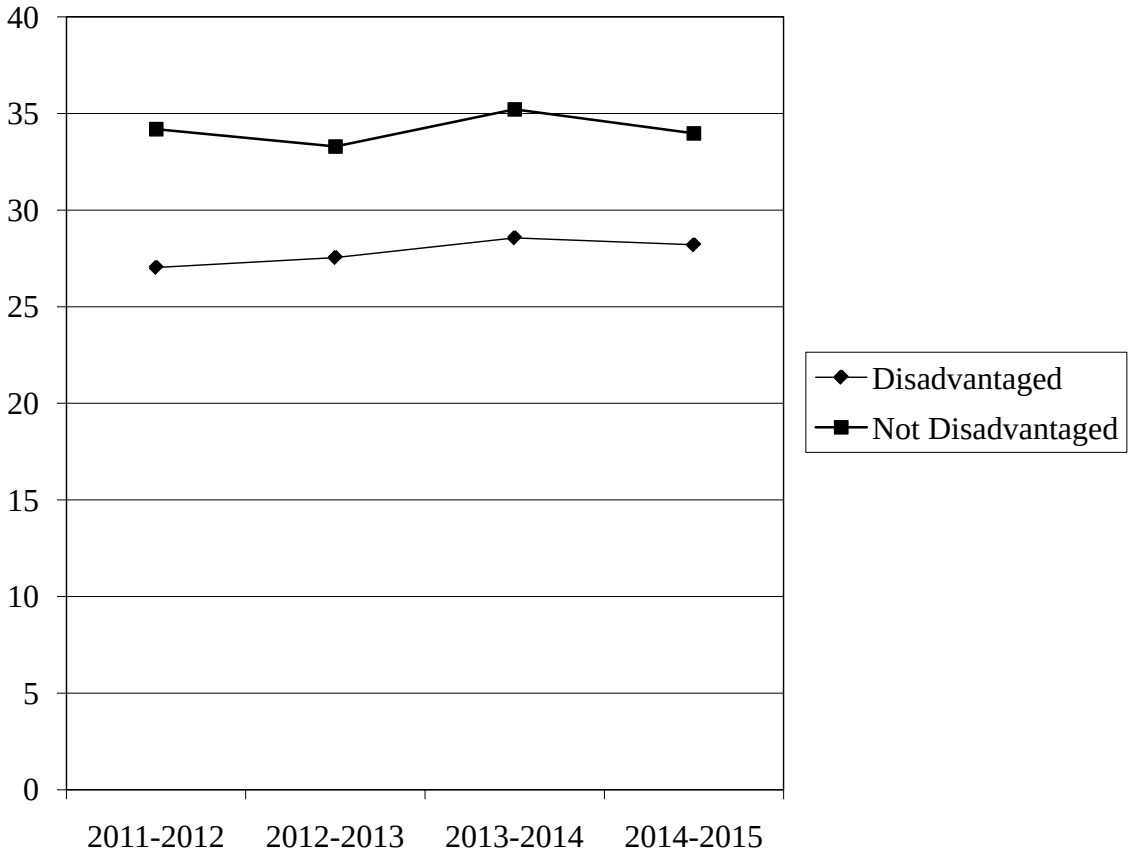

Figure 3: Average raw scores by student economic status for the Grade 8 State of Texas Assessment of Academic Readiness Mathematics test for the 2011-2012 through the 2014-2015 school years.

Research Question 8

For the 2011-2012 through the 2014-2015 school years, differences in the STAAR Science scores of Grade 8 students by economic status (i.e., economically disadvantaged and not economically disadvantaged) were analyzed. Of the four school years investigated, all years had statistically significant results. Figure 4 is a representation of test performance by economic status. Students who were economically disadvantaged and students who were not economically disadvantaged had slightly improved average scores each year from the 2011-2012 through the 2014-2015 school years, except for the 2014-2015 school year. In that school year, students who were not economically disadvantaged attained an average score slightly lower than the average score in the 2013-2014 school year. Students who were not economically disadvantaged outscored students who were economically disadvantaged in every year of the study.

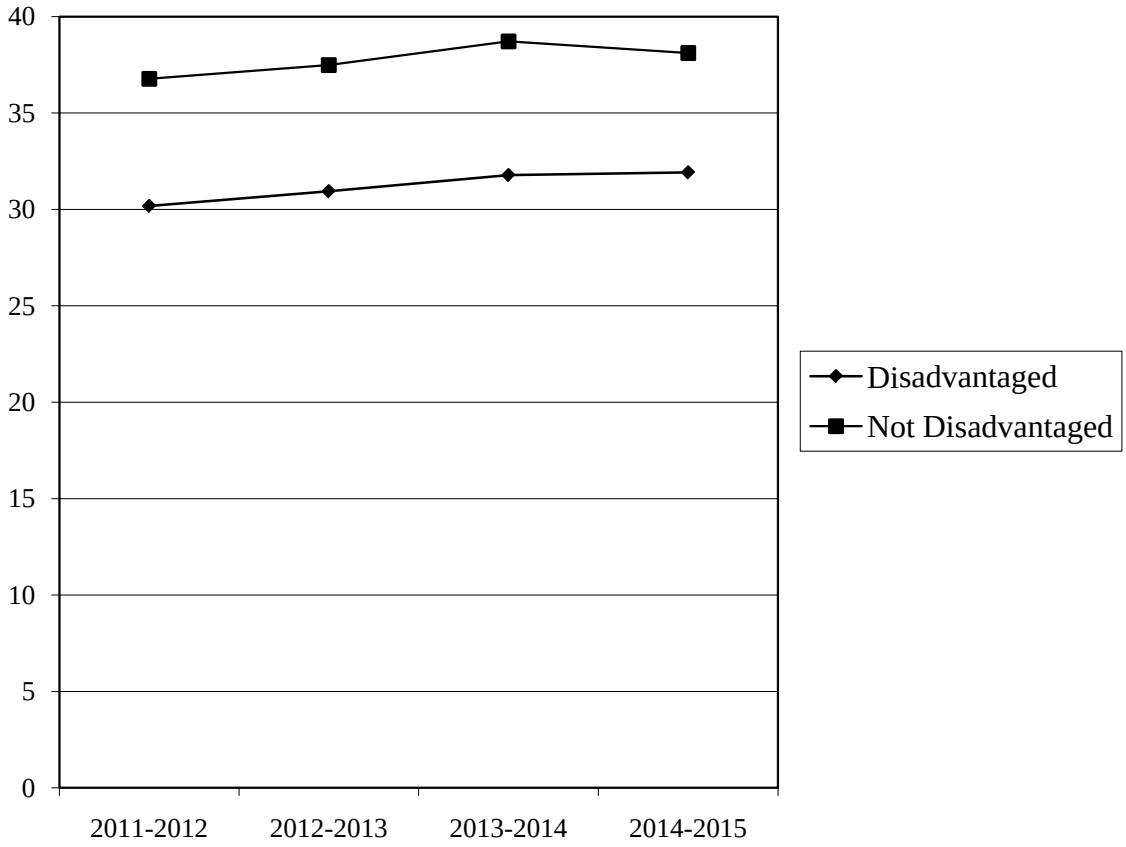

Figure 4: Average raw scores by student economic status for the Grade 8 State of Texas Assessment of Academic Readiness Science test for the 2011-2012 through the 2014-2015 school years.

IX. Discussion

The purpose of this study was to determine the degree to which STAAR Mathematics and Science test scores for Grade 5 students and Grade 8 students differed as a function of economic status (i.e., economically disadvantaged, not economically disadvantaged). To determine if differences existed in STAAR Mathematics and Science test scores related to student economic disadvantage, independent samples *t*-tests were used. Four years of Texas, statewide individual level student data were obtained and analyzed for this investigation.

Regarding the STAAR Mathematics Scores for Grade 5, students who were economically disadvantaged had lower average scores than students who were not economically disadvantaged during all four years of the study. Average score differences ranged from 5.88 to 6.69 points. The largest average difference between students who were economically disadvantaged and students who were not economically disadvantaged was in the 2014-2015 school year.

Students in Grade 5 who were economically disadvantaged had lower average scores than students who were not economically disadvantaged on the STAAR Science Scores each year of the study. Students who were not economically disadvantaged outscored students who were economically disadvantaged by between 4.79 and 5.39 points. As evidenced in the Grade 5 STAAR Mathematics Scores results, the gap by economic status in average scores was the largest in the 2014-2015 school year.

Regarding the Grade 8 STAAR Mathematics exam, students who were economically disadvantaged had lower average scores than students who were not disadvantaged for all four years of the study (i.e., 2011-2012, 2012-2013, 2013-2014, and 2014-2015). The average score difference based on economic status was between between 5.74 and 7.15 points. Furthermore, the largest achievement gap between student groups was in the 2011-2012 school year with a difference of 7.15 average points.

Regarding the Grade 8 STAAR Science exam, students who were economically disadvantaged had average scores that were lower than students who were not economically disadvantaged all four years of the study. The average difference each year of the study ranged from 6.20 and 6.95 points. The largest average difference in test scores occurred in the 2012-2014 school year.

a) Connections with Existing Literature

As a result of this study, the existing student poverty research (Beatty, 2013; Farmbry, 2014; Gotfried & Williams, 2013) is reinforced. The average scores of students who were economically disadvantaged were always lower than their more affluent counterparts by several points for Grade 5 Mathematics and Science exams. Additionally, Grade 8 students who were economically disadvantaged had average scores that were several points lower than students who were not economically disadvantaged in both STAAR Mathematics and Science tests for all years of the study.

b) Implications for Policy and Practice

In this multiyear analysis of average raw scores of Grade 5 and Grade 8 STAAR Mathematics and Science exams, students who were economically disadvantaged outscored students who were not economically disadvantaged by several points on almost every exam. Educational policymakers should consider new strategies for improving STEM instruction and assessment. Currently, test results from assessments such as the STAAR Mathematics and STAAR Science exams are referenced by researchers as if they are a true reflection of what is learned in the science and mathematics classroom. In reality, the STAAR exams measure merely a small portion of what is taught; and, the multiple choice format is too restrictive to give a more accurate reflection of the critical thinking skills required of students today.

c) Recommendations for Educational Leaders

Policymakers are encouraged to write and fund a state level STEM curriculum that includes project-based, hands-on learning that simulates real world experiences. School and district leaders are encouraged to advocate for multidisciplinary lessons that include many opportunities for students to engage in real-life problem solving skills for all students. Similarly, educational leaders should consider assessments that measure critical thinking skills, rather than rote memorization. Additionally, school leaders should encourage students who are economically disadvantaged to participate in challenging STEM programs both during school, and outside of normal school hours.

d) Recommendations for Future Research

In this study, the STAAR Mathematics and STAAR Science test scores were analyzed by student economic status for Grade 5 students and Grade 8 students for the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 school years. Results were consistent throughout each year of study for most tests, with students who were not economically disadvantaged outscoring students who were economically disadvantaged by several points. Researchers may wish to continue measuring the differences in test scores based on economic status to determine if the achievement gap will close in future assessment years. Analyzed in this study were data for the Grade 5 and Grade 8 STAAR Mathematics and Science test scores of Texas public school students. Researchers are encouraged to analyze student cademic achievement at other grade levels, such as Grade 3 which is the first year in which Texas school students are administered the statewide mandated assessment, as well as high school students who are required to take End-of-Course exams. Researchers are encouraged to extend this empirical investigation to other states to ascertain the degree to which results delineated herein are generalizable.

X. Conclusion

The purpose of this research study was to examine the extent to which differences existed in STAAR Mathematics and STAAR Science scores for Grade 5 and Grade 8 students. Data were analyzed for four years of data (i.e., the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 school years). Statistically significant differences were present in both tests for all four years of data. During each year of data, students who were economically disadvantaged consistently had lower average test scores than students who were not economically disadvantaged. This study is important to STEM learning because the achievement gap between students who are economically disadvantaged and students who are not economically disadvantaged still exists 50 years after President Lyndon Johnson declared a War on Poverty, and more attention to curriculum, instruction, and assessment designed to promote higher achievement in STEM area is warranted.

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The Right to Access to Justice: Assessing Enforcement of Legal Guarantees in Ethiopian Somali Regional State (Case Study)

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Abstract- The right to access to justice is one of core human rights that is fundamental to ensure full protection of human rights. The right is recognized in almost all international and regional human rights treaties; including those Ethiopia is member. The Federal Democratic Republic of Ethiopia Constitution also clearly recognized the right. Among others, the right imposes upon States the obligation to set up all appropriate legal and institutional frameworks that address claims of violations of rights. Specifically, States have the obligation to adopt appropriate legislations; put in place competent judicial and quasi-judicial organs; ensure accessibility and effective functioning of those organs; and guarantee fair trial rights in proceedings. As a State party to different international and regional human rights treaties, and to fulfill the Constitutional pledge, Ethiopia has the obligation to ensure that the right to access to justice is fully protected and fulfilled throughout the nation.

Keywords: access to justice, ethiopian somali regional state, ethiopian justice system.

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The Right to Access to Justice: Assessing Enforcement of Legal Guarantees in Ethiopian Somali Regional State (Case Study)

Marishet Mohammed Hamza (Llm) [α], Melaku Gezahegn [σ] & Fikre Tinsae Berhane (Llm) [ρ]

Abstract- The right to access to justice is one of core human rights that is fundamental to ensure full protection of human rights. The right is recognized in almost all international and regional human rights treaties; including those Ethiopia is member. The Federal Democratic Republic of Ethiopia Constitution also clearly recognized the right. Among others, the right imposes upon States the obligation to set up all appropriate legal and institutional frameworks that address claims of violations of rights. Specifically, States have the obligation to adopt appropriate legislations; put in place competent judicial and quasi-judicial organs; ensure accessibility and effective functioning of those organs; and guarantee fair trial rights in proceedings. As a State party to different international and regional human rights treaties, and to fulfill the Constitutional pledge, Ethiopia has the obligation to ensure that the right to access to justice is fully protected and fulfilled throughout the nation. Of course, the country took policy, legislative and administrative measures to this effect. Nonetheless, variety of challenges still persists in different parts of the country. This research has critically examined impediments to ensure the right to access to justice in one of administrative states of Ethiopia; namely, selected districts of Ethiopian Somali Region. The research, however, is limited to exploring the practical enforcement of legal guarantees that are set to fulfill the right to access to justice in the formal judicial process. Data collected through interview of appropriate personnel in judicial branch are analyzed and triangulated one collected (through semi-structured questionnaires) from clients and customers of courts. Additional primary sources (like cases and legislations) and secondary sources (including literatures and reports) were also used. The research found out that: physical inaccessibility of judicial organs: legislative gaps (particularly, in relation with adjudicating family matters vis-à-vis religious and cultural issues); language barriers (related to translation to local language of major legislations adopted at the Federal level); jurisdictional obscurity (between regular courts and Sharia courts); incompetence of some of judicial officers; poor infrastructure at judicial organs; poor information and data management system; weak public legal awareness mechanism; inefficient case disposition; challenges related to ensuring fair trial guarantees are the major factors that are impeding the protection and enforcement of the right to access to justice in Ethiopian Somali Regional State. These problems need urgent attention by all concerned stakeholders, particularly by the Judicial and Justice Bureaus of the region. Unless, it is practically impossible to meet national and regional Growth and Transformation Plans (GTPs) related to ensuring full and effective enforcement of the right to access to justice.

Keywords: access to justice, ethiopian somali regional state, ethiopian justice system.

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I. Introduction

Most international and regional human rights treaties set general requirement that States parties provide effective remedies to individuals whose rights have been violated. This basically entails the obligation to set up legal frameworks and appropriate judicial and administrative mechanisms to address claims for violations of rights.[1] The mechanisms so established shall also function in accordance with sanctioned legal principles and procedures that safeguard protection of individual rights in the administration of justice.[2]

Constitution of the Federal Democratic Republic of Ethiopia (FDRE Constitution)[3] also guarantees the right to access to justice. Accordingly, any justiciable matter can be brought before a competent, independent and impartial tribunal established by law.[4] This protection is fundamental in telling the general legal obligation undertaken by the country under various international and regional human rights covenants to which it is party.[5] In addition, there are policy, legislative and administrative measures that have been implemented since the promulgation of FDRE Constitution.

[1] UN Human Rights Committee, General Comment No. 31, "The Nature of the General Legal Obligation Imposed on States Parties to the Covenant", CCPR/C/21/Rev.1/Add. 13, Adopted on 29 March 2004, para.15
[2] Sepulveda M, Van Banning T. et al, "Universal and Regional Human Rights Protection: Cases and Commentaries", 2004, p.478
[3] Constitution of the Federal Democratic Republic of Ethiopian, Federal Negarit Gazeta, 1st year, No.1, 1995.
[4] Id, Article 37 (1), 78 and 79
[5] As Article (94) of the Constitution provides, International agreements (including international and regional human rights treaties) are an integral part of the law of the land and, among others, the government has the obligation to protect, respect and fulfill the rights in line with the Constitutional and international standards (Article 13(2) of the Constitution)

Nonetheless, there are varying challenges at federal and regional level that impact upon the right to access to justice. One can easily figure out some of the challenges from the recently issued Ethiopian National Human Rights Action Plans which listed out major impediments affecting efforts to protect, respect and fulfilling the right to access to justice.[6] These includes: inaccessibility and irresponsiveness of the justice system to the needs of the poor; low professional competence of judges and court staff, lack of initial and continuous training of judges and staff, limited independence of judges, lack of systems for holding judges accountable for misconduct, poor systems for case management and other aspects of court management, limited access by courts to legal information, limited access of the public to court judgments and court information, little knowledge of the justice system by the general public, little access of the public to justice and, hence, very limited confidence of the general public in courts and other institutions of administration of justice.

As one of the regional states in Ethiopia and, more particularly, given the fact that Ethiopian Somali Regional State (ESRS) is among the least developed regional states in the country, the judicial system in the region may not be immune from challenges and limitations attached with the right to access to justice. But, as the ESRS GTP I[7] three years progress assessment report indicated, lack of empirical research on the challenges in the context of ESRS remains one of the factors holding back efforts aimed at ensuring access to justice in the region. It is with this background that this research has been undertaken. Basically, the research has assessed the practice on the ground in light of international laws Ethiopia has adopted, federal legislations applicable throughout the country and all appropriate (regional) legislations in ESRS.

As an empirical (socio-legal) research, mixtures of qualitative and quantitative approaches are used in this research. Qualitative approach is applied to explore, identify and examine basic/root causes that impede the enforcement of the right to access to justice in the research area. Accordingly, interview based survey of judicial organs administrators, and other selected stakeholders such as, judges and other staffs of courts, courts' clients such as, lawyers were held. Quantitative approach was employed to capture variables which are quantifiable such as, case management of courts, personnel and resource capacity of judicial organs, enforcement of substantive and procedural standards in judicial administration, etc.

II. Description of the Study Area

Ethiopian Somali Regional State (ESRS) is one of the nine regional states constituting the Federal Democratic Republic of Ethiopia. The region has a very large size ranking second - next to the State of Oromia.[8] The State is located in the eastern and south eastern part of Ethiopia sharing boundaries with Afar and the Republic of Djibouti in the north, Kenya in the south, regional state of Oromia in the west and Somalia in the east and in the South. At the time of doing this research, there are 9 administrative zones and 49 woredas in the region. Among these, this research focuses on Fafan, Siti, Nogob and Jarar Zones.

Geographically, the four zones totally share at least one third of the regions total land mass. Similarly, among 49 woredas in the region, 24 (i.e., almost 49%) are within the four zones. Specifically, there are 7 woredas under Fafan Zone, 6 under Sitti Zone, 7 under Nogob Zone and 4 under Jarar Zone.

In terms of population, according to the official 2007 Population and Housing Census of Ethiopia - Statistical Report for Somali Region, out of an estimated 4,445,219 population of the region, almost half, i.e., 2,251,315 live in the four zones; Fafan Zone 967,652, Sitti Zone 457,086, Nogob Zone 348, 409 and Jarar Zone 478, 168.[9]

III. Conceptual Framework

a) The Right to Access to Justice under International Human Rights Law

Most often, among the measures states are required to take and which are considered to be essential for realizing human rights is 'the provision of judicial remedies or other effective remedies with respect to right(s) violated'. For Instance, Article 2 paragraph 3 (a) and (b) of the International Covenant on Civil and Political Rights (ICCPR) provides that:

[Each State Party to the Covenant undertakes]

a. To ensure that any person whose rights or freedoms … are violated shall have an effective remedy … [and]
b. To ensure that any person claiming such a remedy shall have his right thereto determined by competent judicial, administrative or legislative ahorities, or by any other competent authority provided for by the legal system of the State, and to develop the possibilities of judicial remedy"[10]

[6] Federal Democratic Republic of Ethiopia National Human Rights Action Plan (2013-2015), 2013, p.36

[7] Ethiopian Somali Regional State Bureau of Finance and Economic Development, "Progress Towards GTP Targets: Assessing Development Gaps in Somali Regional State of Ethiopia", 2013

[8] Ethiopian Government Portal, [Available at: www.ethiopia.gov.et, last visited on: 27 July 2016]

[9] The 2007 Population and Housing Census of Ethiopia: Statistical Report for Somali Region

[10] Almost similar legal protections are stipulated under different other international and regional human rights instrument. For instance, Article 2 of the International Covenant on Economic, Social and Cultural Rights (ICESCR); Articles 3, 4 and 6 of the International Convention for the Protection of All Persons from Enforced

As the UN Human Rights Committee (i.e., committee that monitors the enforcement of ICCPR) explained, the provision above impose obligation on States to ensure the availability of accessible and effective remedies to vindicate rights violations – possibly judicial remedy.[11] Thus, for rights to have meaning the availability of effective remedies which redress violations is must. This general obligation imposed upon states is corollary human right of individuals ensuring that any individual who claims his right(s) are violated can have his right determined and obtain remedy by competent authority in the legal system of the state.

The other normative standard that often serves as foundation to make out the right to access to justice is individual's right to fair trial. Among others, the right to fair trial sets out:

- The right to take proceedings before a court, be brought before a judge or other officers authorized by law to exercise judicial power;
- The right to be tried by a competent, independent and impartial tribunal established by law;
- The right to equality before courts or other pertinent tribunals;
- The right to a public trial with all the guarantees necessary for defense; and
- The right to have legal assistance (without payment) where the interest of justice so require and where the accused do not afford the payment for assistance.[12]

While the general obligation of States to make available and accessible organs that remedy violation of rights is basically concerned with substantive element of the right to access to justice, the list of guarantees under the right to fair trial on the other hand provide both substantive and procedural guarantees. Nonetheless, most of the fair trial guarantees are framed in the context of criminal justice system, particularly, as rights pertaining to arrested or accused persons.[13]

b) Access to Justice in Ethiopia

i. *Legal Framework*

In Ethiopia, the right to access to justice is a constitutionally entrenched right. Article 37 (1) of the FDRE Constitution specifically provides that:

> *"Everyone has the right to bring a justiciable matter to, and to obtain a decision or judgment by, a court of law or any other competent body with judicial power."*

Though the above provision appears to have focus on the substantive aspect, and to this end guarantees a specific right to access to courts or other competent judicial bodies, it indeed has various important aspects which have different implications on the right to access to justice. For instance, in conjunction with Article 25 of the Constitution guaranteeing the right to equality, access to justice set out the right to equality before courts and tribunals with judicial power; without discrimination. Likewise, along with Articles 78 and 79, the constitution inform the right to trial by a competent, independent and impartial tribunals established by law.

Articles 19 and 20 of the Constitution are the other provisions of the constitution which cannot be dispensed with while dealing with the right to access to justice. However, resembling some of the core international legal frameworks, these provisions as well outline the components of the right to fair trial only in the context of criminal justice system while they are equally relevant in judicial procedures determining rights and obligations (civil matters). For instance, the rights to speedy trial, assistance of an interpreter at state expense during proceedings, legal representation at state expense for indigent defendants when there is/are risks of miscarriage of justice, the right to appeal, etc are set in the context of administering criminal justice procedures.[14]

Underneath the constitution, there are subsidiary legislations enacted to supplement the principle as laid down by the Constitution. First and foremost, in order to ensure the competence, independence and impartiality of the judiciary, there is a Federal Judicial Administration Council Establishment

Disappearance; Articles 2 and 4 of the Convention on the Rights of the Child (CRC); Article 2 (c) of the Convention on the Elimination of Discrimination Against Women (CEDAW); Article 2 of the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (CAT); Article 4 of the Convention on the Rights of Persons with Disability (CRPD); Article 26 of the African Charter on Human and People's Rights (ACHPR); Articles 1 and 4 of the African Charter on the Rights and Welfare of the Child (ACRWC); and Article 25 of the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa.

[11] UN Human Rights Committee, General Comment No.31, cited above at note 1, para.15. See also, Committee on the Rights of the Child (CRC), General Comment No. 5 (2003), General Measures of Implementation of the Convention on the Rights of the Child (Arts. 4, 42 and 44, para.6), (CRC/GC/2003/5, 27 November 2003), paras.24 and 25

[12] See Articles 7, 8, 10 and 11 of the Universal Declaration on Human Rights, Art.14 of ICCPR, Art.40 of CRC, Article 7 of ACHPR, Article 17 of ACRWC and Article 8 and 25 of the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa.

[13] Of course, almost all international and regional human rights instruments guarantee equality before the law for all. But, when it comes to the right to fair trial the range is often limited to persons arrested or accused.[13] In this respect, the provisions of Universal Declaration of Human Rights (UDHR), ICCPR, the Convention on the Rights of Persons with Disabilities (CRPD) and Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa are exceptional. All of these treaties set out the right to fair trial to all whose rights or freedoms therein have been violated.

[14] Article 19 and 20 of the FDRE Constitution

Proclamation.[15] The proclamation has guarantees relating to security of tenure of judges, independence of the judiciary from political interference by the executive and legislative branches of government and set apparently clear procedures and criteria for the appointment, remuneration, promotion and dismissal of judges and possible disciplinary measures against judges. While this legislation ensures institutional aspect, there is also Federal Courts Establishment Proclamation which ensures physical accessibility of courts and regulates personal aspect of judges; i.e., impartiality and independence of judges on a case by case basis.[16]

ii. *Judicial Organs*

The FDRE Constitution in clear terms establishes judicial organs at federal and regional states which have the power to entertain any justiciable matter. Basically, the Constitution provides that judicial powers, both at Federal and State levels, are vested in the courts.[17] Consequently, there are three tiers of courts established both at Federal and in Regional States; namely: Supreme, High and First Instance Courts.[18] These different levels of courts exercise judicial powers at Federal or Regional States based on particular laws that delineate their respective jurisdictions. In addition to regular courts, the Constitution also recognizes other institutions that will be empowered to exercise judicial powers based on legally prescribe procedures.[19]

Thus, in accordance with the obligations the country has assumed under international and regional human rights laws, Ethiopia has constitutionally entrenched judicial organs that may hear and decide legal matters. Besides, the Constitution sanction the judicial organs so established to function based on legally prescribed procedures.[20] It is also against the Constitution to establish special or ad hoc courts which take judicial powers away from the regular courts or institutions legally empowered to exercise judicial functions unless the former function according to procedures prescribed by law.[21] The principles and procedures courts have to follow are set under different subsidiary legislations – both at the Federal and Regional States.

IV. Observations Related to Access to Justice in Fafan, Siti, Nogob and Jarar Zones

a) *Legislative Frameworks*

Evidently, access to justice requires the existence of norms that define the rights and obligations of individuals, the organization and structure of judicial organs and the code of conduct of individuals working in the judicial and justice organs. In the context of Ethiopian Somali Regional State (ESRS), it is the regional constitution and other subsidiary legislations enacted by the regional council, i.e., Ethiopian Somali Regional State Council, which will be applied in the region. Accordingly, Ethiopian Somali Regional State has adopted its own regional constitution first, in 1991 and revised it in 2003. The Revised Constitution in almost similar terms with the Federal Constitution guarantees the right to access to justice[22] and, independence and impartiality of the judiciary.[23] Judicial powers are vested in courts and Supreme regional judicial authority is vested in the Regional Supreme Courts.[24] The Constitution also guarantees relating to appointment of judges, security of tenure of judges and independence of judges from political interference by the executive and legislative branches.[25]

Furthermore, taking into account indispensible roles religious and customary laws, and dispute resolution mechanism therein play in the tradition and customs of peoples of Ethiopian Somali Regional State, the ESRS Constitution allows religious and customary laws as well as courts to exist and practice religious and traditional administration of justice.[26]

There are also guarantees related to the powers and duties of regional Judicial Administration Council.[27] According to ESRS Judicial Administration Commission Establishment Proclamation, the Commission is mandated to select candidate judges for the regional Supreme, High and Woreda Courts, Issue Disciplinary Code of Conduct rules and, decide judges, registrars and defense attorneys' disciplinary cases. The proclamation also provides detailed rules on the appointment of judges for regional courts, guarantees related with independence of the judiciary, rights of judges, termination of tenure of judges, etc.

In addition, ESRS Courts Proclamation No. I/1991 is essential in terms of providing detailed rules related with the structure and jurisdiction of courts, place of sittings of supreme, high and Woreda courts and working languages thereof. The Proclamation includes

[15] Proclamation No. 684/2010, Amended Federal Judicial Administration Council Establishment Proclamation, Federal Negarit Gazeta, 16th year, No.41, 2010

[16] Proclamation No. 25/1996, Federal Courts Proclamation, Federal Negarit Gazeta, 2nd year, No.13, Articles 27 and 28.

[17] Article 79 of the FDRE Constitution

[18] Id, Article 78

[19] Id, Article 79 (4)

[20] Id, Article 79 (3)

[21] Id, Article 78 (4)

[22] Article 37 of the Revised Constitution of Ethiopian Somali Regional State, 2003

[23] Id, Article 65 and 67

[24] Id, Articles 67 and 68

[25] Id, Article 69

[26] Id, Article 66

[27] Id, Article 70

rules concerning fair trial rights such as, public hearing and withdrawal of judge (on the grounds of lack impartiality).

Besides the regional State's laws, laws enacted by the Federal Government in areas exclusively vested upon it will govern such matters in the region. In this respect, one may identify laws governing criminal matters, commercial laws, labor law, some of the tax laws, etc. Furthermore, there are laws which are not federal by their nature but which are still applicable all over the country. These include, Civil Code of the Empire of Ethiopia, Civil Procedure Code, Criminal Procedure Code, etc.

Major challenge in relation to most of the laws above, in the context of the research areas, is the language the law codes are written. Predominantly, the society around the judicial organs, judges and court officers are native speakers of Somali[28] and lack adequate knowledge of reading or speaking Amharic or English languages the codes are written in. Somali/Somaligna is also the working language of the State. Thus, the fact that most federal legislation applicable throughout the nation such as, criminal procedure, civil procedure, civil code, property laws, and others enacted frequently at the Federal level are not translated in to Somali has been raised as one critical factor impeding efforts to ensure access to justice in the areas surveyed.[29]

There is also critical legislative gap in relation with adjudicating family matters in the region generally. Among others, lack of comprehensive regional family code has been a major setback. Since 2002, the federal government and all regional states, except ESRS, have adopted their own respective family codes that are compatible with international and national human rights standards; particularly revising provisions in the civil code that are discriminatory and against the rights of women and children. ESRS could not yet manage to adopt one. As a result, family matters are set to be settled on the basis of the Civil Code provisions – of course in line with the rules and principles set under the Federal and region's Constitution. Nonetheless, unless a strong regional family law with strict provisions on women's right to equality and non-discrimination is adopted – it remains challenge for, at least, women to access justice and vindicate violation of their rights.

b) Establishment of Competent Judicial Organs

i. *Institutional Competence - Structure and Powers of Courts*

Ensuring the right to access to justice both in civil and criminal cases undoubtedly requires availability of judicial institutions which are competent, independent and impartial. Particularly, competence, independence and impartiality are essential elements of effective protection of the right to fair trial. This is why that international human rights instruments such as, ICCPR[30] and ACHPR[31] clearly stipulated the right to have cases heard by competent, independent and impartial tribunals.

Structurally, the Revised Constitution recognizes Regional Supreme Court at the center, Zonal courts in each Zone and Woreda courts at each Woreda administrative unit. Given the fact that Woredas' are the lowest administrative structure next to Kebele, it can be concluded that, the regional constitutional norm is fairly enough in terms of legally guaranteeing physical accessibility of courts. In line with this, the four administrative zones surveyed in this research established Zonal and Woreda courts based on their respective administrative structure. The table below summarizes the level of courts and their respective location in the research areas.

[28] According to information in the Ethiopian Government portal, Somali/Somaligna is the predominant language spoken in ESRS constituting 95.9% of the population. See Ethiopian Government Portal, cited above at note 45.

[29] The Regional Supreme Court and Justice Bureau have made attempts to translate some of the federal codes in to the regional working language – Somali. Under the project, so far some codes such as the 2004 FDRE Criminal Code is translated in to Somali and put in to use in the regional courts.

[30] ICCPR, Article 14

[31] ACHPR, Article 7

Table 1: Zonal High Courts and Woreda Courts in Fafan, Siti, Nogob and Jarar zones

	Zone	List of Woredas by zone	Division of court available
1	Fafan	Tuli Guled	Woreda Court
		Awbere	Woreda Court
		Babile	Woreda Court
		Gursum	Woreda Court
		Harshin	Woreda Court
		Jigjiga	Woreda Court and Zonal High Court
		Kebri Beyan	Woreda Court
2	Siti	Afdem	Woreda Court
		Ayisha	Woreda Court
		Dembel	Woreda Court
		Erer	Woreda Court
		Shinile	Woreda Court and Zonal High Court
3	Nogob	Dihum	Woreda Court
		Fiq	Woreda Court and Zonal High Court
		Gerbo	Woreda Court
		Hamero	Woreda Court
		Lagahida	Woreda Court
		Mayumuluka	Woreda Court
		Salahad	Woreda Court
4	Jarar	Degehamedo	Woreda Court
		Degehabur	Woreda Court and Zonal High Court
		Gashamo	Woreda Court
		Gunagudo	Woreda Court

Article 34 (5) of the Revised Constitution also recognizes religious and customary courts that may adjudicate disputes related with personal and family laws. There is, however, no detailed subordinate law such as, proclamation or regulation that define the jurisdiction of religious or customary courts and the relation they have with regular courts in the region. This had created confusion within society, as observed in the context of the research areas, over the division of power and working methods – particularly between the regular courts and religious (Sharia) courts.

The problem is further complicated when one observe that in almost all woreda courts, Sharia courts exist within the compound of Woreda or first instance courts. Evidently, given the fact that the region's population is predominantly Muslim, putting Sharia courts along with regular courts may highlight the degree of recognition and importance given to it. Nonetheless, it is equally important to bear in mind that religious courts rules and procedures are distinctive and apply on the basis of parties consent to abide by it. Particularly, from the perspective of parties who do not want to use such options, location of religious courts with formal courts may compromise their interest to pursue justice through the regular courts.

ii. *Personnel Competence*

Besides institutional competence, ensuring competence of personnel's (judges and judicial officers) working in judicial organs is the other facet of the requirement of establishing 'competent tribunal'. Accordingly, a legally established tribunal must have "qualified and experienced persons to act as judicial officers".[32] As the UN Basic Principles on the Independence of the Judiciary requires:

> "(p)ersons selected for judicial office shall be individuals of integrity and ability with appropriate training or qualification in law."[33]

States may use different criteria and procedures to determine the ability/competence of persons selected for judicial office – provided that the process employ safeguards that prevent appointment of unqualified persons. In addition, continuous training and capacity building measures may be required and necessary to develop personal competence – more particularly for

[32] A. Conte and R. Burchill, "Defining Civil and Political Rights: The Jurisprudence of the United Nations Human Rights Committee", 2nd Ed., 2009, p.165

[33] UN Basic Principles on the Independence of the Judiciary, Adopted by the Seventh United Nations Congress on the Prevention of Crime and the Treatment of Offenders held at Milan from 26 August to 6 September 1985 and endorsed by General Assembly resolutions 40/32 of 29 November 1985 and 40/146 of 13 December 1985

judges dealing with specialized legal matters such as, juveniles.

As it has been pointed out earlier, it is the mandate of ESRS Judicial Administration Council to select candidate judges to the regional Supreme, High and Woreda Courts.[34] Then, up on the recommendation of the Judicial Council, candidates will be appointed by the ESRS Council.[35] The regional Judicial Council Establishment Proclamation set general criteria and procedures for selection of judges. Accordingly, any Ethiopian who meets the following criteria of election for judgeship may be appointed as judge:

- A person loyal to the Federal and the Regional Constitutions;
- Has legal training and acquired legal skill through experience;
- Has a good reputation for his diligence, sense of justice and good conduct;
- Consents to assume judgeship; and
- Is not less than 25 years of age.

The Judicial Administration Council has to ensure that nominees satisfy these conditions before submitting their list for appointment to the regional Council. In addition, the Judicial Council has the responsibility to solicit and obtain the view of the Federal Judicial Administration Council on candidates selected for the regional Supreme and High Courts. In any case, the above criteria and others related are important in guaranteeing competency of individual judges. By contrast, if the system is poorly designed and/or the Judicial Administration Council do not adhere to the rules and procedures, that will allow unskilled, incompetent and unmotivated individuals to be in the judicial process and compromise service effectiveness thereby violating service users right to access to justice. Objectively, a brief look at the criteria above informs that, the criteria set under the Judicial Administration Council's Establishment Proclamation are too general and minimal. It is not clear for instance, what will be the measurement to determine loyalty to the Constitutions. Likewise, the sort of training, skill and experience required is not defined. Mind here that, this criterion does not at all refer to educational background.

It is an internationally accepted principle that, the selection and career of judges should be based on merit, having regard to qualifications (in law), integrity, ability and efficiency.[36] In the selection of judges, "there shall also be no discrimination against a person on the grounds of race, color, sex, religion, political or other opinion, national or social origin, property, birth or status", except the requirement of nationality. Finally, it has to be ensured that, the procedures to appoint judges are transparent and independent in practice.[37] ESRS Judicial Administration Council Proclamation falls short of guaranteeing these standards.

In addition, neither the Proclamation nor its procedural rules clearly provide details on important selection procedures, such as:

- The opening of and search procedure for candidates;
- The procedure for selection and evaluation of candidates;
- The procedure for screening and final decisions about individual candidates;
- On outside (public) input or involvement in to the selection; and
- The right for candidate or other individual to appeal against a decision whatsoever.[38]

Consequently, one can conclude at this juncture that, the rules and procedures for selecting candidate judges and appointment thereof, as provided under the ESRS Judicial Council Establishment Proclamation is incomprehensive and thus, does not guarantee quality of individual chosen to be judges. Evaluation of judges and other court staff on the ground squarely reflect the failure in the system. There seems to be less concern for qualities, skills and experience. The table below summarizes the number of judges and their educational qualifications at Woreda and Zonal High Courts in the research areas.

[34] Article 69 of the Revised Constitution of Ethiopian Somali Regional State

[35] Ibid

[36] UN Basic Principles on the Independence of the Judiciary, cited above at note 64

[37] Council of Europe Committee of Ministers, Recommendation No. R (94) 12, "On the Independence, Efficiency and Role of Judges"

[38] These were some of the problems identified at national level based on the baseline study of Ethiopian justice system in 2005 under the defunct Ministry of Capacity Building, Justice System Reform Program Office. Though different measures were taken at the federal level, the legal and practical the challenges still persist in the research areas; and generally at ESRS level. See Ministry of Capacity Building Justice System Reform Program Office, cited above at note 14, p.160

Table 2: Number of judges in education standards

Education Standard	Fafan Zone	Siti Zone	Nogob Zone	Jarar Zone	Total
2nd Degree and above in law	6	-	-	-	6
1st Degree in Law	14	4	3	5	26
Diploma in Law	25	9	11	13	48
Certificate in Law	14	12	13	10	49
Degree in other Fields	8	2	3	-	13
Diploma in other Fields	12	6	5	3	26
Certificates in other Fields	-	-	-	-	-

Source: ESRRS Supreme Court 2006 Annual Report

As can be seen from the table above, less than half of the judges, i.e., 80 out of 168, representing 47 % of judges in the three administrative zones have law related educational qualification above diploma level. This implies two things: either lack of skilled man power or the minimal level of concern given to nominee's educational background. In an interview with ESRS Supreme Court, it was also pointed out that acute qualified and skilled manpower and that the region has been taking different measures to solve the problem.[39] Such measures include, creating higher education opportunities (in partnership with Jigjiga University) for judges and other court officers working at woreda and high courts, and capacity building trainings through ESRS Judicial Professionals Training and Research Institute.

c) Independence of the Judiciary

Ensuring the right to access to justice also requires an independent and impartial judicial system as well as judges and judicial officers. This means that the judiciary as an institution and, individual judges and judicial officers that involve in judicial must act independently and impartially.

i. *Institutional Independence*

The requirement of institutional independence basically emanate from the theory of separation of power among the legislative, executive and judiciary branches of government. Concerning the judicial branch, separation of power theory requires States parties to ensure (legally) institutional independence of the judiciary from the executive and legislative branches. Essentially, this entails enacting and enforcing laws that guarantee "actual independence of the judiciary from any interference by the executive and legislative branches in the inherent judicial functions of the judiciary".[40]

As far as the law is concerned, ESRS Constitution clearly provides that "Courts of any level in the region shall be free from any interference or influence of any governmental body, government official or from any other source."[41] The Revised Constitution clearly stipulates independence of the judiciary and that judicial powers are vested exclusively in the courts of the region.[42] It can be said from this that jurisdictional independence is also constitutionally entrenched in the region.

Moving on to financial and administrative independence, the Revised Constitution also confers upon Regional Supreme Court the power to draw up and submit to the Regional Council the budget of the regional courts.[43] Up on approval by the Council, the Supreme Court administers the budget. According to Article 79 (7) of the FDRE Constitution as well it is the power of the Regional Councils to determine the budgets of State Courts. These constitutional stipulations are more than enough for one to conclude that institutional independence of the judiciary is legally well recognized in ESRS in general; with necessary implication of the same in the research area.

Practically as well, in an interview with the President of ESRS Supreme Court as well as Presidents of High Courts in Fafan, Siti, Nogob and Jarar Zones, none of them raised budget issue as problem to care about. It does not, however, take a while for one to notice resource limitations in the courts – which is directly attached with budget. In observations made by the research team and interviews with other court officers, in almost all Woreda and High Courts, there is acute shortage of legal materials (particularly, up to date regional and federal legislations), court rooms and judges' bench are poorly furnished, as a result, most trials are conducted in judges' offices – which are also

[39] Interview with H.E. Abdulahi Mohammed – ESRS Supreme Court President

[40] HRC, General Comment No. 32, cited above at note 4, para.19

[41] Article 67 (2)of the Revised Constitution of Ethiopian Somali Regional State

[42] Id, Articles 67 (1) and 68 (1). The Revised Constitution of ESRS confirms under Article 65 (2) exclusive jurisdiction of courts to consider judicial matter as follows:

> "Special or ad hoc courts which take judicial powers away from the regular courts or institutions legally empowered to exercise judicial functions and which do not follow legally prescribed procedures shall not be established."

[43] Id, Article 68 (7)

under equipped, facilities such as legislations, ICT equipments, file cabinets, file folders, and others are rarely available.

Budget constraint is also identified as one of the major constraints holding back efficiency and effectiveness of the justice sector in general as well as to the judiciary in particular. For instance, in three years GTP I assessment report published in 2013, ESRS Bureau of Finance and Economic Development (BOFED) raised shortage of budget as the major factor for:

- Shortage of qualified man power at different levels of justice sector;
- Lack of office equipment and furniture for the justice sector;
- Poor improvement of information and data in the justice system;
- Lack of availability of information and data in the justice system;
- Lack of trainings to the community to equip them enough knowledge on their legal rights;
- Underdevelopment of social courts and law enforcement at kebele level; etc[44]

This clearly informs that, there is challenge related to financial independence of the judiciary ESRS in general. Obviously, this compromise independence of the judiciary and eventually, may erode public confidence on the independence of the judiciary.

Though it was difficult for the researchers to conduct sample survey on the public perception of the independence of the judiciary, from the research teams observations, review of reports (including GTP I and II of ESRS)[45] and opinion of almost all of persons the research team met, it can safely be concluded that the people in the research areas have low perception of the judicial independence. As the Center for International Legal Cooperation reported in its 2005 Baseline Sturdy on Ethiopian Justice Reform Program, "lack of public and political trust can have serious consequences for judicial independence, as it can encourage incursions into judicial prerogatives".[46]

It is worth to mention at this point that, there is no mechanism in ESRS in general as well as in the research areas that is designed to solicit information from the public about judicial independence. None of the reform measures so far have integrated secure and confidential mechanism by virtue of which an independent organ (may be, the Regional Judicial Administration Council) will conduct inquiry about the public perception of the independence of the judiciary or other mechanism through which the public may complain about lack of independence even on case by case basis.

ii. *Individual Independence*

Ensuring institutional independence alone is not enough to guarantee judicial independence. Individual judges' and other judicial officers' independence in carrying out judicial functions must also be legally guaranteed and practically enforced to make access to justice certain. Like institutional independence, the primary obligations of States regarding individual independence is to put in place legal guarantee clearly establishing individual independence of judges and other judicial officers.[47] Among others, such legislation shall at least provide:

- The procedure and qualification for the appointment of judges;
- Guarantees relating to the security of tenure of judges – which shall be 'until a mandatory retirement age or the expiry of their term of office;
- Objective criteria and conditions governing promotion, transfer, suspension, cessation of functions by judges and disciplinary sanctions against judges; and
- Actual independence of judges from political interference by the executive branch and legislature.[48]

Almost all the above requirements are constitutionally guaranteed in ESRS.[49] The rules and procedures for appointment of judges are also recognized under the Constitution.[50] Similarly, ESRS Courts Establishment Proclamation and Judicial Administration Council's Establishment Proclamation contain detailed rules regarding rules and procedures for appointment, suspension and termination of tenure of judges and sanctions for disciplinary violations.

Though there is no as such grave practical challenges attached to the implementation of the above standards entrenched under international human rights law and ESRS Revised Constitution, there are minor cases where judges were suspended from duty against what the law provides. The regional Courts Establishment Proclamation provides regional High Court and Woreda Court Presidents with the power to administer judges, registrars and defense attorneys in their respective jurisdiction. Legally, such power does not include the power to suspend judges for any ground. Of course, the Revised Constitution recognizes suspension of judges from duty, until dismissal decision

[44] ESRS, Bureau of Finance and Economic Development, "Assessing Development Gaps in Somali Regional State of Ethiopia", , 2013, p.176

[45] ESRS, Bureau of Finance and Economic Development, ESRS Growth and Transformation Plan (2010/11-2014/15

[46] Ministry of Capacity Building Justice System Reform Program Office, cited above at note 14, p.160

[47] HRC, General Comment No. 32, cited above at note 4, para.19

[48] Ibid

[49] Article 67 of the Revised Constitution of ESRS

[50] Id, Article 69

of the regional Judicial Administration Council is approved by the State Council.[51]

Practically, the fact that Presidents of Woreda and High Courts act as judges as well as administration officials with responsibilities and obligations towards the President of the Regional Supreme Court has created a leeway for Presidents to make personal decisions for suspension from duty of judges – which is not legally recognized. 63% respondents, who are judges in the Woreda and High Courts in all the three zones, believe that Presidents have such power. Among these, 45% further assert that they know cases where judges were suspended from duty for different grounds – but based on letters written from presidents. Legally speaking, this indirectly affects judicial independence and may create space for court administrators' incursion in to the decision making process by individual judges.

d) Impartiality of the Judicial

Both ICCPR and ACHPR recognize judicial independence as one of the most important aspects of the right to a fair trial. Regarding the content, in its explanation of ICCPR provision, UN HRC explained that impartiality has two aspects: individual and institutional.[52] The Committee Held that:

> "[Individual impartiality of judges requires them] … not to allow their judgment to be influence by personal bias or prejudice, nor harbor preconceptions about the particular case before them, nor act in ways that improperly promote the interest of one of the parties to the detriment of the other.
>
> Second, [under institutional impartiality] the tribunal must also appear to a reasonable observer to be impartial. For instance, a trial substantially affected by the participation of a judge who, under domestic statutes, should have been disqualified cannot normally be considered to be impartial."[53]

In the context of the research areas, there are significant legislative frameworks that are meant to ensure impartiality of the judiciary as an institution and individual judges as decision makers. The Revised Constitution guarantee judges to exercise their functions directed solely by the law without any interference, pressure or influence whatsoever.[54] In order to ensure institutional impartiality of the judiciary, ESRS Courts Establishment Proclamation provide guarantees related to withdrawal of judges in objective circumstance that are likely to compromise individual judge impartiality such as, consanguinity or affinity with one of the parties, spousal relationship with one of the parties, if the judge had acted as advocate, tutor or agent of one of the parties, etc.[55]

Despite the existence of such legislative frameworks, society opinion and experience on impartiality of the judiciary is bleak. For instance, 53% of clients and lawyers who have or had cases pending before one of the judicial organs in three zones the research is undertaken believe that in or another way the judges reflect bias, influence or pressure in their respective cases. To the contingent question posed to such respondents on 'whether they have any knowledge of the procedures for withdrawal of judges as provided under the region's laws, 78% response is 'Not at all'. The remaining 22% contend that they are aware of the law, but fear further threat, pressure, bias or prejudices to their case in case they invoke it. Respondents most often rely on the appeal system to have remedies for the problem.

In an interview made, most of the Woreda and Zonal Courts presidents emphasize lack of as such worrisome complaints made for withdrawal of judges or generally on judge's conducts and assert that is because the judges are solely directed by the law and there is strict follow-up procedure. Nonetheless, the research team learnt that, except boxes or notebook to put suggestion – which is again rarely considered in performance evaluation, there is no comprehensive mechanism put in place and that provide the public with opportunities – to express its opinions about judges' performance and to have legitimate remedies for judicial misconduct.

e) Enforcing Fair Trial Guarantees in Court Proceedings

The notion of fair trial basically includes legal principles and procedures in judicial processes that are aimed at safeguarding individual rights. Broadly interpreted, it includes rules applicable in case of deprivation of liberty, rules related to property and rules related to administrative procedures.[56] However, the discussion here is limited only to procedures and principles applicable in the administration of justice.

i. *Equality before Courts*

Equality before courts has two aspects. The first one is *equal treatment of parties* – which refers to equality before the law of parties and non-discrimination.[57] Broadly, it includes prohibition of distinctions regarding access to courts that are not based on law and cannot be justified on objective and reasonable grounds (such as, based on language, religion, political or other opinion, national or social origin, birth, property or other status).

[51] Article 67 (5) of the Revised Constitution of ESRS
[52] Id, para.21
[53] Ibid
[54] Article 67 (2) of ESRS Revised Constitution
[55] ESRS Courts Establishment Proclamation No. 1/1991
[56] M. Sepulveda, et al, "Universal and Regional Human Rights Protection: Cases and Comments", 2004, p.477
[57] Id, para.9

The second aspect is *equality of arms* – which require enjoyment of same procedural rights by all parties in the same proceedings. This is also broad and includes lots of guarantees related to access to evidence, opportunity to contest arguments and evidences adduced by other party, equal right to appeal and guarantees that ensure equal participation of parties in judicial proceeding such as, free legal aid service and assistance of an interpreter. Exiting legislative frameworks in ESRS do not have as such significant gaps that may indicate a situation where an individual's right to access to justice will be frustrated for lack of legal guarantees.

Evaluation of the practice in the research areas, however, indicates challenges related with legal assistance. As far as the legal framework is concerned, the Revised Constitution recognizes the rights of accused persons to get legal representation at state expense if there is reasonable ground to believe that miscarriage of justice would result for the party is not represented by legal counsel of his choice for lack of means to pay for it.[58] To give effect to this constitutional guarantee, ESRS Courts Establishment Proclamation authorizes the president of Regional Supreme Court to organize the 'Public Defence Office'. Though the office has been established and has been providing counseling and legal representation services, its reach is limited to Jigjiga Town. As the Director of Public Defenders Office argues, financial/budget constraint is the reason behind limited reach of the service.[59] Thus, such services are unavailable in almost all woredas and zones the research covered – except Jigjiga Town.

Though there is no constitutional and other legislative framework guaranteeing free legal assistance service for parties in civil proceedings, it has now been conventionally accepted that such guarantees are taken as part and parcel of the right to access to justice. As the HRC has pointed out:

> "availability or absence of legal assistance often determines whether or not a person can access the relevant proceedings or participate in a meaningful way … [thus] states are encouraged to provide free legal aid in other cases (i.e., including civil cases), for individuals who do not have sufficient means to pay for it."[60]

This seems the reason why the ESRS Advocates Licensing and Code of Conduct Proclamation and Regulation thereof impose duty on any advocate practicing before regional courts to render at least 50 hours of free legal service in a year to indigent persons, charity organizations, civic organizations, community institutions and to persons to whom court requests legal service. Any advocate, therefore, has to obligation to live up to this duty. Despite such legal guarantee, it is not, however clear how the regional Justice Bureau, which is mandated to monitor the observance of the duty by advocates, is making use of this option. There is no documented report that provides information on how the system has been put in to practice and the beneficiaries thereof.

It is worth to mention here efforts made by Jigjiga University Free Legal Aid Center (JJU FLAC) to provide legal assistance, counseling and consultation for indigent and vulnerable groups of society in the region. The center at Jigjiga Town is fully functional since 2011 and additional centers are operating in three Woredas of Fafan Zone; namely Awbare, Gursum and Kebre Beyan. Through these branches, the center has been providing legal aid services for significant number of parties who have no other options. Still, the reach of FLAC is limited to only four Woredas in Fafan Zone and the rest of Woredas and zones this research has covered have no such opportunity.

ii. *Public Hearing of Cases*

Public hearing guarantees the open administration of justice unless exceptionally done in camera for reasons of morals, public order or national security or when the interest of private lives of the parties so requires. Public hearing further requires that any judgment made must be made public unless the interest of juveniles requires otherwise or the proceeding concern matrimonial dispute or the guardianship of children. The guarantees here are applicable in any proceeding – whether criminal or civil. As the HRC assert, "publicity of hearings ensures the transparency of proceedings and provides an important safeguard for the interest of the individual and of society at large"[61]; which directly is related to the right to access to justice.

Thus, apart from those exceptional circumstances where proceedings may be held in camera for reasons of morals, public order, national security or interest of private lives of the parties, a hearing must be open to the public and must not be limited to a particular category of persons.[62] In this respect too, there is fairly adequate legal guarantee in the context of the research areas, particularly in relation with criminal proceedings.[63]

Observation made by the research team, however, indicate that significant number of proceedings (particularly, in civil cases) are held in judges office only the parties to the case attending. This in effect is trial in camera for unjustifiable reasons. In an interview with the presidents of Woreda, High and Supreme Courts, they all admit the problem is caused by lack of resources to establish enough rooms for

[58] Revised Constitution of ESRS, Article20 (5)
[59] Interview with Mr. Kader Sheik Mohammed - Director of ESRS Public Defenders Office
[60] HRC General Comment No. 32, cited above at note 4, para.10
[61] Id, p.27
[62] Id, para.29
[63] Article 20 (1) of ESRS Revised Constitution

public trials and lack of adequate facilities in the existing rooms that have been delaying proceedings – thus, necessitating trial in office rooms.

iii. *Prompt Disposition of Cases*

Disposition of cases promptly basically entails ensuring efficiency in terms of delivery of justice. Efficiency, however, shall not be at the expense of rule of law; i.e., cases has to be entertained (both in civil and criminal matters) within reasonable time and on the basis of rules and principles of law. As the HRC noted, excessive delays in criminal or civil proceedings that cannot be justified by the complexity of the case or the behavior of the parties is against the principle of the right to fair trial.[64]

As far as the legal frameworks are concerned, the Revised Constitution ESRS guarantee the right to be tried within a reasonable time for accused persons.[65] Though such constitutional guarantee exist only in relation with criminal cases, unreasonable delays cannot be accepted in civil cases too – as he HRC reasoned out above.

Regarding the practice on the ground, the research team could not get adequate performance repots at Supreme Court level or at the level of particular judicial organs. In an interview with presidents of Woreda, High and Supreme Courts, they all maintain that there is a good case clearance rate at the region in general as well as in the judicial organs in the research areas. Report at regional level assessing three years progress of the first Growth and Transformation Plan (GTP I), also indicate that generally; case disposition rate in the region reached 95%.[66] Nonetheless, perception of the public and lawyers on the issue is different. According to the data gathered, 52% of persons which had cases decided by courts or have cases pending as well as 41% of lawyers practice before regional courts challenges case disposition efficiency of courts in the research area.

f) Accessibility of Judicial Organs

i. *Effective Access to Appeal*

The right to review of cases by a higher tribunal is explicitly guaranteed under ICCPR.[67] The guarantee, however, is limited to criminal cases. UN HRC also asserted that the right to review by a higher tribunal "does not apply to procedures determining rights and obligations in a suit at law or any other procedure not being part of a criminal appeal process (this specifically refers to civil cases)[68]. Thus, while access to appeal in criminal cases has international human rights law guarantee, access to appeal in civil case is left to domestic legal order.

In Ethiopia, the FDRE Constitution as well as the Revised Constitution of ESRS establishes three tiers of courts. Regionally, there are State Supreme, High and First Instance Courts.[69] Based on the Regional Constitution's clause this leaves details to be determined by particular laws, ESRS Courts Establishment Proclamation clearly set the structure and jurisdiction of regional courts. As far as appeal right is concerned, the Proclamation provide clearly legal guarantees to make appeal to the next higher court, up to cassation.

Accordingly, supreme judicial authority is vested in the Regional Supreme Court, which also includes jurisdiction over matters which fall under the jurisdiction of the Federal High Court (by delegation).[70] On the other hand, State High Court has appellate jurisdiction over decision of Regional First Instance Courts.[71] Thus, it is safe to conclude at this juncture that, there are domestic legal orders that legally guarantee access to appeal in the context of the region in general and in the research area in particular. Such guarantees are applicable both in criminal as well as civil cases.

ii. *Physical Accessibility of Courts*

Determining the structure and hierarchy of the judiciary is matter left for States that will be decided by domestic legal order. Nonetheless, States need to consider the structure and organization they set do not compromise the principle of competence, independence and impartiality of the judiciary. What is more, States need to ensure that geographical location of courts or other judicial divisions is well suited to the service recipients (i.e., clients). As a matter of fact, courts (particularly, first instance jurisdiction courts) located in remote places (both in rural as well as large cities) frustrate the right to access to justice unless there are other scheme devised (such as, circuit benches).

As it has been said above (in relation with access to appeal), the Federal as well as regional laws are fairly enough in terms of legally guaranteeing access to appeal – both in civil and criminal cases. As far as the legal guarantees concerning the place of sitting of courts is concerned, the Regional Courts Establishment Proclamation provides that: Regional Supreme Court's sit in the regions capital, i.e., Jigjiga, the Regional High Courts at the centers of the Zones and Regional First Instance Courts sit in the centers of Woredas.

Challenges in the research area surface when one consider the legal guarantees concerning the place of sitting of courts vis-a-vis the actual physical location

[64] HRC General Comment No. 32, cited above at note4, para.28
[65] Article 20 (1) of ESRS Revised Constitution
[66] ESRS, Bureau of Finance and Economic Development, cited above at note 81, p.176
[67] Article 14 (5) of ICCPR
[68] HRC in its General Comment No. 32, cited above at note 4, paras.45-51
[69] Article 78 (3) of FDRE Constitution and Article 68 (1) of the Revised Constitution of ESRS
[70] Ibid
[71] Ibid

of different levels of courts in the research area. The Revised Constitution consider administrative unit centers as the appropriate place of sitting for courts and ESRS Courts Establishment Proclamation provide detailed rules to this effect. Practically, this means courts' location is determined on the basis of where the center of the administrative is; and, do not necessarily take in to account whether such placement is accessible for the community/society living in that particular administrative unit. In other word, courts sit in urban centers or municipalities or similar administrative units – without regard to where the majority of population in that particular administrative unit reside. This evidently raises concerns related to access to justice.

For instance, in Jigjiga Woreda – which is also the capital of the region- only one Woreda Court located at the outskirts of the town is there for almost 277, 560 peoples living in the town.[72] There is no other bench or division located in more accessible places either for the urban or rural population in the Woreda. The same is true in other major Woredas the research has covered. The table below summarizes the number population in each Woredas within the research area by urban-rural residents and Division of court available. All the courts sit in urban centers, i.e. the Capital of Woreda or Zonal Administration.

Table 3: Population by Urban-Rural Residence and Division of Courts Available

Geographical Area	Population			Division of court available
	Uban	Rural	Total	
Fafan Zone	203,588	764,064	967,652	
Tuli Guled	-	-	-	Woreda Court
Awbere	-	-	-	Woreda Court
Babile	1,273	76,044	77,317	Woreda Court
Gursum	2,970	24,540	27,510	Woreda Court
Harshin	8,226	72,018	80,244	Woreda Court
Jigjiga	39,750	299,753	339,503	Woreda and Zonal High Court
Kebri Beyan	25,493	140,025	165,518	Woreda Court
Sitti Zone	64,263	392,823	457,086	
Afdem	9,286	55,745	65,031	Woreda Court
Ayisha	7,970	50,116	58,086	Woreda Court
Dembel	13,648	68,638	82,286	Woreda Court
Erer	12,657	64,971	77,628	Woreda Court
Shinile	19,799	82,775	102,574	Woreda and Zonal High Court
Nogob Zone	33,930	314,479	348,409	
Dihum	2,216	22,866	25,082	Woreda Court
Fiq	12,112	117,935	130,047	Woreda and Zonal High Court
Gerbo	6,742	38,671	45,413	Woreda Court
Hamero	1,217	59,260	60,477	Woreda Court
Lagahida	2,180	15,235	17,415	Woreda Court
Mayu Muluke	4,157	7,750	11,907	Woreda Court
Salahad	829	33,253	34,082	Woreda Court
Jarar Zone	62,584	415,584	478,168	
Degehamedo	1,265	57,222	58,487	Woreda Court
Degehabur	30,027	85,528	115,555	Woreda and Zonal High Court
Gashamo	6,659	88,532	95,191	Woreda Court
Gunagado	8,114	104,810	112,924	Woreda Court

Source: The 2007 Population and Housing Census of Ethiopia: Statistical Report for Somali Region

One can easily observe from the table above that, mostly, the number of population a single court without division or benches which are more accessible to peoples in remote areas within Woredas or within a specific zone. For instance, a high court in Jigjiga is for seven Woredas in the zone and there is no division in any other Woreda. Similarly, Shinile Zone High Court located in Shinile serves all the six Woredas in the zone and it has no division elsewhere in the zone. The same is true for Nogob and Jarar Zone High Court – which are located in Fiq and Jarar, respectively, without division in any other Woreda in the zones.

[72] "The 2007 Population and Housing Census of Ethiopia: Statistical Report for Somali Region", p.7

Also, most of the Woreda Courts sit in Urban Centers which have less population compared to number of populations in rural areas. Of course, existing administrative structure and feasibility may require placing courts in urban areas. But, it has to also be ensured that rural population has effective access to justice without being held back by distance and remoteness of judicial organs. The same challenge is there when one considers the place of sitting of Regional Supreme Court. It is permanently located in the regional capital, Jigjiga, with no other divisions in any of the Zonal capitals in the region. Thus, except residents of Jigjiga Town, all other rural and urban residents in the region have to move to Jiigjiga to make appeal at Supreme Court.

It is not easy for one to find out the distance and cost implications of placing courts only in urban centers with out, at least, divisions in areas more accessible to beneficiaries. This, no doubt, compromises individuals' right to access to justice. As a solution for such problems, the Regional Courts Establishment Proclamation authorizes a court at any level to hold circuit hearings in any place or area within its local jurisdiction.[73] The problem remains that this option has never been put into effect in any one of the courts above.

g) Judges Access to Legal Materials

Normally, adequate funding and resource – both in terms of institutional resources and with regard to benefits to the judges and other judicial officers – ensure institutional competence, independence and impartiality of the judiciary. Unless, the functioning of the judiciary will be restricted and this will expose the institution as well as individual judges and officers to external control and other factors that compromise judicial independence and impartiality – such as, prejudices, corruption, etc. It is in recognition of this threat that the UN Basic Principle on the Independence of the Judiciary reiterates the need for:

> "Adequate resources for the functioning of the judicial system, including appointing a sufficient number of judges in relation to caseloads, providing the courts with necessary support staff and equipment, and offering judges appropriate personal security, remuneration and emoluments.[74]

Among others, the guarantee here entails obligations on State parties to allocate adequate budget and resource that enable judicial organs to function effectively. Basically, judicial organs has to be equipped with necessary resources such as, offices for judges, court rooms, legislations and other relevant legal materials, transportation services (as necessary), and other physical infrastructures needed for case and court management. Except challenges attached to judges access to legislations, most of the other resource constraints and their impact have been discussed in the forgoing sections.

As the research team examined, there are observable challenges related to judges' access to legal information and materials. Almost all judges in the three zones complained about the lack or the non-existence of federal or regional legislations, other legal references such as, Federal Supreme Court Cassation Decisions and generally legal information on current legal matters. Neither the Federal Negarit Gazeta where laws adopted at the federal level are proclaimed nor regional law gazeta, i.e., Doll Gazeta, where regional laws are published are readily available to judges on permanent basis.

One would at least expect that the regional laws spread and made available to all judges in the region. This is not however the case. Similarly, Federal Supreme Court Cassation Decisions which judges shall mandatorily take judicial notice of interpretations are not available in all Woreda courts and most of the High Courts in the research area. Only few copies, which do not include recently issued volumes is available in the Regional Supreme Court. In an interview with the President of the Supreme Court, lack of financial means has been raised as major factor for the problem.

Besides, the research team has also observed that there is no strategy adopted at the regional level to make legal materials and information accessible to judges and other judicial personnel. At least, providing access to information technology system to judges would enable them to access digital copies of laws at the federal level which are this days available in several law websites.

Most Judges at Woreda Courts as well as Zonal High Court admit the challenge and held that, there were even occasions where they delay decisions on particular cases until copies of relevant and up to date legislations or Federal Supreme Court Cassation Decisions are found. In most cases, judge order the parties to the case to produce the legislation or the case which the party argue in support of his case. Unless, or sometimes owing to lack of information about new legislations, judges are forced to apply old laws which are no longer in force.

V. Conclusion

As it has been put forward, the right to access to justice is an indispensible component of individual human right guaranteed under international, regional and national human rights treaties. Thus, to ensure full protection of human rights, it is essential that individuals have accessible and effective legally established to vindicate rights. Such organ shall work on the basis of legally sanctioned rules and procedures – which shall in turn be compatible with minimum human rights standards.

In this research, it has been pointed out that, though basic substantive and procedural laws enacted by both the Federal and ESRS exist in the research areas, the fact that most Federal Laws, such as the Civil Code, Civil Procedure Code, Criminal Procedure Code and others are not translated in to the vernacular Somali language has been impeding judicial works and individual's access to justice. Lack of comprehensive regional family code has been a major setback to ensure family rights, particularly, the rights of women and children in relation with matrimonial property and other family rights.

The selection and appointments of judges are not often based on merits and this compromised competence of judges and other court personnel in the research areas. Resource constraints in almost all Woreda and Zonal Courts has poor furnishing of court rooms and benches, shortage of legal materials, lack of up to date legal references such as Federal Supreme Courts Cassation Decisions.

Concerning guarantees related with ensuring equality of arms for all parties in judicial proceedings, though there is fairly adequate legal framework, there are challenges in relation with persons accused of crime. Basically, this is owing to the fact that the reach of regional 'Public Defence Office' is limited to Jigjiga Town and that there is no free legal aid service in most Woredas and Zones except the four Woredas in Fafan Zone that JJU FLAC cover.

Though the legal guarantees are fairly enough in terms of guaranteeing individuals access to justice, the location of courts mostly only in administrative towns without divisions or circuit benches in remote areas is a challenge. There is also no system or mechanism that is put in place to ensure judges access to federal or regional legislations and other legal references such as, Federal Supreme Court Cassation Decisions and generally legal information on current legal matters. These often led judges to require parties to the case to produce any legislation based upon which they support their case. Sometimes, owing to lack of information about new legislations, judges are forced to apply old laws which are no longer in force.

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Academic Achievement Differences by Grade Span Configuration for White, Black, and Hispanic Students: A Multiyear Statewide Analysis

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Abstract- Three years of Texas statewide data were analyzed to determine the degree to which two grade span configurations (i.e., multi-grade and single/double grade levels) influenced the reading and mathematics performance of Grade 5 and 6 White, Black, and Hispanic students. Data were obtained from the Texas Education Agency for all Grade 5 and 6 White, Black, and Hispanic students who were enrolled in either single/double grade level (Grades 4-5, 5 only, or Grades 5-6)or multi-grade level (PreK-6) configurations for the 2012-2013 through the 2014-2015 school years. In all cases, reading and mathematics passing rates were statistically significantly higher in multi-grade level settings for Grade 5 and 6 White, Black, and Hispanic students than for their peers in single/double grade level settings. Implications for policy and practice are provided.

Keywords: grade span configuration, academic achievement, ethnicity, white, black, Hispanic.

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Abstract- Three years of Texas statewide data were analyzed to determine the degree to which two grade span configurations (i.e., multi-grade and single/double grade levels) influenced the reading and mathematics performance of Grade 5 and 6 White, Black, and Hispanic students. Data were obtained from the Texas Education Agency for all Grade 5 and 6 White, Black, and Hispanic students who were enrolled in either single/double grade level (Grades 4-5, 5 only, or Grades 5-6)or multi-grade level (PreK-6) configurations for the 2012-2013 through the 2014-2015 school years. In all cases, reading and mathematics passing rates were statistically significantly higher in multi-grade level settings for Grade 5 and 6 White, Black, and Hispanic students than for their peers in single/double grade level settings. Implications for policy and practice are provided.

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I. Introduction

The issue of segregation, desegregation, equality, and success of all students regardless of ethnicity/race have been an ongoing theme since the onset of public education in the United States. In 1954 the U.S. Supreme Court unanimously ruled to separate them [African American school children] from others of similar age and qualifications solely due to their race generates a feeling of inferiority as their status in the community that may affect their hearts and minds in a way unlikely to ever be undone. (Brown versus the Board of Education of Topeka Kansas, 347 U.S. 483, 1954) Even though this ruling was historical and was intended to integrate children of all ethnic/racial groups into public schools, Kozol (2010) contended that the segregation of public schools is currently at its highest levels since the 1960s.

Many reasons including social, educational, and financial exist to explain why students of different ethnic/racial groups still remain largely separate in public schools. Gandara and Aldana (2014) described how Hispanic students have a triple separation by ethnicity, poverty, and language. By the year 2011, the English learners have experienced the greatest impact of segregation with 90-100% of Hispanic students in minority schools with low income students (Gandara&Aldana, 2014). Farkas (2006) reviewed that families closer to the bottom of status hierarchies have weaker networks of social relationships, fewer resources for parenting, and an increased amount of negative stressors in their daily lives. Many stressors including living in poverty, being a single parent, parents' education, parents' home language, and social class are just a few items that contribute to the gap in performance among various ethnicities.

Utilizing the demographic information of the families who participated in the Early Childhood Longitudinal Study-Kindergarten, a nationally representative group of children who began kindergarten in 1998, Farkas (2006) analyzed a variety of social and familial factors which can affect school readiness status. Black students had the highest rate of single parent families at 54%, followed by Hispanic students who had 27%, followed by White students who had15%, and concluding with Asian students who had 10% of single parent families. These children only had one parent providing attention, interaction, instruction, monitoring, and financial resources devoted to their education. Additionally, Black and Hispanic children had the highest percentage living in poverty, 42% and 37% respectfully. This degree of economic disadvantage results in fewer available resources. Black families had an average of 39.6 children's books in their households and only 32.9% of Black families had a computer. Hispanic families had an average of 52.5 children's books in their households with 41.5% of Hispanic families owning a computer. In contrast, White families had an average of 93.1 children's books in their households with 65.7% of White families owning a household computer. Although owning books and computers is an imperfect measure of school readiness, discrepancies are clearly present in the number of resources available to children of different ethnic/racial groups. Overall, a "performance decrement" (Farkas, 2006, p. 24) is associated with the Black and Hispanic

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ethnicity/race, with an additional performance decrement of being a second language learner.

Davis-Kean and Jager (2014) utilized the same data set, Early Childhood Longitudinal Study-Kindergarten, and investigated whether different profiles of reading and mathematics achievement were present within each ethnic/racial group. Davis-Kean and Jager (2014) documented the presence of students from each ethnicity/race in the highest levels of academic achievement. White and Asian families had a higher percentage of students in the high achieving trajectory than Black and Hispanic families. Every ethnic/racial group had students performing below the population average, however, Blackstudents had the highest percentage of all ethnic groups, 72%, performing below the population average. High performing Black students had scores that were 10 points lower than Hispanic and Asian students, and 20 points lower than White students, demonstrating the presence of an achievement gap among the highest performing students.

The gap among ethnic/racial groups continues to exist as students and their families prepare for high school completion and college entrance. Mangino (2012) reported that White students have less of a need for educational investments because they have many information opportunities available to them which allows for economic success including social networks, and high returns in economic and human capital investments. Mangino (2012) utilized data from the National Longitudinal Study of Adolescent Health and Adolescent Health and Academic Achievement to review ethnic/racial disparities among entering college students. Asian students had the highest percentage attending college, followed by White, Hispanic, and Black students. Hispanic and Black populations, or the "aspiring class" (Mangino, 2012, p. 565), rely on education to improve their standard of living, status, and prestige.

The federal government has attempted to address the academic performance of all students and reduce gaps by implementing a federal law, the No Child Left Behind Act in 2002. The No Child Left Behind Act was designed to hold all schools accountable for poor students via high stakes testing, introducing competitive choices to opt out of struggling schools, and increasing family involvement (Grogan-Kaylor& Woolley, 2010). Grogan-Kaylor and Woolley (2010) commented that the No Child Left Behind Act has not concentrated efforts on considering societal factors that affect the academic achievement of Black, Hispanic, and students in poverty including parenting styles, neighborhood conditions, school social climate, family economic status, and the school funding system. A school funding system based on property wealth has encouraged the further separation of students based on their economic wealth. Kozol (2005) identified that property value funding leads Hispanic and Black students to experience (a) lower paid teachers, (b) higher teacher-student ratios, (c) older teaching materials, (d) fewer extracurricular activities, (e) poorly maintained school buildings, and (f) less access to critical social services such as nurses and social workers.

An important concept for students of all ethnic/racial groups that may assist in overcoming the deficits they face is the value of school connectedness and parental involvement. School connectedness and school engagement and their effect on academic achievement are concepts that have been investigated by educators and psychologists alike (Benner, Graham, & Mistry, 2008;Carolan&Chesky, 2012). In an examination of the effects of family and school characteristics on school achievement, Benner et al. (2008) utilized a large multiethnic, urban sample of Grade 9 students to determine various ecological structures that have an impact on student academic performance. Student records, family climate, school climate, school belonging, and school interracial surveys were all utilized in this investigation. Benner et al. (2008) shared that differences in ethnicities arose on the items related to school size. Hispanicand Black students reported that the increased school size was associated with negative perceptions of the academic climate and school achievement level. Additionally, Hispanic and Black families faced hardships that limited school involvement: (a) most were immigrants and spoke a language other than English at home, (b) many had jobs with inflexible hours and/or had multiple jobs, and (c) financial constraints created challenges of transportation to the school. Benner et al. (2008) contended "finding ways to better connect families to schools is imperative for the educational success of these youth" (p. 851).

Numerous avenues exist to encourage parental involvement, school connectedness, and the academic achievement of students of all ethnic/racial groups. One such avenue is the grade span configuration of schools. The breadth of the grades included in a school building can support or depress the social and academic achievement of students in school and encourage or discourage parental involvement.

Abella (2005) investigated the effects of various grade span configurations on the academic performance, discipline, and attendance of students in Grade 6 in K-8 school settings and Grades 6-8 (middle) school settings by administering surveys to parents, teachers, and principals. The majority of the participants were on free or reduced lunch in both settings. In the K-8 setting, the student sample group consisted of 85% Hispanic and the middle school (comparison school) was 78% Hispanic. Abella (2005) analyzed scores in reading and mathematics, attendance rates, and discipline consequences for three

years (during the students' sixth, seventh, and eighth grade school years). For each year, students in the K-8 school setting outperformed students in middle school in reading comprehension and mathematics. By Grade 9, both groups of students scored similarly in reading comprehension and mathematics. Additionally, the attendance rate was higher for all years analyzed for the K-8 setting. In regard to discipline consequences, the out-of-school suspension rate was statistically significantly different in the seventh grade year, less than two days of suspensions in K-8 versus seven days of suspension in the 6-8 configuration. By the eighth grade, the suspension rates were similar.

In contrast, Wilson and Slate (2014) investigated Grade 6 Hispanic and Black students academic achievement based on their school's grade span configuration. Hispanic students who were enrolled in Texas middle schools had statistically significant higher mathematics passing rates, 78.43%, than did the Hispanic students enrolled in K-8 schools, 72.17%. Wilson and Slate (2014) commented that their results were contrary to current literature on grade span configuration and academic achievement. As such, they recommended that future researchers analyze individual student level data, rather than the aggregated school level data they analyzed.

The Carnegie Council on Adolescent Development (1989) reported "a volatile mismatch exists between the organization and curriculum of middle grades schools, and the intellectual, emotional, and interpersonal needs of young adolescents"(pp. 8-9). Mizell (2005) shared that a critical requirement for a successful academic outcome for middle school students is a more personalized setting where students are in contact with adults who know them well and provide academic and emotional support. Personalized settings will be more available in smaller elementary configurations versus larger middle school settings. Anderman (2003) also commented that the longer middle school students remained in the Grade 6-8 configuration, their sense of acceptance and school connectedness decreased.

Benner et al. (2008) shared the idea that in the school micro system, educators need to implement interventions that increase students' feelings of belonging and connectedness which positively influences academic achievement. In the family micro system level, schools need to intervene to encourage greater levels of parent involvement which is directly related to increased academic performance- higher grades, increased achievement test scores, and increased rating of students' academic attitudes (Benner et al., 2008). Benner et al. (2008) examined relations among family and school characteristics, family and school processes, student school engagement, and academic performance. Benner et al. (2008) clarified that students' engagement in school influences their feelings of belonging, thus, influences their families' involvement in their child's academics. School configurations, relationships with staff, less transitions/adjustments made by students, and the involvement of the parental community are main reasons why a larger grade span configuration may increase the academic performance of students. Abella (2005) noted, "educators and researchers also believe that the beneficial effects of K-8 schools can be attributed to smaller student populations at the schools and to staff being more familiar with students and their parents" (p. 29).The greater the grade span in the school setting, the greater the preponderance of relationship building and feelings of school connectedness for individual students and their families.

II. Statement of the Problem

Numerous authors and researchers (e.g., Anderson, 2012; Davis-Kean & Jager, 2014; Diamond & Huguley, 2014; Flashman, 2012; Gandara & Aldana, 2014; Grogan-Kaylor& Woolley, 2010; Mangino, 2012) have investigated and documented discrepancies in the academic achievement of Black and Hispanic students from White and Asian students. By 2042, the population of the United States will become more racially diverse with the population of minorities (everyone other than non-Hispanic White) becoming the majority(U.S. Census Bureau, 2010). Black and Hispanic children are being raised in families with fewer resources and in a higher percentage of single parent families than the White and Asian children, and on average Black and Hispanic families experience more negative stressors. These stressors have assisted in creating large reading, mathematics, and behavioral readiness gaps during preschool years (Farkas, 2006). One approach that educational leaders can consider to combat the variety of stressors and needs of students from diverse backgrounds includes adjusting the grade span configuration of their schools.

Although grade span configuration has been analyzed by researchers (Clark, Slate, Combs, & Moore, 2013; Combs, et al., 2011; Johnson, Jones, Simieou, Matthew, & Morgan, 2012; Rockoff & Lockwood, 2010), what has not been investigated in depth is the effect of grade span configuration on the academic success of elementary and middle students based on their ethnicity/race. School connectedness and relationships that are developed as students are engaged with their teachers and friends for a greater span of time are extremely important for students of all racial and ethnic groups.

III. Purpose of the Study

The purpose of this research investigation was to determine the degree to which differences might be present in the reading and mathematics performance of

Grade 5 and 6 White, Hispanic, and Black students as a function of the grade span configuration in which they were enrolled. These analyses were conducted for the 2012-2013 through the 2014-2015 school years so that trends could be ascertained, if present. As such, the extent to which grade span configuration was related to academic achievement was determined separately for students in a PreK-6 grade campus and for students in single or double grade campuses (Grades 4-5, 5 only, or Grades 5-6).

IV. Significance of the Study

In a review of the benefits of a larger grade span configuration, Herman (2004) noted that students have better relationships with staff members, teachers can collaborate and devise creative approaches to learning, parent involvement increases, and older students can serve as role models and mentors to younger students creating a safer atmosphere. Meeting the physical, academic, social, and emotional challenges of all grade level students, particularly students in a transition phase of maturity, is important for student success. Grade span configuration may be one vital opportunity in meeting these needs. Through this study valuable information was obtained on the relationship of grade span configuration with the academic achievement (i.e., reading and mathematics) of White, Black, and His panic students within multi-grade level or single/double grade span configurations. Upon the completion of this research study, empirical information will be available to educational leaders and policymakers for their use in the determination of the most appropriate grade span configuration in their schools. Furthermore, the extent to which reading and mathematics achievement as a function of grade span configuration for students of diverse backgrounds was determined. Accordingly, policymakers and educational leaders may utilize this information to determine how to configure their school settings to improve their students' academic performance.

V. Research Questions

The following research questions were addressed in this study: (a) What is the difference in reading achievement as a function of grade span configuration for Grade 5 White, Black, and Hispanic students? (b) What is the difference in mathematics achievement as a function of grade span configuration for Grade 5 White, Black, and Hispanic students?; (c) What is the difference in reading achievement as a function of grade span configuration for Grade 6 White, Black, and Hispanic students?; and (d) What is the difference in mathematics achievement as a function of grade span configuration for Grade 6 White, Black, and Hispanic students? All four research questions were examined for three school years of data (i.e., 2012-2013 through 2014-2015). Furthermore, each research question was analyzed separately for each ethnic/racial membership. Following the statistical analyses, the extent to which trends were present in reading and in mathematics achievement were examined for each grade span configuration.

VI. Method

a) *Research Design*

The research design for this study was a non-experimental, causal-comparative research design (Creswell, 2009; Johnson & Christensen, 2012). In non-experimental causal-comparative research, the independent variable cannot be manipulated. In this multiyear, statewide investigation, the independent variable of grade span configuration had already occurred and extraneous variables were not controlled. The archival data that were utilized herein represent past events (Johnson & Christensen, 2012). The independent variable involved in this research article was grade span configuration (i.e., multi-grade level schools or single/double grade level schools). For each grade span configuration, the dependent variables were the State of Texas Assessments of Academic Readiness (STAAR) Reading and Mathematics passing rates of Grade 5 and 6 students. Three different samples of student data were analyzed: White, Black, and Hispanic students.

b) *Participants and Instrumentation*

Archival data were obtained for the 2012-2013 through the 2014-2015 school years from the Texas Education Agency Ask Texas Education Directory (Texas Education Agency, 2016) and Texas Academic Performance Reports system for all Grade 5 and 6 students. Once the test scores for all students in Grades 5 and 6 were available, they were analyzed separately for three ethnic/racial groups: White, Black, and Hispanic. All school campuses and school districts are mandated by the Texas Education Agency to report student demographic characteristics, along with other salient information. Each spring students take the state-mandated assessments and the score are provided to the Texas Education Agency. Data present for each student are audited by the Texas Education Agency for errors.

Specific data downloaded from the Texas Education Agency Academic Performance Reports were: (a) grade span configuration of the school in which each student was enrolled; (b) student demographic characteristics; and (c) reading and mathematics achievement passing rates. Readers are referred to the Texas Education Agency website for more detailed information about the data they require school campuses and school districts to provide; for the auditing procedures used to ensure accuracy of the data; and for the technical manuals on the score

reliabilities and score validities of the STAAR Reading and Mathematics tests.

VII. Results

Prior to conducting inferential statistics to determine whether differences were present between single/double and multi-grade level schools in the academic achievement of White, Black, and Hispanic students in Grades 5 and 6, checks were conducted to determine the extent to which these data were normally distributed (Onwuegbuzie& Daniel, 2002). Although some of the data were not normally distributed, a decision was made to use parametric independent samples *t*-tests to answer the research questions. For results that were statistically significant at the .05 level, the effect size (i.e., Cohen's *d*) was calculated. Statistical results will now be presented by grade level, student ethnicity, subject area, and by school year.

With respect to Grade 5 White students for the 2012-2013 school year, the parametric independent samples *t*-test revealed a statistically significant difference, $t(161.85) = 3.61$, $p < .001$, in the STAAR Reading test passing rates between single/double grade level schools and multi-grade level schools. This difference represented a small effect size (Cohen's *d*) of 0.45 (Cohen, 1988). Grade 5 White students had higher average STAAR Reading passing rates in multi-grade level schools by more than 3.5% than did Grade 5 White students who were enrolled in single/double grade level schools. Readers are directed to Table 1 for the descriptive statistics for this analysis.

Table 1: Descriptive Statistics for the STAAR Reading and Mathematics Passing Rates by Grade Span Configuration for Grade 5 White Students for the 2012-2013 Through the 2014-2015 School Years

Subject Area, Year, and Grade Span Configuration	*n* of schools	*M*	*SD*
Reading for 2012-2013			
Single/Double	227	89.87	7.45
Multi-Grade	99	93.53	8.81
Reading for 2013-2014			
Single/Double	231	90.11	7.08
Multi-Grade	101	93.75	8.89
Reading for 2014-2015			
Single/Double	231	90.90	7.77
Multi-Grade	316	93.22	8.57
Mathematics for 2012-2013			
Single/Double	226	90.43	7.87
Multi-Grade	97	92.68	9.68
Mathematics for 2013-2014			
Single/Double	230	89.92	8.12
Multi-Grade	101	93.26	9.63

Concerning the 2013-2014 school year for Grade 5 White students, the parametric independent samples *t*-test yielded a statistically significant difference, $t(157.85) = 3.64$, $p < .001$, on the STAAR Reading test passing rates as a function of grade span configuration. This difference represented a small effect size (Cohen's *d*) of 0.45 (Cohen, 1988). Congruent with the previous year, Grade 5 White students had higher average STAAR Reading passing rates in multi-grade level schools by more than 3.5% than did Grade 5 White students who were enrolled in single/double grade level schools. The descriptive statistics for this analysis are presented in Table 1.

With respect to the 2014-2015 school year for Grade 5 White students, a statistically significant difference was present, $t(520.55) = -3.30$, $p = .001$, on the STAAR Reading test passing rates between the two grade span configurations. This difference represented a small effect size (Cohen's *d*) of 0.28 (Cohen, 1988). Commensurate with the previous two years, Grade 5 White students had higher average STAAR Reading passing rates in multi-grade level schools by more than 2.25% than did Grade 5 White students who were enrolled in single/double grade level schools. The descriptive statistics for this analysis are revealed in Table 1.

For the 2012-2013 school year for Grade 6 White students, a statistically significant difference was yielded, $t(163.39) = 2.72$, $p = .007$, in the STAAR Reading test passing rates between single/double grade level schools and multi-grade level schools. This difference represented a small effect size (Cohen's *d*) of 0.35 (Cohen, 1988). Grade 6 White students had higher average STAAR Reading passing rates in multi-grade level schools by more than 4% than did Grade 6 White students who were enrolled in single/double grade level schools. Delineated in Table 2 are the descriptive statistics for this analysis.

Table 2: Descriptive Statistics for the STAAR Reading and Mathematics Passing Rates by Grade Span Configuration for Grade 6 White Students for the 2012-2013 Through the 2014-2015 School Years

Subject Area, Year, and Grade Span Configuration	*n* of schools	*M*	*SD*
Reading for 2012-2013			
Single/Double	182	82.58	10.05
Multi-Grade	100	86.70	13.16
Reading for 2013-2014			
Single/Double	191	85.72	9.23
Multi-Grade	101	88.87	12.90
Reading for 2014-2015			
Single/Double	164	85.52	9.71
Multi-Grade	310	89.45	10.28
Mathematics for 2012-2013			
Single/Double	184	83.40	10.47
Multi-Grade	99	86.68	14.19
Mathematics for 2013-2014			
Single/Double	194	86.77	10.13
Multi-Grade	101	88.92	13.94

Regarding the 2013-2014 school year for Grade 6 White students, a statistically significant difference was revealed, $t(155.48) = 2.18$, $p = .03$, on the STAAR Reading test passing rates as a function of grade span configuration. This difference represented a small effect size (Cohen's *d*) of 0.28 (Cohen, 1988). Congruent with the previous year, Grade 6 White students had higher average STAAR Reading passing rates in multi-grade level schools by more than 3% than did Grade 6 White students who were enrolled in single/double grade level schools. Revealed in Table 2 are the descriptive statistics for this analysis.

With respect to the 2014-2015 school year for Grade 6 White students, a statistically significant difference was yielded, $t(349.06) = -4.11$, $p < .001$, on the STAAR Reading test passing rates as a function of grade span configuration. This difference represented a small effect size (Cohen's *d*) of 0.39 (Cohen, 1988). Commensurate with the previous two years, Grade 6White students had higher average STAAR Reading passing rates in multi-grade level schools by more than 3.75% than did Grade 6 White students who were enrolled in single/double grade level schools. The descriptive statistics for this analysis are presented in Table 2.

Next, the STAAR Mathematics test passing rates were analyzed as a function of grade span configuration for Grade 5 White students. Regarding the 2012-2013 school year, a statistically significant difference was yielded, $t(152.95) = 2.02$, $p = .05$, on the STAAR Mathematics test passing rates between the two grade span configurations. The difference represented a small effect size (Cohen's *d*) of 0.26 (Cohen, 1988). Passing rates on the STAAR Mathematics test for Grade 5 White students in multi-grade level schools were 2.25% higher than for Grade 5 White students who were enrolled in single/double grade level schools. Revealed in Table 1 are the descriptive statistics for this analysis.

With respect to the 2013-2014 school year for Grade 5 White students, the parametric independent samples *t*-test revealed a statistically significant difference, $t(165.23) = 3.04$, $p = .003$, $d = 0.38$, in STAAR Mathematics passing rates between the two grade span configurations The difference represented a small effect size (Cohen, 1988). Grade 5 White students who were enrolled in multi-grade level campuses had average passing rates that were 3.25% higher on the STAAR Mathematics assessment than did Grade5 White students who were enrolled in single/double grade level campuses. Readers are referred to Table 1 for the descriptive statistics for this analysis.

Next, the STAAR Mathematics test passing rates were analyzed as a function of grade span configuration for Grade 6 White students. Regarding the 2012-2013 school year, a statistically significant difference was revealed, $t(156.59) = 2.02$, $p = .05$, $d = 0.26$, on the STAAR Mathematics test passing rates as a function of grade span configuration. The difference represented a small effect size (Cohen, 1988). Grade 6 White students who were enrolled in multi-grade level campuses had a higher average passing rate in mathematics by more than 3.25% than did Grade 6 White students in single/double grade level schools. Table 2contains the descriptive statistics for this analysis.

Concerning the 2013-2014 school year for Grade 6 White students, a statistically significant difference was not present, $t(156.44) = 1.38$, $p = .17$, in STAAR Mathematics passing rates between the two grade span configurations. Although the results were not statistically significant, Grade 6 White students had a

higher average STAAR Mathematics passing rate in multi-grade level schools by 2.15% than Grade 6 White students in single/double grade level schools. Readers are referred to Table 2 for the descriptive statistics for this analysis.

Results of the statistical analyses for Grade 5 and 6 Black students will now be reported. For the 2012-2013 school year for Grade 5 Black students, a statistically significant difference was yielded, $t(74.25) = 4.15$, $p < .001$, $d = 0.68$,on the STAAR Reading passing rates between single/double grade level schools and multi-grade level grade schools. This difference represented a moderate effect size (Cohen, 1988). Grade 5Black students had STAAR Reading passing rates in multi-grade level schools that were more than 7.75% higher than Grade 5 Black students who were enrolled in single/double grade level schools. Table 3 contains for the descriptive statistics for this analysis.

Table 3: Descriptive Statistics for the STAAR Reading and Mathematics Passing Rates by Grade Span Configuration for Grade 5 Black Students for the 2012-2013 Through the 2014-2015 School Years

Subject Area, Year, and Grade Span Configuration	*n* of schools	*M*	*SD*
Reading for 2012-2013			
Single/Double	169	82.42	11.28
Multi-Grade	48	90.23	11.57
Reading for 2013-2014			
Single/Double	162	79.88	12.12
Multi-Grade	52	86.98	10.70
Reading for 2014-2015			
Single/Double	164	80.73	13.67
Multi-Grade	162	83.90	12.05
Mathematics for 2012-2013			
Single/Double	168	79.90	13.84
Multi-Grade	47	85.85	12.09
Mathematics for 2013-2014			
Single/Double	164	79.93	14.22
Multi-Grade	51	85.92	12.59

Regarding the 2013-2014 school year for Grade 5Black students, a statistically significant difference was yielded, $t(96.47) = 4.03$, $p < .001$, $d = 0.62$, on the STAAR Reading test passing rates as a function of grade span configuration. This difference represented a moderate effect size (Cohen, 1988). Congruent with the previous year, Grade 5 Black students had higher average STAAR Reading passing rates in multi-grade level schools by more than 7% than did Grade 5 Black students who were enrolled in single/double grade level schools. The descriptive statistics for this analysis are presented in Table 3.

With respect to the 2014-2015 school year for Grade 5 Black students, a statistically significant difference was revealed, $t(319.93) = -2.23$, $p = .027$, $d = 0.25$, on the STAAR Reading test passing rates as a function of grade span configuration. This difference represented a small effect size (Cohen, 1988). Commensurate with the previous two years, Grade 5 Black students had higher STAAR Reading passing rates in multi-grade level schools by more than 3.15% than did Grade 5 Black students who were enrolled in single/double grade level schools. Table 3 contains the descriptive statistics for this analysis.

For the 2012-2013 school year for Grade 6 Black students, a statistically significant differenc e was present, $t(63.29) = 4.34$, $p < .001$, $d = 0.77$, in the STAAR Reading test passing rates between single/double grade level schools and multi-grade level schools. This difference represented a moderate effect size (Cohen, 1988). Grade 6 Black students had STAAR Reading passing rates in multi-grade level schools that were more than 11.25% higher than Grade 6 Black students who were enrolled in single/double grade level schools. Readers are directed to Table 4 for the descriptive statistics for this analysis.

Table 4: Descriptive Statistics for the STAAR Reading and Mathematics Passing Rates by Grade Span Configuration for Grade 6 Black Students for the 2012-2013 Through the 2014-2015 School Years

Subject Area, Year, and Grade Span Configuration	*n* of schools	*M*	*SD*
Reading for 2012-2013			
Single/Double	146	67.46	14.23
Multi-Grade	42	78.81	15.15
Reading for 2013-2014			
Single/Double	152	74.80	12.85
Multi-Grade	51	83.24	14.75
Reading for 2014-2015			
Single/Double	128	74.02	14.31
Multi-Grade	158	78.74	14.75
Mathematics for 2012-2013			
Single/Double	142	67.78	15.24
Multi-Grade	42	81.48	15.94
Mathematics for 2013-2014			
Single/Double	153	74.97	15.21
Multi Grade-	51	83.92	13.31

Concerning the 2013-2014 school year for Grade 6 Black students, a statistically significant difference was yielded, $t(77.04) = 3.65$, $p < .001$, $d = 0.61$, on the STAAR Reading test passing rates as a function of grade span configuration. This difference represented a moderate effect size (Cohen, 1988). Congruent with the previous year, Grade 6 Black students had higher average STAAR Reading passing rates in multi-grade level schools by more than 8.4% than did Grade 6 Black students who were enrolled in single/double grade level schools. The descriptive statistics for this analysis are presented in Table 4.

With respect to the 2014-2015 school year for Grade 6 Black students, a statistically significant difference was revealed, $t(274.95) = -2.73$, $p = .007$, $d = 0.32$, on the STAAR Reading test passing rates as a function of grade span configuration. This difference represented a small effect size (Cohen, 1988). Commensurate with the previous two years, Grade 6 Black students had higher average STAAR Reading passing rates in multi-grade level schools by 4.7% than did Grade 6 Black students who were enrolled in single/double grade level schools. Revealed in Table 4 are the descriptive statistics for this analysis.

Next, the STAAR Mathematics test passing rates were analyzed as a function of grade span configuration for Grade 5Black students. Regarding the 2012-2013 school year, a statistically significant difference was present, $t(82.83) = 2.88$, $p = .005$, $d = 0.46$, on the STAAR Mathematics test passing rates as a function of grade span configuration. The difference represented a small effect size (Cohen, 1988). Grade 5 Black students had higher average STAAR Mathematics passing rates in multi-grade level schools by more than 5.9% than Grade 5 Black students who were enrolled in single/double grade level schools. Table 3 contains the descriptive statistics for this analysis.

With respect to the 2013-2014 school year for Grade 5Black students, a statistically significant difference was revealed, $t(93.03) = 2.87$, $p = .005$, $d = 0.45$, on the STAAR Mathematics passing rates between the two grade span configurations. This difference represented a small effect size (Cohen, 1988). Commensurate with the previous year, Grade 5 Black students had higher average STAAR Mathematics passing rates in multi-grade level schools by more than 5.99% than did Grade 5 Black studentswho were enrolled in single/double grade level schools. Revealed in Table 3 are the descriptive statistics for this analysis.

The STAAR Mathematics test passing rates were next analyzed as a function of grade span configuration for Grade 6 Black students. Regarding the 2012-2013 school year, a statistically significant difference was yielded, $t(64.79) = 4.94$, $p < .001$, $d = 0.88$, on the STAAR Mathematics test passing rates as a function of grade span configuration. The difference represented a large effect size (Cohen, 1988). Grade 6 Black students had higher average STAAR Mathematics passing rates in multi-grade level schools by more than 13.65% than did Grade 6 Black students who were enrolled in single/double grade level schools. Delineated in Table 4 are the descriptive statistics for this analysis.

With respect to the 2013-2014 school year for Grade 6 Black students, a statistically significant difference was revealed, $t(96.96) = 4.01$, $p < .001$, $d = 0.63$, on the STAAR Mathematics passing rates between the two grade span configurations. This difference represented a moderate effect size (Cohen, 1988). Commensurate with the previous year, Grade 6 Black students had higher average STAAR Mathematics passing rates in multi-grade level schools by8.95% than Grade 6 Black students who were enrolled in

single/double grade level schools. The descriptive statistics for this analysis are presented in Table 4.

Results of the statistical analyses for Grade 5 and 6 Hispanic students will now be reported. For the 2012-2013 school year, the parametric independent samples *t*-test revealed a statistically significant difference, $t(162.61) = 4.26$, $p < .001$,$d = 0.52$, on the STAAR Reading passing rates between single/double grade level schools and multi-grade level schools. This difference represented a moderate effect size (Cohen, 1988). Grade 5Hispanic students had STAAR Reading passing rates in multi-grade level schools that were more than 5% higher than Grade 5 Hispanic students who were enrolled in single/double grade level schools. Readers are directed to Table 5 for the descriptive statistics for this analysis.

Table 5: Descriptive Statistics for the STAAR Reading and Mathematics Passing Rates by Grade Span Configuration for Grade 5 Hispanic Students for the 2012-2013 Through the 2014-2015 School Years

Subject Area, Year, and Grade Span Configuration	*n* of schools	*M*	*SD*
Reading for 2012-2013			
Single/Double	237	83.69	8.65
Multi-Grade	102	88.73	10.50
Reading for 2013-2014			
Single/Double	244	81.79	9.83
Multi-Grade	105	87.67	10.66
Reading for 2014-2015			
Single/Double	241	83.11	9.98
Multi-Grade	370	85.94	11.94
Mathematics for 2012-2013			
Single/Double	238	85.65	9.37
Multi-Grade	101	88.33	11.61
Mathematics for 2013-2014			
Single/Double	243	85.57	9.43
Multi-Grade	103	89.58	11.62

Concerning the 2013-2014 school year for Grade 5Hispanic students, a statistically significant difference was revealed, $t(183.50) = 4.83$, $p < .001$, $d = 0.57$, on the STAAR Reading test passing rates as a function of grade span configuration. This difference represented a moderate effect size (Cohen, 1988). Congruent with the previous year, Grade 5 Hispanic students had higher average STAAR Reading passing rates in multi-grade level schools by more than 5.75% than did Grade 5 Hispanic students who were enrolled in single/double grade level schools. The descriptive statistics for this analysis are presented in Table 5.

With respect to the 2014-2015 school year for Grade 5 Hispanic students, a statistically significant difference was yielded, $t(572.27) = -3.16$, $p = .002$, $d = 0.26$, on the STAAR Reading test passing rates as a function of grade span configuration. This difference represented a small effect size (Cohen, 1988).

Commensurate with the previous two years, Grade 5 Hispanic students had higher average STAAR Reading passing rates in multi-grade level schools by more than 2.75% than did Grade 5 Hispanic students who were enrolled in single/double grade level schools. Revealed in Table 5 are the descriptive statistics for this analysis.

For the 2012-2013 school year for Grade 6 Hispanic students, a statistically significant difference was present, $t(154.51) = 3.87$, $p < .001$, $d = 0.50$, on the STAAR Reading test passing rates between single/double grade level schools and multi-grade level schools. This difference represented a moderate effect size (Cohen, 1988). Grade 6 Hispanic students had STAAR Reading passing rates in multi-grade level schools that were more than 7.25% higher than Grade 6 Hispanic students who were enrolled in single/double grade level schools. Table 6contains the descriptive statistics for this analysis.

Table 6: Descriptive Statistics for the STAAR Reading and Mathematics Passing Rates by Grade Span Configuration for Grade 6 Hispanic Students for the 2012-2013 Through the 2014-2015 School Years

Subject Area, Year, and Grade Span Configuration	*n* of schools	*M*	*SD*
Reading for 2012-2013			
Single/Double	201	69.78	12.33
Multi-Grade	100	77.05	16.67
Reading for 2013-2014			
Single/Double	205	78.62	10.13
Multi-Grade	104	82.92	14.05
Reading for 2014-2015			
Single/Double	178	75.70	11.09
Multi-Grade	358	80.16	14.25
Mathematics for 2012-2013			
Single/Double	200	73.94	12.00
Multi-Grade	102	79.39	16.69
Mathematics for 2013-2014			
Single/Double	206	80.81	10.73
Multi-Grade	105	85.65	13.16

Regarding the 2013-2014 school year for Grade 6 Hispanic students, a statistically significant difference was revealed, $t(158.95) = 2.78$, $p = .006$, $d = 0.35$, on the STAAR Reading test passing rates as a function of grade span configuration. This difference represented a small effect size (Cohen, 1988). Congruent with the previous year, Grade 6 Hispanic students had higher average STAAR Reading passing rates in multi-grade level schools by more than 4.25% than did Grade 6 Hispanic students who were enrolled in single/double grade level schools. The descriptive statistics for this analysis are presented in Table 6.

With respect to the 2014-2015 school year for Grade 6 Hispanic students, a statistically significant difference was present, $t(439.69) = -3.98$, $p < .001$, $d = 0.35$, on the STAAR Reading test passing rates as a function of grade span configuration. This difference represented a small effect size (Cohen, 1988). Commensurate with the previous two years, Grade 6 Hispanic students had higher average STAAR Reading passing rates in multi-grade level schools by 4.45% than did Grade 6 Hispanic students who were enrolled in single/double grade level schools. Revealed in Table 6 are the descriptive statistics for this analysis.

Next, the STAAR Mathematics test passing rates were analyzed as a function of grade span configuration for Grade 5Hispanic students. For the 2012-2013 school year, a statistically significant difference was yielded, $t(157.86) = 2.05$, $p = .042$, $d = 0.25$, on the STAAR Mathematics test passing rates as a function of grade span configuration. The difference represented a small effect size (Cohen, 1988). Grade 5 Hispanic students had higher average STAAR Mathematics passing rates in multi-grade level schools by more than 2.65% than Grade 5 Hispanic students who were enrolled in single/double grade level schools. The descriptive statistics for this analysis are presented in Table 5.

With respect to the 2013-2014 school year for Grade 5Hispanic students, a statistically significant difference was revealed, $t(161.67) = 3.10$, $p = .002$, $d = 0.38$, on the STAAR Mathematics passing rates between the two grade span configurations. This difference represented a small effect size (Cohen, 1988). Commensurate with the previous year, Grade 5 Hispanic students had higher average STAAR Mathematics passing rates in multi-grade level schools by more than 4% than did Grade 5 Hispanic students who were enrolled in single/double grade level schools. Revealed in Table 5 are the descriptive statistics for this analysis.

The STAAR Mathematics test passing rates were next analyzed as a function of grade span configuration for Grade 6 Hispanic students. Regarding the 2012-2013 school year, a statistically significant difference was yielded, $t(155.81) = 2.94$, $p = .004$, $d = 0.38$, on the STAAR Mathematics test passing rates as a function of grade span configuration. The difference represented a small effect size (Cohen, 1988). Grade 6 Hispanic students had higher average STAAR Mathematics passing rates in multi-grade level schools by more than 5.45% than did Grade 6 Hispanic students who were enrolled in single/double grade level schools. Table 6contains the descriptive statistics for this analysis.

With respect to the 2013-2014 school year for Grade 6 Hispanic students, a statistically significant difference was present, $t(176.20) = 3.26$, $p = .001$, $d = 0.40$, on the STAAR Mathematics passing rates between the two grade span configurations. This difference

represented a small effect size (Cohen, 1988). Commensurate with the previous year, Grade 6 Hispanic students had higher average STAAR Mathematics passing rates in multi-grade level schools by4.75% than Grade 6 Hispanic students who were enrolled in single/double grade level schools. The descriptive statistics for this analysis are presented in Table 6.

VIII. Discussion

In this investigation, the degree to which differences were present in reading and mathematics achievement as a function of grade span configuration for White, Black, and Hispanic students in Texas was examined. Three years of Texas statewide data were obtained and analyzed on White, Black, and Hispanic students in Grades 5 and 6 who were enrolled in either multi-grade level schools (i.e., PreK-6) or in single/double grade level campuses (i.e., Grades 4-5, 5 only, or Grades 5-6). For all three school years analyzed, the passing rates on the STAAR Reading and Mathematics tests for Grade 5 and 6 White, Black, and Hispanic students were statistically significantly higher in multi-grade level schools than in single/double grade level schools.

A Cohen's *d* (Cohen, 1988) was calculated to determine the practical importance of the passing rates differences for Grade 5 and 6 White, Black, and Hispanic students who were enrolled in either a single/double grade level configuration or a multi-grade level configuration for each subject area and school year.The array of the Cohen's *d* calculations for both the STAAR Reading and Mathematics analyses ranged from a low of 0.25 to a high of 0.88, with the average being 0.57 for the three years of data analyzed. Thus, the average degree of practical significance of the statistically significant results was moderate (i.e., 0.50 is the beginning of the moderate effect size range). Readers are referred to Table 7 for the Cohen's *d* effect size calculations for the STAAR Reading and Mathematics analyses.

Table 7: Cohen's ds for Differences in the STAAR Reading and Mathematics Passing Rates by Grade Span Configuration for Grade 5 and 6White, Black, and Hispanic Students for the 2012-2013 Through the 2014-2015 School Years

Grade Level, Ethnicity/Race, and Subject	2012-2013	2013-2014	2014-2015
Grade 5White Students			
Reading	0.45	0.45	0.28
Mathematics	0.26	0.38	N/A
Grade 6 White Students			
Reading	0.35	0.28	0.39
Mathematics	0.26	0.18	N/A
Grade 5 Black Students			
Reading	0.68	0.62	0.25
Mathematics	0.46	0.45	N/A
Grade 6 Black Students			
Reading	0.77	0.61	0.32
Mathematics	0.88	0.63	N/A
Grade 5Hispanic Students			
Reading	0.52	0.57	0.26
Mathematics	0.25	0.38	N/A
Grade 6 Hispanic Students			
Reading	0.50	0.35	0.35
Mathematics	0.38	0.40	N/A

With reference to the STAAR Reading results of Grade 5 White students, Cohen's *d* values ranged from a low of 0.28 to a high of 0.45 for the three years that were analyzed. For Grade 6White students, Cohen's *d* values for the STAAR Reading results ranged from a low of 0.28 to a high of 0.39 for the same three years. In comparison, the Cohen's *d*sfor the STAAR Reading results of Grade 5 Black students ranged from a low of 0.25 to a high of 0.68 for the same three years that were analyzed. The Cohen's *d* calculations for Grade 6 Black students on the STAAR Reading assessment ranged from 0.32 to 0.77. With reference to the STAAR Reading results of Grade 5 Hispanic students, Cohen's *d* values ranged from a low of 0.26 to a high of 0.57 for the three

years that were analyzed. For Grade 6 Hispanic students, Cohen's *d* values for the STAAR Reading results ranged from a low of 0.35 to a high of 0.50 for the same three years. For both grade levels for all ethnic groups, students enrolled in multi-grade level schools performed at a higher rate on the STAAR Reading assessment than did their peers in single/double grade level schools. Students enrolled in multi-grade level schools had an average passing rate that was 2.32% to 11.35% higher than students enrolled in single/double grade level schools. These Cohen's *d* calculations are presented in Table 7.

In regard to the STAAR Mathematics Assessment for Grade 5 White students, only two years of data were reported for the 2012-2013 and 2013-2014 school years. The Texas Education Agency had not established standards for the redesigned STAAR Mathematics assessment for the 2014-2015 school year, therefore, passing rates were not reported (Texas Education Agency, 2013). The difference in STAAR Mathematics passing rates as a function of grade span configuration for Grade 5 White students ranged from 0.26 to 0.38. The difference in average passing rates for the two years were 2.25% and 3.34%. For Grade 6White students, the average difference in STAAR Mathematics passing rates as a function of grade span configuration ranged from 0.18 to 0.26 (i.e., Cohen's *d*). The difference in average passing rates for the two years were 3.28% and 2.15%. All of these averages were in favor of White students who were enrolled in multi-grade level schools in comparison to White students who were enrolled in single/double grade level schools. Readers are referred to Table 7 for these Cohen's *d* calculations.

With respect to the STAAR Mathematics Assessment for Grade 5Black students, Cohen's *d*sranged from 0.45 to 0.46. The difference in the average passing rates were 5.95% and 5.99%, both in favor of Grade 5 Black students who were enrolled in multi-grade level schools in comparison to Grade 5 Black students who were enrolled in single/double grade level schools. For Grade 6 Black students, the Cohen's *d* calculations ranged from 0.63 to 0.88. These Cohen's *d* values are delineated in Table 7.

Concerning the STAAR Mathematics Assessment for Grade 5 Hispanic students, Cohen's *d*s ranged from 0.25 to 0.38. The difference in the average passing rates were 2.68% and 4.01%, both in favor of Grade 5 Hispanic students who were enrolled in multi-grade level schools in comparison to Grade 5 Hispanic students who were enrolled in single/double grade level schools. For Grade 6 Hispanic students, the Cohen's *d* calculations ranged from 0.38 to 0.40. Table 7 contains these Cohen's *d* values.

Grade 5 and 6 White, Black, and Hispanic students who were enrolled in multi-grade level schools had higher average passing rates in reading and in mathematics for the three school years than did their peers who were enrolled in single/double grade level schools. Readers are referred to Table 8, 9, and 10 for the mean differences between the grade span configurations and the grade span configuration wherein students had higher passing rates. The minimum difference was 2.15% and the maximum difference was 13.69% in favor of the multi-grade level schools.

Table 8: Mean Differences and Grade Span Configuration with the Best Performance in the STAAR Reading and Mathematics Passing Rates for Grade 5 and 6White Students for the 2012-2013 Through the 2014-2015 School Years

Grade Level, Subject, and Year	Mean Difference	Grade Span With Highest Passing Rate
Grade 5		
Reading		
2012-2013	3.66	Multi-Grade Level
2013-2014	3.64	Multi-Grade Level
2014-2015	2.32	Multi-Grade Level
Mathematics		
2012-2013	2.25	Multi-Grade Level
2013-2014	3.34	Multi-Grade Level
Grade 6		
Reading		
2012-2013	4.12	Multi-Grade Level
2013-2014	3.15	Multi-Grade Level
2014-2015	3.93	Multi-Grade Level
Mathematics		
2012-2013	3.28	Multi-Grade Level
2013-2014	2.15	Multi-Grade Level

Table 9: Mean Differences and Grade Span Configuration with the Best Performance in the STAAR Reading and Mathematics Passing Rates for Grade 5 and 6 Black Students for the 2012-2013 Through the 2014-2015 School Years

Grade Level, Subject, and Year	Mean Difference	Grade Span With Highest Passing Rate
Grade 5		
Reading		
2012-2013	7.81	Multi-Grade Level
2013-2014	7.10	Multi-Grade Level
2014-2015	3.18	Multi-Grade Level
Mathematics		
2012-2013	5.95	Multi-Grade Level
2013-2014	5.99	Multi-Grade Level
Grade 6		
Reading		
2012-2013	11.35	Multi-Grade Level
2013-2014	8.43	Multi-Grade Level
2014-2015	4.72	Multi-Grade Level
Mathematics		
2012-2013	13.69	Multi-Grade Level
2013-2014	8.95	Multi-Grade Level

Table 10: Mean Differences and Grade Span Configuration with the Best Performance in the STAAR Reading and Mathematics Passing Rates for Grade 5 and 6Hispanic Students for the 2012-2013 Through the 2014-2015 School Years

Grade Level, Subject, and Year	Mean Difference	Grade Span With Highest Passing Rate
Grade 5		
Reading		
2012-2013	5.04	Multi-Grade Level
2013-2014	5.88	Multi-Grade Level
2014-2015	2.83	Multi-Grade Level
Mathematics		
2012-2013	2.68	Multi-Grade Level
2013-2014	4.01	Multi-Grade Level
Grade 6		
Reading		
2012-2013	7.27	Multi-Grade Level
2013-2014	4.30	Multi-Grade Level
2014-2015	4.46	Multi-Grade Level
Mathematics		
2012-2013	5.46	Multi-Grade Level
2013-2014	4.84	Multi-Grade Level

a) Connections with Existing Literature

Schwarts, Stiefel, Rubenstein, and Zabel (2011) analyzed the achievement of students in Grade 8 based on grade span configuration. They noted that changing schools more frequently was associated with lower academic performance. Schwarts et al. (2011)noted that students in schools with multi-grade span configurations (e.g., K-8 or K-4 and 5-8) had a greater sense of belonging and the teachers had an improved opportunity to know the students, ultimately resulting in higher achievement scores. Similar results occurred when Rockoff and Lockwood (2010) documented that students' academic level decreased 0.15 standard deviations in mathematics and English when they transitioned from elementary to middle schools.

Additionally, Johnson et al. (2012) reviewed grade span configuration and analyzed the difference between the Texas Assessment of Knowledge and Skills passing rates in Science for Grade 5 students based on grade span configuration. They compared elementary settings (K-5) with intermediate settings (5-6) on the statewide science assessment. Johnson et al. (2012) documented that students in the K-5 setting had statistically significant higher science scores than their

peers in the intermediate setting. Of particular importance in their study were student passing rates that were up to 18% higher in the K-5 setting versus the 5-6 setting. The connectedness of all students, regardless of their race or ethnicity, can be increased by expanding the number of years spent in one school setting and implementing fewer transitions between schools.

b) Connection to Theoretical Framework

In this article, the school connectedness theory served as the theoretical framework (Biag, 2016; Niehaus, Rudasill, & Rakes, 2012; Woolley & Brown, 2007). Biag (2016) explored school connectedness forurban school personnel and the low-income ethnic minority youth they taught. Biag (2016) contended that school personnel were responsive to the family, economic, and community problems in which students face which help build caring and trusting relationships. In a study completed by Niehaus et al. (2012), trusting and supportive relationships that were consistent among staff in the school setting and students in Grade 6 were associated with higher academic achievement of Grade 6 students. Woolley and Bowen (2007) noted that students had higher academic performance if they had engaged, supportive adults present in their educational experience.

The results of this empirical, multiyear investigation are commensurate with the findings of Bing (2016), Niehaus et al. (2012), and Woolley and Brown (2007). White, Black, and Hispanic students in Grades 5 and 6 who attended a multi-grade level school setting had higher passing rates in reading and mathematics for every year analyzed than their peers who attended single/double grade span configured school settings. One explanation of these results can be explained by the support and engagement the students receive in a multi-grade level configuration versus a single/double grade span configuration.

c) Implications for Policy and Practice

In this multiyear analysis of academic achievement and grade span configuration for Grade 5 and 6 White, Black, and Hispanic students in Texas, students in schools with multi-grade level configurations had the highest passing rates on the STAAR Reading and Mathematics assessments. The concept of grade span configuration has substantial implications for education policy and practice. Local school district leaders and school board members should analyze the benefits of grade span configuration and review the grade span configurations of the campuses within the district's boundaries. If the district has any single/double grade span configurations within the schools, it would be important to reconfigure the schools to include multi-grade levels. This action would serve multiple purposes including increasing school connectedness among students and increasing academic achievement. Expanding the number of grade levels within school campuses would reduce the transitions students would have to make, which have been associated with decreases in academic achievement. The recognition and actions taken to increase the grade levels in school buildings would allow for greater consistency for students in reference to school procedures and expectations, greater consistency between families and school personnel, a reduced number of discipline concerns, and a greater focus on academics versus reestablishing oneself in a group of new peer groups. For future school construction, school leaders and school boards should examine the extant literature on grade span configuration and student performance.

d) Recommendations for Future Research

In this multiyear study, differences in passing rates in reading and in mathematics were examined for Texas White, Black, and Hispanic students in Grade 5 and 6 as a function of grade span configuration. The results that were obtained were consistent across both grade levels and all three years for all three student groups. Accordingly, researchers are encouraged to extend this study to other groups of students in secondary school levels. An extension of this study would be useful to determine whether grade span configuration is related to the academic achievement of students at advanced levels, students determined to be at-risk or economically disadvantaged, English Language Learners, or enrolled in special education. To date, researchers have utilized aggregated campus-level data to ascertain the effects of grade span configuration on student achievement. Utilizing individual student data provided by the Texas Education Agency Public Education Information Management System would be beneficial to add to the body of research on grade span configuration. Researchers are also encouraged to extend this study to other states to determine the extent to which results from this empirical investigation are generalizable to students and to school campuses in other states. Additional school connectedness factors that could be evaluated based on grade span configurations include attendance rates, truancy, and discipline records.

Researchers are encouraged to include qualitative data in a mixed methods study to enhance the qualitative information provided in this study. The qualitative data could include the perceptions of educational leaders, teachers, parents, and students regarding grade span configuration. As such, researchers are encouraged to conduct investigations into the social and/or emotional reasons for the relationship between grade span configuration and academic achievement.

IX. Conclusion

The purpose of this research study was to determine the degree to which differences were present in reading and mathematics passing rates as a function of grade span configuration for White, Black, and Hispanic students in Texas. Data were analyzed for all Grade 5 and 6 White, Black, and Hispanic students who were enrolled in either multi-grade level schools (i.e., PK-6) or in single/double grade level schools (i.e., Grades 4-5, 5 only, or Grades 5-6) in Texas for the 2012-2013, 2013-2014, and the 2014-2015 school years. Statistically significant differences were present for all three school years for Grade 5 and 6 White, Black, and Hispanic students in their reading and mathematics passing rates as a function of the grade span configuration of the school in which they were enrolled. White, Black, and Hispanic students in Grade 5 and 6 had higher average passing rates in both reading and mathematics in multi-grade level settings than in single/double grade level settings. Congruent with previous researchers (Clark et al., 2013; Combs et al., 2011; Kieffer, 2013), White, Black, and Hispanic students in Grade 5 and 6 who were enrolled in multi-grade level school settings had higher levels of academic success than did their peers who were enrolled in single/double grade level span settings.

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The Impact of Board Characteristics on Firms Financial Performance - Evidence from the Egyptian listed companies

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Abstract- Board characteristics considered in this study include board size, presence of outside directors, CEO– Chairman duality and gender diversity on the board. Firm performance is measured by return on assets (ROA) and Tobin's Q. This study includes firm age, firm size and industry type as control variables. The author tests the hypotheses on longitudinal sample of 70 firms over six-year period from 2005 until 2010. The sample includes the most active firms (EGX 100) on the Egyptian stock exchange. Empirical analysis is undertaken using pooled OLS and FGLS regressions after adopting the prerequisite tests and after detecting the absence of endogeneity between the variables.

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The Impact of Board Characteristics on Firms Financial Performance - Evidence from the Egyptian listed companies

Marwa Anis[α], Amon Chizema[σ], Xiahui Lui [ρ] & Hadia Fakhreldin[ω]

Abstract- Board characteristics considered in this study include board size, presence of outside directors, CEO–Chairman duality and gender diversity on the board. Firm performance is measured by return on assets (ROA) and Tobin's Q. This study includes firm age, firm size and industry type as control variables. The author tests the hypotheses on longitudinal sample of 70 firms over six-year period from 2005 until 2010. The sample includes the most active firms (EGX 100) on the Egyptian stock exchange. Empirical analysis is undertaken using pooled OLS and FGLS regressions after adopting the prerequisite tests and after detecting the absence of endogeneity between the variables.

This study makes a number of contributions to the existing literature. First, it provides a better understanding of the overall picture of Egypt's internal governance mechanisms. The findings also contribute to our understanding of how corporate governance in Arab countries is practised in general and in Egypt in particular. Second, an important finding about Egyptian firms is that in the presence of the non-mandatory code, the board of directors is not effective in implementing proper corporate governance practices. This view is supported by the low level of compliance and the weak legal system. Governance in Egyptian-listed firms is achieved spontaneously through other factors, such as ownership

I. Introduction

Boards of directors are a key important instrument (Hau and Mat Zin, 2007) and a central institution in the internal governance mechanisms of a company (Lefort and Urzua, 2007; Arosa, Iturralde, and Maseda, 2010). Moreover, the board of directors is crucial in reducing the agency problem that ascend from the separation of ownership and control (Fama 1980; Shleifer and Vishny, 1997). The contemporary board of directors is in charge to monitor the performance of top management to ensure that they act according to the best interests of the owners (O'Connell and Cramer, 2010).

In these terms, many studies show interest to examine the relationship between board characteristics and firm's performance. Some studies based their studies on data about USA (e.g. Rosenstein and Wyatt, 1990; 1993; Cheng, 2008; Coles et al., 2008). Other studies are concerned with European countries (e.g. Campbell et al., 2008; O'Connell and Cramer, 2010; Arosal et al., 2010). There are also abundant studies on Asian countries (e.g. Ye et al., 2002; Haniffa and Cooke, 2005; Mak and Kusnadi, 2005). In contrast, it is only recently that attention has been paid to less developed countries. However, these studies yield relatively conflicting findings. This inconsistent international evidence may partly be explained by the fact that prior studies use different measurement for the independent variables, performance proxies, different hypothesis, sample periods, control variables and estimation techniques. However, it may be explained by country and contextual differences. Accordingly, Arosa et al. (2010) call for more studies on different countries to provide results on a broader scale.

Egypt arguably offers an interesting research context where the association between corporate governance and financial performance can be empirically examined. Egyptian companies differ from those of the developed or Asian countries context. Unlike most of the developed countries, Egypt has the following characteristics: First, the corporate legal system in Egypt largely follows the civil law system, but one can reasonably argue that the relation between legal origin and financial arrangements reflects the influence of the role of the state or the nature of the political system and its national governance. Second, the economy is characterised by having a relatively closed and highly concentrated political system with weak national governance. The majority of firms are either government- or family-owned with stock markets still in a rudimentary stage. Third, Egypt has a distinct corporate governance regulatory environment relative to developed countries. For instance, the principle of good corporate governance regulations and best practice recommendations are in direct contrast with the rule-based regime in the United States. Corporate governance in Egypt is not mandatory but US regulatory bodies insist on applying the legal structures of the Securities and Exchange Commission's compulsory rules. Hence, it is expected that this may affect the level of compliance with the code which in response may impact on the relationship between corporate governance and firm financial performance.

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Moreover, a formal Egyptian Corporate Governance Code (ECGC) was introduced in 2005. This code has not gone through any process of amendment or improvement. Also, a review of literature shows that there is a lack of research that relates firm financial performance to certain corporate governance attributes such as gender diversity in the Egyptian context.

A few methodological issues in previous studies need to be addressed. First, the Ordinary Least Square (OLS) and the two-stage linear simultaneous (2SLS) regressions models have been the most widely applied econometric estimation methods used by previous empirical studies. However, these two methods are employed without any prior tests (such as endogeneity and heterogeneity) concerning the characteristics of the data set. That is why this choice of estimation model is questionable. There is a possibility that the results generated by the OLS and the 2SLS regression methods could be misleading and unreliable.

As for the independent variables, previous studies are concerned with examining the impact of board size, board leadership and independent directorship on firm performance but they potentially ignore other important dimension such as gender diversity. In these terms, there have been a number of valuable studies that focus on women's under-representation on boards or as a top executive and the issue of the glass ceiling effect but little has been written about the impact on performance of gender diversity on boards.

II. Board Characteristics and Empirical Hypotheses

a) *Board Size*

From the agency problem perspective, large boards are not recommended while small boards are preferred to improve performance (Lipton and Lorsch, 1992; Yermark, 1996). In these terms, Kim and Nofsinger (2007) argue that small boards are better than large ones as they avoid the free-rider problem that might appear among board members, meaning each board member may feel inclined to exert more effort than s/he would have otherwise. The contrary view to the agency and resource-based perspective is that larger boards are associated with diversity in skills, business contacts and experience (Haniffa and Haudaib, 2006). Similarly, larger boards secure access to critical resources such as finance and raw materials (Goodstein et al., 1994).

Regarding the board of director's size-performance relationship, one of the main reliable empirical associations is that board size is associated negatively with the performance of the firm (Hermalin and Weisback, 2003). Statistically, it has been found by Yermack (1996) that there is a significant negative association between the performance of an organization and the board size as calculated by Tobin's Q by taking a sample of 452 huge U.S. industrial companies for the period from 1984 to 1991. In the same research, it has also been exhibited that corporations with small boards have highly favourable standards for financial ratios.

In the same way, Wells, Eisenberg and Sundgren (1998) exhibit that there is a negative relationship between a firm's board size and its performance calculated by the ROA (return on assets) using a sample of 879 small private concerns in Finland. The study by Barhart and Rosenstein, conducted during 1998, exposed that organizations with fewer members on the board have greater performance compared to the firms with large boards. The study by Conyon and Peck (1998) covers the period from 1992 to 1995 and it was carried out for five countries — France, UK, Italy, Denmark and Netherlands — which also proved that there is negative relationship between financial performance and the board size for each country.

The study by Loderer and Peyer (2002) revealed negative collision of size of the board on the Tobin'Q for Switzerland. The negative association between the size of the board and the performance of the firm for Japanese firms has been concluded in the study by Bonn, Yoshikawa and Phan (2004) but the same research failed to discover the same result the Australian firms. Lasfer (2004) has shown a significant negative impact of size on board on the Tobin's Q for 1424 UK firms. The same results were found for the Malaysian firms in both the studies made by Haniffa and Hudaib (2006) and Mak and Kusnadi (2005). With respect to firm value, Coles, Daniel & Naveen (2008) support the notion those restrictions on the board size and management representation on the board necessarily enhance firm value. The idea of small boards is supported as small boards will lead to more cohesiveness, more productive, effective monitoring and still against the idea of large boards due to the problems that come up from social loafing and coordination costs (Lipton and Lorsch, 1992; Yermark, 1996). Collectively, these and similar studies imply that small boards are better.

From the previously reviewed literature, the author has suggested the following hypotheses related to board size based on the agency theory and resource-based theory:

H_1: There is an inverse relationship between board size and firm performance (ROA).

H_2: There is an inverse relationship between board size and firm value (Tobin's Q).

b) *Non-Executive director/Outside director*

In the corporate governance literature, there is great debate regarding whether the composition of boards in the manner of presentation of non-executive directors leads to economic worth to organizations (Kesner et al., 1986, Weisbach and Hermalin, 2003; Peta, 2005). Studies, for instance, by Kaplan and

Reishus (1990); Byrd and Hickman (1992); Brickley et al. (1994); Beasley (1996); McCabe and Nowak (2008); Dermirbas and Yukhanaev (2011); Joh and Jung (2012) establish a positive influence from employing outside independent directors on the board. Several studies, such as Schellenger et al. (1989), Dalton and Daily (1992), Lau and Tian (2001) and Tang and Luan (2007), establish that boards comprising further outside independent directors improves the economic performance of the firm.

The agency theory, with respect to the composition of the board, proposed that a better amount of outside directors will be capable of monitoring the actions made by the managers on any self-interest and so can reduce the costs of the agency (Fama, 1980; Jensen and Fama, 1983). Conversely, the stewardship's theory proponents argue that better corporate performance is associated with a greater proportion of inside directors as they work to increase income of stockholders (Donaldson, 1990; Donaldson and Davis, 1991). Stewardship theory opponents argue that corporate boards dominated by NED may impact performance negatively (Baysinger et al., 1990; Bozec, 2005).

From the perspective of resource dependency theory, the board is an essential association among the external resources and organisation that is required to enlarge the performance or presentation (Zald, 1969; Pfeffer, 1972; Salancik and Pfeffer, 1978). Management scholars, by way of creating the resource-based view (RBV) of the organization (Wernerfelt, 1984; Barney, 1991), view the board as probably a significant source for organization, specifically in associating the organisation with external resources (example, Paetzold, Hillman and Cannella, 2000). So, these previous studies support the idea of having more non-executive directors with outside connections to have better access to external resources.

Prior empirical evidence regarding the relationship between percentage of NED and firm financial performance is mixed. A number of empirical studies report that boards dominated by NED deliver high performance (e.g. Berle & Means, 1933; Dahya & McConnell, 2005; Lawler & Finegold, 2006). By contrast another group of studies reports a negative relationship between NED and firm performance (e.g. Yermark, 1996; Agrwal and Knoeber, 1996; Bozec , 2005; Sanda et al., 2005). These studies believe that too much NED may also stifle managerial initiatives through excessive monitoring. A third stream of empirical studies found that NED has no impact on performance. Research on firms in the U.S. revealed no association between the amount of the outside directors and the performance of the firm (for instance, the surveys by Hermalin and Weisbach, 2003; Haniffa and Haudaib, 2006).

The author has suggested the following hypotheses based on the agency theory and resource-based theory:

H_3: There is positive relationship between the presence of outside directors and firm performance (ROA).

H_4: There is positive relationship between the presence of outside directors and firm value (Tobin's Q).

c) Leadership structure

Another essential dimension of board structure is what is called *board duality* or *board leadership*. It is argued by the theorists of agency that the same individual must not hold the position of Chairman and CEO simultaneously, since this may decrease the efficiency of the monitoring of the board (Finkelstein and D'Aveni, 1994). Yermack (1996) states that firms become comparatively more valuable as the positions of Chairperson and CEO become separated. Where the Chairman and the CEO are efficient leaders in handling conflicts as per interest as well as problems of agency (Brickley et al., 1997), this offers more preference to those where the CEO becomes separated from Chairmanship. However, it is argued by the stewardship theorists that however an individual in both the positions may increase the performance of the firm, as such an arrangement clears any external and internal ambiguity concerning the accountability for the processes of organisation and results (Donaldson, 1990 D'Aveni and Finkelstein, 1994).

Empirically, the evidence regarding the relationship between board leadership and firm performance is mixed (e.g. Rechner and Dalton, 1991; Brickley et al., 1997). Rechner and Dalton (1991) state that companies having CEO duality attain stronger financial performance as against other companies. Haniffa and Hudaib (2006) report that company has better ROA than those firms with combined role. This indicates that the monitoring role of board improves when the role of Chairman and CEO are split. By contrast, a group of researchers report that board duality has positive impact on performance (Donaldson and Davis, 1991). This is consistent with the view that board duality enhances decision making by permitting a proper focus on the company objectives. A third stream of empirical studies suggests that board duality has no impact on firm performance (Bozec et al., 2005). Moreover, Hanifa and Hudaib (2006) reports insignificant relationship with Tobin's Q and other supports their findings (Brickley et al., 1997; Vafaes et al., 1998). These studies suggest that board duality does not affect investors' decisions.

The author suggests the following hypotheses based on agency theory:

H_5: There is an inverse relationship between board duality and firm performance (ROA).

H_6: There is an inverse relationship between board duality and firm value (Tobin's Q).

d) Gender Diversity

For the empirical literature, Adams and Ferrira (2009) find evidence that gender composition on boards is positively related to board effectiveness measures. Also, Carter et al. 2003) find positive association between gender diversity and Tobin's Q as a proxy for market-based performance measures. However, Dalton and Dalton (2010) state that greater gender diversity may affect performance negatively due to the fact that women are known to be risk averse and because of the high cost associated with their high turnover and absenteeism rate (Dalton and Dalton, 2010). Also, a high proportion of gender diversity on the board may lead to identification with the opinion expressed by the directors of the same gender (Campbell, 2008). Shrader et al. (1997) find a negative association between gender diversity and firm performance. The study justified this association because the view of women may be marginalized although they are still paid. This impacts negatively the firm performance. A third stream of studies found no relationship between gender diversity and firm performance (e.g. Rose, 2007).

Accordingly, the author suggests the following hypothesis:

H_7: There is a positive relationship between female presence on the board and firm performance (ROA).

H_8: There is a positive relationship between female presence on the board and firm value (Tobin's Q).

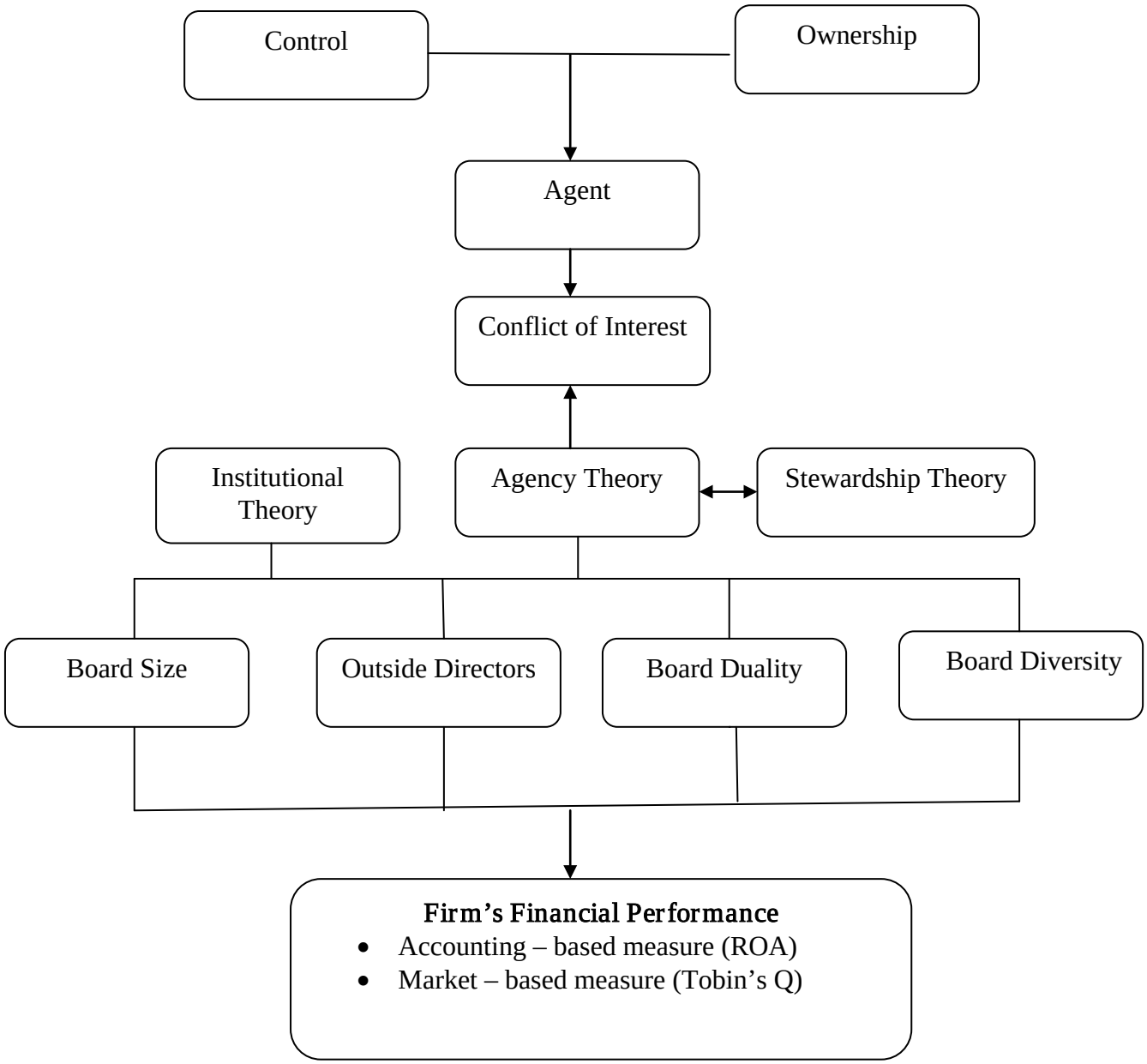

Figure 1: Theoretical Framework

III. Sample, Variables and Econometric Model

a) Data

The sample firms used in examining the internal governance mechanisms and financial performance are drawn from the companies listed on the Egyptian Stock Exchange (CASE). The sample consists of the most active 100 companies (EGX 100). All relevant data is collected from 2005 to 2010.

The sample period of this study starts from 2005 because it is the year in which the Egyptian code of corporate governance was issued. Thus, the changes that have occurred in the Egyptian-listed companies since the code was issued can be traced. Data after 2010 have not been included because of the Egyptian revolution, known as the "Arab Spring", in 2011, which in turn, may lead to different conclusions. The political and economic outlook of much of the MENA region, of which Egypt is part, remains uncertain. Accordingly, it is expected that Egypt may register low economic growth after 2011 given the substantial levels of political and social uncertainty, the cancellation or suspension of investments and the temporary shutdown of some banks, stock market…etc. (World Bank, 2013, World Bank, 2011). To underpin proper economic and political reform, it will be essential to understand the situations that led to severe problems in Egypt. Understanding the challenges that existed in the context before 2011 is essential as it will help practitioners and policy makers to take them into consideration to develop a more transparent and effective governance to unleash the region's economic development. Yet, six years after this dramatic change, it is still unclear to what extent this political turmoil has affected Egyptian-listed firms as it is likely that stock prices will be accompanied with great deal of uncertainty and adjusted negatively during the unrest (Chau et al., 2014).

Even in studies carried out after 2011, researchers always divide their sample into before and after 2011 (e.g. Chekit and Diwan, 2013) or they concentrate on only one of them, such as Wahaba (2014) who based her study on the period before 2011. All the sectors are investigated with no companies excluded except for those which refused to provide the researcher with any information and do not disclose any relevant data to this research. The board of directors' variables are extracted from the annual reports of the sampled companies, disclosure book that is issued annually by the Egyptian stock exchange. Some annual reports are obtained from company websites. Company annual stock market and financial accounting performance variables are collected from several sources, such as the companies' annual reports and disclosure books. Information is also obtained from databases such as Bank Scope, Reuters and Coface Egypt.

A considerable amount of effort has been put in to manage the sample size as much as possible. As a result, for companies with particular year's annual report missing or not available in the other sources, they are directly contacted via phone or e-mail as recommended by Dess and Robinson (1984). It is regarded as acceptable to depend on reliable informants from within the company if the archival data is absent. According to the presented procedures above regarding the data collection process, a total of 70 Egyptian-listed companies are ready for statistical analysis; companies with incomplete data for six consecutive years are rejected. A detailed description for the sampled data is provided in Appendix A.

IV. Variable and Statistics

Board Size is defined in this study as the total number of board members. ***Outside director*** is proxied by the number of non-executive directors divided by the total number of directors on the board. ***The leadership structure*** in the form of a dummy variable denoted 1 if the roles of the CEO and Chairman are combined and 0 otherwise. *The gender diversity* is calculated by dividing the total number of women in board by the total number of board members.

The two performance measures are ROA and Tobin's Q. ROA is defined as the measure of the capacity of assets of a firm to generate profits and is considered to be a key factor in determining the future investment of the firm; therefore it is used as an indicator of a firm profitability (Arosa et al., 2010). Similarly Lindenberg and Ross (1981) have described that the ratio of the market value of the organizational assets to the replacement cost of the assets of firm's is known as Tobin's Q. A summary for the above mentioned variables are mentioned in figure 1.

a) Econometric Model

Panel data analysis is adopted in most studies that are related to corporate governance. Many previous studies have observed a number of companies for several years (e.g. Garcia Meca et al., 2011).

Generally, there are two types of panel estimator approaches that can be employed: fixed effect models and random effect (Bollen and Brand, 2008; Park, 2011; Schmidheiny, 2012).

Fixed effects are tested by the F-test while random effect is examined by the Lagrange multiplier (LM) test. The F-test compares the fixed effect model and OLS to identify which one of them will improve the goodness of fit, the null hypothesis is that all dummy variables except for the one dropped are all zero, H0 :μ1= …..μn-1 = 0. The alternative hypothesis is that at least one dummy parameter is not zero. If the null hypothesis is rejected this indicates that the fixed effect model is better than the pooled OLS. The Breusch and Pagan Lagrange multiplier for random effect test (LM)

test contrasts the random effect model with the OLS. This test indicates whether OLS regression is appropriate or not. H0: OLS regression is appropriate. The result of this test obeys the chi-square distribution. If the null hypothesis is rejected this indicates that there is a random effect in the panel data, and that the random effect model is able to deal with heterogeneity better than the pooled OLS (Park, 2011). Accordingly, if the null hypothesis is not rejected in either test, then the pooled OLS regression is favoured. Once these two tests are implemented then the model is determined as shown in Table 1.

Table1: Fixed effect and random effect models

Fixed Effect (F test)	Random effect (Breuch-Pagan LM test)	The Model
H_0 is not rejected (no fixed effect)	H_0 is not rejected (no random effect)	Data are poolable = Pooled OLS
H_0 is rejected (fixed effect)	H_0 is not rejected (no random effect)	Fixed Effect Model
H_0 is not rejected (no fixed effect)	H_0 is rejected (random effect)	Random Effect Model
H_0 is rejected (fixed effect)	H_0 is rejected (random effect)	Choose one depending on the results of Hausman test

Source: (Park, 2011)

To decide which technique is appropriate for panel data, the Hausman Test is employed. The null hypothesis of Hausman test is that the random effect model is more suitable, and the alternative hypothesis is that the fixed model is more suitable. The results of the Hausman test obey the chi-square distribution; if it is lower than the critical value, the null hypothesis will be rejected.

b) Endogeneity Test

A further step suggested by Larcher and Risticus (2008) involves conducting an exogeneity test in key explanatory variables to ascertain whether it is actually endogenous or not. This step is done following many corporate governance studies (e.g.; Li, 1994; Hermalin and Weibach, 1998; O'Connell and Cramer, 2010). If the coefficient resulting from the tests is significant, then the relationship between corporate governance variables and firm performance tends to be endogenous. This suggests that the researcher should be directed towards using the instrumental variable regression (IV).

V. Results

Endogeneity between board structure variables and ROA and between board structure and Tobin's Q have been revealed by system exogenity tests (Table 2 and table 3) respectively. Thus, there is no reverse causation running between board structure and any of the firm performance measures (ROA and TQ). So, endogeneity problem is not needed to be addressed in the analysis.

Table 2: Endogeneity test between board structure and ROA

Variable	*P-Value*	*Endogeneity Test*
Board Size	0.8994	0.016
Duality	0.4337	0.613
Board Diversity(female)	0.8842	0.021
Outside directors	0.2873	1.132

Table 3: Endogeneity test between board structure and Tobin's Q

Variable	*P-Value*	*Endogeneity Test*
Board Size	0.5184	0.417
Duality	0.1153	2.069
Board Diversity(female)	0.1773	1.820
Outside directors	0.2873	1.132

Accordingly, F-test for fixed effect and Breusch-Pagan Lagrange multiplier for random effect test are employed to allow the researcher to choose between fixed effect, random effect and pooled OLS regression (Park, 2011). The LM test examines if individuals (or time) specific variance components are zero (Park,

2011). The result of this test obeys the chi-square distribution. If the null hypothesis is rejected in the test, then there is a significant random effect in the panel data, and the random effect model can deal with heterogeneity better than the pooled OLS (Park, 2011). For the relationship between board characteristics parameters and ROA the chi-square is 89.88 and for the relationship between board characteristics parameters and Tobin's Q the chi-square is 1.73. From the results of the LM tests, the relationship between the board characteristics and ROA is examined through the random effect models. The relationship between the board characteristics and Tobin's Q is examined through the pooled OLS regression. The results of the LM test are summarised in Table 4.

Table 4: Summary for the Breusch-Pagan Lagrange multiplier (LM) for random effect test

	Board characteristics and ROA	Board Characteristics and Tobin's Q
Chi(2)	89.99	1.73
Prob> Chi(2)	0.00	0.094
Hypothesis testing	Rejected	Fail to reject
Type of regression	Random effect model	Pooled OLS regression

Table 5: The relationship between board structure and ROA (results of FGLS regression)

Independent Variables	Coefficient	Standard Error	P Value
Board size	0.002	0.003	0.455
Leadership structure (CEO and Chairman Duality)	-0.021	0.006	0.001***
Gender diversity (% of females on boards)	-0.014	0.027	0.606
% of outside directors	0.054	0.026	0.034**
Control variables			
Food and Beverage	**-0.078**	**0.012**	**0.000*** **
Financial services and banks	**-0.153**	**0.012**	**0.000*** **
Building and Construction material	**-0.077**	**0.012**	**0.000*** **
Basic Resources	**-0.044**	**0.028**	**0.117**
Personal and Household Products	**-0.133**	**0.012**	**0.000*** **
Utilities	**-0.116**	**0.041**	**0.004*** **
Telecommunication	**-0.117**	**0.012**	**0.000*** **
Entertainment	**-0.136**	**0.017**	**0.000*** **
Real estate	**-0.090**	**0.011**	**0.000*** **
Firm's age	0.000	0.000	0.365
Firm's size	**0.004**	**0.002**	**0.020** **
_cons	0.076	0.028	0.006
Wald Chi^2	307.53		0.000

*Note: ***, ** and * denote significance at the 1%, 5% and 10% levels, respectively.*

Table 5 contains the Feasible Generalised Least Square (FGLS) regression results for the extent of the relationship between variables determining the board's characteristics and accounting-based financial measure ROA. This table reports the results of the regression of ROA and the control variables considered are: the size of the firm, the age of the firm and industry type.

The coefficients on the board size and the percentage of outside directors are positively associated with firm performance. However, only the positive association between outside directors and performance is statistically significant. The finding is contrary to the expectation as predicted in Hypostudy1 but it lends empirical support to Hypostudy3. The coefficient on CEO duality (Leadership structure) shows negative association with ROA; this association is statistically significant and correctly signed. This finding supports Hypostudy5. The coefficient of females on boards is found to be insignificant. Therefore, Hypostudy7 is not supported.

The control variables are also included in the model. The size of the firm is positively associated with ROA and this relationship is statistically significant. Also, with respect to the industry type there is a statistically

significant association with all industry types except for Basic Resources. However, the age of the firm shows positive insignificant association. All these main findings are discussed in more detail in the discussion section later.

Table 6: The relationship between board structure and Tobin's Q (results pooled OLS)

Independent Variables	Coefficient	Standard Error	P Value
Board size	-0.002	0.001	0.118
Leadership structure (CEO and Chairman Duality)	-0.009	0.004	**0.005*** **
Gender diversity (% of females on boards)	-0.034	0.017	**0.048** **
% of outside directors	0.036	0.014	**0.007*** **
Control Variables			
Food and Beverage	-0.013	0.007	**0.074***
Financial services and banks	-0.031	0.006	**0.000*** **
Building and Construction material	-0.011	0.006	**0.070***
Basic Resources	-0.005	0.010	0.608
Personal and Household Products	-0.018	0.007	**0.009*** **
Utilities	-0.002	0.009	0.782
Telecommunication	-0.019	0.008	**0.021** **
Entertainment	-0.036	0.009	**0.000*** **
Real estate	-0.019	0.006	**0.003*** **
Firm's age	0.000	7.13E-05	**0.052***
Firm's size	-0.000	0.001	0.497
_cons	0.079	0.016	0.000
Adjusted R^2	**0.11**		

*Note: ***, ** and * denote significance at the 1%, 5% and 10% levels, respectively.*

Table 6 contains OLS regression results based on the market-based performance measure Tobin's Q. Table 8.13 contains OLS regression results based on the market-based performance measure Tobin's Q. The variables investigated are the four variables determining the board characteristics.

As is evident in the table 6, the adjusted R2 is approximately 11%. This means at least 11% of the variations in the sampled firms' market return (Tobin's Q) can be explained jointly by the variables of the board of directors' characteristics parameters. The coefficients on the presence of outside directors and board duality are both significant and correctly signed. These findings support hypotheses 4 and 6. By contrast, board diversity as measured by % of females on boards is found to be significant but with a sign contrary to expectations as predicted in Hypostudy8. Board Size is found to be insignificant. Therefore, Hypostudy2 is not supported.

As for the control variables in this regression model, they are all statistically significant except for firm's size and two types of industries (Basic Resources and Utilities).

Each of these main findings will be discussed in more detail in the discussion section below.

VI. Discussion of the Findings

a) Board size

As discussed above in the literature review, the argument about board size is mainly related to the issues of coordination and communication in a group. It is continuously suggested in the literature (e.g. Lipton and Lorch, 1992; Jensen 1993) that firms should not appoint too many directors on the board. This main argument is based on the idea that large boards, as in any formal group, tends to involve less meaningful discussions which consume time and lead to difficulties to achieve cohesiveness. In return, it will be less effective in decision making, is more risk averse, and creates a problem of free riders. Large boards also lead to problems of coordination. It was advised that board size should be a maximum of 8 to 9 directors. They argue that board size that exceeds 10 directors adds to additional costs.

In these terms, Bonn et al. (2008) state that board size is positively related to measures of the private benefits available to insiders (agents/managers), however it is negatively related to proxies for the cost of monitoring insiders. According to the above perspectives the hypotheses developed are:

H_1: There is an inverse relationship between board size and firm performance (ROA).

H_2: There is an inverse relationship between board size and firm value (Tobin's Q).

The validity of these hypotheses has been tested but shows no evidence of a negative association of board size and firms' financial performance (ROA and Tobin's Q). Overall the results of the current study are contrary to what is suggested in the corporate governance literature; this means companies with small boards do not outperform companies with large boards.

The findings of this study are consistent with Bonn et al. (2004) who find insignificant association between board size and firm performance. They recognised that board size is only a factual number of directors but it does not necessarily reflect what is happening between board members. At least this finding indicates that the current average board size in Egyptian-listed forms is not an origin for any kind of coordination or communication problems between board members. Moreover, it shows that it is not always a good reason to choose a minimum or maximum board size for Egyptian-listed companies as with previous studies (e.g. Guest, 2009 and Lipton and Lorch, 1992). The right number of directors is a trade off between the benefits of having sufficient competencies represented and the cost of free-riding among members on the board. Accordingly, the author suggests considering in future research some diversity factors such as diversity of knowledge and educational background.

Moreover, although in US- and European-listed companies' studies it is found that board size influences the performance of the firm, the presented results indicate that in Egyptian-listed companies, board size does not affect firm performance. These findings do not lend empirical support to the previous studies that find negative association between board size and performance (e.g. Eisenberg, Sundgren and Wells, 1998; Lipton and Lorch, 1992; Kim and Nofsinger, 2007; Yermack, 1996; Jensen, 1993). Hence, the relationship between board size and performance may differ due to a firm's specific characteristics and the national institutional characteristics. Egypt has a different institutional setting than that of the US and European countries (as highlighted in the introduction); that is why the board size–performance relationship differs.

Another possible explanation for this phenomenon may be related to the nomination of board members. For instance, board size may result from the owner's preference to include certain or additional members on the board regardless of their skills and qualifications. There may be pressure to include family members or more outside directors such as bank officers. This will enhance board size but not necessarily enhance firm performance. Thus, board size does not necessarily affect the performance of Egyptian-listed companies.

b) Outside directors

The literature review mentions that in a modern corporation, the board of directors is responsible for monitoring the administration (Berle and Means, 1933). Specifically, this is related to the presence of outside directors who are arguably independent from management. It is argued that boards comprising of outside directors can provide a counter-balance so that inside directors do not take advantage of their positions and sacrifice shareholders' wealth. The presence of independent directors will enhance the flow of information and hence protect the firm resources and reduce uncertainty. Correspondingly, outside directors are predicted to be connected with the improved performance and valuation of the corporation. The hypotheses developed are:

H_3: There is a positive relationship between the presence of outside directors and firm performance (ROA).

H_4: There is a positive relationship between the presence of outside directors and firm value (Tobin's Q).

As per the current study, there is a positive relationship between the presence of outside directors and firm accounting performance (ROA) and this relationship is found to be statistically significant. This indicates that the presence of outside directors/non-executive directors is essential to achieve firm accounting-based performance. Empirically, this finding lends empirical support to the results of previous studies that report a positive association between outside directors and high firm performance (e.g. Brickley et al. (1994); Kaplan and Reishus (1990); Beasley (1996); Byrd and Hickman (1992); Joh and Jung (2012); Dermirbas and Yukhanaev (2011); McCabe and Nowak (2008)). This finding is also consistent with many corporation governance codes that consider outside directors as a means of good corporate governance (e.g. Lawler and Finegold, 2006) and improvement of decisions (e.g. Dahaya and McConnell, 2005).

Previous studies (e.g. PCSU, 2000; World Bank, 2009; Samaha et al., 2012) has highlighted that independence is rare or non-existent in Egyptian boards. According to these findings, outside directors on Egyptian boards are supposed to be ineffective in the monitoring function. However, this is not the case and a positive significant relation is found. The finding can be explained through the nature of ownership structure. The Egyptian-listed firms have high concentrated ownership in the hands of large families or the state. Generally, family-owned businesses have their own interests that can hinder governance practices (Gamal Eldin, 2008). The assumption of independence

does not exist in Egyptian-listed companies. In the case of concentrated family ownership, mostly board members are either family members or have an affiliated relationship with the company. Hence, outside directors are perceived as insiders in the social network of management and they have access to vital information. Although there are formal rules (regulative pillars) of institution in the Egyptian context, e.g. the listing and delisting rules of stock exchange, the nature of ownership and crony capitalism still lead to some key information being passed on informally through personal ties.

Outside directors, in the Egyptian context, have strong personal ties with management. As a consequence, the problem of information asymmetry will be reduced. They are in the information loop which makes their function more effective. It is clear that outside directors are keen to keep this relation with management and it is really a challenge to motivate them to keep an independent relation with management. So, it is clear that the outside directors are not concerned about carrying out their monitoring role. As a consequence, the agency problem is transferred from being principle-agent to the side of being principal-principal.

Furthermore, the study has found that there is a positive relationship between the presence of outside directors and firm market-based performance (Tobin's Q) and the result is statistically significant. The presence of outside directors affects investors' decisions. This confirms the findings of previous studies that having outside directors reflects the presence of quality management to outside investors (Heenetigala, 2011) and good corporate governance (Lawler and Finegold, 2006; Black and Kim, 2012) and this in return enhances investors' perception towards firms and that outside directors' representations are capable of making better decisions.

The relationship between the presence of outside directors and the two performance measures are interrelated. This confirms the presence of validity as in the relationship between board size and the two performance measures.

c) Board duality

It is argued by agency theorists (Jensen and Meckling, 1976) that the same individual must not occupy the position of Chairman and CEO simultaneously, since this may decrease the efficiency of the monitoring of the board (e.g. Finketstein and D'Aveni, 1994; Brickley et al., 1999, Coulson-Thomas, 1993; Yermack, 1996).

H_5: There is an inverse relationship between board duality and firm performance (ROA).

H_6: There is an inverse relationship between board duality and firm value (Tobin's Q).

The current study proves that there is a negative relationship between board duality and firm accounting-based performance measure (ROA). The study also indicates that there is a negative relationship between board duality and firm market-based performance (Tobin's Q). The results of the two performance measures are statistically significant. This indicates that separating the position of Chairman and CEO plays an important role with respect to firm financial performance and value. These findings generally support the argument of Yermack (1996) and Fama and Jensen (1983) that separating the role of Chairman and CEO can be expected to improve board monitoring by providing independent monitoring of the CEO's work.

The significant relationship with both ROA and Tobin's Q indicates that monitoring by the board improves when the roles of the Chairman and the CEO are split. The significant relationship with Tobin's Q suggests that investors value the presence of an independent Chairman on the board. The market perceives the leadership structure as an important sign of proper monitoring even in the absence of independent directors (Coles et al., 2000).

In spite of the importance of splitting the two roles and its significant association with performance measures, it is still not very common in Egyptian-listed companies. The Average board duality accounts for 69% in Egyptian-listed companies and this indicates that companies are not complying with the Egyptian corporate governance code.

The discussion of the board duality findings does not differ from that of outside directors. Both board duality and outside directors are proxies for board independence. So, with the nature of ownership in Egyptian-listed companies, the governance practices are shaped according to their preferences.

The relationship between the duality of the two roles and the two performance measures is interrelated. This confirms the presence of validity as in the relationship between board size and presence of outside directors and the two performance measures.

d) Gender diversity

H_7: There is a positive relationship between a female presence on boards and firm performance (ROA)

H_8: There is a positive relationship between a female presence on boards and firm value (Tobin's Q)

Hypotheses 7 and 8 predict that the number of women directors on boards is positively associated with firm financial performance measures (ROA and Tobin's Q). The current study indicates no effect of gender on the accounting-based performance measure of the Egyptian-listed companies. This is consistent with the finding of Rose (2007).

The study also proves that there exists a negative relationship between the presence of female

directors and firm market-based performance (Tobin's Q) and this relationship is statistically significant. The negative association between gender diversity and firm financial performance lends empirical support to the findings of previous studies (see Adler, 2001; Adams and Ferreira, 2009; Dalton and Dalton, 2010). Hence, it can be inferred that the presence of a female director may reduce the firm's market value. A typical investor will reduce holdings in firms that appoint female directors.

The findings of the current study are inconsistent for the two performance measures. It is expected that there will be different results as each performance measure captures different aspects. However, these inconsistent findings can be justified.

For the relationship between gender diversity and ROA, the finding may be because women members on boards do not have the required education and skills (Rose, 2007) or be due to the strong socialisation process (Rose, 2007). Moreover, when members of minority groups rise in an occupation, they face expectations that may adversely affect their performance. For instance, the threat of stereotyping may appear when the status of a minority group is primed; members may underperform because they feel that they are being judged as a member of the group not as an individual (Dobbin and Jung, 2010). Majority group members may marginalise them and underestimate their contribution (Shrader et al., 1997). These reasons lead to female directors having no impact on ROA.

On the other hand, the negative impact on firm value may be due to social norms and how they are restricted for women, having its effect on the investors' perception (Agarwal, 2010). In certain societies, investors may believe that women lack the competency needed for the job (Kiamba, 2008). Also, the findings of the current study lend empirical support to Dalton and Dalton (2010) who believe that gender diversity may affect performance negatively due to woman being risk averse and due to the costs associated with high turnover and absenteeism rates.

Considering the above, the inconsistent findings between the two performance measures ROA and Tobin's Q in Egyptian-listed companies with respect to the presence of gender diversity on boards can be justified by the following. For the ROA–performance relationship: first the nomination of women on boards may be related to owners' preferences (large-family- or state-owned) especially if it is within a family business and may not be related to qualifications. There might be pressure to hire women from family members without considering the skills and the qualifications required; second, this can be explained by the fact that female representation in the Egyptian boardroom is very low as is shown above in the descriptive statistics. Despite the fact that the number of well-educated qualified Egyptian women is increasing, they are underrepresented due to the deep-rooted cultural norms that undermine the roles and capabilities of women, not only in managerial positions but generally in the business and political communities. This low female representation may fail to achieve sufficient diversification in boardrooms; third, there may be no significant difference between the performance of men and women, for instance they both have the same ethical values. A fourth explanation for this phenomenon is the barriers that women face to succeed in such positions. These factors are more apparent in Egypt than in other developed countries such as the UK and US. Hence the findings of the current study with respect to the relationship between gender diversity and ROA are inconsistent with previous studies.

The Tobin's Q–performance relationship is not only about policymaking: some societal and cultural issues need to be taken into consideration. Board diversity relates to the extent of the equal treatment of men and women in society (Rose, 2007). In Egyptian society, being part of the MENA region, generally the society has less favourable views about women in top management positions and is characterized by a male-dominated culture. These diverse social and cultural norms can disadvantage women in many areas. It appears that the board seats of firms are almost completely restricted to men. Women have societal constraints with respect to seats on boards. So, the findings of the current study indicate that investors' perception about women is that they are not capable of handling such a position.

The above discussion explains why the results of the two performance measures are different with respect to their relationship with the board of directors variables.

VII. Control Variables

Firm size is found to be statistically significant with ROA. This indicates that firm size is a factor in improving the accounting-based performance measure of Egyptian-listed companies. This finding is expected to some extent and it is consistent with many previous studies (e.g. Yang et al., 2009; Demsetz and Villalonga, 2001; Ferick and Bermig, 2009; Lannotta and Nocera and Sironi, 2007). Whenever firm size increases, this implies that the firm has complex operations and diversifies across industries. It is expected that firm size may also affect board characteristics but this is beyond the scope of this study. For instance, Klein (1998) and Kole and Lehn (1998) argue that by conventional wisdom larger organisations possess bigger boards of directors since the organisations are more complex and need more diverse expertise on the board.

The age of the firm is found to be statistically significant with the market-based performance measure

Tobin's Q. This indicates that the age of the firm is an important factor that is considered by investors when they are taking investment decisions. Investors may believe that old firms are well established and more stable than newly established ones. This result is consistent with some previous studies (e.g. Gregory, Rutherford, Oswald and Gardiner, 2005; Boone et al., 2007).

VIII. Discussion of Findings From an Institutional Perspective

Considering the above findings, at the first sight it appears that they can be interpreted exclusively from the agency perspective. However, after considering the indications presented from the current study, it becomes essential to integrate the institutional theory to better explain the nature of the agency problem in the Egyptian context. This integration shows the relative importance of internal and external environmental factors in shaping the governance mechanisms.

Those who are in favour of more non-executive/outside directors on boards base their arguments on the agency theory. Under the tenets of agency theory, the literature review suggests that appointment of inside directors to the board would generally be seen as potentially harmful to shareholders' interests. Further, the review also states that external control mechanisms prevent scandals by linking the interests of the owners with the interests of the CEOs, i.e. by acting on behalf of absent firm owners. The current study reiterates that by proving that there is a positive relationship between the presence of outside directors with both firm accounting performance (ROA) and firm market-based performance (Tobin's Q).

Moreover, as per the literature review, agency theory predicts that when the CEO also holds the dual role of Chair, then the interests of owners will be affected and there will be a managerial opportunism and agency loss (e.g. Health and Norman, 2004). The current study finds that there exists a negative relationship between board duality and firm accounting performance (ROA). The study also agrees that there is an inverse relationship between board duality and firm market-based performance (Tobin's Q). This implies that agency theory explains the finding of the current study with respect to the relationship between board duality and performance. However, this is in total contrast to what is recommended by stewardship theory in the literature review in unifying the role of the CEO and the Chairman so as to reduce the agency costs and to have greater role as stewards in the organisation (Abdullah and Valentine, 2009).

However, the nature of ownership structure being a family ownership and the presence of family members in management and the board has turned the role of the board of directors weak. Family business becomes the substitute for the absence of a real acting board. Using institutional theory, it is clear from the previous analysis and the thorough literature review that, in Egypt, boards are structured as a ceremonial adoption of dominant rather than as an actual embrace of the agency theory perspective. This can explain the reason why the strict listing and delisting rules of the Egyptian stock exchange do not made a noticeable change in the governance of listed firms.

According to the institutional theory, organisations tend to become isomorphic to each other to gain legitimacy in the external environment (DiMaggio and Powell, 1983) and this isomorphism arises from three pillars: coercive, mimetic, and normative. The coercive pressure comes from both the laws and regulation and the regulatory agencies. In Egypt, the coercive pressure mainly comes from the listing and delisting rules. It becomes mandatory for the board to prepare an annual report about adherence and commitment to standards of corporate governance. Firms are forced to adhere to these rules. Here also comes the role of the Egyptian institutions such as the Egyptian Financial Supervisory Authority (EFSA) and Egyptian institute of directors to guarantee the enforcement of these regulations.

According to the ECGC, firms should constitute their boards according to a set of given guidelines which requires having a majority of non-executive directors and split roles of Chairman and CEO. This code is non-mandatory. As a manifestation of the mimetic pressure is exerted, companies are compelled to adapt the recommendation in the code. Mimetic pressure is exerted on the companies as this is a global trend within Egyptian companies and in other countries. Consequently, constitution of the board becomes an important issue. Through the board's affairs (NED and board duality), the company succeeds in achieving legitimacy. From the institutional perspective, adoption of the corporate governance code creates social legitimisation and enhanced performance.

For gender diversity on boards, the inconsistency of results can be explained by the institutional theory. The presence of the cultural and social norms within the Egyptian context has shaped the governance practices with respect to gender diversity on boards. The effect of the presence of women on boards on performance can be explained through the barriers that women can face. Having a percentage of women on the board is partially related to the concentrated ownership structure in Egypt. The majority of women on boards are family members. Moreover, there was a global trend towards adopting principles of equity between men and women to the extent that some countries have included this issue as a principle in its corporate governance code. So, this can be explained through normative and mimetic pressures.

With respect to firm age as a control variable, this significant finding plays an important role in shaping governance practices. Whenever the ages of the firm increases, this makes most of the activities routinized which in return increases the efficiency of the company and performance and it makes deinstitutionalism very slow to occur because of the deep rooted institutionalized patterns of behaviour.

From the results and discussions presented above, it is obvious that ownership structure plays an important role in determining board composition, especially in the presence of institutional obstacles such as immature capital market, poor national governance and weak regulatory system.

IX. Conclusions

To date, agency theory is predominant in corporate governance research in being used most extensively. However, it is argued that the agency theory presents a partial view of the world. This study uses an integration of agency theory with an institutional perspective to predict the impact of ownership structure and board characteristics on performance based on internal and external factors. The institutional theory highlights the relative importance of different contextual factors in shaping governance practices in one of the developing countries. Adopting a combination of these two theories (the agency and the institutional theory), this study extends existing literature by examining the top 100 Egyptian-listed companies (EGX 100). It is able to test the hypothesised link between board characteristics and firm performance expected under each theory.

In the line with the objective of this study, to determine the relationship between board characteristics and firm financial performance, the author firstly conducted a comprehensive literature review on the relationship between board characteristics and firms financial performance. This extensive review of empirical studies concerning the relationship between board characteristics and firm performance has revealed a research gap, namely that previous studies have focused on board size, level of independence and leadership structure. However, these studies show mixed results. More critically, it appears that a number of these empirical studies have employed a research strategy and research techniques that cannot guarantee the reliability and validity of the empirical results. This may be due to issues such as sample size, location, time frame, and appropriate econometric methods.

As a result, this research objective is to extend previous empirical findings to a developing country, Egypt, and enrich them by investigating the relationship between board characteristics and firm performance and by employing a rigorous research method in order to increase the reliability and validity of the research results.

With regard to the results of corporate board structure and ROA, for firms that want to increase their ROA, it would be advisable to have a high proportion of qualified outside directors on the board and avoid combining the roles of CEO and Chairman. Also, firms that want to improve investors' perception and market value should encourage having outside directors on the board and avoid combining the roles of CEO and Chairman. Thus, outside directors (non-executive) and non-duality should be strongly encouraged in order to improve the firm financial performance. This is consistent with the Egyptian code of governance (provision 3.4) that emphasises that the board should comprise of a majority of non-executive directors with technical or analytical skills to benefit the board and the company. Moreover, provision 3.6 of the code emphasises that the board is responsible for the appointment of the Chairman and the CEO and it is preferred that one person should not combine both positions (see guide of ECGC in Appendix 2).

However, gender diversity needs different consideration. From the result of the current study, the author was supposed to recommend avoiding gender diversity on boards. However, there are number of issues that are recommended in this study that may help in improving the investors' perception, increasing the level of awareness among society with respect to gender diversity on boards. The selection of board members should only be based on the skills and qualifications that are essential to perform the duties and responsibilities of the job. Also, fair compensation packages and avoiding discriminating between male and female directors should be ensured to encourage more qualified females to accept such positions.

The Egyptian capital market is still a developing market and it lacks rational investors. Therefore, Egypt needs institutions that take responsibility for creating more sophisticated investors in the market. Investors' education may be costly and time consuming but the government should still consider taking responsibility for providing professional training to support investors if it really plans for capital market development. Accordingly, much effort should be made by both local (Capital Market Authority, Egyptian Institute of Directors, Central bank of Egypt, and the Misr cleaning, settlement and central depository company (MCSD) and international organizations (IMF, World Bank, Trade Organizations) to help the corporate governance idea to become fully adopted and appropriately implemented in Egypt and other nations with similar social, economic, and political characteristics.

The limitations of this study concern the methodology used. The current study is only focused on one country, and this may limit the application of its findings and implications to other countries that are not similar to Egypt. The sample framework used in the

current study is the EGX 100. Although, this sample is observed for six years, it is only representative for Egyptian-listed companies. Moreover, the data used are mainly quantitative, hence leaving out qualitative data that could inform the study to develop strong justifications of its quantitative findings. Finally, the study only chose one element of corporate governance, i.e. board characteristics, hence, the findings could exhibit some weakness due to exclusion of other elements of corporate governance as well as other control variables. With respect to corporate governance mechanisms, evaluation was extremely difficult to implement empirically due to the confidentiality of data.

For future research, this study recommends the use of different corporate governance factors that have not been considered in this study as highlighted in the previous section. However, if future studies were to use similar elements as those in this study, then it would be better to conduct the same study in another African state, especially an Arab state. This would help in strengthening the findings in this study. Moreover, this study did not consider primary qualitative data to justify the findings and make implications. Thus, in future studies, qualitative data should be considered instead of relying on qualitative data to justify quantitative findings in this line of study. On this note, the application of both quantitative data and qualitative data can offer strong and relevant findings and justifications.

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Appendix 1

Descriptive statistics for the sampled data

Table 1: Descriptive Statistics of variables – Board characteristics, firm financial performance and control variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Tobin's Q	412	2.342	5.761	-3.321	62.993
ROA	412	0.0790	0.126	-0.569	1.277
Board Size	412	8.920	2.687	4	17
Duality	412	0.694	0.461	0	1
Gender diversity	412	0.077	0.010	0	.4447
% Outside directors	412	0.620	0.262	.182	1.364
Firm's age	412	34.908	23.636	3	104
Firm's Size	412	14.184	1.743	10.493	18.369

Table 2: Descriptive Statistics: Profile of the sample

Industry	Freq.	Percent	Cum.
Basic Resources	12	2.91	2.91
Building and Construction materials	89	21.60	24.51
Chemicals	36	8.74	33.25
Entertainment	18	4.37	37.62
Financial services and banks	70	16.99	54.61
Food and Beverage	42	10.19	64.81
Personal and Household Products	47	11.41	76.21
Real Estate	56	13.59	89.81
Telecommunication	24	5.83	95.63
Utilities	18	4.37	100.00
Total	412	100.00	

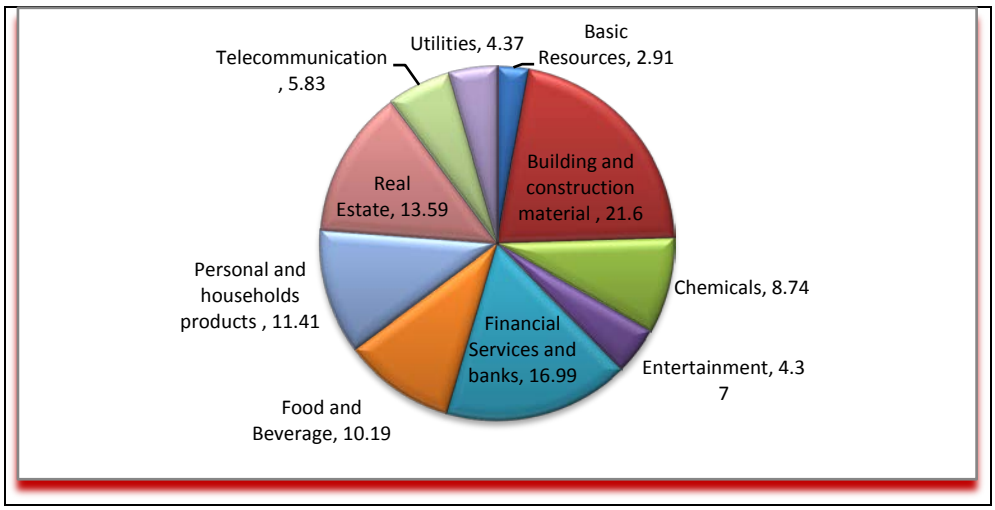

Figure 1: Descriptive statistics: Profile of the sample

Table 3: The variables means of all firms over years – Board Characteristics

Year	*Tobin's Q*	*ROA*	*Board Size*	*Duality (%)*	*% of Females*	*% of outside directors*
2005	3.484	.080	8.677	.646	.074	.617
2006	3.546	.064	8.866	.701	.084	.623
2007	2.436	.010	8.957	.743	.079	.619
2008	1.143	.079	8.986	.686	.077	.614
2009	2.001	.083	9.014	.7	.073	.629
2010	1.577	.067	9	.686	.075	.623
Total	*2.342*	*.079*	*8.920*	*.695*	*.077*	*.620*

Table 4: The correlation matrix between Board characteristics variables and ROA

	ROA	Board Size	Duality	Females	Outside Directors	Chemicals	Food and Beverage	Finacial services	Building and construction materials	Basic Resources	Personel and House hold products	Utilities	Telecommunication	Entertainment	Real State	Firm's age	Firm's size
ROA	1																
BoardSize	0.23	1.00															
Duality	-0.10	-0.08	1.00														
Females	-0.05	0.15	0.14	1.00													
Outside director	0.23	0.90	-0.09	0.17	1.00												
Chemicals	0.23	0.02	0.21	0.27	0.04	1.00											
Food and Beverage	0.05	0.04	0.00	-0.10	0.02	-0.10	1.00										
Financial Services and banking	-0.14	0.15	-0.07	0.05	0.11	-0.14	-0.15	1.00									
Building and Construction	0.14	-0.13	-0.09	-0.21	-0.11	-0.16	-0.18	-0.24	1.00								
Basic resources	0.08	0.08	0.05	0.02	0.11	-0.05	-0.06	-0.08	-0.09	1.00							
Personnel and Household products	-0.07	-0.04	0.01	-0.12	-0.07	-0.11	-0.12	-0.16	-0.19	-0.06	1.00						
Utilities	-0.34	-0.19	0.14	0.14	-0.18	-0.07	-0.07	-0.10	-0.11	-0.04	-0.08	1.00					
Telecommunication	0.04	0.15	-0.01	0.03	0.17	-0.08	-0.08	-0.11	-0.13	-0.04	-0.09	-0.05	1.00				
Entertainment	-0.01	0.16	-0.22	0.13	0.18	-0.07	-0.07	-0.10	-0.11	-0.04	-0.08	-0.05	-0.05	1.00			
Realstate	-0.04	-0.14	0.05	-0.02	-0.13	-0.12	-0.13	-0.18	-0.19	-0.07	-0.14	-0.08	-0.10	-0.08	1.00		
Firm's age	-0.03	-0.22	0.23	0.00	-0.18	0.02	0.08	-0.17	-0.04	-0.17	0.24	0.03	-0.03	-0.17	0.12	1.00	
Firm's Size	0.19	0.24	-0.09	-0.21	0.17	-0.08	-0.21	0.24	0.09	-0.04	0.01	-0.27	0.30	-0.04	-0.12	-0.09	1.00

Table 5: The correlation matrix between Board characteristics variables and Tobin's Q

	Tobin Q	Board Size	Duality	Females	Outside Directors	Chemicals	Food and Beverage	Finacial services	Building and construction materials	Basic Resources	Personel and House hold products	Utilities	Telecommunication	Entertainment	Real State	Firm's age	Firm's size
Tobin Q	1.00																
BoardSize	-0.01	1.00															
Duality	-0.07	-0.08	1.00														
Females	-0.08	0.15	0.14	1.00													
Outside director	0.06	0.90	-0.09	0.17	1.00												
Chemicals	0.13	0.02	0.21	0.27	0.04	1.00											
Food and Beverage	0.07	0.04	0.00	-0.10	0.02	-0.10	1.00										
Financial Services and banking	-0.22	0.15	-0.07	0.05	0.11	-0.14	-0.15	1.00									
Building and Construction	0.10	-0.13	-0.09	-0.21	-0.11	-0.16	-0.18	-0.24	1.00								
Basic resources	0.06	0.08	0.05	0.02	0.11	-0.05	-0.06	-0.08	-0.09	1.00							
Personnel and Household products	0.00	-0.04	0.00	-0.12	-0.07	-0.11	-0.12	-0.16	-0.19	-0.06	1.00						
Utilities	0.05	-0.19	0.14	0.14	-0.18	-0.07	-0.07	-0.10	-0.11	-0.04	-0.08	1.00					
Telecommunication	-0.01	0.15	-0.01	0.02	0.17	-0.08	-0.08	-0.11	-0.13	-0.04	-0.09	-0.05	1.00				
Entertainment	-0.10	0.16	-0.22	0.13	0.18	-0.07	-0.07	-0.10	-0.11	-0.04	-0.08	-0.05	-0.05	1.00			
Realstate	-0.04	-0.14	0.05	-0.02	-0.13	-0.12	-0.13	-0.18	-0.19	-0.07	-0.14	-0.09	-0.10	-0.09	1.00		
Firm's age	0.09	-0.22	0.23	0.01	-0.18	0.02	0.08	-0.17	-0.04	-0.17	0.24	0.03	-0.03	-0.16	0.12	1.00	
Firm's Size	-0.08	0.24	-0.09	-0.21	0.17	-0.08	-0.21	0.24	0.09	-0.04	0.00	-0.27	0.30	-0.04	-0.12	-0.09	1.00

Table 6: The Multi-collinearity test between boards of directors' characteristics variables including control variables

Variable	VIF	1/VIF
Board Size	5.81	0.17
% of Outside directors	5.62	0.18
Building and construction materials	2.91	0.34
Financial services and Banks	2.56	0.39
Personnel and household products	2.23	0.45
Real state	2.21	0.45
Food and Beverage	2.12	0.47
Telecommunication	1.73	0.58
Entertainment	1.56	0.64
Firm's size	1.54	0.65
Utilities	1.49	0.67
Basic Resources	1.33	0.75
Gender diversity	1.32	0.76
Firm's age	1.28	0.78
Duality	1.19	0.84
Mean VIF	2.33	

Appendix 2

The provisions of the Egyptian recommended codes of corporate governance that is referred to in the discussion section:

3-4 The board should comprise a majority of non-executive directors with the technical or analytical skills to benefit the board and the company. All of the non-executive directors should dedicate the time and attention necessary to fulfil their obligations to the company and not accept assignments that could be seen to be a conflict of interest.

3-6 The board appoints the Chairman and the chief executive officer. Preferably one person should not combine both positions. If deemed necessary, reasons should be stated in the annual report. In this case, the deputy Chairman should be non-executive.

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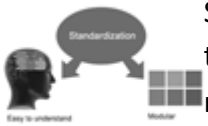

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3. Submission of Manuscripts,

4. Manuscript's Category,

5. Structure and Format of Manuscript,

6. After Acceptance.

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22. Never start in last minute: Always start at right time and give enough time to research work. Leaving everything to the last minute will degrade your paper and spoil your work.

23. Multitasking in research is not good: Doing several things at the same time proves bad habit in case of research activity. Research is an area, where everything has a particular time slot. Divide your research work in parts and do particular part in particular time slot.

24. Never copy others' work: Never copy others' work and give it your name because if evaluator has seen it anywhere you will be in trouble.

25. Take proper rest and food: No matter how many hours you spend for your research activity, if you are not taking care of your health then all your efforts will be in vain. For a quality research, study is must, and this can be done by taking proper rest and food.

26. Go for seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.

27. Refresh your mind after intervals: Try to give rest to your mind by listening to soft music or by sleeping in intervals. This will also improve your memory.

28. Make colleagues: Always try to make colleagues. No matter how sharper or intelligent you are, if you make colleagues you can have several ideas, which will be helpful for your research.

29. Think technically: Always think technically. If anything happens, then search its reasons, its benefits, and demerits.

30. Think and then print: When you will go to print your paper, notice that tables are not be split, headings are not detached from their descriptions, and page sequence is maintained.

31. Adding unnecessary information: Do not add unnecessary information, like, I have used MS Excel to draw graph. Do not add irrelevant and inappropriate material. These all will create superfluous. Foreign terminology and phrases are not apropos. One should NEVER take a broad view. Analogy in script is like feathers on a snake. Not at all use a large word when a very small one would be sufficient. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Amplification is a billion times of inferior quality than sarcasm.

32. Never oversimplify everything: To add material in your research paper, never go for oversimplification. This will definitely irritate the evaluator. Be more or less specific. Also too, by no means, ever use rhythmic redundancies. Contractions aren't essential and shouldn't be there used. Comparisons are as terrible as clichés. Give up ampersands and abbreviations, and so on. Remove commas, that are, not necessary. Parenthetical words however should be together with this in commas. Understatement is all the time the complete best way to put onward earth-shaking thoughts. Give a detailed literary review.

33. Report concluded results: Use concluded results. From raw data, filter the results and then conclude your studies based on measurements and observations taken. Significant figures and appropriate number of decimal places should be used. Parenthetical remarks are prohibitive. Proofread carefully at final stage. In the end give outline to your arguments. Spot out perspectives of further study of this subject. Justify your conclusion by at the bottom of them with sufficient justifications and examples.

34. After conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium though which your research is going to be in print to the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects in your research.

Informal Guidelines of Research Paper Writing

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form, which is presented in the guidelines using the template.
- Please note the criterion for grading the final paper by peer-reviewers.

Final Points:

A purpose of organizing a research paper is to let people to interpret your effort selectively. The journal requires the following sections, submitted in the order listed, each section to start on a new page.

The introduction will be compiled from reference matter and will reflect the design processes or outline of basis that direct you to make study. As you will carry out the process of study, the method and process section will be constructed as like that. The result segment will show related statistics in nearly sequential order and will direct the reviewers next to the similar intellectual paths throughout the data that you took to carry out your study. The discussion section will provide understanding of the data and projections as to the implication of the results. The use of good quality references all through the paper will give the effort trustworthiness by representing an alertness of prior workings.

Writing a research paper is not an easy job no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record keeping are the only means to make straightforward the progression.

General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear

· Adhere to recommended page limits

Mistakes to evade

- Insertion a title at the foot of a page with the subsequent text on the next page
- Separating a table/chart or figure - impound each figure/table to a single page
- Submitting a manuscript with pages out of sequence

In every sections of your document

· Use standard writing style including articles ("a", "the," etc.)

· Keep on paying attention on the research topic of the paper

· Use paragraphs to split each significant point (excluding for the abstract)

· Align the primary line of each section

· Present your points in sound order

· Use present tense to report well accepted

· Use past tense to describe specific results

· Shun familiar wording, don't address the reviewer directly, and don't use slang, slang language, or superlatives

· Shun use of extra pictures - include only those figures essential to presenting results

Title Page:

Choose a revealing title. It should be short. It should not have non-standard acronyms or abbreviations. It should not exceed two printed lines. It should include the name(s) and address (es) of all authors.

Abstract:

The summary should be two hundred words or less. It should briefly and clearly explain the key findings reported in the manuscript--must have precise statistics. It should not have abnormal acronyms or abbreviations. It should be logical in itself. Shun citing references at this point.

An abstract is a brief distinct paragraph summary of finished work or work in development. In a minute or less a reviewer can be taught the foundation behind the study, common approach to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Yet, use comprehensive sentences and do not let go readability for briefness. You can maintain it succinct by phrasing sentences so that they provide more than lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study, with the subsequent elements in any summary. Try to maintain the initial two items to no more than one ruling each.

- Reason of the study - theory, overall issue, purpose
- Fundamental goal
- To the point depiction of the research
- Consequences, including definite statistics - if the consequences are quantitative in nature, account quantitative data; results of any numerical analysis should be reported
- Significant conclusions or questions that track from the research(es)

Approach:

- Single section, and succinct
- As a outline of job done, it is always written in past tense
- A conceptual should situate on its own, and not submit to any other part of the paper such as a form or table
- Center on shortening results - bound background information to a verdict or two, if completely necessary
- What you account in an conceptual must be regular with what you reported in the manuscript
- Exact spelling, clearness of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else

Introduction:

The **Introduction** should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable to comprehend and calculate the purpose of your study without having to submit to other works. The basis for the study should be offered. Give most important references but shun difficult to make a comprehensive appraisal of the topic. In the introduction, describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will have no attention in your result. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here. Following approach can create a valuable beginning:

- Explain the value (significance) of the study
- Shield the model - why did you employ this particular system or method? What is its compensation? You strength remark on its appropriateness from a abstract point of vision as well as point out sensible reasons for using it.
- Present a justification. Status your particular theory (es) or aim(s), and describe the logic that led you to choose them.
- Very for a short time explain the tentative propose and how it skilled the declared objectives.

Approach:

- Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done.
- Sort out your thoughts; manufacture one key point with every section. If you make the four points listed above, you will need a least of four paragraphs.

- Present surroundings information only as desirable in order hold up a situation. The reviewer does not desire to read the whole thing you know about a topic.
- Shape the theory/purpose specifically - do not take a broad view.
- As always, give awareness to spelling, simplicity and correctness of sentences and phrases.

Procedures (Methods and Materials):

This part is supposed to be the easiest to carve if you have good skills. A sound written Procedures segment allows a capable scientist to replacement your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt for the least amount of information that would permit another capable scientist to spare your outcome but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section. When a technique is used that has been well described in another object, mention the specific item describing a way but draw the basic principle while stating the situation. The purpose is to text all particular resources and broad procedures, so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step by step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

- Explain materials individually only if the study is so complex that it saves liberty this way.
- Embrace particular materials, and any tools or provisions that are not frequently found in laboratories.
- Do not take in frequently found.
- If use of a definite type of tools.
- Materials may be reported in a part section or else they may be recognized along with your measures.

Methods:

- Report the method (not particulars of each process that engaged the same methodology)
- Describe the method entirely
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures
- Simplify - details how procedures were completed not how they were exclusively performed on a particular day.
- If well known procedures were used, account the procedure by name, possibly with reference, and that's all.

Approach:

- It is embarrassed or not possible to use vigorous voice when documenting methods with no using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result when script up the methods most authors use third person passive voice.
- Use standard style in this and in every other part of the paper - avoid familiar lists, and use full sentences.

What to keep away from

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings - save it for the argument.
- Leave out information that is immaterial to a third party.

Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part a entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Carry on to be to the point, by means of statistics and tables, if suitable, to present consequences most efficiently.You must obviously differentiate material that would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matter should not be submitted at all except requested by the instructor.

Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
- In manuscript, explain each of your consequences, point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation an exacting study.
- Explain results of control experiments and comprise remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or in manuscript form.

What to stay away from

- Do not discuss or infer your outcome, report surroundings information, or try to explain anything.
- Not at all, take in raw data or intermediate calculations in a research manuscript.
- Do not present the similar data more than once.
- Manuscript should complement any figures or tables, not duplicate the identical information.
- Never confuse figures with tables - there is a difference.

Approach

- As forever, use past tense when you submit to your results, and put the whole thing in a reasonable order.
- Put figures and tables, appropriately numbered, in order at the end of the report
- If you desire, you may place your figures and tables properly within the text of your results part.

Figures and tables

- If you put figures and tables at the end of the details, make certain that they are visibly distinguished from any attach appendix materials, such as raw facts
- Despite of position, each figure must be numbered one after the other and complete with subtitle
- In spite of position, each table must be titled, numbered one after the other and complete with heading
- All figure and table must be adequately complete that it could situate on its own, divide from text

Discussion:

The Discussion is expected the trickiest segment to write and describe. A lot of papers submitted for journal are discarded based on problems with the Discussion. There is no head of state for how long a argument should be. Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implication of the study. The purpose here is to offer an understanding of your results and hold up for all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of result should be visibly described. Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved with prospect, and let it drop at that.

- Make a decision if each premise is supported, discarded, or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."
- Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work
- You may propose future guidelines, such as how the experiment might be personalized to accomplish a new idea.
- Give details all of your remarks as much as possible, focus on mechanisms.
- Make a decision if the tentative design sufficiently addressed the theory, and whether or not it was correctly restricted.
- Try to present substitute explanations if sensible alternatives be present.
- One research will not counter an overall question, so maintain the large picture in mind, where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

- When you refer to information, differentiate data generated by your own studies from available information
- Submit to work done by specific persons (including you) in past tense.
- Submit to generally acknowledged facts and main beliefs in present tense.

Please carefully note down following rules and regulation before submitting your Research Paper to Global Journals Inc. (US):

Segment Draft and Final Research Paper: You have to strictly follow the template of research paper. If it is not done your paper may get rejected.

- The **major constraint** is that you must independently make all content, tables, graphs, and facts that are offered in the paper. You must write each part of the paper wholly on your own. The Peer-reviewers need to identify your own perceptive of the concepts in your own terms. NEVER extract straight from any foundation, and never rephrase someone else's analysis.

- Do not give permission to anyone else to "PROOFREAD" your manuscript.

- Methods to avoid Plagiarism is applied by us on every paper, if found guilty, you will be blacklisted by all of our collaborated research groups, your institution will be informed for this and strict legal actions will be taken immediately.)
- To guard yourself and others from possible illegal use please do not permit anyone right to use to your paper and files.

Criterion for Grading a Research Paper (Compilation) by Global Journals Inc. (US)

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Topics	Grades		
	A-B	**C-D**	**E-F**
Abstract	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form Above 200 words	No specific data with ambiguous information Above 250 words
Introduction	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
Methods and Procedures	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
Result	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
Discussion	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

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